Draft Arizona Demonstration Renewal Proposal (2021-2026)

Contents

I. SUMMARY

The Arizona Health Care Cost Containment System (AHCCCS) is requesting a five-year renewal of Arizona's Demonstration project under Section 1115 of the Social Security Act. Arizona's existing Demonstration project is currently approved through September 30, 2021, and the application is seeking a renewal period from October 1, 2021 through September 30, 2026.

Arizona's Medicaid agency, AHCCCS, has long been a leader in health care innovation, serving its members through the creative and effective use of managed care delivery systems. Since its inception, AHCCCS has operated its program under a Section 1115 Demonstration project, which must be renewed every five years. The State's current Demonstration exempts Arizona from particular provisions of the Social Security Act and also includes expenditure authority permitting federal financial participation (FFP) for State expenditures that would not otherwise qualify for federal participation. Moreover, Demonstration projects, including Arizona's, must establish budget neutrality where Medicaid costs to the federal government are not expected to exceed costs to the federal government in the absence of the Demonstration.

The Centers for Medicare and Medicaid Services' (CMS) approval of Arizona's Demonstration renewal application will continue the success of Arizona's unique Medicaid program and statewide managed care model, extending authority for Arizona to implement programs including, but not limited to:

- Mandatory managed care
- Home and community-based services for individuals in the Arizona Long Term Care System (ALTCS)
- Administrative simplifications that reduce inefficiencies in eligibility determination
- Integrated health plans for AHCCCS members
- Payments to providers participating in the Targeted Investments Program
- AHCCCS Works
- Waiver of Prior Quarter Coverage for specific populations

In addition to renewing current waiver and expenditure authorities, AHCCCS is seeking to implement the following:

- Authority to allow for verbal consent in lieu of written signature for up to 30 days for all care and treatment documentation for ALTCS members when included in the member's record and when identity can be reliably established.
- Authority to reimburse traditional healing services provided in, at, or as part of services offered by facilities and clinics operated by the Indian Health Service (IHS), a tribe or tribal organization, or an Urban Indian health program.
- Authority to reimburse Indian Health Services and Tribal 638 facilities to cover the cost of adult dental services that are eligible for 100 percent FFP, that are in excess of the $1,000 emergency dental limit for adult members in Arizona's State Plan and $1,000 dental limit for individuals age 21 or older enrolled in the ALTCS program.

II. AHCCCS DEMONSTRATION HISTORICAL BACKGROUND

Arizona has operated a Section 1115 Demonstration project for the last 38 years. Throughout that time, AHCCCS has learned that, just as populations change, a Medicaid managed care program is most effective when it continually evolves and innovates. Arizona routinely seeks opportunities to refine, modernize, and streamline its Demonstration. The result is a Medicaid managed care operation that strives to build upon past successes to improve health outcomes for its members and ensures its long-term sustainability.

THE INCEPTION OF ARIZONA'S DEMONSTRATION: MANAGED CARE & LONG TERM CARE DEMONSTRATIONS

Since 1982, AHCCCS has been delivering high-quality, cost-effective health care services to Arizonans. The State of Arizona has the unique distinction of being the first state to operate under a statewide managed care Demonstration, and the only state to have done so from the start of its Medicaid program. This public-private,

managed care partnership ensures that members receive high-quality care while at the same time maximizing efficiency and containing costs.

Arizona's initial Demonstration allowed it to operate a statewide managed care system that covered only acute care services and 90 days of post-hospital skilled nursing facility coverage. This program continues to operate under Arizona's Demonstration today, referred to as the AHCCCS Acute Care program (AACP).

AHCCCS established two special programs within AACP to serve children with special needs: the Comprehensive Medical and Dental Program (CMDP), which provides health care services to Arizona's children in foster care under a capitation arrangement with the Arizona Department of Child Safety (DCS); and the Children's Rehabilitative Services (CRS) program which provides health care services for children with qualifying CRS conditions pursuant to ARS 36-261 et seq.

In 1988, six years after implementation, the original Demonstration was substantially amended to allow Arizona to implement ALTCS, a long term care program for individuals who are elderly and/or have physical disabilities and individuals with an intellectual disability. The ALTCS program provides acute care, behavioral health services, and long term care, including home and community based services (HCBS), to Medicaid members who are at risk of institutionalization.

ALTCS is a managed care program administered separately from AACP that provides program services through prepaid, capitated arrangements with managed care organizations (MCOs). ALTCS members with intellectual disabilities are served through a statewide MCO operated by the Arizona Department of Economic Security (DES), Division of Developmental Disabilities (DDD). The ALTCS program strives to ensure that members are living in the least restrictive and most integrated settings possible, and are actively engaged and participating in community life. Over the past 32 years, the ALTCS Demonstration has achieved remarkable success in increasing member placement in HCBS, resulting in significant program savings while also meeting the needs of members.

A 1987 federal evaluation concluded that the AHCCCS managed care program provided health care services with equal or superior access, quality, and member satisfaction, as well as lower costs, as compared to the more common fee-for-service model. Importantly, this evaluation supported innovative development in other states modeled on Arizona's success.[1]

Evaluations have also shown that AHCCCS managed care program costs (excluding ALTCS) were seven percent less per year, and costs to cover members enrolled in ALTCS were 16 percent less per year, as compared to a traditional fee-for-service Medicaid program.[2]

Arizona continues to lead the nation in operating a cost effective managed care model. In fact, Arizona's Medicaid program has one of the lowest per-enrollee cost among states at only $6,411 per-enrollee compared with the national average of $7,794 per-enrollee.[3]

EXPANSION OF BEHAVIORAL HEALTH SERVICES & MEDICAID POPULATION COVERAGE

In 1990, AHCCCS began phasing in comprehensive behavioral health services, starting with children determined to have a serious emotional disturbance (SED) under the age of 18 who required residential care. Over the next five years, other populations were added, including children who are non-SED in 1991, individuals with a serious mental illness (SMI) designation in 1992, and adults needing general mental health and/or substance use services in 1995. The State contracted with an MCO that operated a separate system of care for the treatment of behavioral health conditions instead of "carving-in" those services in the benefit plan administered by the acute

[1] McCall, N. (1997). Lessons From Arizona's Medicaid Managed Care Program. Health Affairs, 16(4), 194–199. https://doi.org/10.1377/hlthaff.16.4.194; United States General Accounting Office (GAO). (1995). Arizona Medicaid Competition Among Managed Care Plans Lowers Program Costs. https://www.govinfo.gov/content/pkg/GAOREPORTS-HEHS-96-2/pdf/GAOREPORTS-HEHS-96-2.pdf

[2] McCall, N., Wrightson, C. W., Korb, J., Crane, M., & Weissert, W. (1996). Evaluation of Arizona's Health Care Cost Containment System Demonstration—Final Report. Laguna Research Associates.

[3] AHCCCS Presentation for the Arizona State Legislature Appropriations Committee. (2020). [Slides]. Arizona State Legislature. https://www.azleg.gov/jlbc/21axsagypres.pdf

health plans. At the time, the behavioral health advocacy community preferred this separate, non-integrated approach.

The Arizona Department of Health Services (ADHS), Division of Behavioral Health Services (DBHS), a separate state agency, contracted with AHCCCS to act as an MCO to manage behavioral health services. ADHS/DBHS established subcapitated managed care contracts with behavioral health organizations, known as Regional Behavioral Health Authorities (RBHAs), that were responsible for delivering behavioral health services for the majority of AHCCCS members. DBHS merged with AHCCCS effective July 1, 2016 and today AHCCCS administers both physical and behavioral health services.

Subsequent to the behavioral health service expansions, AHCCCS added two major population groups to the program. In 1998, Arizona implemented a separate Children's Health Insurance Program (CHIP) authorized under Title XXI of the Social Security Act, known in Arizona as "KidsCare." This program covers children under age 19 whose family's employment income is below 200 percent of the Federal Poverty Level (FPL) and who do not qualify for other AHCCCS programs. Arizona voter-approved Proposition 204 populations were added to Arizona's Demonstration in 2001. These populations included the following Medicaid-eligible individuals whose income is below 100 percent of the FPL: adults without dependent children ("childless adults"); parents and caretaker relatives; and Supplemental Security Income populations.

THE EFFECTS OF THE GREAT RECESSION ON ARIZONA'S DEMONSTRATION

In 2008, the nation experienced a significant economic recession that had a far-reaching and lasting effect on Arizona's economy. The rapid growth of the Medicaid program, coupled with revenue declines, placed a tremendous strain on the State's General Fund. Consequently, the Arizona legislature made cuts of 21.7 percent to the AHCCCS budget for State Fiscal Year (SFY) 2012. This was the largest Medicaid budget reduction nationally and was more than twice that of the next highest state cut. In response to the reductions in funding, AHCCCS implemented the following programmatic changes:

- **Elimination of HIFA:** AHCCCS eliminated the Health Insurance For Parents (HIFA) program on October 1, 2009. This program typically covered parents of KidsCare children who had income between 100 percent and 200 percent of the FPL.

- **KidsCare Enrollment Freeze:** Due to insufficient state funds available for the state match, new enrollment in the KidsCare program was frozen. Existing members could continue on the program. Spanning from January 1, 2010, to August 31, 2016, enrollment totals dropped from 45,820 children to 528 children due to this freeze. In 2016, Governor Doug Ducey signed SB 1457, restoring KidsCare coverage effective September 1, 2016. As of January 1, 2020, there were 35,764 children enrolled in the KidsCare Program.

- **Proposition 204 AHCCCS Enrollment Freeze:** In 2011, the Arizona Legislature passed, and the Governor signed, a budget that froze AHCCCS enrollment for the Proposition 204 population. On March 31, 2011, AHCCCS requested to implement an enrollment freeze for the childless adult population. On July 1, 2011, CMS approved the state's phase-out plans for that population. Spanning from July 1, 2011, to December 31, 2013, enrollment totals dropped from 230,123 members to 67,770 members due to this freeze. In 2013, the Arizona legislature voted to adopt Governor Brewer's Medicaid Restoration and Expansion Plan, which restored coverage for the Proposition 204 population and expanded coverage to the new adult group under the Affordable Care Act (ACA) effective January 1, 2014. The State's restoration and expansion of Medicaid coverage added approximately 400,000 Arizonans to the program as of January 1, 2020 (330,330 in the Proposition 204 population and 74,980 in the Expansion Adult population).

- **Copay Implementation:** AHCCCS received waiver authority to implement mandatory copay requirements for childless adult members in 2011. This Demonstration authority expired in 2013. Furthermore, through a State Plan Amendment (SPA), AHCCCS implemented cost sharing for certain populations as authorized under the Deficit Reduction Act (DRA) (§§ 1916 and 1916A of the Social Security Act) as of July 1, 2010.

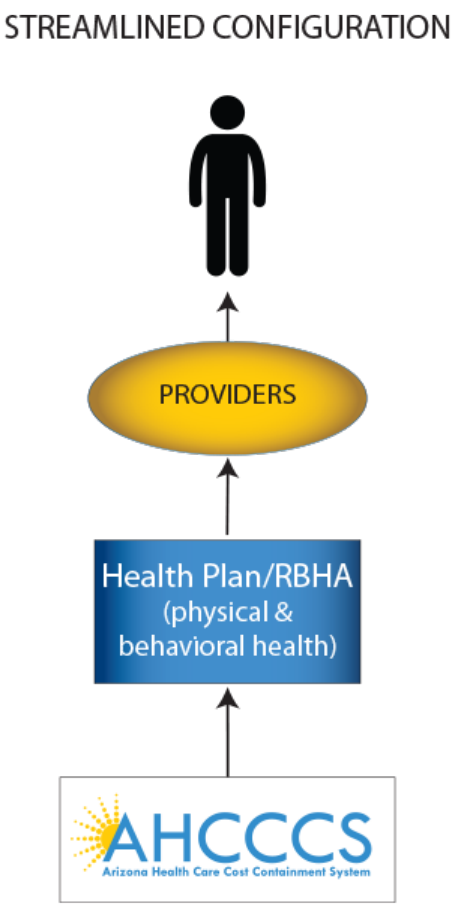
- **Safety Net Care Pool (SNCP):** In April 2012, CMS approved the Safety Net Care Pool (SNCP) designed to help hospitals manage the burden of uncompensated care costs. Many hospitals across the state participated in SNCP, and the program proved to be incredibly valuable during the economic recession. The SNCP program ended for most hospitals on December 31, 2013, as result of the State's restoration and expansion of childless adult coverage. However, SNCP was extended to address issues unique to freestanding children's hospitals that did not benefit from adult coverage restoration and expansion. This waiver authority expired on January 1, 2018.

- **Indian Health Service and Tribal-638 Facilities Uncompensated Care Payment**: On April 6, 2012, CMS granted AHCCCS the authority to make supplemental payment to IHS and 638 facilities to address the fiscal burden of uncompensated care for services provided by such facilities to Medicaid-eligible adults.

ARIZONA'S INITIATIVES TO INTEGRATE PHYSICAL AND BEHAVIORAL HEALTH SERVICES

Perhaps the most transformational initiative AHCCCS has undertaken in its history is integrating physical and behavioral health services under the same MCO in order to enhance care management and quality of care across the entire continuum of care. Supported by evidence of integration's benefits (including whole-person care, increased care coordination, simplifying a complex health care system for members and providers, and ultimately, improved health outcomes), AHCCCS has engaged in a multi-year effort to reduce delivery system fragmentation at all levels.

Figure 1



Historically, most AHCCCS members received behavioral health services through the RBHAs. Physical health and medical care were delivered by separate MCOs (known as acute plans). Through a strategic, incremental process, AHCCCS integrated care for its members under the same MCO, beginning with children with qualifying CRS conditions. In 2013, CMS approved Arizona's waiver amendment request to create a single, statewide integrated health plan contract to oversee all physical health, behavioral health, and specialty services for children with special health care needs enrolled in the CRS program.

Subsequently, CMS approved Arizona's waiver amendment request to establish an integrated RBHA, the first model nationwide to bring physical health, behavioral health, and social support services together in one plan for individuals with a SMI designation. The model was first launched in Maricopa County in 2014, and expanded to all of Arizona in 2015. Early studies illustrate how this integration has led to improvements in health outcomes for members with SMI. For example, an independent study conducted by Mercer determined that over 75 percent of the program indicators demonstrated improvement during the post-integration period when compared to the pre-integration period for members in Maricopa County. The study showed that all measures of ambulatory care, preventive care, and chronic disease management improved, with two measures of medication maintenance compliance for asthma both increasing by more than 30 percent.[4] Another study conducted by NORC at the University of Chicago demonstrated that members with SMI enrolled in Mercy Maricopa Integrated Care (MMIC), who were also receiving supportive housing services, experienced a 20 percent reduction

[4] Mercer. (2018). Independent Evaluation of Arizona's Integration Efforts. https://www.azahcccs.gov/shared/Downloads/News/CRS_SMI_IndependentEvaluationReport_11_27_18.pdf

in psychiatric hospitalizations, with a 24 percent decrease in total cost of care, with savings driven by reductions in behavioral health costs.[5]

At the provider level, AHCCCS has supported integration through a number of initiatives. Most notably, AHCCCS launched the Targeted Investments (TI) Program to advance integration, investing $300 million over five years to support provider-level efforts to develop the systems required to deliver integrated care. CMS approved the TI Program under Arizona's Demonstration in 2017. The goals of TI Program are to reduce fragmentation that occurs between acute care and behavioral health care, increase efficiencies in service delivery for members with behavioral health needs, and improve health outcomes for adults and children with behavioral health needs and individuals transitioning from incarceration. Participating TI Program providers receive payments for completing core components and milestones through year three, and then become eligible to receive performance-based payments through year five based on quality measures for specific populations.

Overall, the TI Program has been an important catalyst for breaking down "silos" between a broad range of provider types. Through the TI Program, AHCCCS incentivized the establishment of co-located, integrated clinics where behavioral and physical health providers and county probation offices deliver services to justice-involved individuals. This is a critical foundational step to ensure that individuals transitioning into the community from incarceration have immediate access to health care including substance use and behavioral health services. Furthermore, the TI Program requirement prompting behavioral health providers to identify physical health concerns and to effectively connect the member to appropriate physical health care has forged new relationships and workflows between behavioral health and physical health providers.

The changes in Arizona's Medicaid delivery system over the past decade have paved the way for AHCCCS Complete Care (ACC), the program's largest integration accomplishment to date. On October 1, 2018, AHCCCS transitioned 1.5 million members into seven ACC plans that provide integrated physical and behavioral health care services. By joining physical and behavioral health services under single plans with their own networks of providers who treat all aspects of health care needs, providers are more able to facilitate care coordination and achieve better health outcomes.

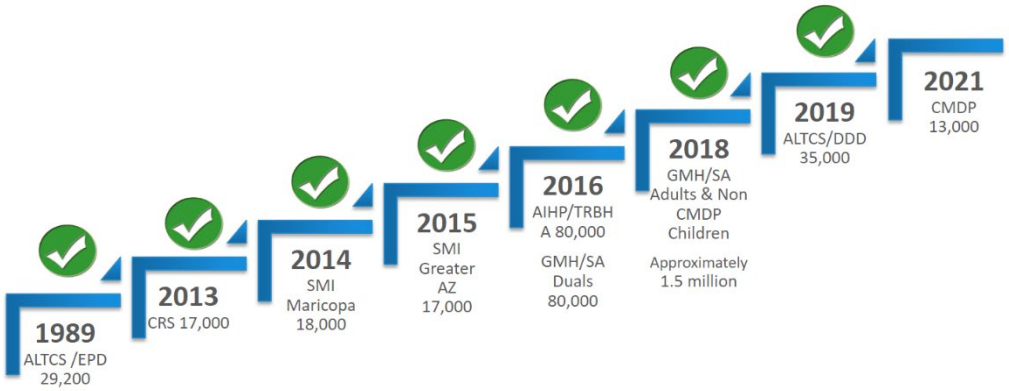
AHCCCS continued the journey towards managed care integration when physical and behavioral health services were integrated under one health plan for members with intellectual disabilities. DES/DDD awarded new subcontracts with MCOs, called "DDD Health Plans," effective October 1, 2019. These DDD Health Plans offer eligible members physical and behavioral health services, specialty services for children with CRS conditions, and limited long term services and supports including nursing facility care, and emergency alert system services, and habilitative physical therapy. All other long term services and supports will continue to be provided directly by DES/DDD.

The next step in Arizona's move towards integration will focus on foster children enrolled in CMDP. AHCCCS will integrate behavioral health coverage into the CMDP health plan to further simplify health care coverage and encourage better care coordination for foster children. CMDP awarded a subcontract to an MCO effective April 1, 2021. The single subcontracted health plan will work in coordination with CMDP to provide integrated physical and behavioral health services, including specialty services for children with CRS conditions, to members enrolled with CMDP.

Information regarding Arizona's future Demonstration evaluation goals are discussed in more detail in Section VI.

[5] NORC at the University of Chicago. (2017). *Case Study: Supportive Service Expansion for Individuals with Serious Mental Illness: A Case Study of Mercy Maricopa Integrated Care*. https://www.mercycareaz.org/assets/pdf/news/NORC-MercyMaricopa-CaseStudy.pdf

Figure 2: Integration Process to Date



AHCCCS WORKS: ARIZONA'S COMMUNITY ENGAGEMENT PROGRAM

In 2019, CMS approved Arizona's waiver amendment request to implement community engagement requirements for able-bodied adult members who are eligible under Section 1902(a)(10)(A)(i)(VIII) of the Social Security Act (henceforth referred to as the "Group VIII" population, individuals with income at or below 133% of the FPL who do not qualify for Medicaid in any other category). The AHCCCS Works program's objective is to increase employment, employment opportunities, and activities that enhance employability, increase financial independence, and improve health outcomes of AHCCCS members.

The AHCCCS Works program requires able-bodied members between the ages of 19 and 49 who do not qualify for an exemption to meet the following activities or combination of activities for at least 80 hours per month: be employed, actively seeking employment, attending school (less than full time), participating in other employment readiness activities (i.e. job skills training, life skills training, and health education), and/or engaging in community service. To ease the burden on members to report qualifying income, AHCCCS will use available systems and data sources to determine whether a member receives earned income that is consistent with being employed or self-employed for at least 80 hours per month at the state minimum wage. Members who have earned income consistent with being employed or self-employed for at least 80 hours a month at the state minimum wage will not be required to report compliance on a monthly basis. In cases where the State is unable to locate earned income data through available systems and data sources, members will be able to attest to compliance through an AHCCCS online portal, by phone, by mail, and in person.

On October 17, 2019, AHCCCS informed CMS of Arizona's decision to postpone implementation of AHCCCS Works until further notice. This decision was informed by the evolving national landscape concerning Medicaid community engagement programs and ongoing related litigation.

OTHER PERSONAL RESPONSIBILITY INITIATIVES IN ARIZONA'S DEMONSTRATION

In 2016, CMS approved Arizona's request to implement AHCCCS CARE (Choice, Accountability, Responsivity, Engagement), a program designed to engage adult members with incomes over 100 percent FPL to improve health literacy and prepare for a transition into private health coverage. Under this initiative, members would be required to pay monthly premiums and strategic coinsurances applied retrospectively for services already received. AHCCCS CARE would also provide certain incentives for timely payment of these monthly contributions and completion of healthy targets. AHCCCS did not implement the AHCCCS CARE program during the current waiver period, and is requesting this program to be discontinued from Arizona's Demonstration.

On January 18, 2019, CMS approved Arizona's waiver amendment request to limit retroactive coverage to the month of application for all Medicaid members, except for pregnant women, women who are 60 days or less postpartum, and children under 19 years of age. Under this amendment, Arizona is evaluating whether waiving retroactive coverage for certain groups of Medicaid members encourages them to obtain and maintain health coverage, even when healthy. The State will also evaluate whether this policy encourages individuals to apply for

Medicaid expeditiously when they believe they meet the criteria for eligibility for programs such as ALTCS. The State is also evaluating whether the new policy increases continuity of care by reducing gaps in coverage that can occur when members move on and off Medicaid or enroll in Medicaid only when sick, and facilitates receipt of preventive services when members are healthy. Furthermore, the State is evaluating the financial impacts of the waiver of retroactive eligibility. The effective date for the implementation of retroactive coverage changes was July 1, 2019.

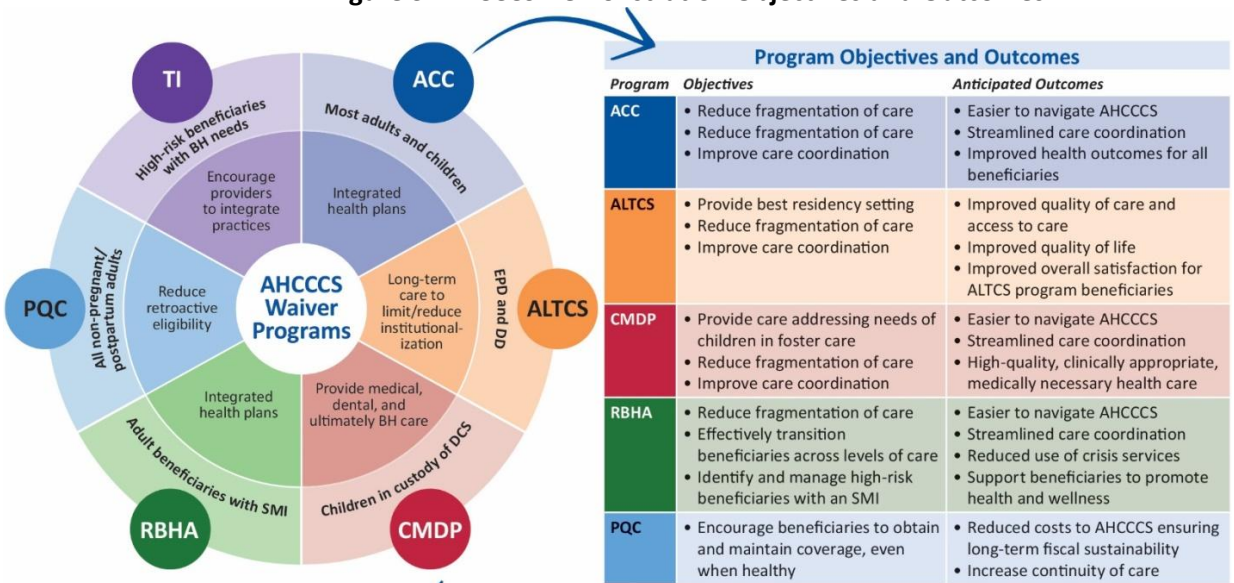
III. CURRENT DEMONSTRATION GOALS, OBJECTIVES & EVALUATION

Arizona's Demonstration strives to provide, through the employment of a managed care model, quality health care services to members while at the same time achieving cost efficiencies. Specific goals for Arizona's Demonstration are:

- Providing quality healthcare to members
- Ensuring access to care for members
- Maintaining or improving member satisfaction with care
- Continuing to operate as a cost-effective managed care delivery model within the predicted budgetary expectations

In order to evaluate the effectiveness and success of Arizona's Demonstration and to identify future opportunities for improvement, AHCCCS contracted with Health Services Advisory Group (HSAG) to conduct an independent evaluation. This evaluation was designed to meet the Special Terms and Conditions (STCs) of Arizona's current 1115 Demonstration, including testing specific hypotheses and performance measures that evaluate the following Demonstration programs: ACC, ALTCS, CMDP, RBHA, TI Program, and Waiver of Prior Quarter Coverage. The key objectives and anticipated outcomes for each Demonstration program are described in Figure 3 below.

Figure 3: AHCCCS Demonstration Objectives and Outcomes



Note: EPD: Elderly/Physically Disabled; DD: Intellectually/Developmentally Disabled; DCS: Department of Child Safety; SMI: Serious Mental Illness; PCP: Primary Care Physicians; BH: Behavioral Health

Demonstration Evaluation Deliverables & Activities

Arizona's Demonstration evaluation consists of the three components: evaluation design, interim evaluation, and summative evaluation.

EVALUATION DESIGN

Arizona's evaluation design plans discuss the goals, objectives, and specific testable hypotheses, including those that focus specifically on target populations for the Demonstration; methodology that will be used for testing the hypotheses; and how the effects of the Demonstration will be isolated from other changes occurring in the State. As of September 2020, Arizona's evaluation design plans are still pending CMS approval.

On November 13, 2019, HSAG submitted an evaluation design plan to CMS for Arizona's Demonstration components (ACC, ALTCS, CMDP, RBHA, TI Program, and Waiver of Prior Quarter Coverage). Additionally, HSAG developed and submitted a separate evaluation design plan to CMS for the AHCCCS Works program. Arizona intends to use this design plan to guide the evaluation of the AHCCCS Works program upon the implementation of the community engagement requirements. Since Arizona has not implemented the AHCCCS CARE program during the current waiver period, and does not intend to include this program in this Demonstration renewal request, no evaluation design plan has been drafted or submitted to CMS for this program.

INTERIM EVALUATION

As required by the STCs of Arizona's approved Demonstration, an interim evaluation report must be submitted that discusses the evaluation progress and findings to date. This interim report must be submitted in conjunction with Arizona's Demonstration renewal application.

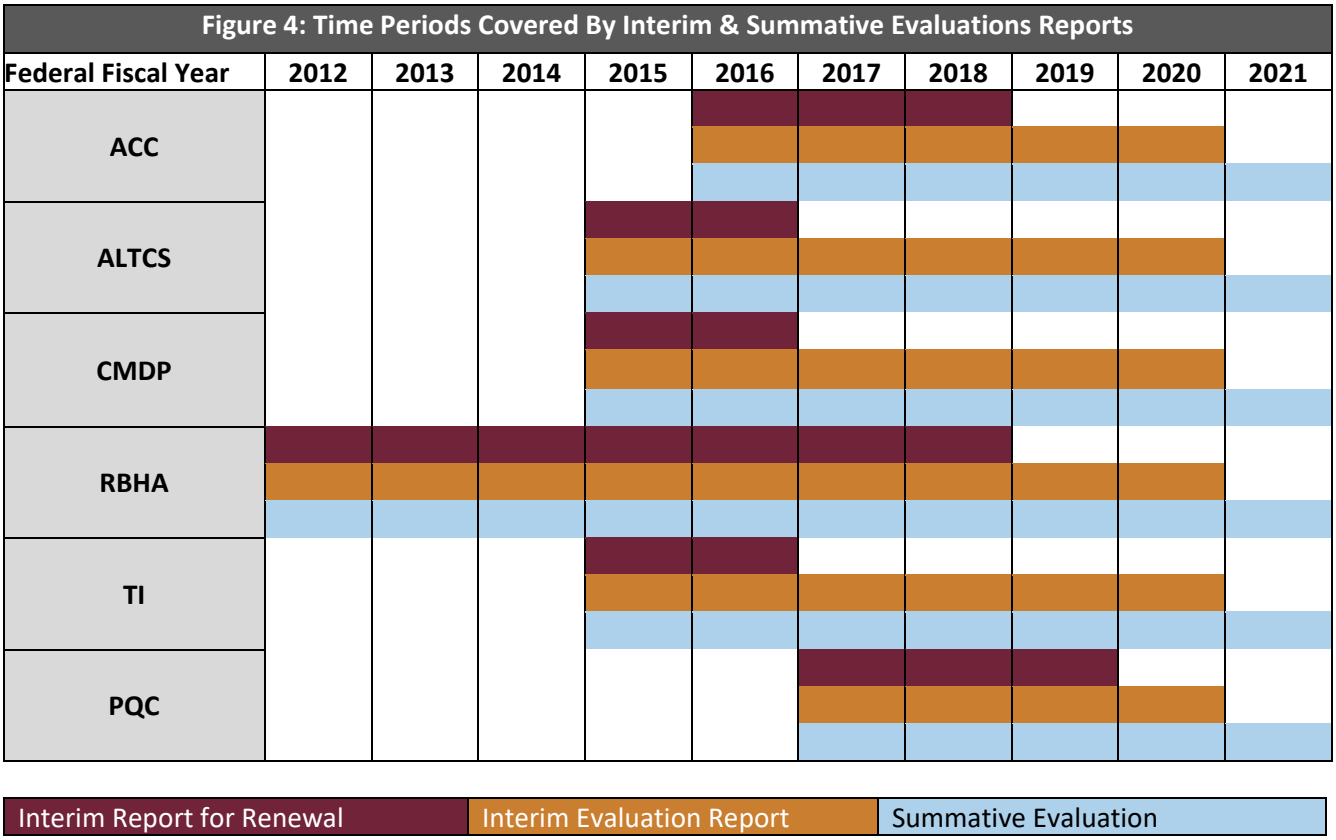
Due to limitations in the availability of data and operational constraints imposed by the 2019 novel coronavirus (COVID-19) pandemic, Arizona's interim evaluation report does not include data from all sources described in Arizona's evaluation design plan. Qualitative data based on key informant interviews and focus groups, as well as beneficiary survey data, were not collected as a result of discussions with CMS as the timing of the COVID-19 pandemic presented significant challenges in safely collecting qualitative data.

Accordingly, Arizona's interim evaluation report only includes results for a limited set of baseline performance measures across all six Demonstration components. The rates presented in this interim evaluation report primarily cover the baseline years prior to the implementation of ACC, ALTCS-DD, and CMDP integrated health plans. Furthermore, this report only includes the baseline performance rates for the Waiver of Prior Quarter Coverage and TI Program. Therefore, the results presented in the interim evaluation report should be interpreted as descriptions of baseline performance only, and not as an evaluation of program performance. Even for the RBHA integration evaluation, robust statistical methods such as interrupted time series have not been applied, which prevents causal conclusions.

For this reason, an updated interim evaluation report will be completed by HSAG on June 30, 2021. This report will contain results for additional years and include findings to date from focus groups and qualitative interviews. In addition, the updated interim evaluation report will use statistical techniques, where possible, in order to control for confounding factors and identify the impact of Arizona's Demonstration initiatives on access to care, quality of care, and member experience with care. AHCCCS intends to post the updated interim evaluation report to its website for public comment in July 2021.

SUMMATIVE EVALUATION

Arizona will develop and submit to CMS a summative evaluation report within 18 months of the end of the current Demonstration period (no later than February 12, 2023), with the full results of all measures described in the evaluation design plan. Figure 4 illustrates the years covered by the interim and summative evaluation reports.



Summary of Interim Evaluation Findings

This section summarizes the main interim evaluation findings (see Appendix A) for ACC, ALTCS, CMDP, RBHA, TI Program, and Waiver of Prior Quarter Coverage Demonstrations. As described previously, the performance rates presented in the interim evaluation report have not been analyzed using the statistical methods described in the evaluation design plan. Therefore, no conclusions can be drawn at this point from these results. An updated interim evaluation report will be completed by HSAG in 2021 which will include results for additional years and will use robust statistical methods to assess the impact of the six Demonstration programs on member outcomes, quality, and access to care.

ACC Evaluation Findings

The interim report assesses member health care outcomes prior to the implementation of ACC.

Rates for adults who accessed a primary care provider (PCP) remained mostly unchanged throughout the baseline period, at around 77 percent. The rate of child and adolescent PCP visits remained steady during the baseline period with little change between 2017 and 2018, declining by only an average of 0.8 percent per year. The rate of child dental visits remained largely unchanged during the baseline period, increasing by 0.9 percent (Fig. 5).

Figure 5: Utilization Of Primary Care Services Prior To ACC Implementation

	Weighted Rate[1]			Average Relative Rate Change[2]
	2016	2017	2018	
Percentage of adults who accessed preventive/ambulatory health services	77.3%	76.2%	76.9%	-0.2%
Percentage of children and adolescents who accessed PCPs	88.4%	86.8%	86.9%	-0.8%
Percentage of beneficiaries under 21 with an annual dental visit	59.8%	60.6%	61.0%	0.9%

[1]Rates are weighted by duration of enrollment in ACC

[2]Average relative change reports the averaged relative percentage changes between years 1 and 2 and between years 2 and 3.

Rates for well-child visits in the first 15 months of life improved during the baseline period. The percentage of members with no visits declined from 5.1 percent in 2017 to 2.9 percent in 2018. Meanwhile, the percentage of members with six or more visits steadily increased by an average relative change of 5.6 percent from 56.0 percent in 2016 to 62.4 percent in 2018 (Fig. 6).

Figure 6: Utilization Preventive & Well Child Visits Prior To ACC Implementation

	Weighted Rate[1]			Average Relative Rate Change[2]
	2016	2017	2018	
Percentage of beneficiaries with a well-child visit in the first 15 months of life				
0 Visits	4.6%	5.1%	2.9%	-16.7%
1 Visits	3.8%	3.9%	3.0%	-11.1%
2 Visits	4.6%	4.3%	3.9%	-8.6%
3 Visits	6.6%	5.9%	5.5%	-8.4%
4 Visits	9.7%	8.9%	8.7%	-5.5%
5 Visits	14.7%	13.8%	13.7%	-3.3%
6+ Visits	**56.0%**	**58.1%**	**62.4%**	5.6%
Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life	60.9%	60.8%	61.3%	0.4%
Percentage of beneficiaries with an adolescent well-care visit	38.8%	39.0%	40.3%	2.0%

[1]Rates are weighted by duration of enrollment in ACC.

[2]Average relative change reports the averaged relative percentage changes between years 1 and 2 and between years 2 and years 3.

The percentage of members who had engagement of treatment of alcohol and other drug abuse treatment increased from 12.6 percent in 2016 to 14.3 percent in 2018. Rates for initiation of treatment also increased from 41.7 percent to 44.2 percent between 2016 and 2018 (Fig. 7).

Figure 7: Utilization Of Substance Use Treatment Prior To ACC Implementation

	Weighted Rate[1]			Average Relative Rate Change[2]
	2016	2017	2018	
Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	41.7%	42.4%	44.2%	2.9%
Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	12.6%	12.8%	14.3%	6.6%

[1]Rates are weighted by duration of enrollment in ACC.

[2]Average relative change reports the averaged relative percentage changes between years 1 and 2 and between years 2 and years 3

The rate of emergency department visits declined by 3 percent from 2016 through 2018. Inpatient utilization remained steady through the baseline period. Similarly, 30-day, all-cause hospital readmissions remained relatively steady particularly during the latter two years of the baseline period at 16.6 percent in 2017 and 16.8 percent in 2018 (Fig. 8).

Figure 8: ED & Hospital Utilization Prior To ACC Implementation

	Weighted Rate[1]			Average Relative Rate Change[2]
	2016	2017	2018	
Number of ED visits per 1,000 member months	58.0	55.6	54.6	**-3.0%**
Number of inpatient stays per 1,000 member months	7.9	7.7	7.9	**-0.1%**
Percentage of adult inpatient discharges with an unplanned readmission within 30 days	15.7%	16.6%	16.8%	**3.3%**

[1]Rates are weighted by duration of enrollment in ACC.
[2]Average relative change reports the averaged relative percentage changes between years 1 and 2 and between years 2 and years 3

ALTCS Evaluation Findings

Results collected through the National Core Indicator (NCI) interview survey for DD adults and DD children indicate that nearly all (97 percent) of Arizona DD members who responded to the question reported having a primary care doctor, 81 percent of respondents reported having a physical exam, 80 percent reported having a flu shot, 75 percent reported having a dental exam, and 61 percent of respondents reporting having an eye exam in the past year (Fig. 9).

Figure 9: Access to PCP Care for ALTCS DD Members

	Number of Responses	Rate
Has a primary care doctor or practitioner	463	**97%**
Had a complete physical exam in the past year	365	**81%**
Had a dental exam in the past year	313	**75%**
Had an eye exam in the past year	226	**61%**
Had a flu vaccine in the past year	166	**80%**

Source: National Core Indicators Adult Consumer Survey Arizona Report 2015-2016. Total sample size = 476

The percentage of members receiving a follow-up visit with a mental health provider after hospitalization for mental illness increased by almost 40 percent for ALTCS-EPD population during the baseline period (Fig. 10). In the ALTCS-DD population, rates of adherence to antidepressant treatment decreased between 2015 and 2016 during the baseline period. The rate of mental health utilization (for any mental health service) remained relatively unchanged during the baseline period for both the ALTCS-DD and EPD populations. While there were large relative rate changes for the percentage of members with a screening for depression, the relative change is skewed by the low rates in 2015 and 2016.

Figure 10: Management of Behavioral Health Conditions for ALTCS Members

	ALTCS-DD			ALTCS-EPD		
	Weighted Rate[1]		Relative Change	Weighted Rate[1]		Relative Change
	2015	2016		2015	2016	
Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	68.3%	69.2%	**1.3%**	21.4%	29.9%	**39.7%**
Percentage of adult beneficiaries who remained on an antidepressant medication treatment (84 days)	52.3%	45.9%	**-12.2%**	61.3%	63.2%	**3.1%**
Percentage of adult beneficiaries who remained on an antidepressant medication treatment (180 days)	38.8%	33.1%	**-14.7%**	44.2%	45.7%	**3.3%**
Percentage of beneficiaries with a screening for depression and follow-up plan	0.6%	0.4%	**-38.1%**	0.3%	0.4%	**15.4%**
Percentage of beneficiaries receiving mental health services						
Any	**31.2%**	**31.5%**	**0.8%**	**19.8%**	**19.7%**	**-0.8%**
ED	0.2%	0.3%	**95.2%**	0.1%	0.1%	**-0.3%**
Intensive outpatient or partial hospitalization	0.9%	0.9%	**3.9%**	0.2%	0.3%	**52.5%**
Inpatient	1.2%	1.2%	**-2.2%**	7.4%	6.9%	**-7.1%**
Outpatient	31.1%	31.4%	**0.8%**	13.7%	14.2%	**3.8%**
Telehealth	0.4%	0.7%	**73.7%**	0.1%	0.1%	**-35.8%**

[1]Rates are weighted by duration of enrollment in ALTCS

DD members expressed high levels of satisfaction with their living arrangements and the services and supports they receive (Fig. 11). Only 13 percent of members who responded to the NCI survey expressed that they would prefer to live somewhere else, and 97 percent indicate that services and supports help them live a good life. In addition, members reported being satisfied with their ability to engage with the community. Two-thirds have friends outside their families and service providers. Most members (89 percent) also report a high or moderate degree of autonomy, at least with respect to planning or having a voice in planning their daily schedules.

Figure 11: ALTCS DD Member Experience With Living Arrangement & Engagement

	Denominator	Rate
Wants to live somewhere else	418	**13%**
Services and supports help the person live a good life	416	**97%**
Able to go out and do the things s/he like to do in the community	412	**93%**
Has friends who are not staff or family members	422	**67%**
Decides or has input in deciding daily schedule	468	**89%**

Source: National Core Indicators Adult Consumer Survey Arizona Report 2015-2016. Total sample size = 476

CMDP Evaluation Findings

In both 2015 and 2016, over 95 percent of children and adolescents enrolled in CMDP had a visit with a PCP (Fig. 12). Approximately two out of three CMDP members had an annual dental visit in both 2015 and 2016, dropping by less than 2 percent between the two years.

Figure 12: Utilization Of PCP & Specialist Services For CMDP Members

	Weighted Rate[1]		Relative Change
	2015	2016	
Percentage of children and adolescents who accessed PCPs	95.4%	95.3%	-0.1%
Percentage of beneficiaries under 21 with an annual dental visit	67.6%	66.3%	-1.9%

[1]Rates are weighted by duration of enrollment in CMDP

Emergency Department (ED) utilization and inpatient stays decreased for CMDP members during the baseline period. These rates decreased by more than 5 percent in 2016 to 41.8 ED visits and 3.1 inpatient stays per 1,000 member months (Fig. 13).

Figure 13: ED & Inpatient Hospital Utilization By CMDP Members

	Weighted Rate[1]		Relative Change
	2015	2016	
Number of ED visits per 1,000 member months	44.3	41.8	-5.6%
Number of inpatient stays per 1,000 member months	3.3	3.1	-5.9%

[1]Rates are weighted by duration of enrollment in CMDP

RBHA Evaluation Findings

Rates of preventive or ambulatory health services for SMI members in RBHAs increased during the Demonstration period from 84.1 percent in 2012 to 91.8 percent in 2018 (Fig. 14).

Figure 14: Utilization Of Primary Care Services By SMI Members In RBHAs

	Weighted Rate[1]							Relative Change[2]
	Baseline		Evaluation					
	2012	2013	2014	2015	2016	2017	2018	
Percentage of adults who accessed preventive/ambulatory health services	84.1%	92.8%	93.5%	92.0%	93.0%	92.4%	91.8%	4.6%

[1]Rates are weighted by duration of enrollment in RBHA

[2]Relative Change reports the relative change between the average rate during the evaluation period compared to the average rate during the baseline period

The percentage of members initiating treatment for alcohol, opioid, or other drug abuse remained steady from an average rate of 46.8 percent in the baseline period to an average rate of 45.0 percent in the evaluation period (Fig. 15). In contrast, rates of engagement of treatment increased by more than 200 percent from an average rate of 2.4 percent in the baseline to an average rate of 7.7 percent in the evaluation period.

Figure 15: Utilization Of Substance Use Treatment By SMI Members In RBHAs

	Weighted Rate[1]							Relative Change[2]
	Baseline		Evaluation					
	2012	2013	2014	2015	2016	2017	2018	
Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	46.6%	47.0%	50.1%	42.6%	42.9%	44.5%	44.9%	-3.9%
Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	3.1%	1.6%	1.9%	6.9%	8.7%	9.8%	11.0%	229.5%

[1]Rates are weighted by duration of enrollment in RBHA

[2]Relative Change reports the relative change between the average rate during the evaluation period compared to the average rate during the baseline period

Figure 16 indicates that all performance measures improved related to the management of behavioral health conditions for SMI members enrolled in a RBHA. Most notably, the percentage of members with a follow-up visit with a mental health practitioner after hospitalization for a mental illness increased substantially from a baseline rate of 40.1 percent in 2013 to 70 percent in 2018. Rates of intensive outpatient or partial hospitalization, and outpatient service utilization increased by 7.9 percent and 8.8 percent, respectively. In addition, utilization of inpatient mental health services increased from an average rate of 12.7 percent in the baseline to an average rate of 14.9 percent in the evaluation period.

Figure 16: Management of Behavioral Health Conditions For SMI Members Enrolled In RBHAs

	Weighted Rate[1]							
	Baseline		Evaluation					Relative Change[2]
	2012	2013	2014	2015	2016	2017	2018	
Percentage of adult beneficiaries who remained on an antidepressant medication treatment (84 days)	39.3%	46.3%	44.2%	42.5%	45.7%	46.2%	43.5%	3.7%
Percentage of adult beneficiaries who remained on an antidepressant medication treatment (180 days)	23.3%	27.5%	26.9%	26.4%	28.9%	27.7%	24.8%	6.1%
Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	N/A	40.1%	47.2%	65.1%	70.7%	70.6%	70.0%	61.5%
Percentage of beneficiaries with a follow-up visit after emergency department (ED) visit for mental illness	56.1%	59.3%	61.0%	62.0%	62.7%	62.8%	61.5%	7.8%
Percentage of beneficiaries with a follow-up visit after ED visit for alcohol and other drug abuse or dependence	18.8%	18.4%	17.5%	21.6%	21.1%	19.7%	21.0%	8.4%
Percentage of beneficiaries with a screening for depression and follow-up plan	0.0%	0.0%	0.1%	0.2%	0.1%	0.2%	0.1%	--
Percentage of beneficiaries receiving mental health services								
Any[4]	73.6%	83.4%	85.5%	82.5%	85.9%	86.4%	85.9%	8.6%
ED	0.0%	0.0%	0.4%	0.9%	1.5%	1.5%	1.2%	--
Intensive outpatient or partial hospitalization	12.3%	13.2%	12.8%	12.1%	14.3%	14.8%	14.9%	7.9%
Inpatient	12.2%	13.1%	13.2%	14.2%	14.9%	16.0%	16.3%	18.1%
Outpatient	72.8%	82.9%	85.0%	81.9%	85.4%	85.9%	85.3%	8.8%
Telehealth	0.1%	0.8%	1.6%	2.1%	2.8%	4.2%	6.7%	--

[1] Rates are weighted by duration of enrollment in RBHA

[2] Relative Change reports the relative change between the average rate during the evaluation period compared to the average rate during the baseline period.

[3] The rate was not presented due to large rate variation attributable to changes in specifications.

[4] The Any Services category is not a sum of the inpatient, Intensive Outpatient or Partial Hospitalization, Outpatient, ED and Telehealth categories.

Prior Quarter Coverage(PQC) Findings

Figure 17 illustrates the average number of months with Medicaid coverage for AHCCCS members prior to the implementation of the Waiver of Prior Quarter Coverage. The average number of months with Medicaid coverage for both baseline years was approximately 10 months.

Figure 17: Enrollment continuity for AHCCCS members

	Baseline		Relative Change
	Y1[1]	Y2[1]	
Average number of months with Medicaid Coverage	10.0	10.2	1.2%

[1]Baseline Y1 extends from 7/1/2017 through 6/30/2018 and Baseline Y2 extends from 7/1/2018 through 6/30/2019

TI Findings

Figure 18 shows the percent of TI-affiliated children with a hospitalization for mental illness had a follow-up visit with a mental health practitioner within seven days. About two-thirds of TI-affiliated children had a follow-up visit in 2015 and this number increased to about 71 percent in 2016.

Figure 18: Follow up after hospitalization or ED visits for mental illness for TI affiliated children

	Rate		Relative Change
	2015	2016	
Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	66.4%	71.1%	7.0%

Figure 19 assesses the rates of alcohol and other drug abuse or dependence treatment and medication assisted treatment (MAT) among TI-affiliated adults. The rate remained steady between both baseline years, with the highest rate of treatment for opioids over both baseline years. The rate of treatment engagement was 9% overall in 2015 and increased to 11% overall. Similar to initiation of treatment, the rate of treatment engagement was highest for opioids at 13.5 percent for both baseline years.

Figure 19: Rates of alcohol and drug abuse treatment and adherence for TI vs non TI affiliated adults

	Rate		Relative Change
	2015	2016	
Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment			
Total	**40.6%**	**42.5%**	**4.9%**
Alcohol	42.9%	44.2%	3.0%
Opioid	43.7%	48.2%	10.4%
Other Drug	40.0%	40.1%	0.4%
Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment			
Total	**9.3%**	**11.1%**	**19.1%**
Alcohol	8.9%	9.7%	8.9%
Opioid	13.5%	13.5%	-0.4%
Other Drug	7.0%	9.8%	39.3%
Percentage of beneficiaries with OUD receiving any medication assisted treatment	N/A[1]	30.5%	N/A

[1]The rate was not presented due to large rate variation attributable to changes in specifications

External Quality Review

Part of the overall quality strategy mandated by Section 1932(c)(2) of the Social Security Act and 42 CFR §438.350-370 requires states to include annual independent external quality reviews (EQRs) in each managed care contract. This approach requires an independent External Quality Review Organization (EQRO) to validate performance measures, conduct compliance reviews and otherwise evaluate the performance of Medicaid managed care plans. AHCCCS contracts with HSAG as its EQRO vendor. A summary of activities performed by the Arizona EQRO along

with their key findings are contained in **Appendix B.** Arizona's EQR reports are posted on State's website: https://www.azahcccs.gov/Resources/HPRC/

IV. CURRENT PROGRAM FEATURES TO CONTINUE UNDER DEMONSTRATION RENEWAL

The following section summarizes the programs under Arizona's existing Demonstration and how the State will approach each of these features under the waiver renewal request. The full list of waivers and expenditure authorities that Arizona is requesting in this renewal period is detailed in Chapter VII.

Eligibility

Under this renewal proposal, all current AHCCCS eligibility groups will continue to be covered. Arizona's Demonstration also authorizes several expenditure authorities that streamline the eligibility processes detailed in Chapter VII. With the exception of those eligibility waivers, the eligibility requirements for most members enrolled in the managed care delivery system are set forth in Arizona's State Plan. Eligibility requirements for long term care services and supports (including HCBS) will remain unchanged from Arizona's current Demonstration: individuals must be at immediate risk of institutionalization at either a nursing facility or an Intermediate Care Facility for Individuals with Intellectual Disabilities (ICF-IID) and must have income at or below 300 percent of the Federal Benefit Rate..

WAIVER OF PRIOR QUARTER COVERAGE

Arizona's Demonstration authorizes AHCCCS to limit retroactive coverage to the first day of the month of application for all Medicaid members, except for pregnant women, women who are 60 days or less postpartum, and children under 19 years of age. Pregnant women, women who are 60 days or less postpartum, and children under the age of 19 are eligible for Medicaid coverage for up to three months prior to the month in which their application was submitted. AHCCCS is requesting the authority to continue to limit retroactive coverage in order to fully evaluate the Demonstration's progress toward achieving the goals of continuity of care and personal responsibility, and to assess the impact to individuals and providers.

AHCCCS WORKS

Arizona's Demonstration also authorizes the AHCCCS Works program. The AHCCCS Works program requires able-bodied AHCCCS members between the ages of 19 and 49 who do not qualify for an exemption to meet the following activities or combination of activities for at least 80 hours per month: be employed, actively seeking employment, attending school (less than full time), participating in other employment readiness activities (i.e. job skills training, life skills training, and health education), and/or engaging in community service. Under this waiver renewal, AHCCCS is seeking to maintain its current authority to implement the AHCCCS Works program.

AHCCCS has exempted members who are particularly vulnerable or whose circumstances make community engagement participation challenging. Arizona's Demonstration exempts individuals who meet any of the following conditions from the AHCCCS Works program:

- Individuals under age 19 and above age 49
- Pregnant women and women up to the end of the month in which the 60th day of post-pregnancy occurs
- Former foster care youth up to age 26
- Individuals who are members of a federally recognized tribe
- Individuals with a SMI designation
- Individuals currently receiving temporary or permanent long-term disability benefits from a private insurer or from the state or federal government, including workers compensation benefits
- Individuals who are medically frail
- Individuals who are in active treatment with respect to a substance use disorder (SUD)
- Full time high school, trade school, college or graduate students
- Survivors of domestic violence
- Individuals who are homeless
- Designated caretakers of a child under 18 years of age

- Caregivers who are responsible for the care of an individual with a disability
- Individuals who have an acute medical condition
- Individuals who are receiving Supplemental Nutrition Assistance Program (SNAP), Cash Assistance, or Unemployment Insurance income benefits
- Individuals participating in other AHCCCS approved work programs
- Individuals not mentioned above who have a disability as defined by federal disabilities rights laws (ADA, Section 504, and Section 1557) who are unable to participate in AHCCCS Works Requirements for disability-related reasons

As of July 2020, AHCCCS estimates that approximately 119,532 members will be subject to the AHCCCS Works requirements, an estimate derived by excluding the number of persons in categories exempted from the list above. However, due to limitations in available data, some exempted categories cannot yet be quantified. Therefore, the total number of members required to participate in AHCCCS Works is anticipated to be lower.

Figure 20: AHCCCS Works Exemptions

AHCCCS Works Exemptions	Members (Ages 19-49) Who Are Subject To AHCCCS Works Requirement Who Qualify For This Exemption
American Indians	26,338
Individuals designated as having a Serious Mental Illness	9,279
Individuals receiving disability benefits	1,324
Individuals who are homeless	3,164
Full time student	17,572
Designated caretakers of a child under 18 years of age	40,738
Members receiving SNAP, Cash Assistance, or Unemployment Insurance	50,185

Individuals may fall into multiple exemption groups (e.g., an individual designated as having a Serious Mental Illness who is also a full time student is counted in both groups above). AHCCCS currently does not collect information on some of the exemptions that will be allowed under the AHCCCS Works program.

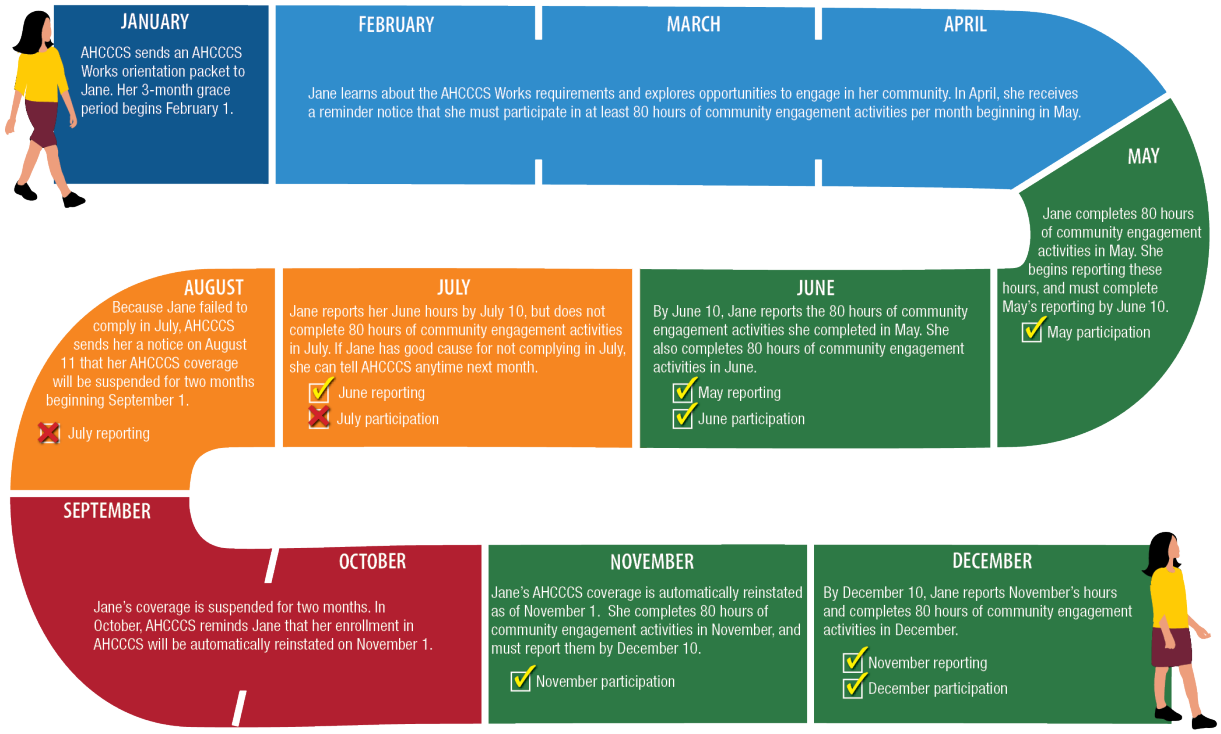
Prior to program implementation, AHCCCS will notify members in writing as to whether or not they are required to comply with the community engagement requirements. Members will also receive written notice in annual renewal letters and whenever there is a change in their community engagement status.

Members who are required to comply with AHCCCS Works requirements will begin the program with a three-month orientation period in which to become familiar with the program compliance requirements. During this three month orientation period, members will not be subject to the community engagement requirements. During this timeframe members will receive detailed material about AHCCCS Works, including, but not limited to, information explaining the qualifying community engagement activities, how to comply and report community engagement hours, and how to access available community engagement resources. Members will be required to comply with the community engagement requirements once the initial three-month orientation period expires.

Failure to report at least 80 hours of qualifying community engagement activity for any month after the orientation period will result in suspension of the member's AHCCCS coverage for two months unless the member requests: (1) a good cause exemption for failing to comply with the requirements; or (2) an appeal of the suspension. A member whose eligibility is suspended for failing to comply with the community engagement requirements will be reinstated at the expiration of the two-month suspension period, as long as he or she meets all other AHCCCS eligibility criteria. Figure 21 illustrates the AHCCCS Works member compliance obligation.

Figure 21

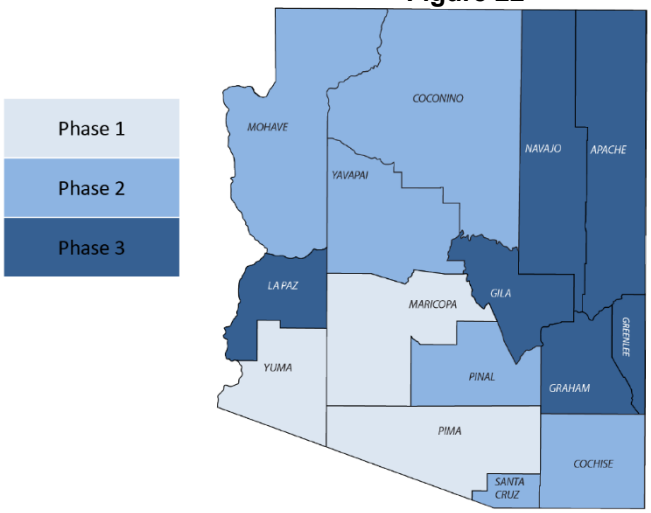
In this example, January represents the first month any new AHCCCS member is required to comply.



The AHCCCS Works program will be implemented geographically, in three phases, starting with the counties that have the largest percentage of urban populations (Fig. 22).

- **Phase I** will be implemented in the most urbanized counties (counties with less than 20 percent rural population): Maricopa, Pima and Yuma.
- **Phase II** will be implemented in semi-urbanized counties (counties with 40-50 percent moderate rural population): Cochise, Coconino, Mohave, Pinal, Santa Cruz and Yavapai.
- **Phase III** will be implemented in the least urbanized counties (counties with greater than 50 percent rural population): Gila, Graham, Greenlee, Navajo, La Paz and Apache.

Figure 22



This phased-in approach will give the State time to assess the availability of community engagement resources in rural areas and address gaps. Counties with a higher percentage of urban populations are likely to have sufficient community engagement resources compared to counties with a higher percentage of rural populations.

Furthermore, the State will assess areas that have high rates of unemployment, areas with limited economies and/or educational opportunities, and areas that lack public transportation to determine whether further exemptions from the AHCCCS Works requirements and/or additional mitigation strategies are needed to alleviate unreasonable burden on members.

Delivery System

Arizona's foundational Demonstration program grants the authority to operate a mandatory managed care program as a means for coordinating high-quality, cost-effective member care. AHCCCS partners with the private health insurance market to leverage efficiencies, flexibilities, and resources in order to create a program that delivers quality, comprehensive health care while maximizing taxpayer dollars. In Arizona, Medicaid managed care was adopted across most populations and all service areas, including long-term care services and supports, behavioral health services, and dual eligible members. Today, 85 percent of AHCCCS members are enrolled in managed care.

In general, populations participating in the managed care program have a choice of managed care entities within each geographic service area designated by the State. Some individuals with a designated serious mental illness are restricted to a single managed care entity in each geographic service area. ALTCS members with developmental disabilities are restricted to one state-wide managed care entity for long term care services and supports, but are offered the choice of two subcontracted managed care plans for physical and behavioral health services. Members in the ALTCS program serving individuals who are elderly or have physical disabilities are offered a choice of managed care entity in Maricopa, Pinal, Gila and Pima counties but are limited to one managed care entity in the remaining eleven counties of the state. Foster children are restricted to a single managed care entity.

Consistent with federal law, American Indians and Alaska Natives (AI/AN) members have the choice of receiving health care coverage from a contracted managed care plan or from the American Indian Health Program (AIHP), a fee-for-service program managed by AHCCCS. In addition, non-qualified aliens whose benefits are limited to treatment of emergency conditions under section 1903(v) of the Social Security Act are not enrolled in the managed care delivery system but receive care on a fee-for-service basis.

Under this waiver renewal, AHCCCS is seeking waiver authority to continue the current managed care model, one of the nation's leading managed care programs recognized for delivering quality health care services to members while simultaneously achieving cost efficiencies.

In addition, AHCCCS proposes renewing the Targeted Investments Program from 2021 through 2026. Building on the successes and lessons learned from the current waiver, Arizona's Targeted Investments Program will continue to drive the transformation of Arizona's delivery system toward an integrated, whole person health delivery system. The details of this proposal are discussed in Chapter V.

Arizona's Demonstration also authorizes supplemental payments to IHS and 638 facilities to address the fiscal burden of uncompensated care for services provided by such facilities to Medicaid-eligible adults. Reports submitted to the State by IHS and 638 facilities show that these payments warded off staffing reductions and elimination of services, which would have severely impacted an already fragile delivery system that provides critical care for a population struggling to overcome healthcare disparities during the recession. AHCCCS is seeking to maintain this authority under this renewal proposal.

Benefits

Under this proposal, all current benefits will continue to be covered. All acute care members have access to the same benefit package regardless of their managed care plan enrollment. Similarly, all ALTCS members have access to the same benefit package across all managed care plans.

Through this renewal application, AHCCCS seeks to continue its existing expenditure authorities regarding certain services not covered (or not coverable) under the State Plan. This includes $1,000 in dental services for ALTCS members and certain home and community based services: respite care, habilitation services, home delivered meals, home modifications, and personal care services and similar services provided under the Spouse as Paid Caregiver program.

To enhance service delivery for ALTCS members, AHCCCS is requesting authority to allow for verbal consent in lieu of written signature for up to 30 days for all care and treatment documentation for ALTCS members when identity can be reliably established and documented in the member's record. This proposal is discussed in more detail in Chapter V.

Also, in an effort to reduce health care disparities in the AI/AN population, AHCCCS is seeking new authority to provide dental benefits in excess of the currently established emergency dental benefit which is limited to $1,000 per year under the Arizona State Plan for AHCCCS AI/AN members receiving services provided in, at, or as part of services offered by facilities and clinics operated by the IHS, a tribe or tribal organization. The details of this proposal are discussed in Chapter V.

AHCCCS CARE and Cost Sharing

AHCCCS did not implement the AHCCCS CARE program during the current waiver period, and is requesting this program to be discontinued from Arizona's Demonstration. Cost sharing requirements for persons impacted by Arizona's Demonstration are defined in the Arizona State Plan.

V. PROPOSED CHANGES TO THE CURRENT DEMONSTRATION

Verbal Consent In Lieu Of Written Signature For Person Centered Service Plans For ALTCS Members

On March 13, 2020, the President of the United States declared the 2019 novel coronavirus (COVID-19) a nationwide emergency pursuant to Section 501(b) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121-5207 (the "Stafford Act"). The President's declaration provides authority for the Secretary of the U.S. Department of Health and Human Services to enhance states' ability to respond to the COVID-19 outbreak, including authority to temporarily waive or modify Medicaid and CHIP requirements under Section 1135 of the Social Security Act. Also referred to as "1135 Waivers," these authorities expire no later than the termination of the COVID-19 public health emergency (PHE) period. Currently, the PHE is scheduled to expire on October 22, 2020, unless renewed by the Secretary.

Arizona was one of the first states to submit a request to waive certain Medicaid program requirements in order to address the COVID-19 outbreak. CMS approved components of Arizona's request under the 1135 Waiver, including the authority to temporarily waive written consent requirements for person-centered service plans through home and community based service programs. Federal regulations specify that members provide written consent for person-centered service plans and that the service plans be signed by members and all providers responsible for their implementation. In light of the circumstances unique to Arizona's members, geography, and culture, Arizona obtained authority to obtain documented verbal consent as an alternative. The purpose of this authority was to establish a reliable and timely process for ALTCS members to obtain prompt authorization of critically needed health services while reducing risk of COVID-19 transmission or infection through the document signature process.

As a result of considerable conversation with community stakeholders, AHCCCS has decided to pursue the continuation of this waiver authority beyond the termination of the COVID-19 public health emergency. Therefore, AHCCCS is seeking 1115 Waiver authority to allow for verbal consent in lieu of a written signature for all care and treatment documentation for ALTCS members.

Verbal consent will be obtained telephonically where the identity of the member can be reliably established. The member's consent will be documented in the member's record. Utilization of telephonic methods for members to verify required documents is critical to ensure continued and timely access to health care for vulnerable elderly and/or disabled members. Examples of the populations most affected by this authority include: members who are

living on reservations and members residing in rural settings or in other locations where written consent/confirmation cannot be obtained due to unreliable or lack of internet access, extended distances, transportation challenges, restrictions due to COVID-19 infection, or lack of other reasonable means to comply with the written requirement.

After verbal consent is received, members will have 30 days to submit their signature to the case manager electronically or by mail. The process for using electronic signatures will satisfy privacy and security requirements, and it will be added as a method for the participant or legal guardian who signs the individual service plan (ISP) to indicate approval of the plan. Services for the member will commence during this 30-day time period. Signatures will include a date reflecting the ISP meeting date.

As of July 2020, 66,613 members are enrolled in ALTCS and approximately 89 percent are receiving HCBS.

WAIVER AND EXPENDITURE AUTHORITIES NECESSARY TO AUTHORIZE THIS DEMONSTRATION

Waiver Authority Requested	Brief Description
Section 1915(c) of the Social Security Act and 42 CFR 441.301(c)(2)(ix)	To the extent necessary to enable the State to waive requirements under home and community based service programs that require person-centered service plans to receive written consent from members and be signed by members and all providers responsible for its implementation and allow for verbal consent in lieu of written signature for up to 30 days for all care and treatment documentation when identity can be reliably established and documented in member's record.

Targeted Investments Program Renewal Request (TI Program 2.0)

OVERVIEW OF THE CURRENT TI PROGRAM (2016-2021)

Arizona's health care system has historically been siloed, due to a fragmented system of care prior to the state's participation in Medicaid and the establishment of a delivery system model within the Medicaid program in which members accessed physical health services through an acute care health plan and behavioral health services through a RBHA. As a result of this delivery system fragmentation, AHCCCS members often found themselves interacting with multiple managed care entities and receiving care from a myriad providers who were funded from different sources. This fragmentation has historically hindered effective care coordination, impacted members' health status, and resulted in increased costs for members with complex behavioral and physical health needs.

Over the past decade, Arizona has taken significant steps to reduce these silos and integrate care for AHCCCS members, integrating the provision of physical health and behavioral health services under a single managed care plan. In large part, AHCCCS' effort to integrate care and improve health outcomes for members relies on the unique partnership between the MCOs and AHCCCS providers. The ability for the managed care plans to effectively coordinate care and provide integrated care is directly linked with the providers' ability to participate in that process. The providers who deliver care are in a better position to coordinate care in real time, but to do so effectively, many need infrastructure support to build data sharing and analysis capabilities, to integrate team-based care, and to create workflows that connect members to social services.

Through its Targeted Investments Program, AHCCCS supports providers in moving toward integrated and coordinated care and aims to reduce fragmentation between acute care and behavioral health care, increase efficiencies in service delivery for members with behavioral health needs, and improve health outcomes for the affected populations. The TI Program has successfully funded time-limited, outcome-based projects aimed at building the necessary infrastructure to create and sustain integrated, high-performing health care delivery systems that improve care coordination and drive better health and financial outcomes for: adults with behavioral

health needs; children with behavioral health needs, including children with or at risk for Autism Spectrum Disorder (ASD); children engaged in the child welfare system; and individuals transitioning from incarceration.

In the first three years of the five-year, $300 million program, participating providers (including primary care providers, behavioral health providers, and hospitals) received payments for completing core components and milestones supporting behavioral health and physical health integration. In years four and five, providers are eligible to receive performance-based payments on quality measures for specific populations. Figure 23 illustrates the number of participating providers, by area of concentration, at the end of year three of the Demonstration.

Figure 23: TI Program Providers	
Participating Area of Concentration	**Number of Sites**
Adult Behavioral Health	154
Adult Primary Care	182
Pediatric Behavioral Health	117
Pediatric Primary Care	91
Hospital	21
Justice	13

The TI Program has achieved noteworthy accomplishments in several of these areas of concentration, as discussed below.

INTEGRATED CLINICS FOR INDIVIDUALS RELEASED FROM INCARCERATION

Numerous studies have shown that individuals who are incarcerated have a high prevalence of behavioral health conditions, usually undiagnosed or underdiagnosed. In addition, research on recidivism indicates that three out of four incarcerated individuals are re-incarcerated over the course of five years. The inability to access behavioral health services, including treatment to address substance use disorder, is a contributing factor to recidivism.

Recognizing the unique circumstances and needs of this population, in addition to incentivizing integrated care within traditional clinic settings, the TI Program supported the establishment of thirteen co-located, integrated clinics where primary care and behavioral health providers deliver services to justice-involved individuals. The co-located clinics are located with or adjacent to probation and/or parole offices that collaborate with providers to meet the members' health and social needs. The co-located justice clinics prioritize access to appointments for individuals with complex health conditions, with a specialized focus on ensuring that this population has same-day access to appointments on the day of release and during visits to a probation or parole office. In FFY 2019, 4,272 formerly incarcerated members received services through the integrated justice clinics.

In addition, AHCCCS has established Medicaid suspension agreements with the majority of counties such that individuals who become incarcerated (for less than one year) while enrolled in AHCCCS are suspended from Medicaid eligibility and then reinstated upon release from incarceration, rather than having to complete a new eligibility application. AHCCCS also requires the MCOs to have reach-in policies, mandating that they engage individuals with complex health conditions and high criminogenic needs prior to release, ensuring that they are able to access care immediately upon transition back into the community. Many of the members identified through these processes are referred to TI justice clinics. This is a critical foundational step to ensure that individuals transitioning into the community from incarceration have immediate access to health care including substance abuse and behavioral health services.

IMPROVEMENTS IN PHYSICAL AND BEHAVIORAL HEALTH INTEGRATION FOR TI PARTICIPATING PROVIDERS

To address the challenges associated with fragmentation at the point of service, the TI Program incentivizes and supports a comprehensive approach to integrated care in any care setting in which an AHCCCS member may receive either physical or behavioral health services. For that reason, TI Program participants are financially incentivized to establish numerous protocols, policies, and systems of care that support the provision of person centered integrated care, such as:

- Integrated care plans for members with behavioral health needs
- Primary care screening for behavioral health using standardized tools for depression, SUD, anxiety, and suicide risk
- Primary care screening, intervention and treatment for children with developmental delays in early childhood cognitive and emotional problems
- Protocols for behavioral health providers to identify physical health concerns and to effectively connect the member to appropriate physical health care
- Health risk assessment tools, predictive analytic systems, and other data mining structures to identify individuals at high risk of a decline in acute and/or behavioral health status
- Trauma-Informed care protocols including screening for adverse childhood events (ACEs), referral process for children that screen positive, and use of evidence-based practices and trauma-informed services
- Protocols to send and receive core Electronic Health Record (EHR) data with the state's Health Information Exchange (Health Current) and receipt of Admission, Discharge, and Transfer (ADT) alerts to notify providers when their patients are in the hospital

Additionally, TI Program participants (except hospitals) are required to complete the Integrated Practice Assessment Tool (IPAT) to assess their level of integration on the Substance Abuse and Mental Health Services Administration (SAMHSA) Levels of Integrated Healthcare continuum at the end of each program year. SAMHSA defines six levels of coordinated/integrated care grouped into three broad categories, ranging from minimal collaboration to co-located care to fully integrated care (Fig. 24).

Figure 24: SAMHSA Six Levels of Collaboration/Integration

Coordinated Care Key Element: Communication		Co-Located Care Key Element: Physical Proximity		Integrated Care Key Element: Practice Change	
LEVEL 1 Minimal Collaboration	**LEVEL 2** Basic Collaboration at a Distance	**LEVEL 3** Basic Collaboration On site	**LEVEL 4** Close Collaboration On site with Some Systems Integration	**LEVEL 5** Close Collaboration Approaching an Integrated Practice	**LEVEL 6** Full Collaboration in Transformed/Merged Integrated Practice

Early results indicate the TI Program funding was important in increasing the levels of integrated care for participating providers. The majority of TI Program participants reported having a higher level of integration after implementing the protocols associated with the TI Program between Demonstration Years (DYs) 2 and 3. Sixty percent of unique provider sites reported an increase in integration by at least one IPAT level, and 38 percent of provider sites reported an increase by at least two IPAT levels. Most notably, nearly 25 percent (46 clinics) of PCP participants attested to increasing their IPAT scores by four or more levels—transitioning from levels 1 or 2 (minimal coordination) to levels 5 or 6 (fully integrated care), within one demonstration year. This higher level of integration among participating PCPs means members are able to immediately access behavioral health services when the PCP's screening identifies a need within the integrated practice setting.

In addition, many participating behavioral health providers successfully transitioned to a higher level of integration. The number of providers that reported successfully transitioning to co-located care (levels 3 or 4) or fully integrated care (levels 5 or 6) increased by threefold in DY 3.

These results illustrate the important role the TI Program has played in incentivizing and supporting providers to transform their practices. AHCCCS anticipates that additional providers will achieve greater levels of integration by DYs 4 and 5.

Figure 25: Change in IPAT Level for DY2 and DY3 Attesting Sites by TI Participation Category

Category:	All Sites	Program		Project		Area of Concentration			
		PCP	BH	Adult	Peds	Adult PCP	Adult BH	Peds PCP	Peds BH
Increased:	221 (60%)	128 (68%)	97 (51%)	159 (57%)	111 (59%)	95 (68%)	70 (46%)	54 (64%)	60 (55%)
Increased 5 Levels:	*12 (3%)*	*8 (4%)*	*4 (2%)*	*8 (3%)*	*4 (2%)*	*4 (3%)*	*4 (3%)*	*4 (5%)*	*0 (0%)*
Increased 4 Levels:	*46 (13%)*	*38 (20%)*	*7 (4%)*	*41 (15%)*	*11 (6%)*	*36 (26%)*	*6 (4%)*	*8 (10%)*	*3 (3%)*
Increased 3 Levels:	*56 (15%)*	*32 (17%)*	*26 (14%)*	*39 (14%)*	*36 (19%)*	*28 (20%)*	*12 (8%)*	*15 (18%)*	*22 (20%)*
Increased 2 Levels:	*27 (7%)*	*10 (5%)*	*19 (10%)*	*23 (8%)*	*13 (7%)*	*10 (7%)*	*15 (10%)*	*2 (2%)*	*11 (10%)*
Increased 1 Level:	*80 (22%)*	*40 (21%)*	*41 (22%)*	*48 (17%)*	*47 (25%)*	*17 (12%)*	*33 (22%)*	*25 (30%)*	*24 (22%)*
No Increase:	147 (40%)	61 (32%)	92 (49%)	121 (43%)	76 (41%)	44 (32%)	83 (54%)	30 (36%)	50 (45%)
Total Sites:	**368**	**189**	**189**	**280**	**187**	**139**	**153**	**84**	**110**
Median Increase:	**1**	**1**	**1**	**1**	**1**	**2**	**0**	**1**	**1**

IMPROVEMENTS IN KEY PERFORMANCE MEASURES

The Arizona State University Center for Health Information and Research (ASU CHiR) analyzed the impact of the TI Program on specific performance measures using administrative data from September 2017 and September 2019. The team implemented a difference-in-difference approach, using National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS) certified software to compare member outcomes for TI beneficiaries (AHCCCS members with at least one encounter during the report period with a TI-participating provider) and non-TI beneficiaries (AHCCCS members that did not receive services or only received services from non-TI-participating providers in the report period).[6]

Figure 27 shows that, across a number of performance measures, TI beneficiaries experienced greater improvement in outcomes than non-TI beneficiaries, including most measures related to timely follow up after hospitalization. Participants largely attribute this to their policies and procedures for using ADT and other HIE alerts, a foundational requirement of TI. Many participants further developed processes to engage patients at time of admission, thus increasing successful contact and better coordination with hospital discharge planners. AHCCCS expects increased improvement for the TI Program participating providers in the remaining measures as all are aligned with DY 4 and DY 5 performance measures that drive participants' target-based incentives.

[6] Difference in Difference (DiD) is a statistical technique that compares the difference in average outcome in the treatment group (i.e. TI-beneficiaries) before and after the implementation of the TI program minus the difference in average outcome in the control group (i.e. non-TI beneficiaries) before and after the implementation of TI program.

Figure 27: Performance Outcomes For TI vs. Non-TI Beneficiaries

	Non-TI beneficiaries			TI beneficiaries			TI vs. Non-TI beneficiaries
Measure Description	**2017**	**2019**	**% Change**	**2017**	**2019**	**% Change**	**Difference- in-Difference**
Diabetes Screening for People with Schizophrenia or Bipolar Disorder who are Using Antipsychotic Medications (SSD)	55.72%	57.51%	1.78%	58.73%	62.03%	3.30%	**1.52%**
Metabolic Monitoring for Children and Adolescents on Antipsychotics (APM)	39.82%	36.67%	-3.15%	41.26%	41.30%	0.03%	**3.18%**
Follow-Up after Hospitalization for Mental Illness: 6-17 Years (7-day)	57.22%	55.92%	-1.30%	72.13%	70.79%	-1.34%	**-0.04%**
Follow-Up after Hospitalization for Mental Illness: 6-17 Years (30-day)	70.00%	70.14%	0.14%	87.82%	88.43%	0.61%	**0.47%**
Follow-Up after Hospitalization for Mental Illness: 18 and Older (7-day)	30.97%	24.76%	-6.21%	43.72%	45.12%	1.40%	**7.61%**
Follow-Up after Hospitalization for Mental Illness: 18 and Older (30-day)	45.35%	36.96%	-8.39%	66.82%	67.00%	0.17%	**8.57%**
Follow-Up after Emergency Department Visit for Mental Illness: 6-17 Years (7-day)	29.05%	30.66%	1.60%	76.48%	75.76%	-0.71%	**-2.32%**
Follow-Up after Emergency Department Visit for Mental Illness: 6-17 Years (30-day)	41.22%	41.61%	0.39%	84.43%	87.17%	2.74%	**2.35%**
Follow-Up after Emergency Department Visit for Mental Illness: 18 and Older (7-day)	17.84%	15.45%	-2.39%	46.30%	45.09%	-1.21%	**1.17%**
Follow-Up after Emergency Department Visit for Mental Illness: 18 and Older (30-day)	24.50%	24.28%	-0.22%	56.18%	54.29%	-1.88%	**-1.66%**
Follow-Up after Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence: 18 and Older (7-day)	7.44%	5.43%	-2.01%	27.44%	24.84%	-2.60%	**-0.58%**
Follow-Up after Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence: 18 and Older (30-day)	9.37%	8.08%	-1.30%	35.44%	33.61%	-1.83%	**-0.53%**
Well-Child Visits (Ages 3-6 Years): 1 or More Well-Child	57.40%	57.71%	0.31%	75.57%	77.64%	2.06%	**1.76%**
Adolescent Well-Care Visits: At Least 1 Comprehensive	36.36%	36.95%	0.59%	52.68%	56.47%	3.79%	**3.21%**

OVERVIEW OF TI PROGRAM 2.0

While the TI Program has helped AHCCCS providers achieve impressive results, much work remains in order to fully transform Arizona's delivery system into an integrated whole-person health care system.

In order to continue progress toward delivery system and payment reform and to bring the current TI Program initiatives to scale, AHCCCS seeks waiver authority to extend the TI Program from 2021 through 2026. This proposal, known as the TI Program 2.0, will include two distinct participant cohorts – "extension" and "expansion" cohorts.

The "extension" cohort will include current TI Program providers. As the movement to integrate behavioral health and primary care continues for this cohort, their next step will be to incorporate non-clinical or social needs into the delivery system to provide a truly holistic, person-centered approach to care. Therefore, TI Program projects for this cohort will be designed to foster collaboration between medical providers and Community Based Organizations (CBOs), particularly those crucial to addressing social risk factors such as housing, food, employment, social isolation, and non-medical transportation for AHCCCS members. The incentive payments for this group of participants will be based on the achievement of outcome measures, continuation of high priority promising practices, and establishment of additional systems and infrastructure that supports advancing whole person care.

The "expansion" cohort will include primary care practices, behavioral health providers, and integrated clinics that volunteer to participate in the TI Program 2.0 with no prior TI participation. Eligibility requirements will include a certified EHR that is capable of bi-directional data exchange, minimum volume thresholds, and a commitment to participate in the Learning/Quality Improvement Collaborative established to support TI program participants. The structure of the Program for this cohort will be modeled on the 2016 waiver TI Program with updates and revisions to the original core components and milestones, and incentives in the later years based on performance measures.

AHCCCS will develop a concept paper in 2021 that outlines the details for the TI Program 2.0, and publish this document on its website.

Traditional Healing Services

AHCCCS is seeking waiver authority to reimburse traditional healing services provided in, at, or as part of services offered by facilities and clinics operated by the Indian Health Service, a tribe or tribal organization, or an Urban Indian health program (I/T/U). AHCCCS is seeking to claim FFP for these services when provided by I/T/U facilities at the 100 percent Federal Medical Assistance Percentage (FMAP) pursuant to Sections 1903(a)(1) and 1905(b) of the Act. The purpose of this Demonstration is to provide culturally appropriate options for AHCCCS members to maintain and sustain health and wellness through traditional healing services made available at, in, or as part of services offered by facilities and clinics that provide or arrange traditional healing services.

Tribes in Arizona have incorporated traditional healing practices into their existing health care delivery system. These services, while beneficial to members, have not been approved as covered Medicaid services, despite it being promoted in the Indian Health Care Improvement Act and by IHS. Over the years, the provision of traditional health services has been supported primarily through tribal funds, various pilot programs, grants, and individual personal resources. The tribes have long recognized the contribution of

DEFINITIONS

This section defines the terms used for the proposed traditional healing Demonstration.

Facility: Indian Health Service, Tribal Title I. or Title V. P.L.93- 638 Facility, and Urban Indian Health Organizations (I/T/U) located on and off Tribal lands.

Medical Provider: Licensed and/or credentialed healthcare professional responsible for the medical care of the member.

Traditional Healing: A system of culturally appropriate healing methods developed and practiced by generations of Tribal healers who apply methods for physical, mental and emotional healing. The array of practices provided by traditional healers shall be in accordance with an individual tribe's established and accepted traditional healing practices as identified by the Qualifying Entity.

healers and practitioners who are valued for their role in aiding the healing of the spirit, mind, and body. The goal of this Demonstration is to improve the health outcomes of AHCCCS members by making traditional healing services available in, at, or as part of services offered by I/T/U facilities and clinics in a complementary fashion with allopathic medicine (i.e. Western medical approaches).

IHS was established in 1954 and so began the efforts to increase access to conventional Western medical services in tribal communities. Yet long before this system of medical practice was made available, and up to the present time, traditional American Indian healing practices have been a part of the lifeways of the twenty-two tribal nations that reside in the state of Arizona. Several tribes, IHS, and Urban Indian health facilities continue to make traditional healing services available as a component of what is now called integrated service delivery. From an American Indian perspective, traditional healing practices are a fundamental element of Indian health care that helps patients achieve wellness and healing for a specific physical or mental ailment or affliction and to restore emotional balance and one's relationship to the environment. AHCCCS recognizes that reimbursement for these services in a manner that retains the sanctity of these ancient practices is important. The tribes have advised AHCCCS that traditional healing services will aid care coordination and help AHCCCS members achieve improved health outcomes.

Traditional Healing Provider: Individual recognized by the Qualifying Entity to provide traditional healing services that is a contractor or employee of the Facility.

Qualifying Entity: Facility governing body or its tribal governing body responsible to define and endorse traditional healers and the services they perform.

Covered Traditional Healing Services: The coverage of traditional healing services will be limited to the practices approved by the facility governing body to be performed and billed by the facility. As with many Medicaid covered services, traditional healing services should be part of a comprehensive plan of health care that includes specific individualized goals.

Qualified Traditional Healing Providers: For the purpose of this waiver, a qualified traditional healing provider is an individual endorsed by the Qualifying Entity to provide traditional healing services as reflected in an official signed and dated endorsement letter by the Qualifying Entity stating that the traditional healing provider meets all qualifications to provide traditional healing services.

Upon approval by CMS, the AHCCCS Medical Policy Manual (AMPM) will require the Indian health care or 638 tribal governing bodies to adopt policies and procedures and determine the array of covered traditional healing services that may be offered. The covered traditional services, limitations, and exclusions shall be described by each facility (working with each tribe they primarily serve) seeking to participate in this program.

It is recognized that the training and qualifications of traditional healing providers may vary widely depending on the tribe. For this reason, the array of practices provided by traditional healers shall be in accordance with an individual tribe's established and accepted traditional healing practices as identified by the Qualifying Entity. A facility or clinic governing body may serve as the Qualifying Entity or the tribe(s) served by the facility may choose to designate another governing body as its Qualifying Entity to define what constitutes as a traditional healing service. In addition, the Qualifying Entity will be responsible for identifying the type of practitioner, including educational or cultural requirements traditional healing providers must possess. Upon approval of this expenditure authority AHCCCS will claim traditional healing service at 100 percent FMAP when the service is provided in either an outpatient or inpatient setting by the IHS, a tribal organization with a Section 638 agreement, or an Urban Indian Health Center. Traditional healing services must be included in the member's care plan in order to be deemed medically necessary.

In 1978, with the passage of the American Indian Religious Freedom Act, the Indian Health Service (IHS) policy required the Service Units to comply with patients' requests for the services of native practitioners, to provide a private space to accommodate the services, and required the staff to be respectful of individual religious and native beliefs. In 1994, IHS updated the policy, indicating that IHS would facilitate access to traditional medicine practices recognizing that traditional health care practices for many of the patients contribute to the healing process and help patients maintain their health and wellness. The Indian Health Care Improvement Act (U.S. Code Title 25 Chapter 18) contains several sections noting the acceptance and respect for these practices, specifically incorporating them into various preventative service categories including behavioral health services and

treatment. 25 U.S.C. § 1680u clarifies that, "[a]lthough the Secretary may promote traditional health care practices, consistent with the Service standards for the provision of health care, health promotion, and disease prevention under this chapter, the United States is not liable for any provision of traditional health care practices pursuant to this chapter that results in damage, injury, or death to a patient. Nothing in this subsection shall be construed to alter any liability or other obligation that the United States may otherwise have under the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450 et seq.) or this chapter." With nearly half of the IHS services provided by tribes, incorporating traditional health services benefits into Medicaid services will further enhance Indian health care in accordance with these long standing IHS policies.

REIMBURSEMENT METHODOLOGY FOR TRADITIONAL HEALING SERVICES

Traditional healing services must be part of a comprehensive plan of health care that includes specific individualized goals. AHCCCS requests expenditure authority to claim FFP for these services when provided by the I/T/U facilities at 100 percent FMAP.

AHCCCS would reimburse the I/T/U facilities and clinics for covered traditional healing services provided in an outpatient setting at the outpatient All-Inclusive Rate (AIR) published in the Federal Register that is in effect on the date of service for Medicaid outpatient services, whether the traditional healing service is provided on or off reservation.

A traditional healing service provided in an inpatient setting, when provided in conjunction with a separate qualifying Medicaid inpatient stay, would be reimbursed as a professional fee. Reimbursable professional fees for traditional healing services would be identified based upon a HCPCS code for traditional services. Payment as a professional fee is established based on that code whether the traditional healing service is provided inpatient, at an outpatient clinic, or whether the traditional healing service is provided on or off reservation.

In order to reimburse for services, the following arrangements between the Traditional Health Provider and the Facility must be in place:

- The array of traditional healing services to be available to Medicaid eligible members would need to be authorized and provided by the Facility.
- Traditional healing policies and procedures would be developed by the Facility governing body.
- The Facility would be responsible for establishing the traditional healing services to be utilized or arranged with a qualified traditional healer (as either an employee or contractor) to provide the services.
- The Facility would be responsible for having policies in place by which traditional healing and the clinical and preventive allopathic health care providers consult each other and share treatment information for members.
- The Facility system of performance evaluation or a customer service satisfaction survey that provides information on the effectiveness of the traditional healing program would be required.

WAIVER AND EXPENDITURE AUTHORITIES NECESSARY TO AUTHORIZE THIS DEMONSTRATION

Waiver Authority Requested	Brief Description
Section 1902(a)(B) of the Social Security Act and 42 CFR 440.240 (comparability)	To the extent necessary to enable the State to reimburse for traditional healing services for American Indian and Native Alaska members provided in, at, or as a part of services offered by facilities and clinics operated by the Indian Health Service, a tribe or tribal organization, or an Urban Indian health program.
Expenditure authority for services not covered under Section 1905 of the Social Security Act	To the extent necessary to enable the State to claim FFP for the cost of traditional healing services provided in, at, or as a part of services offered by facilities and clinics operated by the Indian Health Service, a tribe or tribal organization, or an Urban Indian health program and receive 100 percent FMAP.

Tribal Dental Benefit (House Bill 2244; ARS 36-2907 and 36-2939)

Oral health care is essential to a person's overall health and quality of life. A growing body of evidence has linked oral health, particularly periodontal (gum) disease, to several chronic diseases, including diabetes, heart disease, and stroke.[7] Recognizing the importance of oral health care, Governor Ducey, in partnership with the Arizona legislature, restored the limited AHCCCS coverage for dental benefits that were eliminated during the Great Recession. As part of the 2016 legislative session, the Arizona Legislature, through HB 2704, authorized AHCCCS to provide a limited dental benefit of $1,000 per member per contract year for individuals enrolled in ALTCS. In 2017, Governor Ducey approved the 2018 fiscal year budget which restored the emergency dental benefit for adult AHCCCS members. The adult emergency dental benefit was capped at $1,000 per member per contract year. In 2020, Governor Ducey and the Arizona Legislature, through HB 2244 (ARS 36-2907 and 36-2939), authorized AHCCCS to seek approval from CMS to reimburse Indian Health Services and Tribal 638 facilities to cover the cost of adult dental services that are eligible for 100 percent FMAP, that are in excess of the $1,000 emergency dental limit for adult members in Arizona's State Plan and $1,000 dental limit for individuals age 21 or older enrolled in the ALTCS program.

According to the Centers for Disease Control and Prevention, non-Hispanic blacks, Hispanics, and American Indians and Alaska Natives generally have the poorest oral health of any racial and ethnic groups in the United States.[8] AI/AN adults suffer from untreated dental caries at twice the prevalence of untreated caries in the general U.S. population.[9] Among 35-49 year olds, 27 percent of the general U.S. population has untreated caries compared to 64 percent of AI/AN dental patients. The relative geographic isolation of tribal populations and the inability to attract dentists to practice in IHS or tribal health facilities in rural and frontier areas are significant contributors to these oral health disparities. A study by the U.S. Government Accountability Office (GAO) reported 27 percent of the total positions for dentists were vacant in the eight areas in which IHS provides substantial direct care to the AI/AN population, ranging from 14 percent in the Phoenix IHS Area to 34 percent in the Navajo IHS Area.[10]

The purpose of this waiver request is to improve oral health among tribal members and to reduce the disproportionate number of AI/AN population affected by oral disease. Furthermore, this waiver authority will provide the IHS and Tribal 638 facilities with needed financial resources to attract dentists to practice on tribal reservations and rural areas.

The Arizona AI/AN population is approximately 385,000.[11] Almost half of that population is enrolled in AHCCCS, with approximately 75 percent of the AHCCCS eligible AI/AN population enrolled in the AIHP. In FFY 2019, 9,310 adult AI/AN AHCCCS members over the age of 21 received AHCCCS covered dental services in IHS or Tribal 638 facilities. AHCCCS estimates that 11,000 adult AI/AN members will utilize dental services under this Demonstration in FFY 2021. Furthermore, AHCCCS estimates that approximately 150 to 200 members will exceed the $1,000 limit for emergency and ALTCS dental in FFY 2021.

This proposed tribal dental benefit Demonstration would be effective on October 1, 2021 or when approved by CMS whichever is later.

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[11] U.S. Census Bureau QuickFacts: Arizona. (2020). Census Bureau QuickFacts. https://www.census.gov/quickfacts/AZ

WAIVER AND EXPENDITURE AUTHORITIES NECESSARY TO AUTHORIZE THIS DEMONSTRATION

Waiver Authority Requested	Brief Description
Section 1902(a)(B) of the Social Security Act and 42 CFR 440.240 (comparability)	To the extent necessary to enable the State to reimburse for dental services for American Indian and Alaska Native members provided in, at, or as a part of services offered by facilities and clinics operated by the Indian Health Service or a tribe or tribal organization.
Expenditure authority for services not covered under Section 1905 of the Social Security Act	To the extent necessary to enable the State to claim FFP to cover the cost of adult dental services that are eligible for 100 percent FMAP, that are in excess of the $1,000 emergency dental limit for adult members in Arizona's State Plan and $1,000 dental limit for individuals age 21 or older enrolled in the ALTCS program.

VI. GOALS AND OBJECTIVES OF THE PROPOSED DEMONSTRATION RENEWAL

AHCCCS proposes the following research hypotheses and initial design approach for Arizona's Demonstration renewal.

Objectives	Proposed Hypotheses	Potential Approaches
AHCCCS Complete Care (ACC)		
The ACC Demonstration will provide quality healthcare to members, ensuring access to care for members, maintaining or improving member satisfaction with care, and continuing to operate as a cost-effective managed care delivery model.	Health plans will encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.	Data will be drawn from a variety of sources including: ● Member survey ● State eligibility and enrollment data ● Claims/encounter data ● Administrative program data(PMMIS) ● T-MSIS ● National/regional benchmarks ● Key informant interviews & focus groups
	Access to care will be maintained and enhanced as a result of the integration of behavioral and physical care.	
	Quality of care will be maintained or enhanced as a result of the integration of behavioral and physical care.	
	Member self-assessed health outcomes will be maintained or improved as a result of the integration of behavioral and physical care.	
	Member satisfaction with the health care received will be maintained or will increase as a result of the integration of behavioral and physical care.	
	The ACC program will provide cost-effective care.	

Arizona Long Term Care System (ALTCS)		
The ALTCS Demonstration will provide quality healthcare to members with needs for LTSS, ensuring access to care for members, maintaining or improving member satisfaction with care, and will continue to operate as a cost-effective managed care delivery model.	ALTCS health plans will encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.	Data will be drawn from a variety of sources including: ● Member survey ● State eligibility and enrollment data ● Claims/encounter data ● Administrative program data(PMMIS) ● T-MSIS ● National/regional benchmarks ● Key informant interviews & focus groups
	Access to care will be maintained or expanded over the waiver Demonstration.	
	Quality of care will be maintained or enhanced over the waiver Demonstration.	
	Health outcomes for members enrolled in ALTCS will be maintained or improved during the Demonstration.	
	Quality of life for members will be maintained or enhanced over the waiver Demonstration.	
	ALTCS will provide cost-effective care.	
Verbal Consent In Lieu Of Written Signature For Person Centered Service Plans For ALTCS Members		
Obtaining verbal consent in lieu of written signature when identity can be reliably established for all LTSS care planning and treatment documentation will ensure continued access to care for ALTCS members and maintain or improve member satisfaction with care.	Access to care will be maintained or increased during the Demonstration.	Data will be drawn from a variety of sources including: ● Member survey ● State eligibility and enrollment data ● Claims/encounter data ● Administrative program data(PMMIS) ● T-MSIS ● National/regional benchmarks ● Key informant interviews & focus groups
	Implementation of verbal consent in lieu of written signature will yield improved member satisfaction.	

Comprehensive Medical and Dental Program (CMDP)		
The CMDP Demonstration will provide quality healthcare to eligible foster children, ensuring access to care for members, maintaining or improving member satisfaction with care, and will continue to operate as a cost-effective managed care delivery model.	CMDP will encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.	Data will be drawn from a variety of sources including: ● Member survey ● State eligibility and enrollment data ● Claims/encounter data ● Administrative program data(PMMIS) ● T-MSIS ● National/regional benchmarks ● Key informant interviews & focus groups
	Access to care will be maintained or increased during the Demonstration.	
	Quality of care for members enrolled in CMDP will be maintained or enhanced during the Demonstration.	
	Health outcomes for members enrolled in CMDP will be maintained or improved during the Demonstration.	
	Member satisfaction with the health care received will be maintained or will increase during the Demonstration.	
	CMDP will provide cost-effective care.	
Regional Behavioral Health Authorities (RBHA)		
The RBHA demonstration will provide quality healthcare to members with behavioral health needs, ensuring access to care for members, maintaining or improving member satisfaction with care, and will continue to operate as a cost-effective managed care delivery model.	RBHAs will encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.	Data will be drawn from a variety of sources including: ● Member survey ● State eligibility and enrollment data ● Claims/encounter data ● Administrative program data(PMMIS) ● T-MSIS ● National/regional benchmarks ● Key informant interviews & focus groups
	Access to care for members with an SMI enrolled in a RBHA will be maintained or increased during the Demonstration.	
	Quality of care for members with an SMI enrolled in a RBHA will be maintained or enhanced during the Demonstration.	
	Health outcomes for members with an SMI enrolled in a RBHA will be maintained or improved during the Demonstration.	
	Member satisfaction in RBHA health plans will be maintained or improved over the waiver Demonstration.	
	RBHAs will provide cost-effective care for members with an SMI.	

Targeted Investments Program		
The Targeted Investments Demonstration will continue to reduce fragmentation that occurs between acute care and behavioral health care, increase efficiencies in service delivery for members with behavioral health needs, and improve health outcomes for the affected populations.	The TI Program will improve physical and behavioral health care integration for children. The TI Program will improve physical and behavioral health care integration for adults. The TI Program will improve care coordination for AHCCCS-enrolled adults released from criminal justice facilities. The TI Program will provide cost-effective care. Providers will increase the level of care integration over the course of the Demonstration. Providers will conduct care coordination activities. Providers will identify members' social service needs and successfully connect them to community based organizations that can address those needs.	Data will be drawn from a variety of sources including: ● Member survey ● State eligibility and enrollment data ● Claims/encounter data ● Administrative program data(PMMIS) ● T-MSIS ● National/regional benchmarks ● Key informant interviews & focus groups
Supplemental Payments to IHS and 638 Providers		
Ensure the viability of the IHS and 638 systems for the provision of care and maintain or improve access to care to American Indians.	Implementing uncompensated care payments to IHS and 638 facilities will allow staffing levels to be maintained or increased. Uncompensated care payments to IHS and 638 facilities will increase capacity to provide care and services resulting in AHCCCS IHS members receiving health care services.	Data will be drawn from a variety of sources including: ● Member survey ● State eligibility and enrollment data ● Claims/encounter data ● Administrative program data(PMMIS) ● T-MSIS ● National/regional benchmarks ● Key informant interviews & focus groups

Tribal Dental Benefit (HB 2244; ARS 36-2907 and ARS 36-2939)		
AHCCCS members receiving services in IHS and 638 facilities will have improved access to dental services while maintaining or improving member outcomes/experience.	The rate of dental visits will be maintained or improved in IHS and 638 facilities for AHCCCS members.	Data will be drawn from a variety of sources including: ● Member survey ● State eligibility and enrollment data ● Claims/encounter data ● Administrative program data(PMMIS) ● T-MSIS ● National/regional benchmarks ● Key informant interviews & focus groups
	Health outcomes of members will be maintained or improved.	
	Oral health disparities will be reduced for American Indian and Alaska Native members.	
Traditional Healing Services		
Traditional healing will enhance access to care for American Indian members while maintaining or improving member health and satisfaction with care.	Implementation of traditional healing services will yield improved member satisfaction.	Data will be drawn from a variety of sources including: ● Member survey ● State eligibility and enrollment data ● Claims/encounter data ● Administrative program data(PMMIS) ● T-MSIS ● National/regional benchmarks ● Key informant interviews & focus groups
	Traditional healing services will improve the health outcomes of members.	
	Availability of traditional healing services in allopathic primary care settings will increase the utilization of primary care services.	

AHCCCS Works		
The AHCCCS Works program will increase employment, employment opportunities, and activities to enhance employability, increase financial independence, and improve health outcomes of AHCCCS members.	The AHCCCS Works program will increase the rate of "able bodied adults" that are employed.	Data will be drawn from a variety of sources including: ● Member survey ● State eligibility and enrollment data ● Claims/encounter data ● Administrative program data(PMMIS) ● T-MSIS ● National/regional benchmarks ● Key informant interviews & focus groups
	The AHCCCS Works program will increase the rate of "able bodied adults" that are actively seeking employment.	
	The AHCCCS Works program will increase the rate of "able bodied adults" that are engaged in training or educational activities.	
	Current and former AHCCCS members subject to the community engagement requirement will have better health outcomes than members not subject to the requirement.	
	The AHCCCS Works program will increase the average household income of "able bodied adults" that are employed.	
Waiver of Prior Quarter Coverage		
The waiver of Prior Quarter Coverage will encourage members to obtain and continuously maintain/retain health coverage.	The implementation of the proposal will not adversely affect access to care.	Data will be drawn from a variety of sources including: ● Member survey ● State eligibility and enrollment data ● Claims/encounter data ● Administrative program data(PMMIS) ● T-MSIS ● National/regional benchmarks ● Key informant interviews & focus groups
	The implementation of the proposal will not reduce member satisfaction.	
	The implementation of the proposal will not adversely affect health outcomes	

VII. REQUESTED WAIVER AND EXPENDITURE AUTHORITIES

The following table summarizes the current Demonstration waiver and expenditure authorities and whether AHCCCS is requesting to continue these authorities in this renewal request.

Waiver/ CNOM	Title	Summarized Description	Status Under Extension
Waiver Authorities			
1.	**Proper and Efficient Administration** **Section 1902(a)(4) (42 CFR 438.52, 438.56)**	Permits AHCCCS to limit choice of managed care plans to a single managed care organization for individuals enrolled in the ALTCS, CMDP and RBHA programs (as detailed above). This authority also allows AHCCCS to restrict member disenrollment based on 42 CFR 438.56(d)(2)(v), which provides for disenrollment for causes including but not limited to, poor quality of care, lack of access to services covered under the contract, or lack of access to providers experienced in dealing with the enrollee's health care needs.	**Continue**
2.	**Eligibility Based on Institutional Status** **Section 1902(a)(10)(A) (ii)(V) (42 CFR 435.217 and 435.236)**	Allows AHCCCS to exclude hospitalized individuals and others in medical institutions for more than 30 days from automatically becoming eligible for long term care services if they do not meet the level of care standard for long term care. AHCCCS would otherwise be required to provide long term care services to acute care individuals with income up to 300% of the FPL who may not be at risk of institutionalization but are in the hospital for more than 30 days.	**Continue**
3.	**Amount, Duration, Scope of Services** **Section 1902(a)(10)(B) (42 CFR 440.240 and 440.230)**	Permits the State to offer different/additional services based on different care arrangements for members receiving Spousal Caregiver Services. This authority also permits the State to offer coverage through MCOs that provide additional or different benefits to enrollees, than those otherwise available for other eligible individuals.	**Continue**

4.	**Disproportionate Share Hospital (DSH) Payments** **Section 1902(a)(13) insofar as it incorporates Section 1923**	Allowed AHCCCS to operate Disproportionate Share Hospital (DSH) program under the waiver instead of the State Plan. On October 1, 2017, AHCCCS transferred the DSH program to the Medicaid State Plan. Therefore, this authority is no longer needed.	**Discontinue**
5.	**Estate Recovery** **Section 1902(a)(18) (42 CFR 433.36)**	Relieves AHCCCS from creating an estate recovery program for acute care enrollees age 55 and older who receive long term care services.	**Continue**
6.	**Freedom of Choice** **Section 1902(a)(23)(A) (42 CFR 431.51)**	Permits AHCCCS to operate a statewide mandatory managed care system. AHCCCS members are able to choose from at least two primary care physicians within their health care plan. Other protections are in place to assure quality and continuity of care through policy, contract and standards. Additionally, this authority enables AHCCCS to impose a limitation on providers on charges associated with non-covered activities.	**Continue**
7.	**Drug Utilization Review** **Section 1902(a) (54) insofar as it incorporates Section 1927(g) (42 CFR 456.700 through 456.725 and 438.3(s) (4) and (5))**	Relieves the State from the requirements of Section 1927(g) of the Act pertaining to drug use review.	**Continue**
8.	**Premiums** **Section 1902(a) (14) insofar as it incorporates Sections 1916 and 1916A**	Allows AHCCCS to impose monthly premiums for adult members enrolled in AHCCCS CARE. The State has not implemented AHCCCS CARE and does not intend to include the AHCCCS CARE program under this waiver renewal request; therefore this authority is no longer required.	**Discontinue**

9.	**Comparability** **Section 1902(a)(17)**	Enables AHCCCS to vary the premiums and cost-sharing for members enrolled in the AHCCCS CARE program. The State has not implemented AHCCCS CARE and does not intend to include the AHCCCS CARE program under this waiver renewal request; therefore this authority is no longer required.	**Discontinue**
10.	**Provision of Medical Assistance** **1902(a)(8) and (a)(10)**	Allows AHCCCS to suspend eligibility for, and not make medical assistance available to, members subject to the AHCCCS Works community engagement requirements who fail to comply with those requirements.	**Continue**
11.	**Eligibility** **Section 1902(a)(10)**	Allows the AHCCCS to impose the AHCCCS Works community engagement and associated reporting requirements as a condition of eligibility.	**Continue**
12.	**Retroactive Eligibility** **Section 1902(a)(10) and (a)(34)**	Permits the State to limit retroactive coverage to the month of application for AHCCCS members, except for a pregnant woman (including during the 60-day period beginning on the last day of the pregnancy), an infant under age 1, or a child under age 19.	**Continue**
Expenditure Authorities			
Expenditures Related to Administrative Simplification and Delivery Systems			
1.	**MCO Requirements (Companion to Waiver #1)**	Allows the State to claim as medical assistance payments to MCOs who do not meet requirements of 1932(a)(3) (freedom of choice of MCOs) to operate one MCO for individuals enrolled in ALTCS, CMDP, and RBHA.	**Continue**
2.	**MCO Requirements (Companion to Waiver #1)**	Allows AHCCCS to automatically re-enroll a member into the same health plan as was previously enrolled if the member lost eligibility within 90 days. AHCCCS would otherwise only have two months to re-enroll a member into the same health plan pursuant to 42 CFR 438.56(g).	**Continue**

3.	**MCO Requirements**	Permits AHCCCS to contract with managed care entities that do not provide for payment for Indian health care providers as specified in Section 1932(h) of the Act, when such services are not included within the scope of the managed care contract. In addition, this authority permits AHCCCS to make direct payments to IHS or Tribal 638 providers, which are offset from the managed care capitation rate.	**Continue**
4.	**Outpatient Drugs (Companion to Waiver #7)**	Permits AHCCCS to claim federal financial participation for outpatient drugs which are not otherwise allowable under Section 1903(i)(10) of the Act that have not undergone a drug utilization review.	**Continue**
5.	**Direct Payments to Critical Access Hospitals**	Permits direct payments to Critical Access Hospitals (CAH) for services provided to AHCCCS enrollees in the Acute Care and ALTCS managed care programs that are not consistent with the requirements of 42 CFR 438.60.	**Continue**
6.	**Fee-For-Service Upper Payment Limit**	Permits AHCCCS to claim federal financial participation for items and services provided to AHCCCS fee-for-service member that exceed the amounts allowable under Section 1902(a)(30)(A) of the Act and the upper payment limitation and actual cost requirements of 42 CFR 447.250 through 447.280 (regarding payments for inpatient hospital and long-term care facility services), 447.300 through 447.321 (regarding payment methods for other institutional and non-institutional services) and 447.512 through 447.518(b) regarding payment for drugs) so long as those expenditures are in accordance with Special Term and Condition (STC) 91 entitled "Applicability of Fee-for-Service Upper Payment Limit."	**Continue**
7.	**Disproportionate Share Hospital** **(Companion to Waiver #4)**	Permits expenditures for inpatient hospital services that take into account the situation of hospitals with a disproportionate share of low-income patients but are not allowable under Sections 1902(a)(13)(A) and 1923 of the Act, but are in accordance with the provisions for disproportionate share hospital (DSH) payments that are described in the STCs. On October 1, 2017, AHCCCS transferred the DSH program to the Medicaid State Plan. Therefore, this authority is no longer needed.	**Discontinue**

8.	**HCBS Alternative Residential Settings**	Permits the State to claim as medical assistance expenditures for HCBS through ALTCS for those over 18 who reside in Alternative Residential Settings classified as residential Behavioral Health facilities. The primary focus of a licensed Behavioral Health Residential Facility (BHRF) is to provide clinical interventions with minimal personal care support, to treat a behavioral health issue(s) while promoting resident independence to transition into their own housing. Arizona's HCBS Rules Assessment concluded that BHRFs are clinical, treatment-based settings and transitional in nature, and therefore cannot be considered a HCBS. Therefore, BHRFs will be re-classified as an acute care behavioral health setting. However, BHRFs will continue to be available in the array of covered behavioral health benefits for ALTCS members.	**Modification**
Expenditures Related to Expansion of Existing Eligibility Groups based on Eligibility Simplification			
9a.	**ALTCS Income Disregard**	Permits AHCCCS to claim federal financial participation for medical assistance furnished to ALTCS enrollees who are eligible only as a result of the disregard from eligibility of income currently excluded under section 1612(b) of the Act, and medical assistance that would not be allowable for some of those enrollees but for the disregard of such income from post-eligibility calculations.	**Continue**
9b.	**300% of Federal Benefit Rate**	Permits AHCCCS to claim federal financial participation for medical assistance furnished to ALTCS enrollees who are financially eligible with income equal to or less than 300 percent of the Federal Benefit Rate and who are eligible for ALTCS based on the functional, medical, nursing, and social needs of the individual.	**Continue**
9c.	**Children/ Spouses in Separation**	Permits AHCCCS to claim federal financial participation for medical assistance furnished to some dependent children or spouses who qualify for ALTCS based on a disregard of income and resources of legally responsible relatives or spouses during the month of separation from those relatives or spouses.	**Continue**

9d.	**QMB, SLMB, QI-1, SSI MAO, ISM income disregard**	Permits AHCCCS to claim federal financial participation for medical assistance furnished to individuals who are eligible as Qualified Medicare Beneficiary (QMB), Special Low Income Beneficiary (SLMB), Qualified Individuals-1(QI-1), or Supplemental Security Income Medical Assistance Only (SSI MAO) beneficiaries based only on a disregard of in-kind support and maintenance (ISM).	**Continue**
9e.	**SSI-MAO**	Permits AHCCCS to claim federal financial participation for medical assistance furnished to individuals who are eligible based only on an alternate budget calculation for ALTCS and SSI-MAO income eligibility determinations when spousal impoverishment requirements of Section 1924 of the Act do not apply or when the applicant/recipient is living with a minor dependent child.	**Continue**
9f.	**Disregard of Interest**	Permits AHCCCS to claim federal financial participation for medical assistance furnished to individuals who are eligible only based on the disregard of interest and dividend from resources, and are in the following eligibility groups: i. The Pickle Amendment Group under 42 CFR 435.135; ii. The Disabled Adult Child under Section 1634(c) of the Act; iii. Disabled Children under Section 1902(a)(10)(A)(i)(II) of the Act; and iv. The Disabled Widow/Widower group under Section 1634(d) of the Act.	**Continue**
9g.	**Disregard of Interest**	Permits AHCCCS to claim federal financial participation for medical assistance furnished to ALTCS enrollees under the eligibility group described in Section 1902(a)(10)(A)(ii)(V) of the Act that exceeds the amount that would be allowable except for a disregard of interest and dividend from the post eligibility calculations.	**Continue**
9h.	**Disregard of Excess Resources**	Permits AHCCCS to claim federal financial participation for medical assistance provided to individuals who would be eligible but for excess resources under the “Pickle Amendment,” Section 503 of Public Law 94-566; Section 1634(c) of the Act (disabled adult children); or Section 1634(b) of the Act (disabled widows and widowers).	**Continue**

9i.	**Disregard of Quarterly Income Totaling Less than $20**	Permits AHCCCS to claim federal financial participation for medical assistance that would not be allowable but for the disregard of quarterly income totaling less than $20 from the post-eligibility determination.	**Continue**
10.	**SSI Eligibility**	Allows AHCCCS to extend eligibility past the timeframes specific in 42 CFR §435.1003 for demonstration participants who lose SSI eligibility for a period of up to 2-months from the SSI termination effective date.	**Continue**
11.	**Medicare Part B Premiums**	Permits AHCCCS to pay for Medicare Part B premiums on behalf of individuals enrolled in ALTCS with income up to 300 percent of the FBR who are also eligible for Medicare, but do not qualify as a QMB, SLMB or QI; are eligible for Medicaid under a mandatory or optional Title XIX coverage group for the aged, blind, or disabled (SSI-MAO); are eligible for continued coverage under 42 CFR 435.1003; or are in the guaranteed enrollment period described in 42 CFR 435.212 and the State was paying their Part B premium before eligibility terminated.	**Continue**
12.	**ALTCS PAS**	Allows AHCCCS to extend ALTCS eligibility to individuals under the age of 65 who meet the applicable financial criteria but are not disabled, but who are found to be at risk of needing nursing facility services based on medical illness or intellectual disability on the preadmission screening instrument.	**Continue**
13.	**Home and Community Based Services**	Permits AHCCCS to claim federal financial participation for expenditures associated with the provision of HCBS to individuals enrolled in ALTCS with income levels up to 300 percent of the SSI income level, as well as individuals enrolled in the ALTCS Transitional program.	**Continue**

Other Expenditure Authorities Related to Arizona's Demonstration			
14.	**HCBS Spouses as Paid Caregivers**	Permits AHCCCS to claim federal financial participation for expenditures associated with the provision of paid caregiver services provided by spouses for eligible ALTCS members.	**Continue**
15.	**ALTCS Adult Dental Benefit**	Allows expenditures to provide certain dental services up to a cost of $1,000 per person annually to individuals age 21 or older enrolled in the Arizona Long Term Care System.	**Continue**
16.	**Safety Net Care Pool (SNCP)**	Permits Safety Net Care Pool (SNCP) payments to Phoenix Children's Hospital reflecting uncompensated care costs incurred by Phoenix Children's Hospital, on or before December 31, 2017, for medical services that are within the scope of the definition of "medical assistance" under 1905(a) of the Act, that are provided to Medicaid eligible or uninsured individuals and that exceed the amounts paid to the hospital pursuant to section 1923 of the Act. This authority to make SNCP payments to Phoenix Children's Hospital expired on December 31, 2017.	**Discontinue**
17.	**Hospital Presumptive Eligibility for Pregnant Women**	Allows expenditures for all state plan and Demonstration covered services for pregnant women during their hospital presumptive eligibility (HPE) period.	**Continue**
18.	**I.H.S./638 Uncompensated Care**	Permits payments to participating IHS and tribal 638 facilities for categories of care that were previously covered under the State Medicaid plan, furnished in or by such facilities.	**Continue**
19.	**Targeted Investments Program**	Allows expenditures to pay incentive payments to providers participating in the Targeted Investments Program as described in Arizona's Demonstration.	**Continue**
20.	**Targeted Investments Program**	Grants expenditure authority to AHCCCS to claim federal financial participation for expenditures made for certain designated state health programs (DSHP), not to exceed amounts specified in Arizona's Demonstration, for the Targeted Investments Program.	**Continue**

The table below summarizes the new authorities that AHCCCS is seeking under this waiver renewal proposal.

Proposed Demonstration	Waiver Authority Requested	Brief Description
Verbal Consent In Lieu Of Written Signature For Person Centered Service Plans For ALTCS Members	**Section 1915(c) of the Social Security Act and 42 CFR 441.301(c)(2)(ix)**	To the extent necessary to enable the State to waive requirements under home and community based service programs that require person-centered service plans to receive written consent from members and be signed by members and all providers responsible for its implementation and allow for verbal consent in lieu of written signature for up to 30 days for all care and treatment documentation when identity can be reliably established and documented in member's record.
Traditional Healing Services	**Section 1902(a)(B) of the Social Security Act and 42 CFR 440.240 (comparability)**	To the extent necessary to enable the State to reimburse for traditional healing services for American Indian and Native Alaska members provided in, at, or as a part of services offered by facilities and clinics operated by the Indian Health Service, a tribe or tribal organization, or an Urban Indian health program.
Traditional Healing Services	**Expenditure authority for services not covered under Section 1905 of the Social Security Act**	To the extent necessary to enable the State to claim Federal Financial Participation (FFP) at 100 percent FMAP for the cost of traditional healing services provided in, at, or as a part of services offered by facilities and clinics operated by the Indian Health Service, a tribe or tribal organization, or an Urban Indian health program.
Tribal Dental Benefit (HB 2244)	**Section 1902(a)(B) of the Social Security Act and 42 CFR 440.240 (comparability)**	To the extent necessary to enable the State to reimburse for dental services for American Indian and Native Alaska members provided in, at, or as a part of services offered by facilities and clinics operated by the Indian Health Service or a tribe or tribal organization.
Tribal Dental Benefit (HB 2244)	**Expenditure authority for services not covered under Section 1905 of the Social Security Act**	To the extent necessary to enable the State to claim FFP to cover the cost of adult dental services that are eligible for 100 percent FMAP, that are in excess of the $1,000 emergency dental limit for adult members in Arizona's State Plan and $1,000 dental limit for individuals age 21 or older enrolled in the ALTCS program.

VIII. BUDGET NEUTRALITY

Arizona's Demonstration is required to be budget-neutral, meaning that federal spending under the Demonstration cannot exceed what it would have been in absence of the waivers and expenditure authorities. Information regarding Arizona's Demonstration budget neutrality assessments for the projected renewal period can be found in **Appendix C.**

IX. PUBLIC NOTICE PROCESS

Pursuant to the terms and conditions that govern Arizona's Demonstration, Arizona must provide documentation of its compliance with Demonstration of Public Notice process (42 CFR 431.408), the tribal consultation requirements pursuant to Section 1902(a)(73) of the Act as amended by Section 5006(e) of the American Recovery and Reinvestment Act of 2009, and the tribal consultation requirements outlined in STC 13.

Public Website:
The Demonstration renewal request was posted on the AHCCCS website for public comment on October 2, 2020 at: www.azahcccs.gov/WaiverRenewal. The web page includes a summary of Arizona's Demonstration renewal request, the schedule (dates and times) of public forums across the state, this draft Demonstration renewal proposal, and budget neutrality worksheets. In addition to the website posting, AHCCCS is using social media accounts and electronic mail to notify interested parties about Arizona's Demonstration renewal proposal.

Publication of Public Notice in the Arizona Administrative Register:
On October 2, 2020, public notice of Arizona's Demonstration renewal request was published in the Arizona Administrative Register. The notice included a summary description of the Demonstration request, the locations, dates and times of the public hearings, instructions on how to submit comments and a link to where copies of the Demonstration application are available for public review and comments.

Stakeholder Meetings:
AHCCCS will present the details about Arizona's Demonstration renewal proposal during a virtual Tribal Consultation meeting on October 19, 2020, and will conduct three virtual public forum meetings. In addition, the Demonstration renewal proposal will be presented at the State Medicaid Advisory Committee (SMAC) meeting on October 21, 2020. Details regarding the public forum meetings can be found below.

Public Forum Meeting	Meeting Dates & Times	Meeting Web Link & Call-in Information
Waiver Public Forum Meeting #1-VIRTUAL ONLY	**Date:** October 14, 2020 **Time:** 1:30-3:30 p.m. (MST)	**Meeting Link:** https://ahcccs.zoom.us/s/95104437350?pwd=VEoyczlBcFJzeDd1dnY1Q1BQbW1sZz09 **Passcode:** AHCCCS1# **Call-in Information:** Dial (for higher quality, dial a number based on your current location): US: +1-408-638-0968; or +1- 669-900-6833; or +1- 253-215-8782; or +1- 346- 248- 7799; or +1- 312- 626- 6799; or +1 -646- 876-9923; or +1- 301- 715- 8592; or 877-853-5257 (Toll Free); or 888-475-4499 (Toll Free). **Webinar ID:** 951 0443 7350

Waiver Public Forum Meeting #2-VIRTUAL ONLY	**Date:** October 16, 2020 **Time**: 1:30-3:30 p.m. (MST)	**Meeting Link:** https://ahcccs.zoom.us/s/93579026861?pwd=QThoVkVqN1NXbXNsbmo1SnhZVkVuUT09 **Passcode:** AHCCCS2# **Call-in Information**: Dial(for higher quality, dial a number based on your current location): +1-253-215-8782; or +1- 346-248-7799; or +1- 408- 638-0968; or +1-669-900-6833; or +1-646-876-9923; or +1-301-715-8592; or +1-312-626-6799; or +1-877-853-5257 (Toll Free); or +1-888-475-4499 (Toll Free). **Webinar ID:** 930 8928 9712
Waiver Public Forum Meeting #3-VIRTUAL ONLY	**Date:** November 13,2020 **Time:** 1:30-3:30 p.m. (MST)	**Meeting Link:** https://ahcccs.zoom.us/s/93579026861?pwd=QThoVkVqN1NXbXNsbmo1SnhZVkVuUT09 **Passcode:** AHCCCS3# **Call-in Information:** Dial(for higher quality, dial a number based on your current location): +1-669-900-6833; or +1-253-215-8782; or +1-346-248-7799; or +1-408-638-0968; or +1-312-626-6799; or +1-646-876-9923; or +1-301-715-8592; or +1-888-475-4499 (Toll Free); or +1-877-853-5257 (Toll Free). **Webinar ID**: 935 7902 6861
State Medicaid Advisory Committee (SMAC) Meeting - VIRTUAL ONLY	**Date:** October 21, 2020 **Time:** 1-3 p.m. (MST)	**Meeting Link**: https://ahcccs.zoom.us/s/96486245677?pwd=YmQ2cFFmMUdsWmIvVmVvZEVKOVZ6Zz09 **Password:** 4F?0$2u@

		Call-in Information: Dial(for higher quality, dial a number based on your current location): +1-669-900-6833; or +1-253-215-8782; or +1-346-248-7799; or +1-408-638-0968; or +1-646-876-9923; or +1-301-715-8592; or +1-312-626-6799; or +1-888-475-4499 (Toll Free);or +1-877-853-5257 (Toll Free). **Webinar ID**: 964 8624 5677
Special Tribal Consultation-VIRTUAL ONLY	**Date**:October 19, 2020 **Time**:1-3 p.m. (MST)	**Meeting Registration Link**: https://ahcccs.zoom.us/webinar/register/WN_7PPYlgJ9QxqkdO5BL1U5cw **Call-in information:** 1-877-853-5257; or 1-888-475-4499 (US Toll-free). **Webinar ID**: 923 6300 7953

All public forum meetings will be held via webinar to promote social distancing and to mitigate the spread of COVID-19. The meetings will include video streaming and telephonic conference capabilities to ensure statewide accessibility. The public will have the opportunity to review and submit comment on the proposal at the public meetings and in writing via e-mail to waiverpublicinput@azahcccs.gov or by mail to AHCCCS, c/o Division of Community Advocacy and Intergovernmental Relations, 801 E. Jefferson Street, MD 4200, Phoenix, AZ 85034.

APPENDIX A:
ARIZONA SECTION 1115 WAIVER EVALUATION
INTERIM EVALUATION REPORT

Arizona Health Care Cost Containment System

Arizona Section 1115 Waiver Evaluation

Interim Evaluation Report

September 2020

—Draft Copy for CMS Review—

This demonstration is operated under a Section 1115 Research and Demonstration Waiver initially approved by the Centers for Medicare & Medicaid Services (CMS) on September 30, 2016.

HSAG HEALTH SERVICES ADVISORY GROUP

HSAG HEALTH SERVICES ADVISORY GROUP

Table of Contents

Commonly Used Abbreviations, Acronyms, and Definitions

The following is a list of abbreviations, acronyms, and definitions used throughout this report.

- Admission-Discharge-Transfer (ADT)
- Affordable Care Act (ACA)
- Alternative Payment Model (APM)
- American Community Surveys (ACS)
- Angiotensin Converting Enzyme (ACE)
- Angiotensin Receptor Blockers (ARB)
- Arizona Department of Health Services (ADHS)
- Arizona Health Care Cost Containment System (AHCCCS)
- AHCCCS Complete Care (ACC)
- AHCCCS Choice Accountability, Responsibility, and Engagement (CARE)
- Arizona Long Term Care System (ALTCS)
- Arizona State Immunization Information System (ASIIS)
- Arizona State University Center for Health Information and Research (ASU CHiR)
- Autism Spectrum Disorder (ASD)
- Centers for Medicare & Medicaid Services (CMS)
- Children's Health Insurance Program (CHIP)
- Children's Rehabilitation Services (CRS)
- Corrective Action Plan (CAP)
- Coronavirus Disease 2019 (COVID-19)
- Comprehensive Medical and Dental Program (CMDP)
- Department of Child Safety (DCS)
- Department of Economic Security/Division of Developmental Disabilities (DES/DDD)
- Designated State Health Programs (DSHPs)
- Developmentally Disabled (DD)
- Division of Behavioral Health Services (DBHS)
- Dual-Eligible Special Needs Plans (D-SNP)
- Elderly and Physically Disabled (EPD)
- Electronic Health Record (EHR)
- Emergency Department (ED)
- External Quality Review Organization (EQRO)
- Federal Fiscal Year (FFY)
- Federal Poverty Level (FPL)
- Fee-for-Service (FFS)

- Freedom to Work (FTW)
- Government Accountability Office (GAO)
- Geographic Service Areas (GSA)
- Healthcare Common Procedure Coding System (HCPCS)
- Healthcare Effectiveness Data and Information Set (HEDIS®)[1]
- Health-e-Arizona PLUS (HEAPlus)
- Health Information Exchange (HIE)
- Health Maintenance Organization (HMO)
- Health Services Advisory Group, Inc. (HSAG)
- Home- and Community-Based Services (HCBS)
- Human papillomavirus (HPV)
- Hypotheses (H)
- Integrated Practice Assessment Tool (IPAT)
- Integrated Public User Microdata Series (IPUMS)
- Intellectually and Developmentally Disabled (IDD)
- Institution for Mental Disease (IMD)
- Integrated Public Use Microdata Series (IPUMS)
- Learning Action Network (LAN)
- Long-Term Care (LTC)
- Long-Term Services and Support (LTSS)
- Managed Care Plans (MCPs)
- Managed Care Organization (MCO)
- Medication-Assisted Treatment (MAT)
- Mercy Maricopa Integrated Care (MMIC)
- Minimum Performance Standard (MPS)
- National Committee for Quality Assurance (NCQA)
- National Core Indicators (NCI)
- Opioid Use Disorder (OUD)
- Performance Improvement Projects (PIPs)
- Prepaid Medical Management Information System (PMMIS)
- Primary Care Practitioners (PCP)
- Prior Quarter Coverage (PQC)
- Quality Assessment and Performance Improvement (QAPI)
- Quality Improvement Collaborative (QIC)
- Research Questions (RQs)

[1] HEDIS is a registered trademark of NCQA.

- Regional Behavioral Health Authority (RBHA)
- Self-Directed Attendant Care (SDAC)
- Serious Mental Illness (SMI)
- Social Determinants of Health (SDOH)
- Special Terms and Conditions (STCs)
- Substance Use Disorder (SUD)
- Substance Abuse and Mental Health Services Administration (SAMHSA)
- Targeted Investments (TI)
- Tetanus-diphtheria (Tdap)
- United States (U.S.)
- Value-Based Purchasing (VBP)

Executive Summary

Medicaid is a joint federal-state program created by the Social Security Act of 1965 that provides free or low-cost health care coverage to 73 million qualifying low-income Americans, including pregnant women, families with children, people who are aged and have disability and, in some states, low-income adults without children. The Centers for Medicare & Medicaid Services (CMS) and federal law set standards for the minimum care states must provide Medicaid-eligible populations, while also giving states an opportunity to design and test their own strategies for providing and funding health care services to meet those standards. Section 1115 of the Social Security Act permits states to test innovative demonstration projects and evaluate state-specific policy changes with the overall goals of increasing efficiency and reducing costs without increasing Medicaid expenditures.

Pursuant to the Special Terms and Conditions (STCs) of Arizona's Section 1115 waiver demonstration, the Arizona Health Care Cost Containment System (AHCCCS) hired Health Services Advisory Group, Inc. (HSAG) as an independent evaluator to conduct a comprehensive evaluation of Arizona's Section 1115 waiver demonstration programs. The goal of this evaluation is to provide CMS and AHCCCS with an independent evaluation that ensures compliance with the Section 1115 waiver requirements, assist in both State and federal decision-making about the efficacy of the demonstration, and enable AHCCCS to further develop clinically appropriate, fiscally responsible, and effective Medicaid demonstration programs. This is the first of two Interim Evaluation Reports for the six programs implemented under the Arizona's Section 1115 waiver demonstration.[1]

Demonstration Overview

On September 30, 2016, CMS approved an extension of Arizona's Section 1115 Waiver for an additional five year period from October 1, 2016, through September 30, 2021 inclusive of the following six demonstrations[2]:

- AHCCCS Complete Care (ACC)
- Arizona Long Term Care System (ALTCS)
- Comprehensive Medical and Dental Program (CMDP)
- Regional Behavioral Health Authority (RBHA)
- Prior Quarter Coverage (PQC) Waiver
- Targeted Investments (TI) Program

Each of these programs, with the exception of PQC, covers a unique population or otherwise seeks to move AHCCCS toward whole person care including the integration of physical and behavioral health care services for all members.

The overarching goal of AHCCCS' Section 1115 waiver is to provide quality health care services delivered in a cost-effective manner through the employment of managed care models. The specific goals of AHCCCS' Section 1115 waiver are providing quality health care to members, ensuring access to care for members, maintaining or improving member satisfaction with care, and continuing to operate as a cost-effective managed care delivery

[1] Two additional components approved by CMS but have not been implemented are not included in this evaluation report: AHCCCS Works and AHCCCS Choice Accountability Responsibility Engagement (CARE) program.

[2] NORC. *Supportive Service Expansion for Individuals with Serious Mental Illness: A Case Study of Mercy Maricopa Integrated Care.* August 18, 2017. Available at: https://es.mercycareaz.org/assets/pdf/news/NORC-MercyMaricopa-CaseStudy.pdf. Accessed on: Apr 6, 2020.

model within the predicted budgetary expectations. Each of the separate demonstration components (ACC, ALTCS, CMDP, RBHA, PQC, and TI) incorporate key objectives that support the overarching goals of AHCCCS' Section 1115 waiver demonstration.

AHCCCS has embarked on a three-stage journey to provide integrated care for its members over the last 10 years: (1) administrative integration, (2) payer integration, and (3) provider integration.[3] Four of these demonstrations (ACC, CMDP, ALTCS, and RBHA) further AHCCCS' goal of payer-level integration by providing one plan for both behavioral health and acute care services for its beneficiaries. Prior to this payer-level integration, multiple payers were responsible for a member's care. The TI program is the first step towards a broader effort of provider integration by allocating incentive payments for participating providers who meet key milestones in developing an integrated practice and/or key outcomes among its beneficiaries.

The waiver plans reach across diverse communities with different needs, encompassing relatively healthy adults and children (ACC), individuals with serious mental illness and behavioral health issues (RBHA), the elderly and disabled (ALTCS), and children in state custody such as foster care, (CMDP). The health care provided to these communities employs a common approach that incorporates the objectives of (1) providing quality health care to members, (2) ensuring access to care for members, (3) maintaining or improving member satisfaction with care, and (4) continuing to operate as a cost-effective managed care delivery model within the predicted budgetary expectations. To achieve these objectives, each of the waiver plans incorporates methods for improving the integration of physical and behavioral health care, the coordination of care, the medical management of care using best practices, along with continuous quality improvement, and promoting engagement and communication across the continuum of care. The TI program supports integration of care by providing financial and organizational support to encourage providers to integrate physical and behavioral health care services, for example, through modernizing their electronic health record (EHR) systems to make use of Arizona's health information exchange (HIE). At the same time, the PQC waiver seeks to strengthen individual beneficiaries' engagement in their health care as part of AHCCCS Choice, Accountability, Responsibility, Engagement (CARE). This program was designed to build a bridge to independence for low income beneficiaries by holding them responsible for maintaining their health coverage by eliminating a lengthy retroactive enrollment period (the PQC waiver). The AHCCCS Works waiver was also approved by CMS, although it has not yet been put into action. Through that waiver, beneficiaries would be encouraged to participate in work, education, job training, or other volunteer services in their communities.

ACC

Through the ACC program, AHCCCS streamlined services for 1.5 million beneficiaries by transitioning them to seven new ACC managed care organizations (MCOs) that provide integrated physical and behavioral health care services on October 1, 2018. Specifically, the ACC plans serve ACC program enrollees except for adults determined to have a serious mental illness (SMI) and foster children enrolled with the CMDP. The ACC contract was awarded to seven health plans across three geographical service areas (GSAs): Northern Arizona, Central Arizona, and Southern Arizona. As a part of the ACC contract, the seven health plans are expected to "develop specific strategies to promote the integration of physical and behavioral health care service delivery and care integration activities."[4] Strategies include implementing best practices in care coordination and care management for physical and behavioral health care, proactively identifying beneficiaries for engagement in care management,

[3] Snyder, J., March 29, 2019, AHCCCS Targeted Investments Program Sustainability Plan. Available at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-target-stability-plan-20190812.pdf. Accessed on: Aug 21, 2020.

[4] AHCCCS Complete Care Contract #YH19-0001, Section D. Available at: https://www.azahcccs.gov/PlansProviders/Downloads/RFPInfo/YH19/ACC_RFP_11022017.pdf. Accessed on: Apr 1, 2020.

providing appropriate level of care management/coordination to beneficiaries with comorbid physical and behavioral health conditions, ensuring continuity and coordination of physical and behavioral health services across care providers, and others as described in the Background section.

ALTCS

ALTCS provides acute care, long-term care, behavioral care, and home- and community-based services (HCBS) to Medicaid beneficiaries at risk for institutionalization. Services are provided through contracted prepaid, capitated arrangements with MCOs. MCOs that contracted with the State under ALTCS provide care to eligible elderly and physically disabled (EPD) beneficiaries. These plans are referred to as ALTCS-EPD health plans. ALTCS also contracts with the Department of Economic Security/Division of Developmental Disabilities (DES/DDD). MCOs that contract with DES/DDD, referred to as ALTCS-DDD health plans, provide care to Medicaid beneficiaries with developmental disabilities (DD).[5] On October 1, 2019, behavioral health care services for beneficiaries with DD were transitioned into ALTCS-DDD health plans. Therefore, part of this waiver evaluation will assess changes in rates attributable to this integration of behavioral and physical health care. The goals of ALTCS are to ensure that beneficiaries are living in the most integrated settings and are actively engaged and participating in community life. ALTCS' goals are to improve the quality of care for beneficiaries by improving the consistency of services and access to primary care, reduce preventable hospital utilization, and improve the quality of life and satisfaction for ALTCS beneficiaries.

CMDP

The CMDP operates as an acute care health plan under contract with AHCCCS for children who are determined to be Medicaid eligible and in the custody of the Department of Child Safety (DCS). CMDP provides medical and dental services for children in foster homes, in the custody of DCS and placed with a relative, placed in a certified adoptive home prior to the entry of the final order of adoption, in an independent living program, or in the custody of a probation department and placed in out-of-home care. The CMDP's primary objectives are to proactively respond to the unique health care needs of Arizona's children in foster care with high-quality, cost-effective care and continuity of care givers. Behavioral health services for CMDP children are covered through a RBHA through April 1, 2021. After this date, AHCCCS intends to integrate behavioral health coverage into the CMDP plans to further simplify healthcare coverage and encourage better care coordination among this population.

RBHA

As part of RBHA, adult AHCCCS beneficiaries with a SMI continue to receive acute care and behavioral health services through a geographically designated RBHA contracted with AHCCCS. Historically, RBHA provided coverage for behavioral health services for all AHCCCS beneficiaries with few exceptions. Due to changes in the program coverage for ACC, ALTCS, and CMDP, the primary goals of the RBHAs are to identify high-risk beneficiaries with an SMI and transition them across levels of care effectively. RBHA aims to streamline, monitor, and adjust care plans based on progress and outcomes, reduce hospital admissions, unnecessary emergency department and crisis service use, and provide beneficiaries with tools to self-manage care to promote health and wellness by improving the quality of care.

[5] Arizona's Section 1115 Waiver Demonstration Annual Report. Available at: https://www.azahcccs.gov/Resources/Downloads/FY2017AnnualReportCMS.pdf. Accessed on: Mar 27, 2020.

PQC Waiver

On January 18, 2019, CMS approved Arizona's request to amend its Section 1115 demonstration project to waive PQC retroactive eligibility established by the Affordable Care Act (ACA) on January 1, 2014. PQC allows individuals who are applying for Title XIX coverage retroactive coverage for up to three months prior to the month of application as long as the individual remained eligible for Medicaid during that time. By limiting the period of retroactive eligibility, members would be encouraged to apply for Medicaid without delays, promoting a continuity of eligibility and enrollment for improved health status; and Medicaid costs would be contained.[6] In turn this can provide support for the sustainability of the Medicaid program while more efficiently focusing resources on providing accessible high-quality health care and limiting the resource-intensive process associated with determining PQC eligibility.

Targeted Investments Program

The TI program provides up to $300 million across the demonstration approval period (January 18, 2017, through September 30, 2021) to support the physical and behavioral health care integration and coordination for beneficiaries with behavioral health needs who are enrolled in AHCCCS. The TI program provides financial incentives to eligible Medicaid providers who meet certain benchmarks for integrating and coordinating physical and behavioral health care for Medicaid beneficiaries. A key step in the integration process for participating TI providers is to establish an executed agreement with Health Current, Arizona's HIE, and receiving Admission-Discharge-Transfer (ADT) alerts. To participate in the TI program and receive incentive payments, providers and hospitals are required to meet specific programmatic milestones and performance benchmarks. The goal of the TI program is to improve health by providing financial incentives to encourage the coordination and ultimately, the complete integration of care between primary care providers and behavioral health care providers.[7] The integration activities required of participating providers are expected to be continued and sustained systemwide by the ACC MCOs that are accountable for whole person systems of care.[8]

Research Hypotheses

To comprehensively evaluate the six programs, 35 hypotheses will be tested. Table 1 lists the hypotheses that will be evaluated for each program. Each hypothesis may be represented by more than one research question that could be evaluated by more than one measure. A complete list of evaluation hypotheses and research questions is provided in the Evaluation Questions and Hypotheses section. Appendix A also provides additional details on the methods, data sources, and associated measures for each of the research questions presented below.

[6] AHCCCS. *Targeted Investments Program Sustainability Plan.* March 29, 2019. Available at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-target-stability-plan-20190812.pdf. Accessed on: Apr 6, 2020.

[7] AHCCCS. CMS Approval [email]. Available at: https://www.azahcccs.gov/Resources/Downloads/CMSApprovalLetter_01-18-2017.pdf. Accessed on: Apr 1, 2020.

[8] AHCCCS. *Targeted Investments Program Sustainability Plan.* March 29, 2019. Available at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-target-stability-plan-20190812.pdf. Accessed on: Apr 6, 2020.

Table 1: Waiver Program Hypotheses

AHCCCS Complete Care (ACC)
H1: Health plans encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.
H2: Access to care will maintain or improve as a result of the integration of behavioral and physical care.
H3: Quality of care will maintain or improve as a result of the integration of behavioral and physical care.
H4: Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care.
H5: Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care.
H6: The ACC program provides cost-effective care.
Arizona Long Term Care System (ALTCS)
H1: Access to care will maintain or improve over the waiver demonstration period.
H2: Quality of care will maintain or improve over the waiver demonstration period.
H3: Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.
H4: ALTCS encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.
H5: ALTCS provides cost-effective care.
Comprehensive Medical and Dental Program (CMDP)
H1: Access to care will be maintained or increase during the demonstration.
H2: Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.
H3: CMDP encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.
H4: CMDP provides cost-effective care.
Regional Behavioral Health Authority (RBHA)
H1: Access to care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or increase during the demonstration.
H2: Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.
H3: Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.
H4: Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration.
H5: RBHAs encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.
H6: RBHAs will provide cost-effective care for beneficiaries with an SMI.
Prior Quarter Coverage (PQC) Waiver
H1: Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.
H2: Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.
H3: Health outcomes will be better for those without prior quarter coverage compared to Medicaid beneficiaries with prior quarter coverage.
H4: Eliminating prior quarter coverage will not have adverse financial impacts on consumers.
H5: Eliminating prior quarter coverage will not adversely affect access to care.
H6: Eliminating prior quarter coverage will not result in reduced member satisfaction.
H7: Eliminating prior quarter coverage will generate cost savings over the term of the waiver.
H8: Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.
Targeted Investments (TI)
H1: The TI program will improve physical and behavioral health care integration for children.
H2: The TI program will improve physical and behavioral health care integration for adults.
H3: The TI program will improve care coordination for AHCCCS-enrolled adults released from criminal justice facilities.
H4: The TI program will provide cost-effective care.
H5: Providers will increase the level of care integration over the course of the demonstration.
H6: Providers will conduct care coordination activities.

Results

The Interim Evaluation Report presents results for a limited set of baseline performance measure calculations across all six programs. The results for RBHA also include performance measure rates for five years of the evaluation period. In total, the report includes performance measure rates for 15 hypotheses that encompass 46 research questions, and are operationalized using 116 performance measures.

Due to limitations in the availability of data and operational constraints imposed by the coronavirus disease 2019 (COVID-19) pandemic, the Interim Evaluation Report does not include data from all sources described in the evaluation design plan. Qualitative data based on key informant interviews and focus groups, as well as beneficiary survey data were not collected as a result of discussions with CMS for safety purposes. Future evaluation reports will include these data from the evaluation periods for each of the six AHCCCS programs and will provide impact results from statistical testing of the hypotheses and associated research questions.

The results presented in the Interim Evaluation Report should be interpreted as descriptions of baseline performance only, and not as an evaluation of program performance. The lack of comparison group data and calculated performance measure rates for evaluation periods precluded statistical analysis aimed at providing answers to specific hypotheses and research questions. While it is possible to compare the baseline rates observed for the six AHCCCS programs to national data to determine whether Arizona rates were higher or lower, such an assessment of comparative performance does not provide insight into program efficacy or impact. Additionally, national benchmark data do not cover the specific populations for most of the AHCCCS programs. The Interim Evaluation Report therefore includes comparisons between baseline rates and national performance data only for the ACC program for contextual purposes.

For the RBHA program, the Interim Evaluation Report presents a comparison of the average rate in the baseline period to the average rate in the first five years of the evaluation period. The relative change between the pre-integration baseline period and post-integration evaluation period is presented here for descriptive purposes only. These data have not been analyzed using the statistical methods described in the evaluation design plan that would allow making statements about the program impact. Measures characterized as improving or worsening when evaluated using a relative change of ±5 percent may have been influenced by factors other than the RBHA program that have not been statistically controlled for in these results. Therefore, the results presented below for the RBHA program should not be interpreted as indications supporting or opposing any program impact.

Table 2 presents a summary of the baseline performance for measures with a clearly defined direction for improvement (i.e., higher or lower). For a measure to be considered to have improved it must have demonstrated a relative change of at least 5 percent in the desired direction. Similarly, for a measure to have worsened, it must have demonstrated a relative change of at least 5 percent opposite to the desired direction. Measures with a relative change within ±5 percent are considered to have not changed.

The results in Table 2 indicate that the majority of measures calculated for programs other than RBHA (43 out of 71) did not exhibit any substantial changes during the baseline period. Of the remaining measures, 19 exhibited improvement during the baseline period, and 9 exhibited worsening rates during the baseline period. For RBHA, seven measures exhibited improvements from the baseline period to the evaluation period, and one measure worsened. Future evaluation reports will provide the results of whether these changes are associated with program impacts.

Table 2: Summary of Measure Rate Changes During Baseline Periods*

Program	Improved	Worsened	No Change
ACC Hypothesis 2: Access to care will maintain or improve as a result of the integration of behavioral and physical care.	1	0	4
ACC Hypothesis 3: Quality of care will maintain or improve as a result of the integration of behavioral and physical care	2	1	9
ALTCS Hypothesis 1: Access to care will maintain or improve over the waiver demonstration period.	0	0	4
ALTCS Hypothesis 2: Quality of care will maintain or improve over the waiver demonstration period	6	5	11
CMDP Hypothesis 1: Access to care will be maintained or increase during the demonstration	0	0	2
CMDP Hypothesis 2: Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration	3	0	3
PQC Hypothesis 1: Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.	2	1	4
PQC Hypothesis 5: Eliminating prior quarter coverage will not adversely affect access to care.	0	1	0
TI Hypothesis 1: The TI program will improve physical and behavioral health care integration for children	1	0	2
TI Hypothesis 2: The TI program will improve physical and behavioral health care integration for adults.	1	0	3
TI Hypothesis 3: The TI program will improve care coordination for AHCCCS enrolled adults released from criminal justice facilities	3	1	1
Total (Baseline Changes)	**19**	**9**	**43**
RBHA Hypothesis 1: Access to care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or increase during the demonstration	1	0	2
RBHA Hypothesis 2: Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration	6	1	4
Total (RBHA*)	**7**	**1**	**6**

*RBHA measure rates include comparisons of average rates during the baseline period to average rates during the evaluation period. These results are not an indication of program impact.

Conclusions

Generally, the rates during the baseline periods across programs other than RBHA do not exhibit substantial variation. About 60 percent (43 out of 71) of measures demonstrated relative changes within ±5 percent. For RBHA, seven measures exhibited improvements from the baseline period to the evaluation period, and one measure worsened. However, the observed changes in measure rates for all programs were not tested for statistical differences and did not include controls for other confounding factors. Therefore, no clear inferences can be drawn from these results. Additionally, due to several confounding factors,[9] the Interim Evaluation Report

[9] The Phase II Scope of Work began on March 12, 2020, which did not allow sufficient time to complete qualitative data collection from several sources including focus groups, key informant interviews, and beneficiary surveys—nor did it allow for time to obtain or acquire data that could be used to construct appropriate comparison groups. The coronavirus disease 2019 (COVID-19) pandemic also contributed to delays and will have an unknown impact on future activities essential to the Interim Evaluation Report such as resuming focus groups, key informant interviews, and beneficiary surveys.

presents limited information and results. All six program evaluations rely on numerous quantitative and qualitative data sources to measure the impact on outcomes, quality, access, and cost. Only quantitative (e.g., administrative and publicly available national surveys) data sources were available to calculate measure rates for the baseline time period(s). Some quantitative data sources were not available in time to analyze and include in the Interim Evaluation Report. Furthermore, no qualitative data collection or procurement was possible prior to drafting the report. Because of a number of incomplete data sources available for this report, and the lack of both complete baseline and post-baseline rates, no hypotheses could be tested. Although there are numerous measures presented for each program, given the significant limitations, no conclusions can be drawn surrounding the barriers and facilitators to the implementation process or the impact of the programs on outcomes, quality, access, and cost. Future evaluation reports will include additional data collected, analyses, and results from the hypothesis testing outlined in the evaluation design plan (Appendix A). Table 13-1 in the Lessons Learned and Recommendations section provides an outline of outstanding items necessary to provide initial evaluation findings.

1. Background

The following section outlines the history, guidance, and application of the Centers for Medicare & Medicaid Services (CMS) Medicaid Section 1115 waiver demonstrations. Specifically, historical context of Medicaid Section 1115 waiver demonstrations is introduced and followed by CMS guidelines to develop and implement demonstration programs by states. Application by Arizona's Medicaid agency, Arizona Health Care Cost Containment System (AHCCCS), is then introduced by outlining waiver evaluation deliverables and timelines, the Interim Evaluation Report milestones, and historical background of Arizona's Section 1115 waiver demonstrations. Additionally, a detailed overview of AHCCCS' current demonstration programs are given for:

- AHCCCS Complete Care (ACC)
- Arizona Long Term Care System (ALTCS)
- Comprehensive Medical and Dental Program (CMDP)
- Regional Behavioral Health Authority (RBHA)
- Prior Quarter Coverage (PQC) Waiver
- Targeted Investments (TI) Program

Finally, demographic enrollment information on AHCCCS beneficiaries, both in total and program-specific, is discussed.

Historical Background of Medicaid Section 1115 Waiver Demonstrations

Medicaid is a joint federal-state program created by the Social Security Act of 1965 that provides free or low-cost health care coverage to 73 million qualifying low-income Americans, including pregnant women; families with children; people who are aged or have a disability; and, in some states, low-income adults without children. CMS and federal law set standards for the minimum care states must provide Medicaid-eligible populations, while also giving states an opportunity to design and test their own strategies for providing and funding health care services to meet those standards.

The Social Security Act authorizes several waiver and demonstration authorities that allow states to operate their Medicaid programs outside of federal rules. The primary Medicaid waiver authorities include Section 1115, Section 1915(b), and Section 1915(c). Section 1115 of the Social Security Act permits states to test innovative demonstration projects and evaluate state-specific policy changes with the overall goals of increasing efficiency and reducing consumer costs without increasing Medicaid expenditures. States use this waiver authority in a variety of ways; for example, it is used to change eligibility criteria to offer coverage to new groups of people, condition Medicaid eligibility on an enrollee's ability to meet work or other community engagement requirements, provide services that are not otherwise covered, offer different service packages, and implement innovative service delivery systems. As of August 2020, Arizona is among the 43 states that have an approved Section 1115 waiver to test new methods of care delivery or provision among its Medicaid population.[1-1]

[1-1] Kaiser Family Foundation. Medicaid Waiver Tracker: Approved and Pending Section 1115 Waivers by State. Aug 20, 2020. Available at: https://www.kff.org/medicaid/issue-brief/medicaid-waiver-tracker-approved-and-pending-section-1115-waivers-by-state/. Accessed on: Aug 25, 2020.

Generally, Section 1115 demonstrations are approved for an initial five-year period and can be extended for up to an additional three to five years, depending on the populations served.[1-2] States are required to conduct evaluations to assess whether their demonstrations are achieving the state's goals and objectives. After a demonstration is approved, states are required to submit an evaluation design to CMS for review and approval. The evaluation design must discuss the hypotheses that will be tested, the data that will be used, and other items outlined in the Special Terms and Conditions (STCs). In the event that a state wishes to extend its demonstration, the state's extension application must include, among other things, a report presenting the evaluation's findings to date, referred to as an Interim Evaluation Report. States are also required to submit a Summative Evaluation Report within 500 days of the demonstration end.

CMS posted its most recent evaluation criteria for Section 1115 waiver applications on November 7, 2017. Applying these criteria, CMS will consider whether a waiver application is designed to:

- Improve access to high-quality, person-centered services that produce positive health outcomes for individuals;
- Promote efficiencies that ensure Medicaid's sustainability for beneficiaries over the long term; support coordinated strategies to address certain health determinants that promote upward mobility, greater independence, and improved quality of life among individuals;
- Strengthen beneficiary engagement in their personal health care plan, including incentive structures that promote responsible decision-making;
- Enhance alignment between Medicaid policies and commercial health insurance products to facilitate smoother beneficiary transition; and
- Advance innovative delivery system and payment models to strengthen provider network capacity and drive greater value for Medicaid.

CMS Evaluation Guidance

On November 6, 2017, CMS released an informational bulletin outlining, among other things, enhancements to the monitoring and evaluation of Section 1115 demonstrations. These enhancements are designed to target evaluation resources to maximize cost-effectiveness of the evaluation, improve and standardize measurement sets, improve formative feedback to identify implementation challenges, and strengthen evaluation designs to produce robust analysis that may be used to inform future Medicaid policies within and across states.[1-3]

In January 2018, the Government Accountability Office (GAO) issued a report describing shortcomings in Section 1115 demonstration evaluations that had been conducted to date.[1-4] Among the shortcomings identified were gaps in important measures, omissions of key hypotheses, and limited utility in informing policy decisions. While the November 2017 bulletin on evaluation process improvements addressed many of these shortcomings, CMS in conjunction with its subcontractor, Mathematica Policy Research, elaborated on these process

[1-2] Centers for Medicare & Medicaid Services. *About Section 1115 Demonstrations.* Available at: https://www.medicaid.gov/medicaid/section-1115-demonstrations/about-section-1115-demonstrations/index.html. Accessed on: Mar 13, 2020.

[1-3] Centers for Medicare & Medicaid Services. November 6, 2017, CMCS Informational Bulletin: Section 1115 Demonstration Process Improvements. Available at: https://www.medicaid.gov/federal-policy-guidance/downloads/cib110617.pdf. Accessed on: Aug 21, 2020

[1-4] Government Accountability Office. Report to Congressional Requesters, January 2018. Medicaid Demonstrations: Evaluations Yielded Limited Results, Underscoring Need for Changes to Federal Policies and Procedures. Available at: https://www.gao.gov/assets/690/689506.pdf. Accessed on: Aug 21, 2020.

improvements through a series of guidance documents and white papers designed to improve and standardize Section 1115 demonstration evaluations nationwide.[1-5]

CMS has provided guidance for states and evaluators to use in developing evaluation designs and preparing evaluation reports.[1-6] The development of an Evaluation Design Plan is crucial in providing an effective evaluation for several reasons. First, planning an evaluation allows the state and its evaluators the opportunity to consider what measures and outcomes would be important to assess, thereby allowing the state to begin collecting any data that may be necessary outside of routine administrative data. Second, working with CMS to approve the Evaluation Design Plans helps ensure that evaluations will be similar to the extent possible across states. This increases the utility in evaluations to inform Medicaid policy nationwide. Finally, the Evaluation Design Plan provides a roadmap for the evaluator to focus its resources to produce a cost-effective evaluation.

In conjunction with general guidance on developing the Evaluation Design Plan, CMS has provided detailed descriptions for states and evaluators to use in strengthening the research designs of evaluations to allow for causal inferences to the extent possible. This includes identifying analytic approaches and comparison groups that can assist in isolating the impact of the demonstration on measured outcomes. The CMS guidance documents provide recommendations custom-tailored to evaluating Medicaid programs and policies.[1-7] Most recently, in August 2020, CMS released guidance on implications of the coronavirus disease 2019 (COVID-19) pandemic on Section 1115 demonstration evaluations.[1-8]

In addition to this general guidance for strengthening evaluations, CMS has included guidance for specific types of Section 1115 waiver demonstrations, such as community engagement, retroactive eligibility, substance use disorder, and serious mental illness/serious emotional disturbance waivers. These guidance documents were utilized in informing the hypotheses, research questions, analytic approaches, and data sources for this evaluation.

Arizona's Waiver Evaluation Deliverables

Pursuant of the STCs of Arizona's Section 1115 waiver, AHCCCS hired Health Services Advisory Group, Inc. (HSAG) as an independent evaluator to conduct a comprehensive evaluation of Arizona's Section 1115 waiver demonstration programs. The goal of this evaluation project is to provide CMS and AHCCCS with an independent evaluation that ensures compliance with the Section 1115 waiver requirements, assists in both State and federal decision-making about the efficacy of the demonstration, and enables AHCCCS to further develop clinically appropriate, fiscally responsible, and effective Medicaid demonstration programs.

[1-5] 1115 Demonstration State Monitoring & Evaluation Resources. Available at: https://www.medicaid.gov/medicaid/section-1115-demonstrations/1115-demonstration-monitoring-evaluation/1115-demonstration-state-monitoring-evaluation-resources/index.html. Accessed on Aug 21, 2020.

[1-6] Centers for Medicare & Medicaid Services Press Release. March 14, 2019. CMS Strengthens Monitoring and Evaluation Expectations for Medicaid 1115 Demonstrations. Available at: https://www.cms.gov/newsroom/press-releases/cms-strengthens-monitoring-and-evaluation-expectations-medicaid-1115-demonstrations. Accessed on: Aug 26, 2020.

[1-7] See, e.g., Contreary, K., Bradley, K., & Chao, S. June 2018. *Best practices for causal inference for evaluations of Section 1115 Eligibility and Coverage Demonstrations.* White paper: Mathematica Policy Research; Reschovsky, J. D., Heeringa, J., & Colby, M. June 2018. *Selecting the best comparison group and evaluation design: A guidance document for state section 1115 demonstration evaluations*. White paper: Mathematica Policy Research.

[1-8] Centers for Medicare & Medicaid Services. Implications of COVID-19 for Section 1115 Demonstration Evaluations: Considerations for Sates and Evaluators. August 2020. Available at: https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/1115-covid19-implications.pdf. Accessed on: Aug 26, 2020.

Evaluation Design Plan

The evaluation design plan is the State's plan for how to accomplish the evaluation required by CMS. CMS provides expectations for the contents of the plan, requiring the State to explain how its plan is expected to achieve the objectives of the waiver, specifying the state's hypotheses, evaluation questions, and associated measures and analytic methods. The state must outline how it believes these components work together to provide evidence that its approach is working as expected. Upon approval by CMS, the evaluation design plan is posted on the State's website as a public comment document.

The Evaluation Design Plan covers the six demonstration components outlined in the executive summary. An Evaluation Design Plan has also been created and submitted to CMS for evaluating the approved AHCCCS Works demonstration, which is currently postponed.[1-9] If and when the AHCCCS Works program is implemented as planned, the Evaluation Design Plan will be used to guide the evaluation of this demonstration. Also described in the current approved STCs is the AHCCCS Choice Accountability, Responsibility, and Engagement (CARE) program, which would have required eligible adult expansion beneficiaries to make strategic coinsurance payments and premium payments.[1-10] However, AHCCCS has not implemented and does not intend to implement the CARE program. Since AHCCCS does not intend to implement this program, no Evaluation Design Plan has been drafted or submitted to CMS. Reference Appendix A for Arizona's Evaluation Design Plan.

Interim Evaluation Report

Waiver Renewal Application Report

As described in the STCs 76, an Interim Evaluation Report must be submitted "for the completed years of the demonstration and for each subsequent renewal or extension of the demonstration."[1-11] This Interim Evaluation Report is being submitted in conjunction with AHCCCS' demonstration renewal application and will discuss evaluation progress and findings to date. The interim Evaluation report will be made publicly available prior to the waiver renewal application deadline of December 31, 2020. Due to the abbreviated time for analysis, this Interim Evaluation Report consists of a status update regarding the execution of the evaluation design plan and baseline results for measures in which data are available. Results from measures using administrative data for RBHA will be provided as far back as federal fiscal year (FFY) 2012 (Figure 1-1). Since the rates presented in this report primarily cover the pre-demonstration periods prior to integration of care, this evaluation report does not attempt to estimate the causal impact of the programs on reported outcomes. Even for the RBHA integration evaluation, robust statistical methods such as interrupted time series have not been applied, which prevents causal conclusions.

[1-9] Snyder, J. Letter to Center for Medicare and Medicaid Services, RE: Implementation of AHCCCS Works, October 17, 2019. Available at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-postponement-ltr-ahcccs-works-10172019.pdf. Accessed on Aug 21, 2020

[1-10] Centers for Medicare & Medicaid Services. Special Terms and Conditions Arizona Health Care Cost Containment System (AHCCCS) Medicaid Section 1115 Demonstration. *AHCCCS.* 2019; 11-W00275/09, 21-W-00064/9: Section V [19-25]. Available at: https://www.azahcccs.gov/Resources/Downloads/WaiverAnd%20ExpenditureAuthoritiesAnd%20STCs.pdf. Accessed on: Aug 27, 2020.

[1-11] Centers for Medicare & Medicaid Services. Special Terms and Conditions Arizona Health Care Cost Containment System (AHCCCS) Medicaid Section 1115 Demonstration. *AHCCCS.* 2019; 11-W00275/09, 21-W-00064/9. Available at: https://www.azahcccs.gov/Resources/Downloads/WaiverAnd%20ExpenditureAuthoritiesAnd%20STCs.pdf. Accessed on: Aug 27, 2020.

Updated Interim Evaluation Report

Due to the methodological limitations in the report submitted for the waiver renewal application, an updated Interim Evaluation Report will be compiled in 2021 for submission on June 30, 2021. This report will contain results for additional years during the demonstration and include results from statistical analysis, where possible to identify the impact of integration of care. This report will also include findings to date from qualitative interviews.

Summative Evaluation Report

The Summative Evaluation Report must be developed and submitted within 18-months of the end of the approval period and must include the information approved in the evaluation design plan.

Figure 1-1: Interim and Summative Evaluation Reporting

Time Periods of Interim and Summative Results Reporting Federal Fiscal Year (FFY)										
Program/Component	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
ACC										
RBHA										
CMDP										
ALTCS - EPD										
ALTCS - DD										
TI										
PQC										

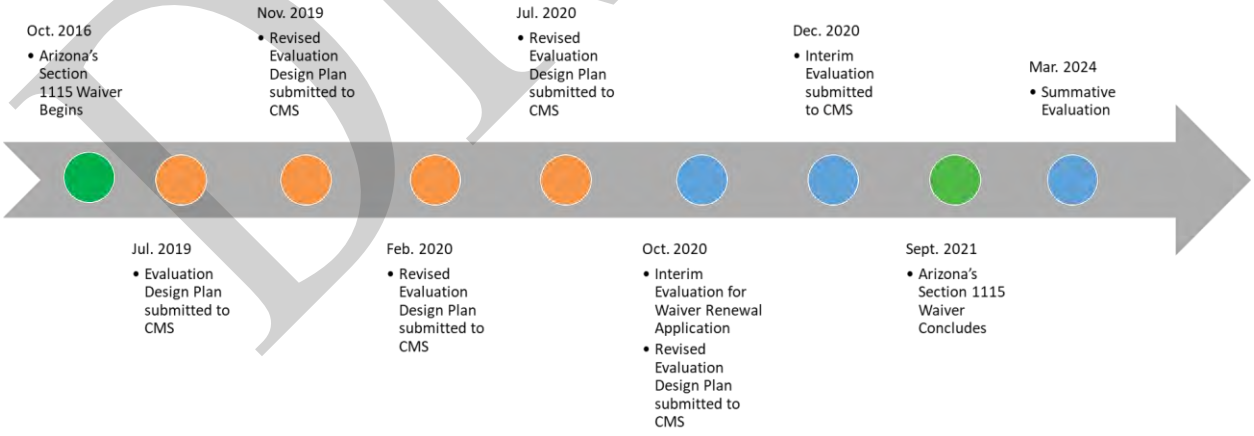
Color Key:

Interim Report for Renewal
Interim Evaluation Report
Summative Evaluation

Note: RBHA Integration: Mercy Maricopa Integrated Care effective in April 2014. Integration began statewide on October 1, 2015.

Figure 1-2 provides an overview of the evaluation activities for Arizona's Section 1115 waiver demonstration.

Figure 1-2: Timeline of Evaluation Activities



Historical Background of Arizona's Section 1115 Waiver

Arizona's Medicaid program was founded on the idea that close partnerships between government and private enterprise provide the most cost-efficient model to deliver quality health care to the State's most vulnerable citizens. Although Arizona was the last state in the country to launch its Medicaid program, it was the first to create a health care delivery system where the majority of members were served by managed care organizations (MCOs). Since its inception in 1982, AHCCCS, Arizona's single state Medicaid agency, has operated a statewide managed care program under its Section 1115 waiver.[1-12] Over time, Arizona's demonstration has been expanded to cover other population groups such as the Children's Health Insurance Program (CHIP) population, and other Medicaid-covered services including long-term care and behavioral health services. Throughout all the expansions, the AHCCCS core service delivery model had remained the same—the utilization of a managed care model to deliver high quality health care throughout the state.

The original AHCCCS Acute Care program waiver demonstration allowed AHCCCS to operate a statewide managed care system that covered only acute care services and 90 days post-hospital skilled nursing facility care. All individuals eligible for Medicaid and children in the CHIP population were required to enroll. As part of the AHCCCS Acute Care program, AHCCCS established two programs that served children with special needs. CMDP was implemented in 1982 and provided health care services to Arizona's children in foster care. The Children's Rehabilitation Services (CRS) program, implemented in 1982, provided specific services for children with special health needs, including a medical interdisciplinary team approach to care.

In 1988, the original waiver demonstration was substantially amended to create a capitated long-term care program for the elderly and physically disabled (EPD) and developmentally disabled (DD) populations, the ALTCS program. Effective by 1989, the ALTCS program began providing acute, long-term care and behavioral health services to the Medicaid-eligible EPD population that are at risk of institutionalization. The program has focused on maintaining its members in the community by covering the delivery of a wide array of home- and community-based services (HCBS).

In October 1990, AHCCCS began to cover comprehensive behavioral health services. These services were phased in over a five-year period, beginning with children who had serious emotional disabilities. While behavioral health services were integrated as a part of the benefit package for the ALTCS-EPD population, the services were carved out for all other members and were managed by the Arizona Department of Health Services (ADHS), Division of Behavioral Health Services (DBHS). AHCCCS entered managed care contracts with individual behavioral health organizations, referred to as RBHAs, to deliver behavioral health services.

In July 2013, Arizona passed legislation to expand Medicaid under the Affordable Care Act (ACA). Effective January 2014, Arizona officially implemented the ACA, expanding Medicaid eligibility for all children up to 133 percent of the Federal Poverty Level (FPL), childless adults up to 100 percent of the FPL, and adults up to 133 percent of the FPL.[1-13] This increased AHCCCS' enrollment by 42 percent (487,021 people), to reach 1.6 million Medicaid/CHIP members as of July 2018.[1-14]

On September 30, 2016, CMS approved an extension of Arizona's Section 1115 waiver for a five-year period from October 1, 2016, to September 30, 2021 ("demonstration renewal period"). The waiver allowed AHCCCS to

[1-12] American Indians/Alaska Natives and individuals enrolled in the Federal Emergency Services program are not subject to mandatory managed care.

[1-13] Arizona State Legislature. *JLBC Staff Program Summary.* Available at: https://www.azleg.gov/jlbc/psaxsmedicaid.pdf. Accessed on: Apr 6, 2020.

[1-14] Health Insurance & Health Reform Authority. *Arizona and the ACA's Medicaid expansion, Oct 20, 2019*. Available at: https://www.healthinsurance.org/arizona-medicaid. Accessed on: Apr 1, 2020.

continue providing many of the existing waiver initiatives to maintain current efficiencies and flexibilities. These include statewide mandatory managed care, the provision of HCBS in Arizona's long-term care program, and integrated physical and behavioral health plans for individuals with a serious mental illness (SMI) determination.[1-15]

Arizona also proposed a beneficiary engagement initiative adding limited cost sharing and designed to encourage health literacy and appropriate care choices, the AHCCCS CARE program.[1-16] This program proposed the use of financial incentives to encourage beneficiaries in the new adult group population with income from 100–133 percent of the FPL to manage preventive health care and chronic illness to improve their health. Although CMS approved the program, AHCCCS has not implemented and does not intend to implement the CARE program.

Prior to and during the demonstration renewal period, AHCCCS has taken steps to integrate medical and behavioral health care coverage. By 2013, most AHCCCS beneficiaries were receiving medical care coverage through health plans known as Acute Care plans, while behavioral health care coverage was provided by RBHAs. The only group receiving integrated care was the ALTCS-EPD population. In March 2013, AHCCCS began to integrate medical and behavioral health care coverage for other populations with the award of the RBHA contract for Mercy Maricopa Integrated Care (MMIC). Effective April 2014, MMIC provided integrated medical and behavioral health care coverage for individuals with an SMI in Maricopa County, Arizona's most populous county. In October 2015, RBHA contractors statewide began providing integrated care for their beneficiaries with an SMI.[1-17,1-18] On October 1, 2018, AHCCCS conducted its largest care integration initiative by transitioning all acute care beneficiaries who did not have an SMI to seven ACC integrated health care plans, which provided integrated coverage for medical and behavioral health care services.

On October 1, 2019, AHCCCS began providing integrated coverage for ALTCS beneficiaries enrolled with the Department of Economic Security/Division of Developmental Disabilities (DES/DDD), and on April 1, 2021, AHCCCS plans to integrate coverage for children in the custody and services of the Department of Child Safety (DCS) and enrolled in CMDP.

The transition to integrated delivery of behavioral health and acute care has been supported by the TI program, authorized by CMS on January 18, 2017. The TI program funds time-limited, outcome-based projects aimed at building the necessary infrastructure to create and sustain integrated, high-performing health care delivery systems that improve care coordination and drive better health and financial outcomes for some of the most complex and costly AHCCCS populations.

On January 18, 2019, CMS approved Arizona's request to amend its Section 1115 demonstration to allow AHCCCS to waive PQC retroactive eligibility. With implementation of the ACA on January 1, 2014, individuals who were applying for Medicaid coverage received retroactive coverage for up to three months prior (the prior quarter) to the month of the application as long as they had been eligible for Medicaid during that time. The amended PQC allowed AHCCCS to limit retroactive coverage to the month of application, which was consistent

[1-15] AHCCCS. *Arizona Section 1115 Demonstration Waiver.* Available at: https://www.azahcccs.gov/Resources/Federal/waiver.html. Accessed on: Apr 1, 2020.

[1-16] Centers for Medicare & Medicaid Services. Special Terms and Conditions Arizona Health Care Cost Containment System (AHCCCS) Medicaid Section 1115 Demonstration. *AHCCCS.* 2019; 11-W00275/09, 21-W-00064/9: Section V [19-25]. Available at: https://www.azahcccs.gov/Resources/Downloads/WaiverAnd%20ExpenditureAuthoritiesAnd%20STCs.pdf. Accessed on: Aug 27, 2020.

[1-17] NORC. *Supportive Service Expansion for Individuals with Serious Mental Illness: A Case Study of Mercy Maricopa Integrated Care.* August 18, 2017. Available at: https://es.mercycareaz.org/assets/pdf/news/NORC-MercyMaricopa-CaseStudy.pdf. Accessed on: Apr 6, 2020.

[1-18] AHCCCS. *Draft Quality Strategy, Assessment and Performance Improvement Report.* July 1, 2018. Available at: https://www.azahcccs.gov/PlansProviders/Downloads/DraftQualityStrategyJuly2018.pdf. Accessed on: Apr 6, 2020.

with the AHCCCS historical waiver authority prior to the ACA. The terms of the amendment allowed AHCCCS to implement the waiver no earlier than April 1, 2019, with an effective date of July 1, 2019, and the demonstration approval period from January 18, 2019, through September 30, 2021.[1-19] The demonstration would apply to all Medicaid beneficiaries except pregnant women, women who are 60 days or less postpartum, infants, and children under 19 years of age.

In addition to the PQC waiver approval, CMS also approved Arizona's Section 1115 waiver amendment request to implement AHCCCS Works, which was designed to encourage low-income adults to engage in their communities through employment, job training, education, or volunteer service experience. The community engagement standards applied to able-bodied adult members aged 19 to 49 years who fall within the definition of the Social Security Act Section 1902(a)(10)(A)(i)(VIII) (individuals with incomes between 0 and 138 percent of the FPL who do not qualify for Medicaid in any other category). These individuals were required to engage in at least 80 hours of community engagement activities per month, with a monthly reporting requirement in order to maintain eligibility for AHCCCS. Activities that could be counted toward the requirement included employment, including self-employment; and education, including less than full-time education, participation in job or life skill training, job search activities and community service. Exemptions were allowed for pregnant women, women who are 60 days or less postpartum; caregivers for children under age 18 or elderly or disabled family members; as well as medically frail or acutely ill members, or those in school or experiencing homelessness or receiving unemployment benefits. An estimated 120,000 AHCCCS members were projected to be subject to the community engagement requirements; however, this waiver demonstration has been placed on hold by AHCCCS pending the resolution of legal objections to similar programs in other states.[1-20]

On March 13, 2020, the President of the United States (U.S.) declared COVID-19 a nationwide emergency pursuant to Section 501(b) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121-5207 (the "Stafford Act"). The President's declaration gives the Secretary of the U.S. Department of Health and Human Services the authority to enhance states' ability to respond to the COVID-19 outbreak, including the power to temporarily waive or modify Medicaid and CHIP requirements under Section 1135 of the Social Security Act.

During the national COVID-19 public health emergency, the U.S. Department of Health and Human Services extended authority to state Medicaid agencies to augment services in order to address the health care needs caused by the COVID-19 pandemic. Accordingly, AHCCCS received authority to waive certain Medicaid and CHIP requirements to the extent necessary to enable the State to combat the continued spread of COVID-19, including mitigating any disruption in care for AHCCCS members during the course of the emergency declaration. These temporary "flexibilities" were granted through policy changes or various legal authorities, including a Section 1135 waiver (established to address public health emergencies), the Section 1115 waiver, an Appendix K contract specific to HCBS, and the State Plan Amendment.

AHCCCS' response included streamlined provider enrollment and the preadmission screening process for Medicaid-certified nursing facilities, provided continuous eligibility to enrolled members, specified waiver member premiums and co-pays, reimbursed COVID-19 testing, and expanded respite care.

[1-19] Centers for Medicare & Medicaid Services. CMS Approval *Letter*. Jan 18, 2019. Available at: https://www.azahcccs.gov/Resources/Downloads/CMSApprovalLetter.pdf. Accessed on: Mar 19, 2020.

[1-20] Snyder, J. Letter to Center for Medicare and Medicaid Services, RE: Implementation of AHCCCS Works, October 17, 2019. Available at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-postponement-ltr-ahcccs-works-10172019.pdf. Accessed on Aug 21, 2020

AHCCCS' Quality Strategy

AHCCCS has had a formal quality assessment and performance improvement (QAPI) plan in place since 1994 and AHCCCS' Quality Strategy was first established in 2003. The most recent revised Quality Strategy draft was completed, submitted to CMS for review and approval, and posted to the AHCCCS website on July 1, 2018.[1-21] Together with the 2018–2023 Strategic Plan and Quarterly Quality Assurance Monitoring Activity Reports, AHCCCS has taken a comprehensive approach to quality of care.

AHCCCS' Quality Strategy is a coordinated, comprehensive, and proactive approach to drive improved health outcomes by utilizing creative initiatives, ongoing assessment and monitoring, and results-based performance improvement. AHCCCS designed the Quality Strategy to ensure that services provided to members meet or exceed established standards for access to care, clinical quality of care, and quality of service. AHCCCS' Quality Strategy identifies, and documents issues related to those standards and encourages improvement through incentives or, when necessary, through regulatory action. The Quality Strategy provides a framework for improving and/or maintaining members' health status, providing focus on resilience and functional health of members with chronic conditions.

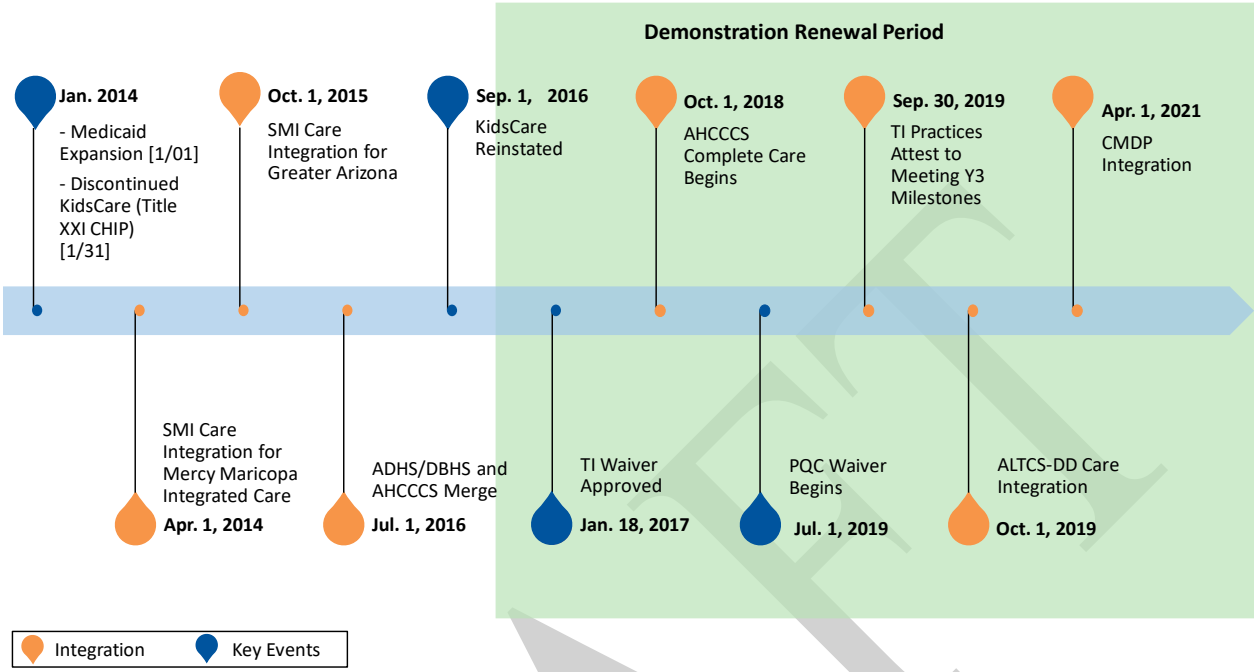
Demonstration Overview

As discussed, in 2016 CMS approved an extension of Arizona's Section 1115 waiver for a five-year period from October 1, 2016, to September 30, 2021. The overarching goal of the AHCCCS' Section 1115 waiver is to provide quality health care services delivered in a cost-effective manner using managed care models. Specific goals of Arizona's Section 1115 waiver approach are providing quality health care to members, ensuring access to care for members, maintaining or improving member satisfaction with care, and continuing to operate as a cost-effective managed care delivery model within the predicted budgetary expectations (Figure 1-4). AHCCCS believes that a comprehensive plan to implement continuous quality improvement while driving toward an integrated health care system that consistently rewards quality while engaging health care providers, patients, and communities will result in better outcomes and an efficient, cost-effective health care system.

Thus, the implementation of AHCCCS' Section 1115 waiver encompasses six distinct, yet coordinating, demonstrations. Figure 1-3 displays a timeline of integration efforts and key events for AHCCCS.

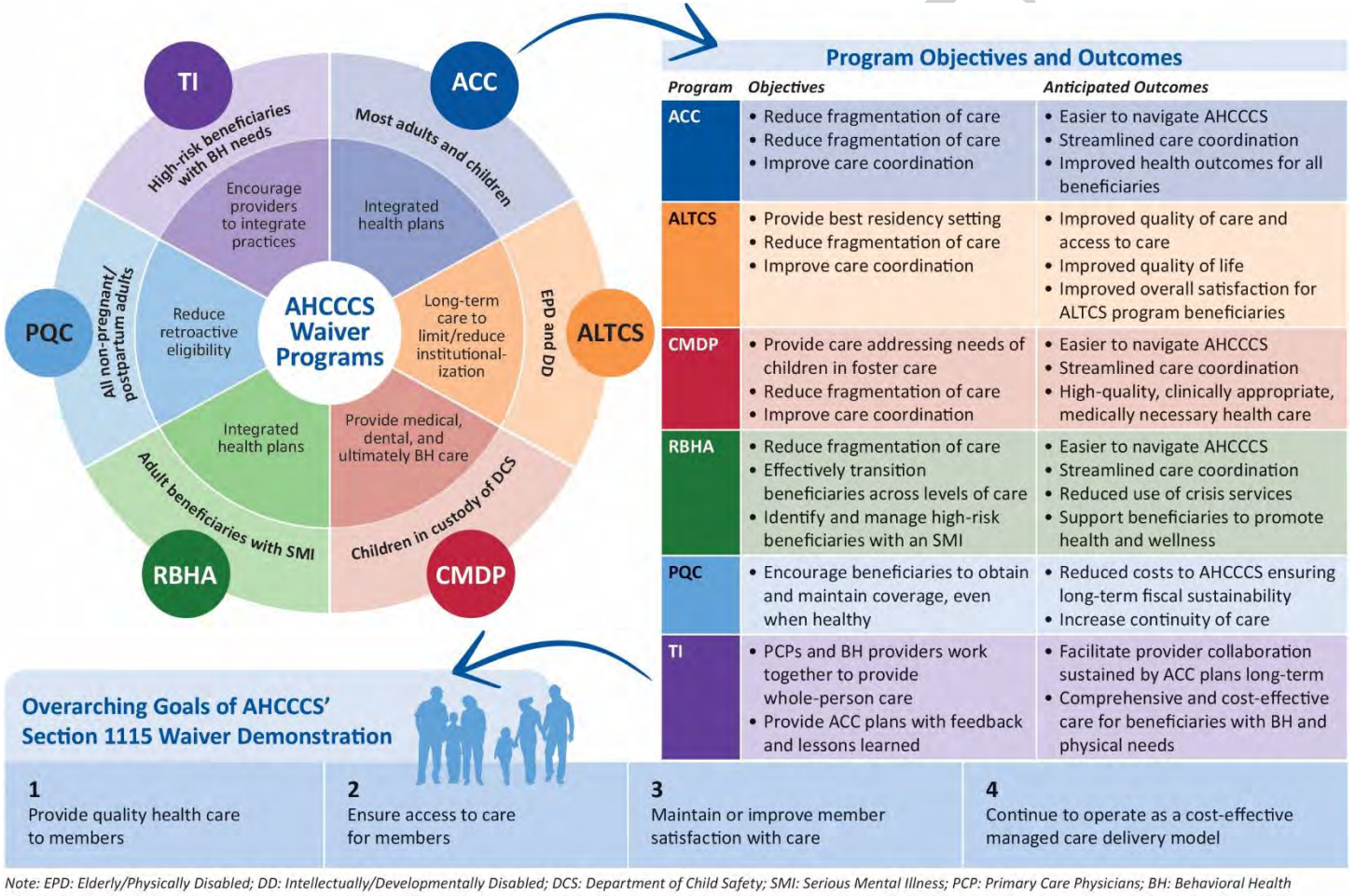
1-21 AHCCCS. *AHCCCS Strategic Plan State Fiscal Years 2018–2023*. January 2018 Available at: https://www.azahcccs.gov/AHCCCS/Downloads/Plans/StrategicPlan_18-23.pdf. Accessed on: Aug 4, 2020.

Figure 1-3: AHCCCS Timeline of Key Events



The current AHCCCS Section 1115 waiver evaluation will determine whether AHCCCS has been able to meet the research hypotheses and program goals for ACC, ALTCS, CMDP, RBHA, TI, and PQC demonstrations.

Figure 1-4: AHCCCS Demonstration Strategy

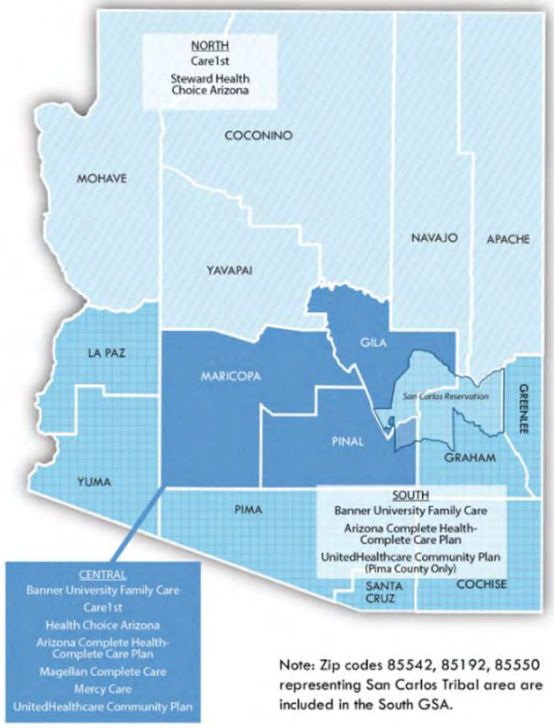


Note: EPD: Elderly/Physically Disabled; DD: Intellectually/Developmentally Disabled; DCS: Department of Child Safety; SMI: Serious Mental Illness; PCP: Primary Care Physicians; BH: Behavioral Health

ACC

Over its existence, AHCCCS has made continual strides to integrate behavioral and physical health care among its Medicaid beneficiaries. Evidence-based studies demonstrate mental health and physical health are dependent on each other and that optimal care includes that link. At the same time, studies demonstrate significant cost savings resulting from integrating care.

Figure 1-5: ACC Services Map, Effective October 1, 2018



Prior to October 1, 2018, most of the 1.8 million AHCCCS beneficiaries in Arizona were enrolled in at least two managed care health plans—one for physical health care services (acute care plans) and a second for behavioral health care services (through Regional Behavioral Health Authorities). On October 1, 2018, AHCCCS took its largest step yet in delivery system reform. With seven new MCO contracts, ACC transitioned 1.5 million members to health plans that fully integrate physical and behavioral health care services. On November 26, 2018, AHCCCS submitted a request to amend the STCs of the previously approved Section 1115 waiver demonstration to "reflect the delivery system changes that results from the ACC managed care contract award."[1-23]

The seven ACC plan contracts were awarded by geographic service areas (GSAs): all seven plans are available in the Central GSA (Maricopa, Pinal, and Gila counties); two plans serve the North GSA (Coconino, Yavapai, Mohave, Navajo, and Apache counties); and two plans serve the South GSA (Cochise, Greenlee, Graham, La Paz, Pima, Sant Cruz, and Yuma counties) plus a third plan in Pima County (Figure 1-5).[1-24]

ACC plans are responsible for providing integrated physical and behavioral health care for the following populations:

- Adults who are not determined to have an SMI (excluding beneficiaries enrolled with DES/DDD).
- Children, including those with special health care needs (excluding beneficiaries enrolled with DES/DDD and DCS/CMDP).
- Beneficiaries determined to have an SMI who opt out and transfer to an ACC for the provision of physical health services.

In fiscal year (FY) 2016, acute care plans served 1.8 million Arizonans, with approximately two thirds having been insured for a full year or more, as shown in Figure 1-6. Nearly half of all male beneficiaries were children, while only about 39 percent of female beneficiaries were children as shown in Figure 1-7.

[1-23] AHCCCS. Re: Arizona's 1115 Waiver. AHCCCS Complete Care Technical Clarification [email]. November 26, 2018. Available at: https://www.azahcccs.gov/Resources/Downloads/ACC_TechnicalAmendmentCorrection_11262018.pdf. Accessed on: Apr 1, 2020.
[1-24] AHCCCS. AHCCCS Complete Care: The Future of Integrated Healthcare. Available at: https://www.azahcccs.gov/AHCCCS/Initiatives/AHCCCSCompleteCare/. Accessed on Aug. 14, 2020.

Figure 1-6: ACC Beneficiaries' Continuity of Coverage, 2016

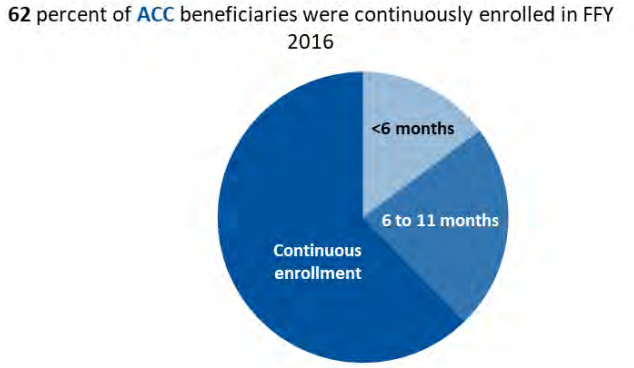
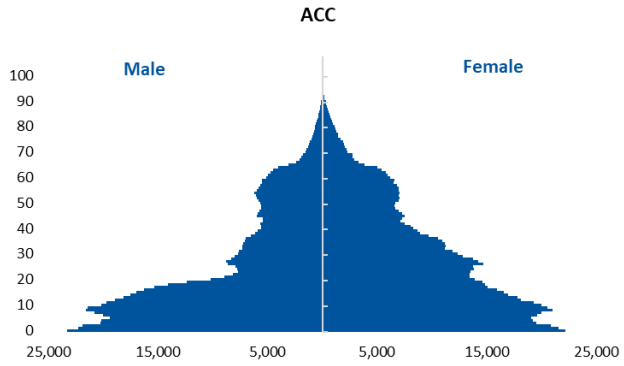


Figure 1-7: ACC Beneficiaries by Age and Gender, 2016



Each ACC MCO is required to provide members with needed physical care integrated and coordinated with medically necessary behavioral health services in accordance with AHCCCS policy and regulations. Medically necessary services include active treatment of current conditions, as well as screening and preventive care deemed necessary by a primary care practitioner (PCP) or appropriate health care professional. Behavioral health treatment services are those provided by behavioral health professionals to reduce symptoms and improve or maintain function and include behavioral health, assessment, evaluation and screening services, counseling and therapy, and other necessary professional services. Covered services include crisis services, as well as medically necessary treatment in hospitals, acute care facilities, day programs, residential facilities, and court-ordered treatment. Rehabilitation services may also be provided such as skills training, cognitive rehabilitation, supported employment, and job coaching skills. MCOs must provide for the integration of this array of services by making appropriate support services available to targeted individuals such as case management, personal care services, family support, peer support, respite care, and transportation.

The seven MCOs are expected to "develop specific strategies to promote the integration of physical and behavioral health service delivery and care integration activities."[1-25] Such strategies include:

- Implementing care coordination and care management best practices for physical and behavioral health care.
- Proactively identifying beneficiaries for engagement in care management.
- Providing the appropriate level of care management/coordination of services to beneficiaries with comorbid physical and behavioral health conditions and collaborating on an ongoing basis with both the member and other individuals involved in the member's care.
- Ensuring continuity and coordination of physical and behavioral health services and collaboration/communication among physical and behavioral health care providers.
- Operating a single member services toll-free telephone line and a single nurse triage line, both available to all beneficiaries for physical and behavioral health services.
- Developing strategies to encourage beneficiaries to use integrated service settings.
- Considering the behavioral and physical health care needs of beneficiaries during network development and contracting practices that consider providers and settings with an integrated service delivery model to improve member care and health outcomes.

[1-25] AHCCCS Complete Care Contract #YH19-0001, Section D. Available at: https://www.azahcccs.gov/PlansProviders/Downloads/RFPInfo/YH19/ACC_RFP_11022017.pdf. Accessed on: Apr 1, 2020.

- Developing organizational structure and operational systems and practices that support the delivery of integrated services for physical and behavioral health care

The MCO must meet AHCCCS stated Minimum Performance Standards (MPS), which identify a set of required performance measures with a minimum expected level of performance. If an MCO fails to meet the MPS, they must submit a corrective action plan (CAP), participate in performance improvement projects (PIPs) and/or face the possibility of significant monetary sanctions for each deficient measure.

In addition to the State MPS, federal regulations require annual review and reports by an external quality review organization (EQRO) analyzing the performance of the MCOs.[1-26] These reports provide regular review and evaluation by an objective third party into the quality, timeliness, and access to health care services that MCOs provide. In addition, the EQRO identifies opportunities for improvement and collaborates with ACC MCOs to identify appropriate PIPs designed to improve quality, access, and timeliness of care.

AHCCCS has established an objective, systematic process for identifying priority areas for improvement and selecting new performance measures and PIPs. This process involves a review of data from both internal and external sources, while also taking into account factors such as the prevalence of a particular condition and population affected, the resources required by both AHCCCS and MCOs to conduct studies and impact improvement, and whether the areas are current priorities of CMS or State leadership and/or can be combined with existing initiatives. AHCCCS also seeks MCO input in prioritizing areas for improvement.

In selecting and initiating new quality improvement initiatives, AHCCCS:

- Identifies priority areas for improvement.
- Establishes realistic, outcome-based performance measures.
- Identifies, collects, and assesses relevant data.
- Provides incentives for excellence and imposes financial sanctions for poor performance.
- Shares best practices with and provides technical assistance to the MCOs.
- Includes relevant, associated requirements in its contracts.
- Regularly monitors and evaluates MCO compliance and performance.
- Maintains an information system that supports initial and ongoing operations and review of AHCCCS' Quality Strategy.
- Conducts frequent evaluation of the initiatives' progress and results.

Value-based purchasing (VBP) is a core component of AHCCCS' strategy to contain health care costs while improving quality of care. AHCCCS has adopted several initiatives to move toward value-based health care systems where members' experience and population health are improved, while health care costs are limited by providing aligned financial incentives and standards for continuous quality improvement. AHCCCS implemented an initiative designed to encourage quality improvement and cost savings by aligning incentives for MCOs and providers through alternative payment model (APM) strategies. This approach combines a withhold and quality measure performance incentive with a systematic shift from traditional fee-for-service (FFS) payment.[1-27,1-28] The former withholds a specified percentage of MCOs' prospective payments that can be earned back only if the MCO meets standards for quality measure reporting and performance. The latter provides a series of incentives

[1-26] 42 CFR §438.3641.
[1-27] AHCCCS Contractor Operations Model Section 306.
[1-28] AHCCCS Contractor Operations Model Section 307.

for the staged reform of payment models, from infrastructure improvements, pay for reporting, payment for improvement performance (Learning Action Network [LAN]-APM Category 2); to adoption of models for sharing of risk and cost savings generated by APMs (LAN-APM Category 3); and development of condition-specific population-based bundled payments (LAN-APM Category 4). MCOs are permitted to pay providers a bonus based upon successful completion of goals/measures in accordance with the contract. Like the federal system, AHCCCS' program sets minimum requirements for performance that gradually increase over a period of years and encourage expansion of the models by increasing the percentage of different and more advanced types of APM strategies applicable to the contract.

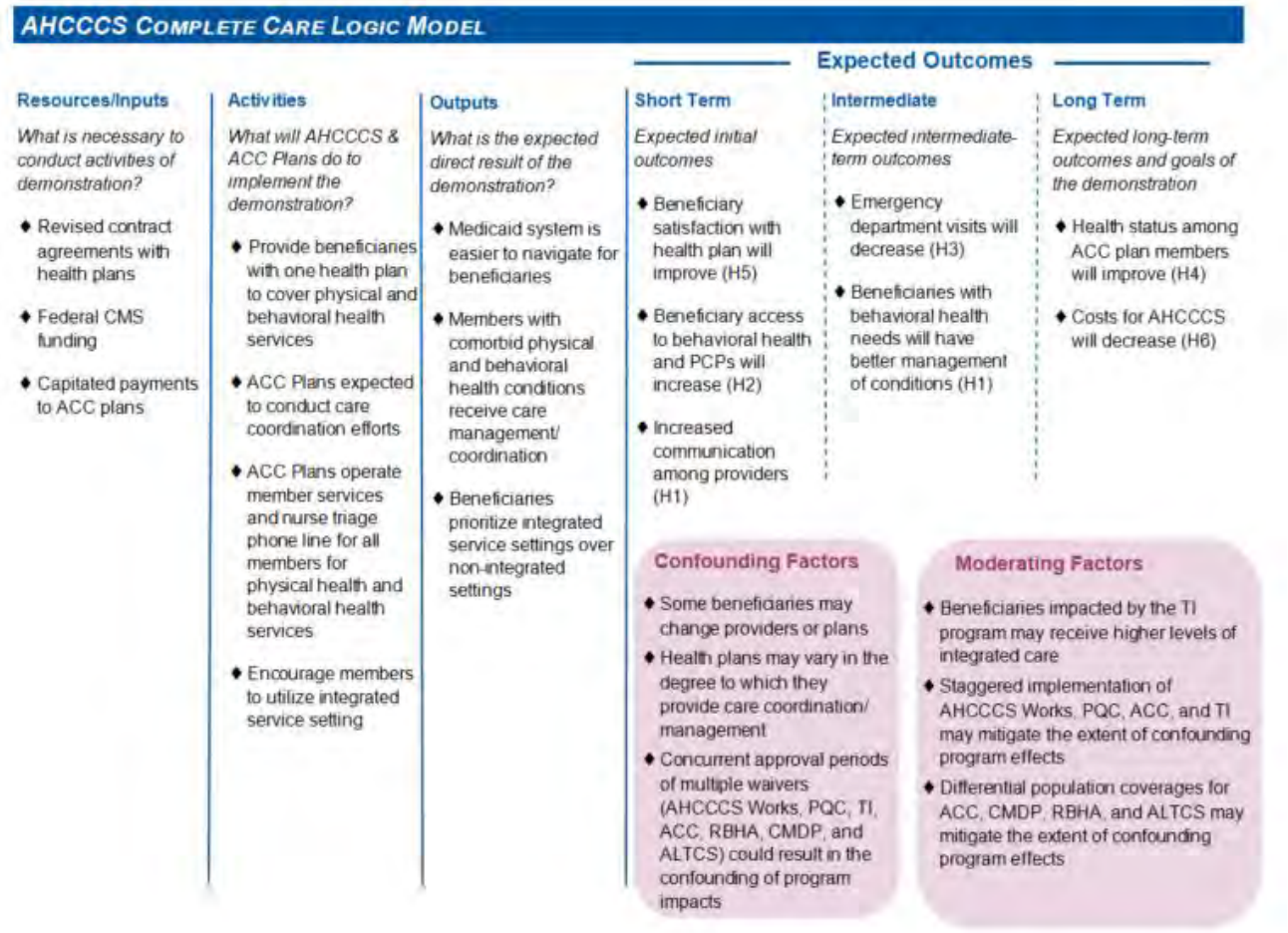
AHCCCS' Centers of Excellence initiative rewards facilities or programs that are recognized as providing the highest level of leadership, quality, and service. These facilities are encouraged to achieve higher value by focusing on appropriateness of care, clinical excellence, and member satisfaction focusing on situations most likely to generate cost savings, i.e., treatment of high-volume procedures or conditions, or those with wide variation in cost or outcomes.[1-29]

Thus, the demonstration-specific goals of ACC are to reduce fragmentation of care by providing beneficiaries with a single health plan, payer, and provider network to cover their physical and behavioral health care. In addition, health plans are expected to conduct and manage care coordination efforts among providers in order to create a Medicaid system that is easier to navigate, streamline care coordination, and ultimately improve a person's whole health outcomes.

A logic model for how the components of the ACC work together to meet Medicaid objectives is presented in Figure 1-8.

[1-29] RFP p. 201-202.

Figure 1-8: ACC Logic Model

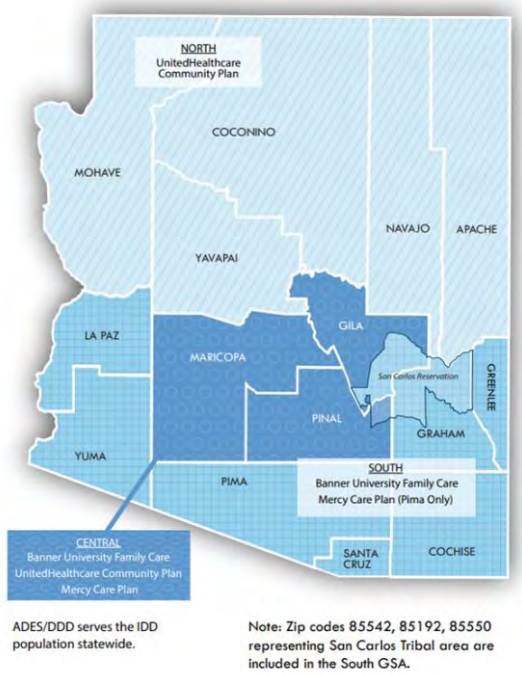


ALTCS

ALTCS provides acute care, long-term care, behavioral care, and HCBS to Medicaid beneficiaries at risk for institutionalization. Services are provided through contracted prepaid, capitated arrangements with MCOs. MCOs that are contracted with the State under ALTCS provide care to eligible EPD beneficiaries. These plans are referred to as ALTCS-EPD health plans. ALTCS also contracts with DES/DDD. MCOs that contract with DES/DDD, referred to as ALTCS-DDD health plans, provide care to Medicaid beneficiaries who are DD.[1-30] The ALTCS contracts were awarded based on geography, as shown in Figure 1-9.[1-31]

[1-30] Arizona's Section 1115 Waiver Demonstration Annual Report. Available at: https://www.azahcccs.gov/Resources/Downloads/FY2017AnnualReportCMS.pdf. Accessed on: Mar 27, 2020.
[1-31] AHCCCS. ALTCS: Health Insurance for Individuals Who Require Nursing Home Level Care. Available at: https://www.azahcccs.gov/Members/GetCovered/Categories/nursinghome.html. Accessed on Aug. 27, 2020.

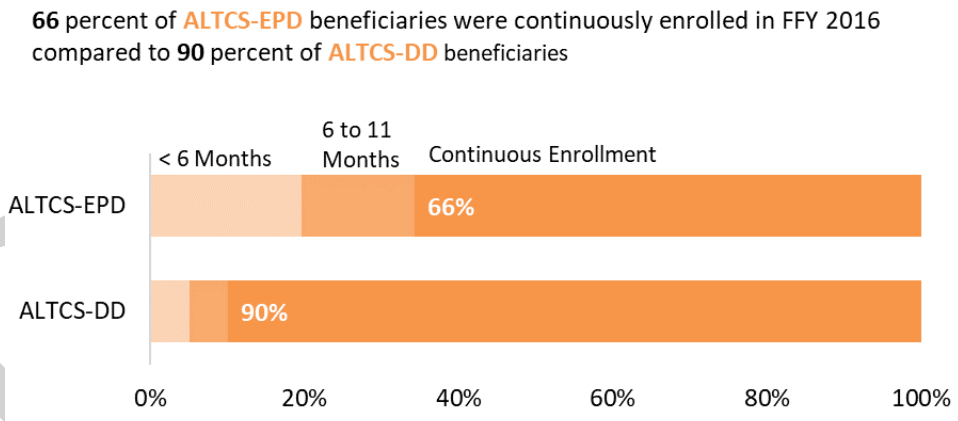
Figure 1-9: ALTCS Services Map, October 2018



On October 1, 2019, behavioral health services for beneficiaries who are DD were transitioned into ALTCS-DDD health plans. Behavioral health services, along with physical health services and certain long-term services and supports (LTSS) (i.e., skilled nursing care, emergency alert system services, and habilitative physical therapy for beneficiaries 21 years of age and older), are subcontracted by DES/DDD to ALTCS-DDD health plans. Therefore, part of this waiver evaluation will assess whether this change has resulted in any changes in this population's outcomes attributable to this integration of behavioral and physical care.

In FY 2016, ALTCS-EPD and intellectually and developmentally disabled (IDD) plans served 27,081 and 29,768 Arizonans, respectively. The DD population had longer continuity of care established with an MCO, with 90 percent enrolled continuously in a single MCO for the year prior (27,596/29,768) as compared to the EPD population, with only 67 percent (21,860/27,081) enrolled continuously for one year, as illustrated in Figure 1-10.

Figure 1-10: ALTCS Beneficiaries' Continuity of Coverage



As expected, the two populations exhibited very different gender and age distributions, with DD members tending to be younger and male, while EPD beneficiaries were older and more were female as shown in Figure 1-11.

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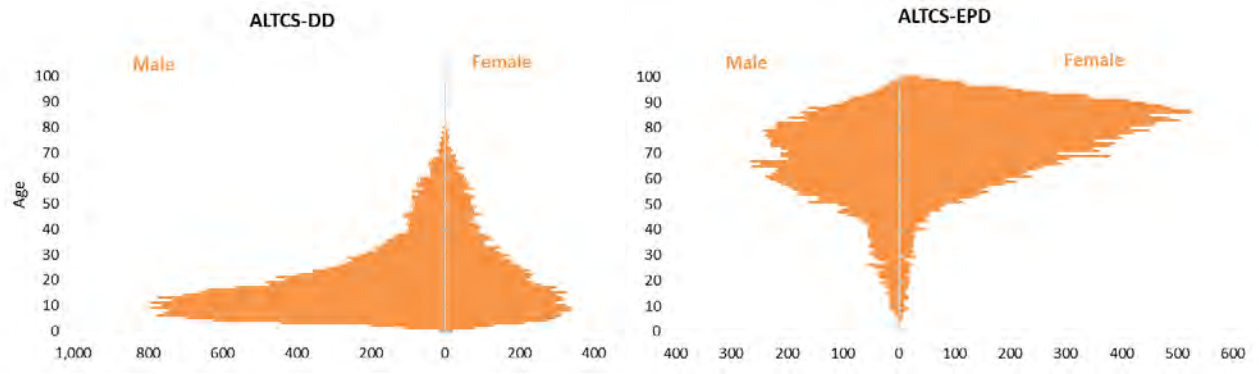
Figure 1-11: ALTCS Beneficiaries by Program, Age and Gender



The EPD beneficiaries were far more likely to live in an institutional placement than in a home- or community-based setting, as seen in Table 1-1.

Table 1-1: Beneficiaries by Placement Setting, 2016

Program	HCBS	Institutional
ALTCS-DD	29,542	180
ALTCS-EPD	21,884	6,719
Total	**49,153**	**6,748**

Source: AHCCCS Annual HCBS Report – CY 2016.

The goals of the ALTCS program for both DD and EPD populations are to ensure that beneficiaries are living in the most integrated settings possible and are actively engaged and participating in community life. More specifically, the ALTCS program's goals are to improve:

- Quality of care for ALTCS program beneficiaries as it relates to the receipt of medically necessary covered services by having a consistency in services
- Access to care for ALTCS program beneficiaries through improvement in access to primary care services and a reduction in preventable hospital utilization by focusing on providing an accessible network
- Quality of life for ALTCS program beneficiaries through focusing on member-centered case management, providing member-directed options, using person-centered planning, and focusing on beneficiaries living in the most integrated settings
- Beneficiary satisfaction for beneficiaries enrolled in the ALTCS program by focusing on collaboration with stakeholders

AHCCCS employs guiding principles for serving these populations, including:

- Member-centered case management—Focusing primarily on assisting each member in achieving or maintaining his or her highest level of self-sufficiency.
- Member-directed options—Affording members the opportunity to manage their own personal health and development and make decisions about what services they need, who will provide services, and when and how they will be provided.
- Person-centered planning—Creating a Person-Centered Plan for each member, maximizing member direction and supports to make informed decisions, to gain full access to the benefits of community living to the

greatest extent possible, and to respond to the member's needs, choices, personal goals, and preferences; and making the plan accessible to the member and appropriate family/representatives.

- Consistency of services—Developing network accessibility and availability to ensure delivery, quality, and continuity of services in accordance with the Person-Centered Plan agreed to by the member and MCO.
- Accessibility of network—Ensuring choice in member care and that provider networks are developed to meet the needs of members with a focus on accessibility of services for aging members and those with disabilities, cultural preferences, and individual health needs of beneficiaries, with services available to the same degree as for individuals not eligible for AHCCCS.
- Most integrated setting—Affording members the choice of living in their own home or choosing an alternative HCBS setting, living in the most integrated and least restrictive setting to have full access to the benefits of community living.
- Collaboration with stakeholders—Collaborating with members/families, service providers, community advocates, and MCOs to continuously improve the ALTCS program.

HCBS services can be provided in different settings such as a beneficiary's own home, a group home, an assisted living setting, a developmental home, or a behavioral health residential facility. Since 2008, AHCCCS has implemented Self-Directed Attendant Care (SDAC), which offers ALTCS beneficiaries or their guardians latitude in their choice of who will be providing their direct care, from the option of directly hiring and supervising their own direct care workers without the use of an agency, or with an agency, and with a range of support from ALTCS in performing employer payroll functions and training in how beneficiaries can exercise their authority as employer. To enable independence, HCBS services include permitting a spouse to be paid for up to 40 hours per week of attendant caregiver services for providing homemaker and personal care.

Besides attendant care, SDAC beneficiaries are permitted to direct their Direct Care Workers in performance of limited tasks that previously could only be performed in skilled nursing facilities, such as bowel care, bladder catheterizations, glucose monitoring, and insulin injection. In addition, AHCCCS has implemented the community Transition Services option, which provides limited financial assistance to members to move from an ALTCS long-term care institutional setting to their own home or apartment, including assistance in obtaining Section 8 housing. Each MCO must have a designated housing expert to inform beneficiaries of options while helping expand available housing options. AHCCCS is also developing a new ALTCS service for members with a dual sensory loss (both vision and hearing) to provide Community Intervener Services with specialized training to support members to access a variety of services.

Each MCO serving this population must meet AHCCCS stated MPS, which identify a set of required performance measures with minimum expected level of performance. If an MCO fails to meet the MPS, it must submit a CAP, participate in PIPs, and face the possibility of significant monetary sanctions for each deficient measure.

Federal regulations require annual review and reports by an EQRO analyzing the performance required of MCOs.[1-32] These reports provide regular review and evaluation by an objective third party of the quality, timeliness, and access to healthcare services that MCOs provide. In addition, the EQRO identifies opportunities for improvement and collaborates with AHCCCS and MCOs to identify appropriate PIPs designed to improve quality, access, and timeliness of care.

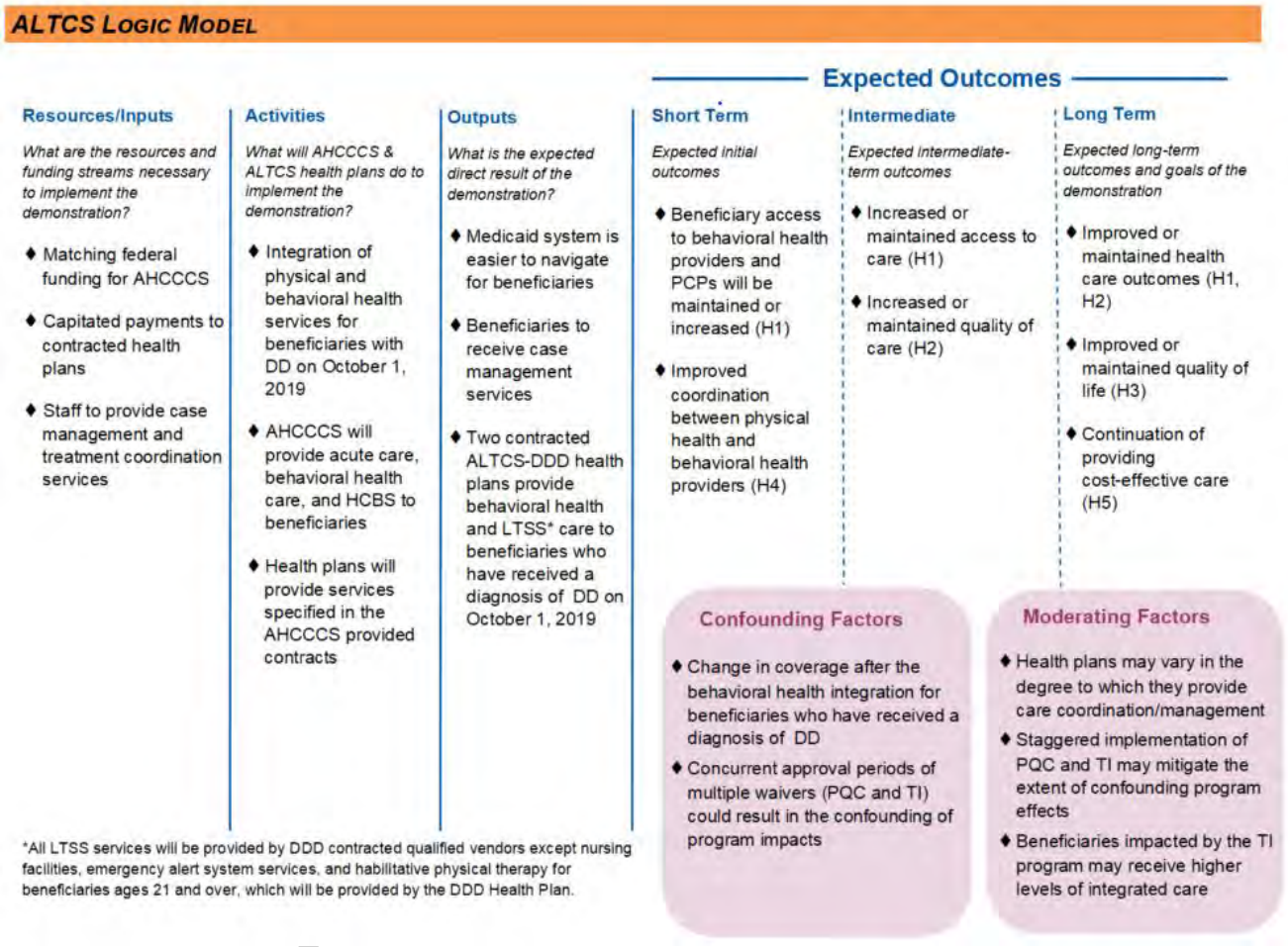
Like ACC, the ALTCS program utilizes VBP and Centers of Excellence to encourage MCOs to improve quality by aligning plan and provider incentives using quality withholds and adoption of the Health Care Payment LAN APM framework discussed above. MCOs are directed to develop strategies to guide beneficiaries to providers

[1-32] 42 CFR §438.3641.

who participate in VBP initiatives and to offer value as determined by outcomes on appropriate measures. Facilities are selected as Centers of Excellence, recognizing their high performance in areas of leadership, quality, and service to act as examples and help identify best practices for both quality and cost outcomes.

Figure 1-12 illustrates that, with the additional funding to support integration and fund the ALTCS plans proposed in the demonstration, beneficiaries will find the Medicaid system easier to navigate, continue to receive case management, and prioritize practices with integrated services over those with non-integrated services. With improvements to the navigation of the Medicaid system, beneficiary access to care will improve. With better case management, beneficiaries will see improved health outcomes, first shown by an increase in quality and access of care. In the long term, this will improve beneficiaries' health outcomes and well-being while providing cost-effective care.

Figure 1-12: ALTCS Logic Model



CMDP

CMDP operates as an acute care health plan under contract with AHCCCS for children who are determined to be Medicaid eligible and who are in the custody of DCS. CMDP provides physical health services, i.e., medical and dental services, for children in foster homes, children in the custody of DCS and placed with a relative, placed in a certified adoptive home prior to the entry of the final order of adoption, in an independent living program, or in

the custody of a probation department and placed in out-of-home care. CMDP is administered by DCS and complies with AHCCCS regulations to cover children in foster care who are eligible for Medicaid services.

Arizona's historical bifurcation of its publicly-funded health care system into separate systems for acute care for physical health and behavioral health persists for these children and their guardians, leaving them to navigate coverage between two separate health plans, the MCO contracting with CMDP, and the RBHA.[1-33] For several years, the State has been taking incremental steps, in collaboration with the behavioral health advocacy community, to integrate the behavioral and physical health delivery system for children. Children with behavioral health needs, children with and at-risk for autism spectrum disorder (ASD), and children engaged with the child welfare system and their families have struggled to obtain adequate care and services in this fragmented system, leading AHCCCS to emphasize the need to reform these delivery systems and promote integrated, coordinated care between MCOs providing care contracted with CMDP and those contracting with RBHA.

The children covered by CMDP have very similar enrollment spans, with about one-third each enrolled less than 6– months, 6–11 months, and a full year or more, as shown in Figure 1-13. The age and gender distributions of children covered are similar, with the highest numbers younger, dropping off as children age to adolescence, and then increasing again throughout the teen years as illustrated in Figure 1-14.

Figure 1-13: CMDP Beneficiaries' Continuity of Coverage

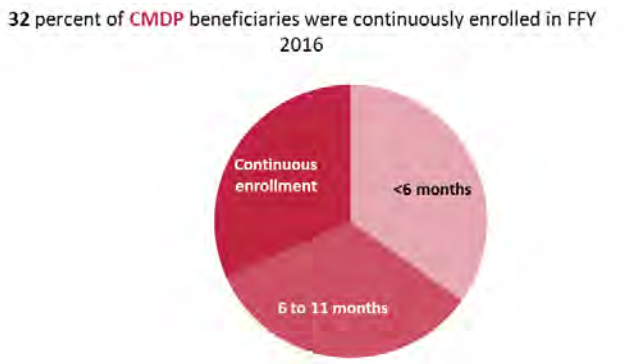
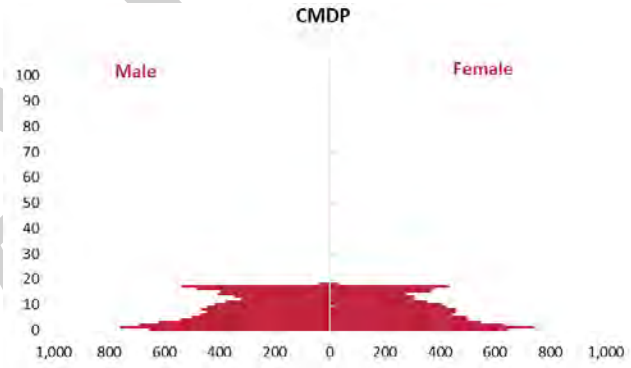


Figure 1-14: CMDP Beneficiaries by Age and Gender



AHCCCS is committed to providing comprehensive, quality health care for these children, who are eligible for medical and dental care; inpatient, outpatient and behavioral health care; and other services through a combination of CMDP and the RBHAs. CMDP promotes the well-being of Arizona's children in foster care by ensuring, in partnership with the foster care community, the provision of appropriate, quality health care services. CMDP's primary objectives are to:

- Proactively respond to the unique health care needs of Arizona's children in foster care.
- Ensure the provision of high-quality, clinically appropriate, medically necessary health care in the most cost-effective manner.
- Promote continuity of care and support caregivers, custodians, and guardians through integration and coordination of services.

[1-33] Behavioral health services for CMDP children are covered through a RBHA through April 1, 2021. After this date, AHCCCS intends to integrate behavioral health coverage into the CMDP plans to further simplify healthcare coverage and encourage better care coordination among this population.

Requests for care may be made by DCS or a caregiver, and uniform standards require that children in foster care, kinship, and adoptive care be able to get an appointment within 72 hours of a request, or within two hours if the need is urgent. Initial assessments must take place within seven days of the child's entry into DCS custody, or within 24 hours for an urgent need. Following an assessment of a behavioral health need, the first regular appointment for behavioral health services must be available within 21 days of the initial assessment, and ongoing services should be provided at least monthly for at least the first six months after the child enters DCS custody. If regular services are not initiated within 21 days, the caregiver may seek care out of the plan network from any AHCCCS registered provider after notifying AHCCCS and the MCO of the failure.

The MCOs contracted with CMDP provide such services as case management, skills training and development, behavioral health counseling and therapy, and respite care and home care training. Proactive steps to improve integration of care are required, such as participation in delivery system reform initiatives for PCPs and community behavioral health sites to improve clinical treatment protocols, to provide training in trauma-informed care, and to create protocols for sharing information, referrals, and recommendations with foster parents/guardians and case workers.

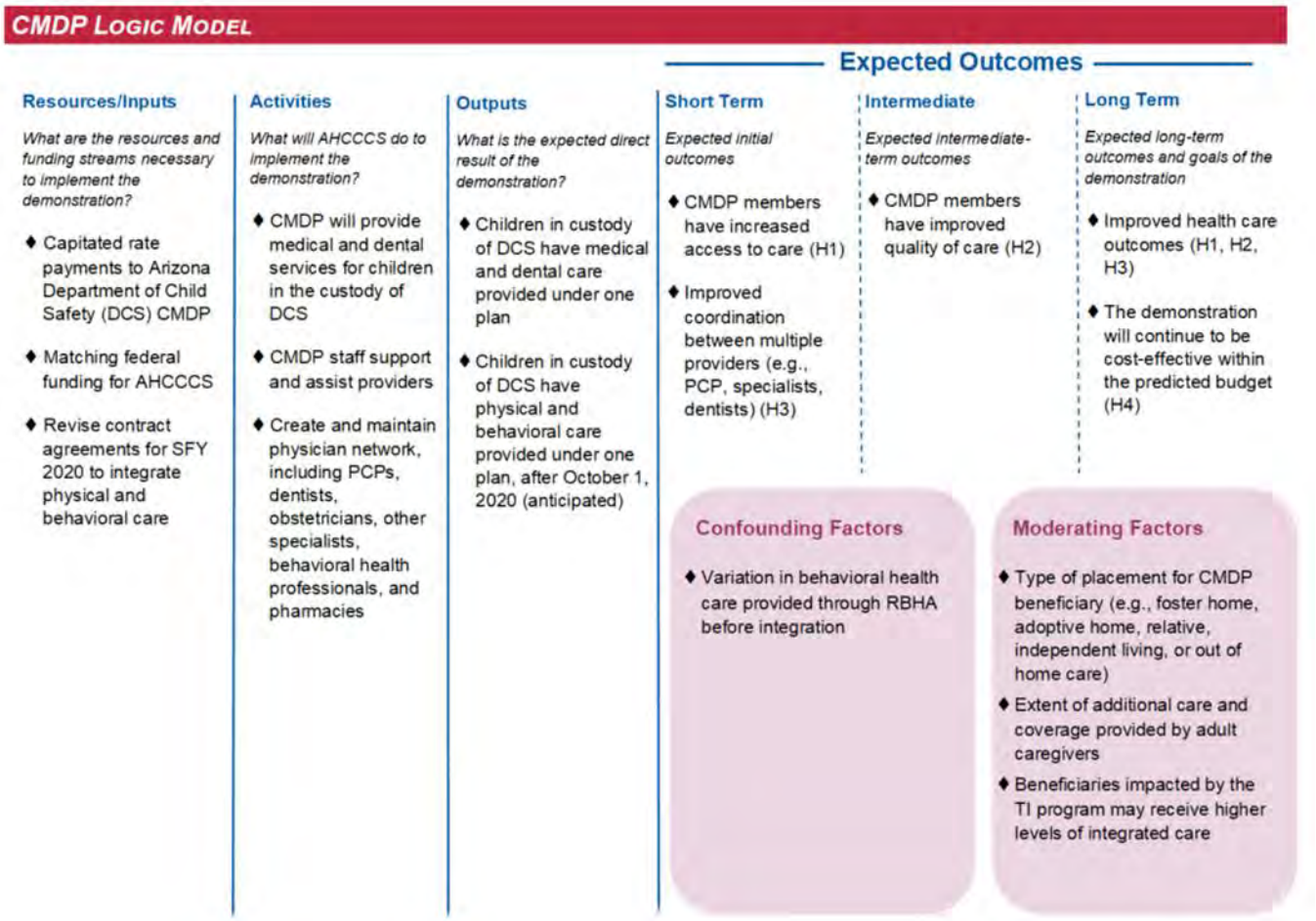
In order to encourage providers to treat children who are covered by this program, CMDP funds staff to assist and support providers through a range of activities, such as help managing beneficiaries (i.e., guardians or caseworkers) who do not follow through on appointments and/or treatments for the children in their care, facilitating clean claims for authorized services within 30 days, providing information regarding referrals to CMDP registered providers, assisting with beneficiary referrals to community programs, and coordinating medical care for at-risk children.

The same standards and practices for developing and implementing CAPs and PIPs for ACC and ALTCS MCOs apply to CMDP .[1-34] Federal regulations require annual review and reports by an EQRO analyzing the performance required of MCOs.[1-35] These reports provide regular review and evaluation by an objective third party of the quality, timeliness, and access to healthcare services that MCOs provide. In addition, the EQRO identifies opportunities for improvement and collaborates with AHCCCS and MCOs to identify appropriate PIPs designed to improve quality, access, and timeliness of care. The same system of financial incentives apply to encourage integration of care.

Figure 1-15 illustrates that, with additional funding to support integration and fund CMDP, children in custody of DCS will have medical and dental care provided under a single plan, and will have physical and behavioral health care provided under a single plan after April 1, 2021. With the resulting improved access to and integration of care, children covered by CMDP will experience improved health outcomes under a cost-effective care model.

[1-34] AHCCCS Medical Policy Manual chapter 900, Quality Management and Performance Improvement Program.
[1-35] 42 CFR §438.3641.

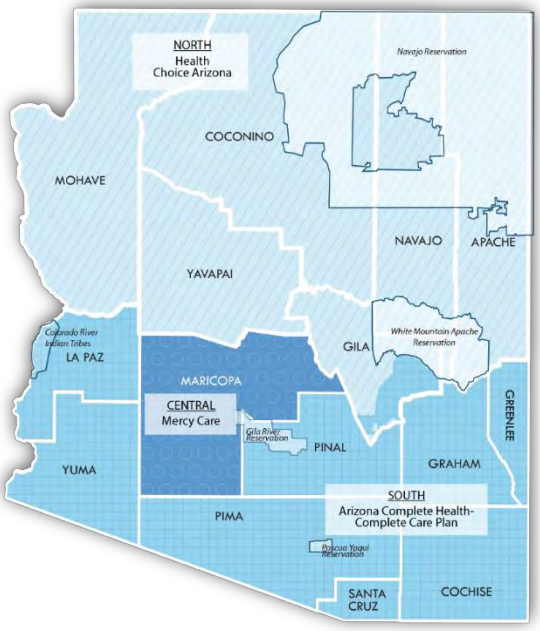
Figure 1-15: CMDP Logic Model



RBHA

Adult AHCCCS beneficiaries with an SMI continue to receive acute care and behavioral health services through a geographically designated RBHA contracted with AHCCCS. Historically, RBHAs provided coverage for behavioral health services for all AHCCCS beneficiaries with few exceptions. Behavioral health services were carved out and covered separately from physical health services. It became evident to AHCCCS that a fully integrated health system would benefit individuals with SMI by improving care coordination and health outcomes while achieving efficiencies of cost and time. Integration would also increase the ability of ADHS/DBHS to collect and analyze data to better assess the health needs of their members with SMI from a holistic approach, and was anticipated to decrease hospital admissions and readmissions and decrease lengths of stay.

Figure 1-16: RBHA Services Map, October 2018



Note: Zip codes 85542, 85192, 85550 representing San Carlos Tribal area are included in the South GSA.

In March 2013, AHCCCS took the first step toward integrated care by awarding one MCO the RBHA contract for Maricopa County, Arizona's most populous county, to take effect April 2014. This contract required that the RBHA add physical health services for the SMI population it covered for behavioral health services. In October 2015, RBHA contractors statewide began providing integrated care for their beneficiaries with an SMI, as shown in Figure 1-16.[1-36,1-37]

On October 1, 2018, AHCCCS conducted its largest care integration initiative by transitioning all acute care beneficiaries who do not have an SMI to seven ACC integrated health care plans, which provided coverage for physical and behavioral care. Following the implementation of the ACC integration, the RBHAs provided specific services for several well-defined populations: integrated physical and behavioral health services for beneficiaries determined to have an SMI; behavioral health services for beneficiaries in the custody of the DCS and enrolled in CMDP; and behavioral health services for ALTCS beneficiaries enrolled with the DES/DDD.

On October 1, 2019, AHCCCS integrated behavioral and physical health care for the ALTCS-DD population. AHCCCS intends that beneficiaries enrolled in CMDP will transition to integrated behavioral and physical health care services beginning April 1, 2021. Due to these integration initiatives, the focus of the evaluation of the RBHA component will be to assess outcomes only among adult beneficiaries with an SMI. Measures and outcomes for the other populations will be included in the respective waiver evaluation design plans—behavioral health-related measures for children covered by CMDP will be included in the evaluation of CMDP, and measures for DES/DDD beneficiaries covered through ALTCS will be included in the evaluation design plan for ALTCS.

The majority of beneficiaries with SMIs have been with their current RBHA carrier for at least a full year, as illustrated in Figure 1-17. The age and gender distributions are fairly similar, as shown in Figure 1-18.

[1-36] NORC. *Supportive Services Expansion for Individuals with Serious Mental Illness: A Case Study of Mercy Maricopa Integrated Care.* August 18, 2017. Available at: https://es.mercycareaz.org/assets/pdf/news/NORC-MercyMaricopa-CaseStudy.pdf. Accessed on: Mar 27, 2020.

[1-37] AHCCCS. Behavioral Health, AHCCCS Complete Care (ACC) Began October 1, 2018. Available at: https://www.azahcccs.gov/Members/BehavioralHealthServices/. Accessed on Aug. 27, 2020.

Figure 1-17: Continuity of Coverage

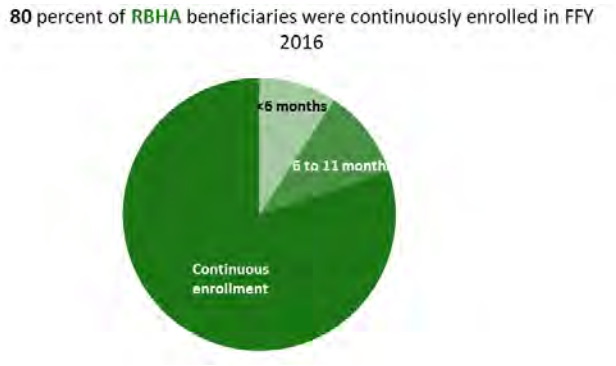
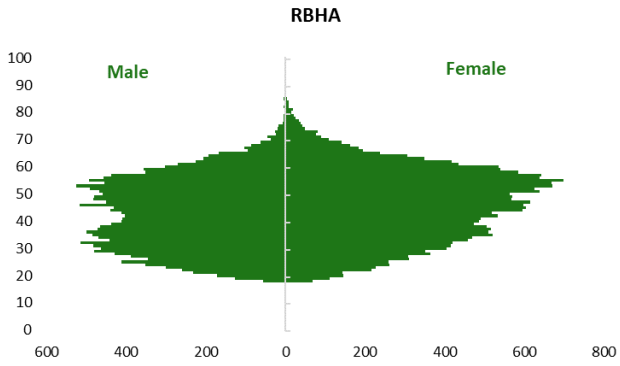


Figure 1-18: RBHA SMI Beneficiaries, by Age and Gender



The primary goals of the RBHAs are to identify high-risk beneficiaries with an SMI and transition them across levels of care effectively. RBHAs aim to streamline, monitor, and adjust care plans based on progress and outcomes, reduce hospital admissions and unnecessary emergency department (ED) and crisis service use, and provide beneficiaries with tools to self-manage care to promote health and wellness by improving the quality of care.

RBHA MCOs are required to provide a wide variety of services to individuals with SMIs, including:

- Behavioral health day program services.
- Behavioral health residential facility services.
- Crisis services that are community based, recovery-oriented, and member focused, as well as ensure timely follow up and care coordination, including medication-assisted treatment (MAT) where appropriate.
- Court ordered treatment.
- Inpatient behavioral health services in an Institution for Mental Disease (IMD), i.e., a sub-acute facility providing psychiatric or substance use disorder inpatient care.
- Inpatient physical health services including hospitals, sub-acute facilities, and residential treatment centers.
- Rehabilitation services, including:
  - Skills training and development.
  - Psychosocial rehabilitation living skills training.
  - Cognitive rehabilitation.
  - Behavioral health prevention/promotion education and medication training and support.
  - Supported employment (pre-job training and job deployment) and ongoing support to maintain employment (job coaching and employment support).
- Support services including provider case management, personal care services, family support, peer support, home care training to home care client, unskilled respite care, sign language or oral interpretation services and transportation.
- Treatment services including behavioral health assessment, evaluation and screening services, counseling and therapy, and other professional treatment.
- Dialysis.
- Early and periodic screening, diagnostic and treatment services.
- Early detection health risk assessment, screening, treatment and primary prevention.

- Emergency services.
- End-of-life care.
- Family planning services.

The services required of MCOs include an improved and standardized Crisis System, general mental health, substance abuse, and children's services. The goal of integration is to give beneficiaries with SMIs a single source not only for coordinated physical and behavioral health services, but also for housing and employment support and any Dual Eligible Special Needs Plans (D-SNP) benefits eligible for if they are dually eligible for Medicare and Medicaid. The RBHA MCOs also administer certain non-Title XIX funds, such as grant funds and housing services. These include providing residential, counseling, case management, and support services. Substance abuse services for priority populations may also be provided, such as childcare services, some traditional healing, acupuncture, room and board, supportive housing, as well as supported housing through rent or utility subsidies and relocation services.

MPS standards and practices for developing and implementing CAPs and PIPs apply to RBHA MCOs as to the other AHCCCS plans.[1-38] Federal regulations require annual review and reports by an EQRO analyzing the performance required of MCOs.[1-39] These reports provide regular review and evaluation by an objective third party of the quality, timeliness, and access to healthcare services that MCOs provide. In addition, the EQRO identifies opportunities for improvement and collaborates with AHCCCS and MCOs to identify appropriate PIPs designed to improve quality, access, and timeliness of care. The same system of financial incentives apply to encourage integration of care.

PQC Waiver

On January 18, 2019, CMS approved Arizona's request to amend its Section 1115 demonstration project to waive PQC retroactive eligibility established by the ACA on January 1, 2014. CMS allows individuals who are applying for Title XIX coverage retroactive coverage for up to three months prior to the month of application, as long as the individual was eligible for Medicaid during that time. Arizona's demonstration allows AHCCCS to limit retroactive coverage to the month of application, consistent with AHCCCS' historical practice prior to January 2014.[1-40] AHCCCS provided outreach and education to eligible members, current beneficiaries, and providers to inform those who would be impacted by the change.

AHCCCS designed the program to discourage individuals from waiting until they had a health crisis to enroll in the program. By limiting the period of retroactive eligibility, members would be encouraged to apply for Medicaid as soon as they became eligible. With education and support from AHCCCS and MCOs, this would promote individual accountability for and engagement in their own health care while improving continuity of enrollment and providing the benefits of managed and preventive care to improve health outcomes and reduce costs. In turn, this can provide support for the sustainability of the Medicaid program while more efficiently focusing resources on providing accessible high-quality health care and limiting the resource-intensive process associated with determining PQC eligibility.

[1-38] AHCCCS Medical Policy Manual chapter 900, Quality Management and Performance Improvement Program.
[1-39] 42 CFR §438.3641.
[1-40] Arizona Health Care Cost Containment System. *Arizona Section 1115 Waiver Amendment Request: Proposal to Waive Prior Quarter Coverage*. April 6, 2019. Available at: https://www.azahcccs.gov/Resources/Downloads/PriorQuarterCoverageWaiverToCMS_04062018.pdf. Accessed on: Mar 19, 2020. The amendment allows AHCCCS to apply the demonstration to all Medicaid beneficiaries except pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age.

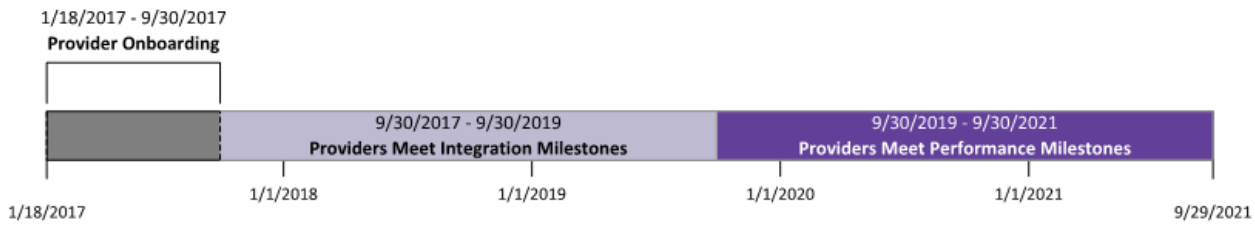
TI Program

The TI program provides up to $300 million across the demonstration approval period (January 18, 2017, through September 30, 2021) to support the physical and behavioral health care integration and coordination for beneficiaries with behavioral health needs who are enrolled in AHCCCS. These beneficiaries include adults with behavioral health needs, children with behavioral health needs including children with ASD, children engaged in the child welfare system, and individuals released from incarceration who are AHCCCS eligible.

The TI program was designed by AHCCCS with input from a variety of stakeholders to reduce fragmentation between historically siloed systems delivering care for acute and behavioral health needs. It encourages development of integrated systems that will provide holistic care for individuals while improving efficiencies and outcomes. The program fosters collaboration between providers to develop information sharing tools, data analysis standards, and clinical and administrative protocols to enable managing and coordinating patient care across multiple providers. In recognition of the comprehensive system reforms necessary to achieve these goals, funding was provided from several sources to serve as a catalyst to encourage provider networks to invest in the needed infrastructure.

The TI program focused on what AHCCCS identified as its most complex and costly beneficiaries: adults and children with both behavioral and physical health needs and individuals transitioning from incarceration into the community. It targeted three types of providers: PCP sites, behavioral health providers, and hospitals. Only providers who demonstrated a minimum threshold of AHCCCS members among their patients were permitted to take part, and they had to attest that they had an electronic health record (EHR) system in place and had completed a behavioral health integration assessment using an AHCCCS-specified tool.

Figure 1-19: Phases of Targeted Investments Program



The TI demonstration roughly comprises of three phases, as depicted in Figure 1-19. The first year of the demonstration, January 2017 through September 2017, providers were recruited and onboarded for the program. Throughout FFYs 2018 and 2019, providers were expected to meet integration milestones. Beginning FFY 2020, performance metrics were calculated for each provider and payments were made based on performance.

Integration Milestones

Specific integration milestones applied depending on the provider type, and required the provider to meet a set of core requirements such as identifying members at high risk based on identified criteria, utilizing registries to monitor those members, training of case managers, implementation of integrated care plans, the ability to perform and communicate appropriate screening depending on the population, and identifying community-based resources for referrals. Pediatric providers were also required to develop procedures for communication and treatment for children with ASD, for obtaining records for children in the foster care system, for scheduling office visits with children in foster care, and for confidential communication with foster parents/guardians/case workers. Providers for adults transitioning from the criminal justice system were required to meet the basic milestones for adults; establish integration with the probation/parole office; develop outreach plans; create peer/family support plans;

and, if appropriate, utilize Arizona Opioid Prescribing Guidelines for acute and chronic pain as well as create access to MAT as appropriate.

Performance Milestones

Table 1-2: Performance Measures Applicable to Each Provider

Year 4 milestone measure	Pediatric		Adults		Justice
	BH	PCP	BH	PCP	
Follow-up after hospitalization for mental illness (30 day)[1]	✓		✓	✓	✓
Follow-up after hospitalization for mental illness (7 day)[1]	✓		✓	✓	✓
Diabetes Screening for people with Schizophrenia or Bipolar Disorder who are using antipsychotic medications			✓	✓	✓
Initiation of Alcohol and Other Drug Abuse or Dependence Treatment (14 day)					✓
Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (34 day)					✓
Metabolic monitoring for children and adolescents on antipsychotics	✓				
Well child visits in the third, fourth, fifth, and sixth years of life		✓			
Adolescent well-care visits		✓			
Well child visits in the first 15 months of life		✓			

[1]Ages 6-17 for pediatric providers. Ages 18 and over for adult providers.

Beginning in demonstration year four, FFY 2020, participating providers were required to participate in the TI Program Quality Improvement Collaborative (QIC) offered by the Arizona State University Center for Health Information and Research (ASU CHiR). The QIC provides TI participants with updates on their performance milestones and assist with quality improvement. Table 1-2 outlines performance measures applicable to each provider by area of concentration. The results presented in this report and future evaluation reports for measures in this table will not be used to assess whether providers are meeting performance measure targets for purposes of incentive payments.

Performance measure targets for these measures will be established for each participating organization based on baseline performance, as calculated by ASU CHiR.

The TI program directed its MCOs to provide financial incentives to eligible Medicaid providers who met these performance measure targets and benchmarks for integrating and coordinating physical and behavioral health care for Medicaid beneficiaries.[1-41] This demonstration is funded by up to $300 million from multiple sources, which include a maximum of $90,824,900 from CMS-approved time-limited expenditures from the Designated State Health Programs (DSHPs). This one-time investment of DSHP funding was phased down over the demonstration period and is providing a short-term federal investment. AHCCCS is seeking expenditure authority to continue the TI program from 2021 through 2026.

To participate in the TI program and receive incentive payments, providers and hospitals are required to meet specific programmatic milestones and performance benchmarks. A key step in the integration process for participating TI providers is to establish an agreement with Health Current, Arizona's health information exchange (HIE) and to receive Admission-Discharge-Transfer (ADT) alerts. Providers who receive ADT alerts receive an automated clinical summary in response to inpatient admission, ED registration or ambulatory encounter registration, and a comprehensive continuity of care document that contains the patient's most recent clinical and encounter information.[1-43] This allows providers to receive key information to improve patient care.

[1-41] On April 27, 2020, AHCCCS announced the advancement of $41 million in previously allocated incentive payments to TI providers in order to address the COVID-19 pandemic. "Arizona Medicaid Program Advances $41 Million in Provider Payments to Address COVID-19 Emergency". Available at: https://azahcccs.gov/shared/News/GeneralNews/AHCCCSAdvancesFortyOneMilProviderPayments.html. Accessed on: Aug 26, 2020.
[1-43] Health Current. HIE Services. Available at: https://healthcurrent.org/hie/benefits-services. Accessed on: Apr 1, 2020.

Participating providers are expected to establish numerous protocols, policies, and systems of care that support the provision of whole person care through the integration of physical and behavioral health, informed by screening and intervention for social determinants of health (SDOH) and other psychosocial factors affecting health status. The integration activities required of participating providers are expected to be continued and sustained systemwide by the ACC MCOs that are accountable for whole-person systems of care.[1-44]

The number of providers by area of concentration that were participating in the TI at the end of Year 2 (September 2018) are provided in Table 1-3.

Table 1-3: Number of Provider Sites Participating by Area of Concentration

Participating Area of Concentration	Number of Sites
Adult Behavioral Health	161
Adult Primary Care	191
Pediatric Behavioral Health	125
Pediatric Primary Care	90
Hospital	20
Justice	12

Information collected to date indicates that TI providers have met most milestones, and the majority began receiving ADT alerts between May and October 2018. Their performance is compared to that of non-TI providers in Figure 1-20.

Figure 1-20: Number of TI and Non-TI Providers Receiving ADT Alerts, March 2016–March 2020

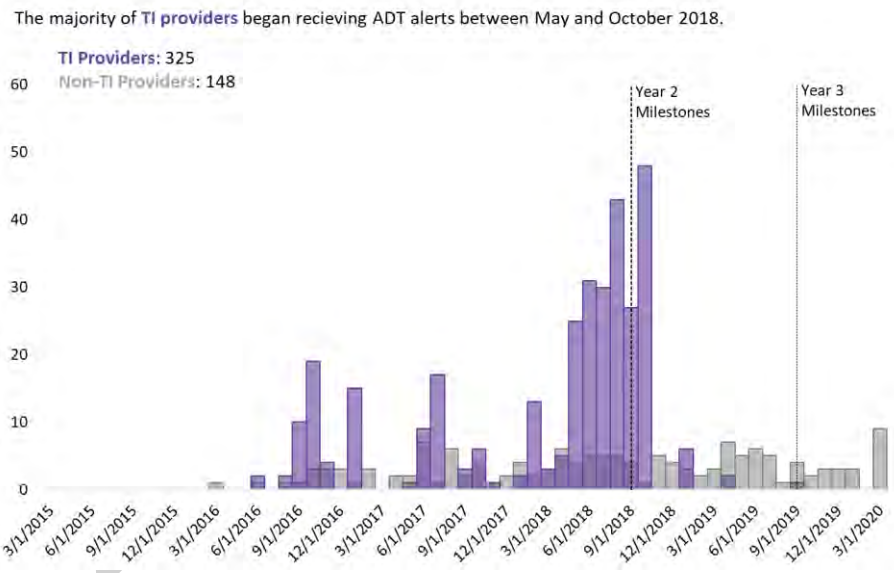
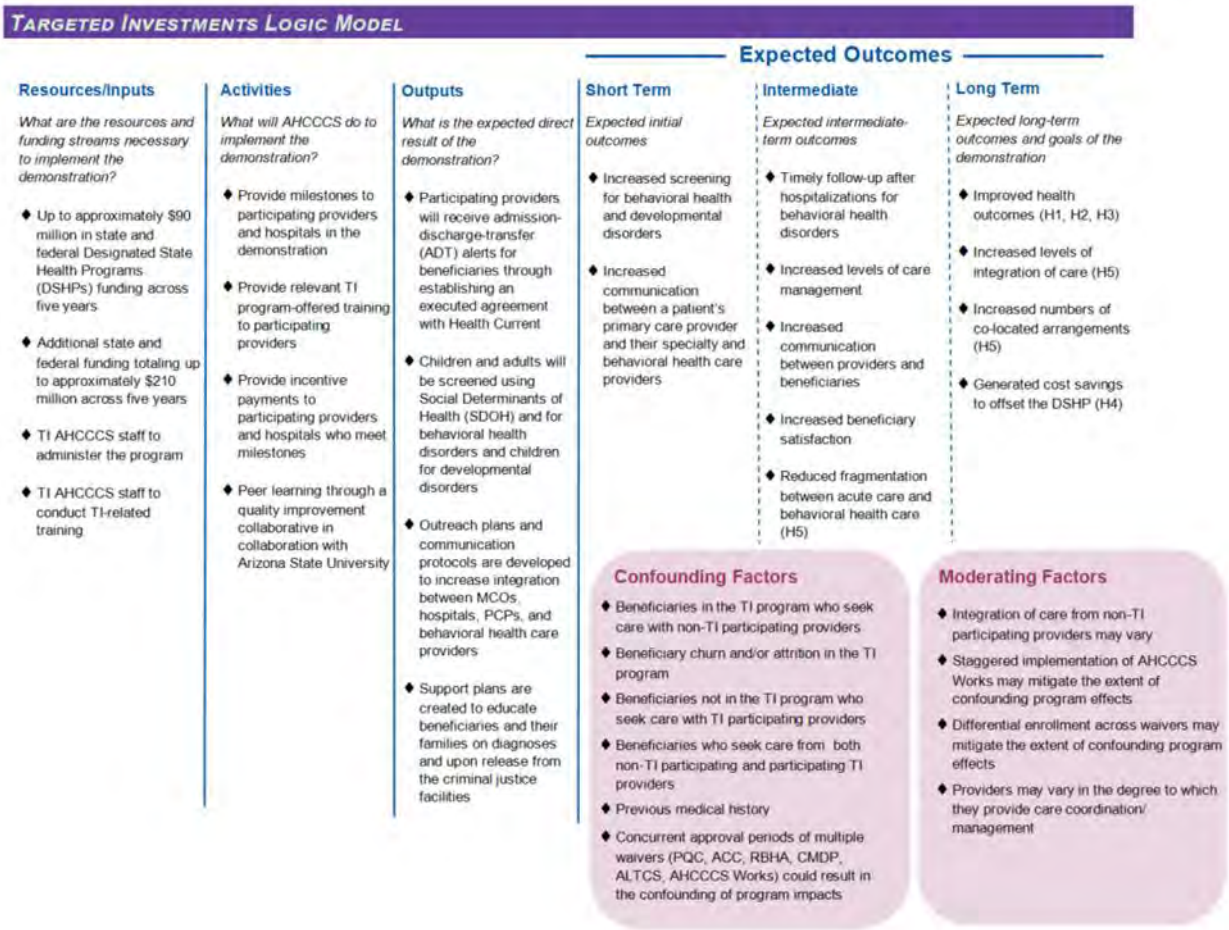


Figure 1-21 illustrates that providing financial investments to participating providers and hospitals in the demonstration will ultimately lead to improved health outcomes and increased levels of integration of care, and

[1-44] AHCCCS. *Targeted Investments Program Sustainability Plan.* March 29, 2019. Available at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-target-stability-plan-20190812.pdf. Accessed on: Apr 6, 2020.

generate cost savings that will offset the time-limited federal DSHP. By providing milestones that must be met at specific time frames to earn financial incentives, AHCCCS expects to encourage increased levels of integration of care among participating providers. In the short term, AHCCCS expects that there will be increased communication between a patient's PCP and specialty and behavioral health care providers. This will lead to increased levels of care management, which in the longer term will lead to improved health outcomes among targeted beneficiaries.

Figure 1-21: TI Logic Model



Demographics

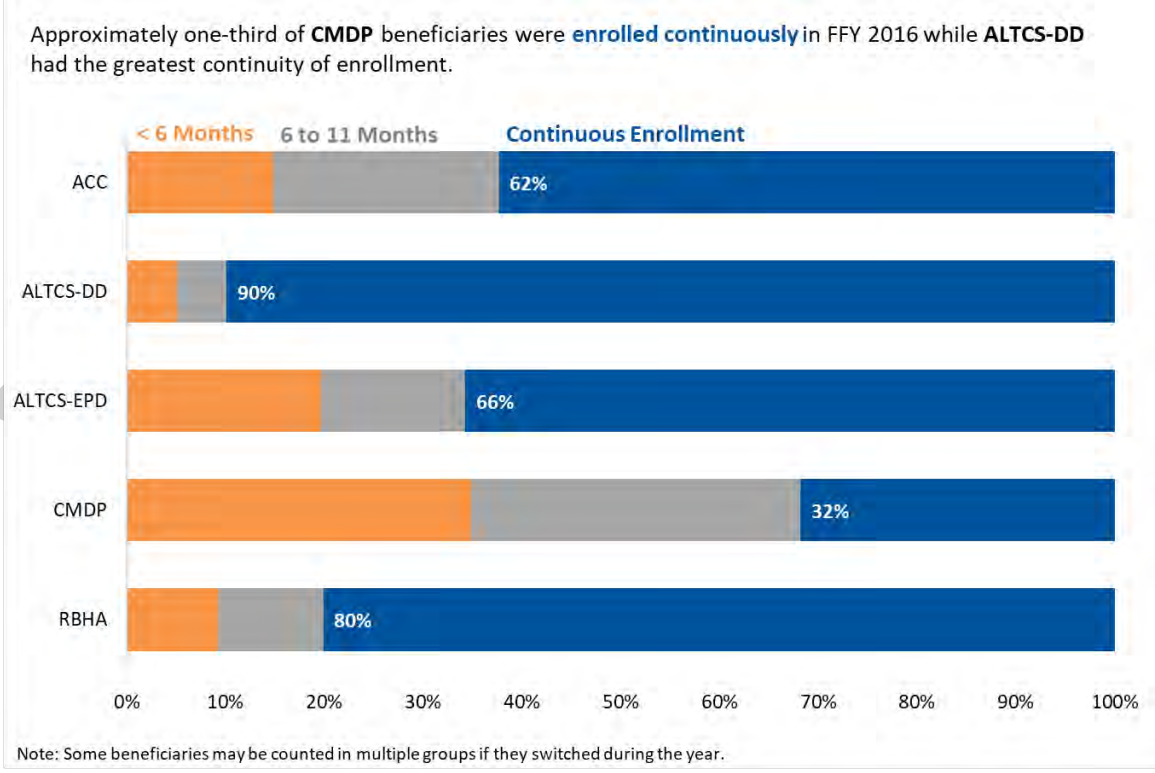
Table 1-4: Enrollment by Program

Program	Enrollment as of Sept 30, 2016	Sept 30, 2017	Sept 30, 2018
ACC	1,525,834	1,533,566	1,478,264
ALTCS-DD	29,772	31,189	32,855
ALTCS-EPD	27,083	27,491	28,396
RBHA	42,020	43,146	41,486
CMDP	17,142	14,753	13,158
Total	**1,641,851**	**1,650,145**	**1,594,159**

Table 1-4 shows that, at the beginning of the demonstration period, most AHCCCS beneficiaries were covered through Acute Care plans, which transitioned to ACC in 2018, as described above. The ALTCS-DD and ALTCS-EPD populations were approximately equal in size, totaling roughly 57,000 beneficiaries. While CMDP shows the lowest enrollment counts among beneficiaries enrolled upon demonstration renewal (as of September 30, 2016), CMDP beneficiaries also had the lowest rates of enrollment continuity, meaning a substantial number of CMDP beneficiaries could have been enrolled for shorter durations throughout FFY 2016.[1-45]

Figure 1-22 shows that approximately one-third of CMDP beneficiaries were enrolled for fewer than six full months in FFY 2016, another third were enrolled for between six and 11 months, and the final third were enrolled for the full year. ALTCS-DD beneficiaries had the greatest continuity of enrollment, with 90 percent of beneficiaries enrolled for the full year. Between 62 and 69 percent of beneficiaries in ACC, RBHA, and ALTCS-EPD were enrolled continuously during the year prior to demonstration renewal.

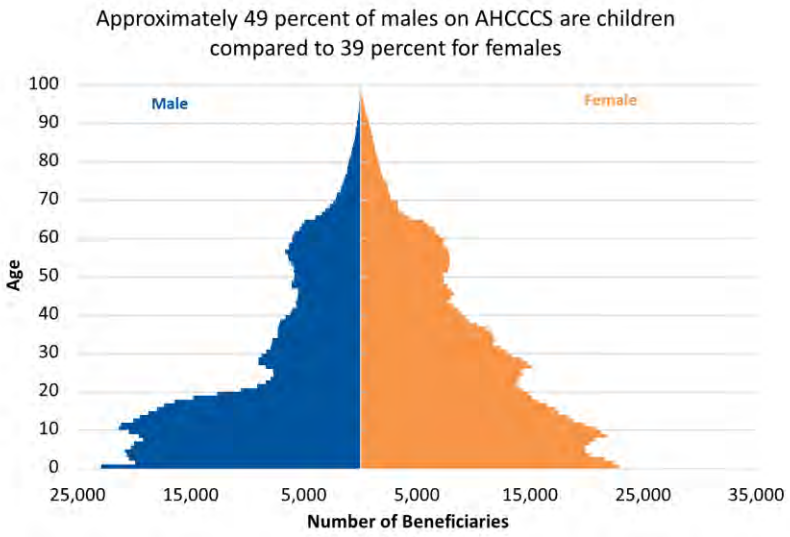
Figure 1-22: Total Months Enrollment by Program



[1-45] Demographic characteristics among beneficiaries impacted by the TI and PQC programs are not reported in this section because these populations overlap with the four primary AHCCCS programs.

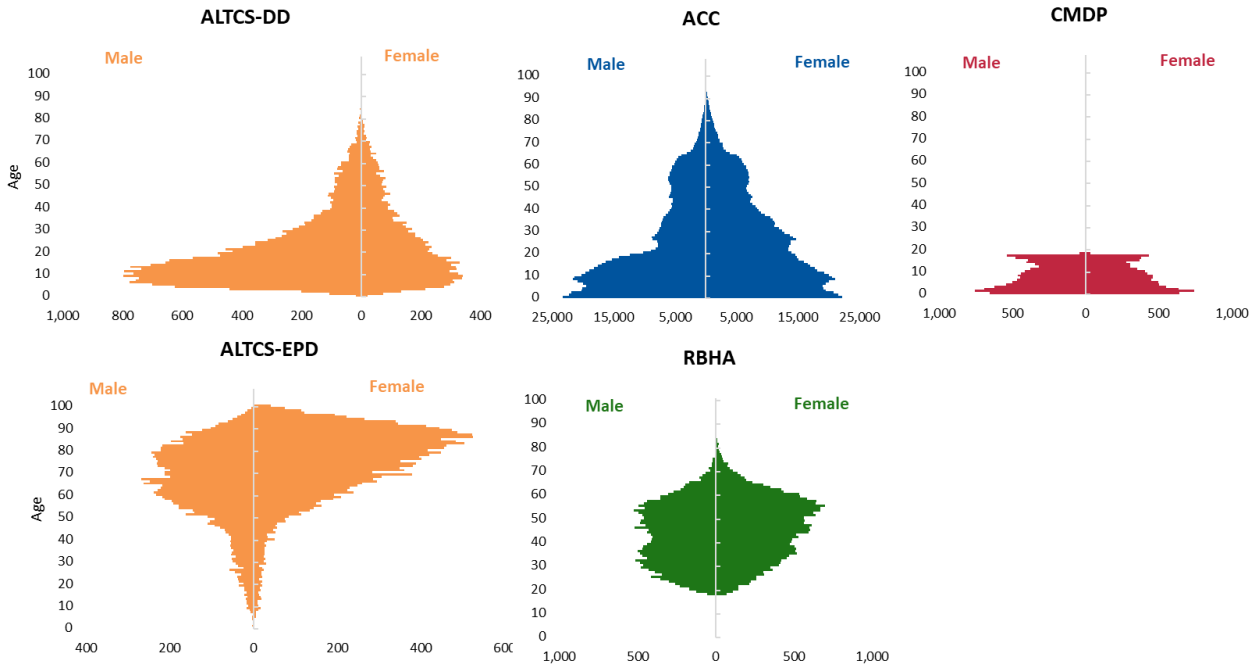
Figure 1-23 compares the age distribution among all AHCCCS beneficiaries by gender. Like most state Medicaid populations, children are split approximately equally between males and females.

Figure 1-23: AHCCCS Age Distribution by Gender



By program, however, there are substantial differences between gender and age distributions, particularly among the ALTCS population, as illustrated in Figure 1-24.

Figure 1-24: AHCCCS Age Distribution by Program and Gender



2. Evaluation Questions and Hypotheses

The primary purpose of the interim evaluation is to determine whether the Arizona Health Care Cost Containment System (AHCCCS) waiver demonstration is achieving the goals outlined in the Background section. This section provides each program's logic model, hypotheses, and research questions, which focus on evaluating the impact of these goals.

There are several concurrent programs and components to the AHCCCS waiver demonstration that may affect certain groups of beneficiaries. The logic models presented below depict each program's interaction between the demonstration components, the waiver programs and policy changes, and populations covered by AHCCCS.

Most AHCCCS beneficiaries in the managed care system have coverage through four different programs (Table 2-1).

Table 2-1: Beneficiary Coverage

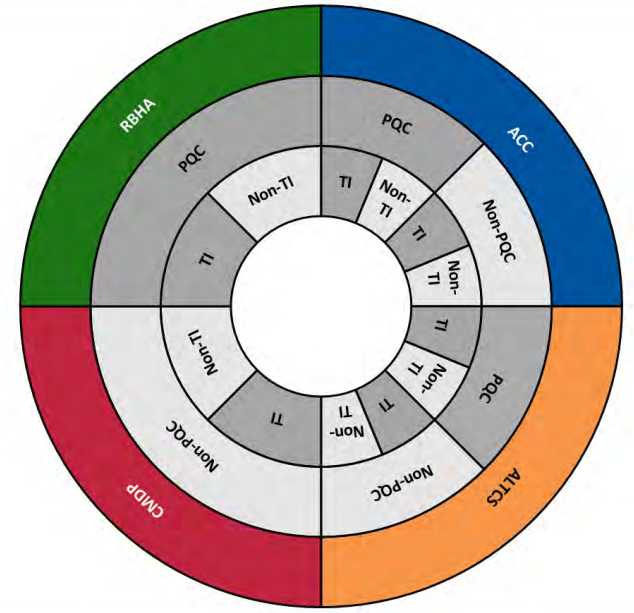
AHCCCS Program	Population Covered
AHCCCS Complete Care (ACC)	• Adults who are not determined to have a serious mental illness (SMI) (excluding beneficiaries enrolled with Department of Economic Security/Division of Developmental Disabilities [DES/DDD]). • Children, including those with special health care needs (excluding beneficiaries enrolled with DES/DDD and Department of Child Safety/CMDP). • Beneficiaries determined to have an SMI who opt out of a Regional Behavioral Health Authority (RBHA) and transfer to an ACC for the provision of physical health services.
Arizona Long Term Care System (ALTCS)	• Beneficiaries with an intellectual or developmental disability (ALTCS-DD) and beneficiaries who are elderly or physically disabled (ALTCS-EPD).
Comprehensive Medical and Dental Program (CMDP)	• Beneficiaries in custody of the Department of Child Safety (DCS).
Regional Behavioral Health Authority (RBHA)	• Adult beneficiaries with an SMI.

Two of the six waiver programs, Prior Quarter Coverage (PQC) and Targeted Investments (TI), impact multiple populations. The PQC waiver impacts all adults on AHCCCS;[2-1] therefore, evaluations that only cover children (i.e., Comprehensive Medical and Dental Program [CMDP]) will not be affected by PQC, and evaluations that only cover adults (i.e., Regional Behavioral Health Authority [RBHA]) will be impacted by PQC (with few exceptions). The TI program is designed to encourage participating practitioners to provide integrated care for their beneficiaries. This impacts all children and adult beneficiaries attributed or assigned to TI-participating practitioners; however, it does not impact beneficiaries who are not attributed or assigned to practitioners who are not participating in TI. Therefore, the TI program will in theory impact every eligibility category.

Figure 2-1 illustrates that the populations covered by AHCCCS Complete Care (ACC), CMDP, Arizona Long Term Care System (ALTCS), and RBHA are mutually exclusive and that each of these may have a subset impacted by PQC and/or TI.

[2-1] Exceptions include children under the age of 19 and women who are pregnant or 60 days postpartum.

Figure 2-1: Population Relationships Across Waivers

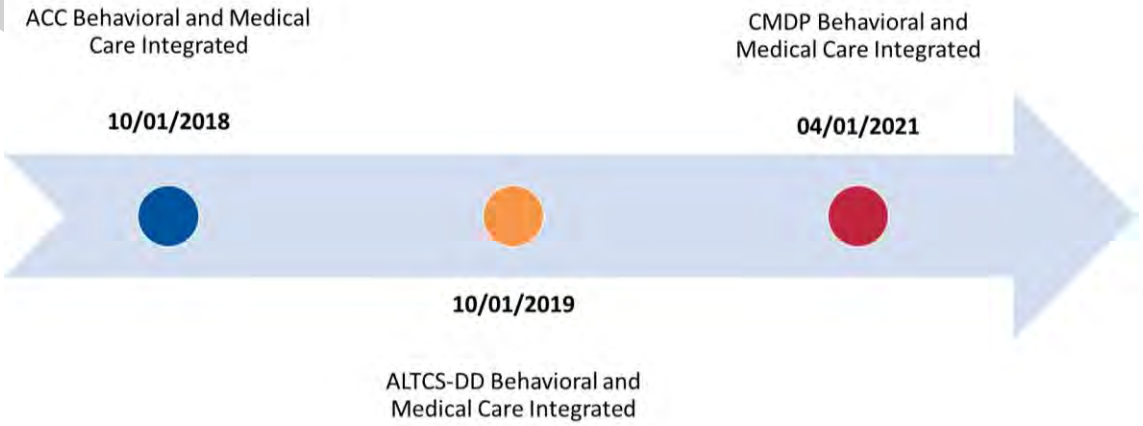


Timeline of Behavioral and Medical Health Care Integration

The four broad populations, with few exceptions, are distinct and mutually exclusive. For example, beneficiaries with a serious mental illness (SMI) may opt-out of RBHA coverage and instead choose an ACC plan that is available in their region. Children in the custody of the Department of Child Safety (DCS) with an intellectual or developmental disability are covered through the ALTCS intellectual or developmental disability (ALTCS-DD) program.

Prior to the demonstration renewal, RBHA provided behavioral health coverage for much of the AHCCCS population, while medical care was provided through other plans. Prior to and during the demonstration renewal period, AHCCCS has made several structural changes to care delivery by integrating behavioral and medical care at the payer level. This integration process began with the award of the Mercy Maricopa Integrated Care (MMIC) contract in 2013, effective April 2014. MMIC was a RBHA that, in addition to providing behavioral health coverage for most AHCCCS beneficiaries in central Arizona, provided integrated physical and behavioral healthcare coverage for adult beneficiaries with a SMI in Maricopa County. In October 2015, RBHA contractors statewide began providing integrated care for their beneficiaries with an SMI. On October 1, 2018, AHCCCS conducted its largest care integration initiative by transitioning all acute care beneficiaries who do not have an SMI to seven integrated health plans, which provided coverage for physical and behavioral health care. Beginning October 1, 2019, AHCCCS integrated behavioral and physical healthcare for the DES/DDD population covered through ALTCS-DD. Beneficiaries enrolled in CMDP will transition to integrated behavioral and physical health care services under the CMDP waiver beginning April 1, 2021. Figure 2-2 depicts a timeline of the payer-level integration of behavioral health and medical health care for the ACC, ALTCS-DD, and CMDP populations.

Figure 2-2: Behavioral Health and Medical Health Care Integration

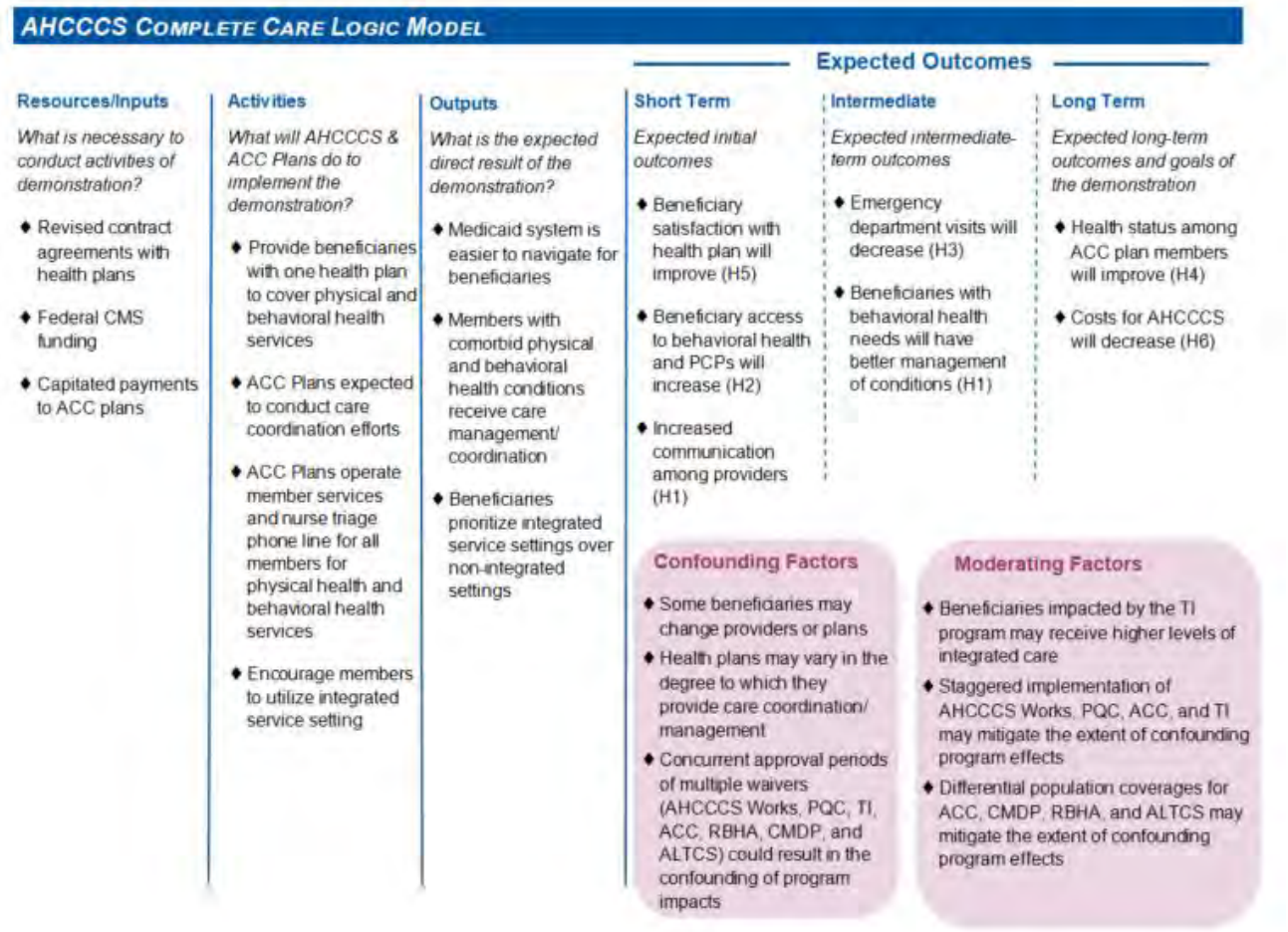


ACC

Logic Model

Figure 2-3 illustrates that, with additional funding to support integration and fund the ACC plans, beneficiaries will find the Medicaid system easier to navigate, those with physical and behavioral health comorbidities will receive care coordination/management, and beneficiaries will prioritize practices with integrated services over those with non-integrated services. With an easier to navigate Medicaid system, beneficiary satisfaction will improve. With better care coordination/management, beneficiaries with complex needs will see improved health outcomes, first shown by increased access to care and reduced utilization of emergency department (ED) visits. In the long term, this will improve beneficiaries' health and well-being while providing cost-effective care. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-2).

Figure 2-3: ACC Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the ACC program, six hypotheses (H) will be tested using 18 research questions (RQs) (Table 2-2).

Table 2-2: ACC Hypotheses and Research Questions

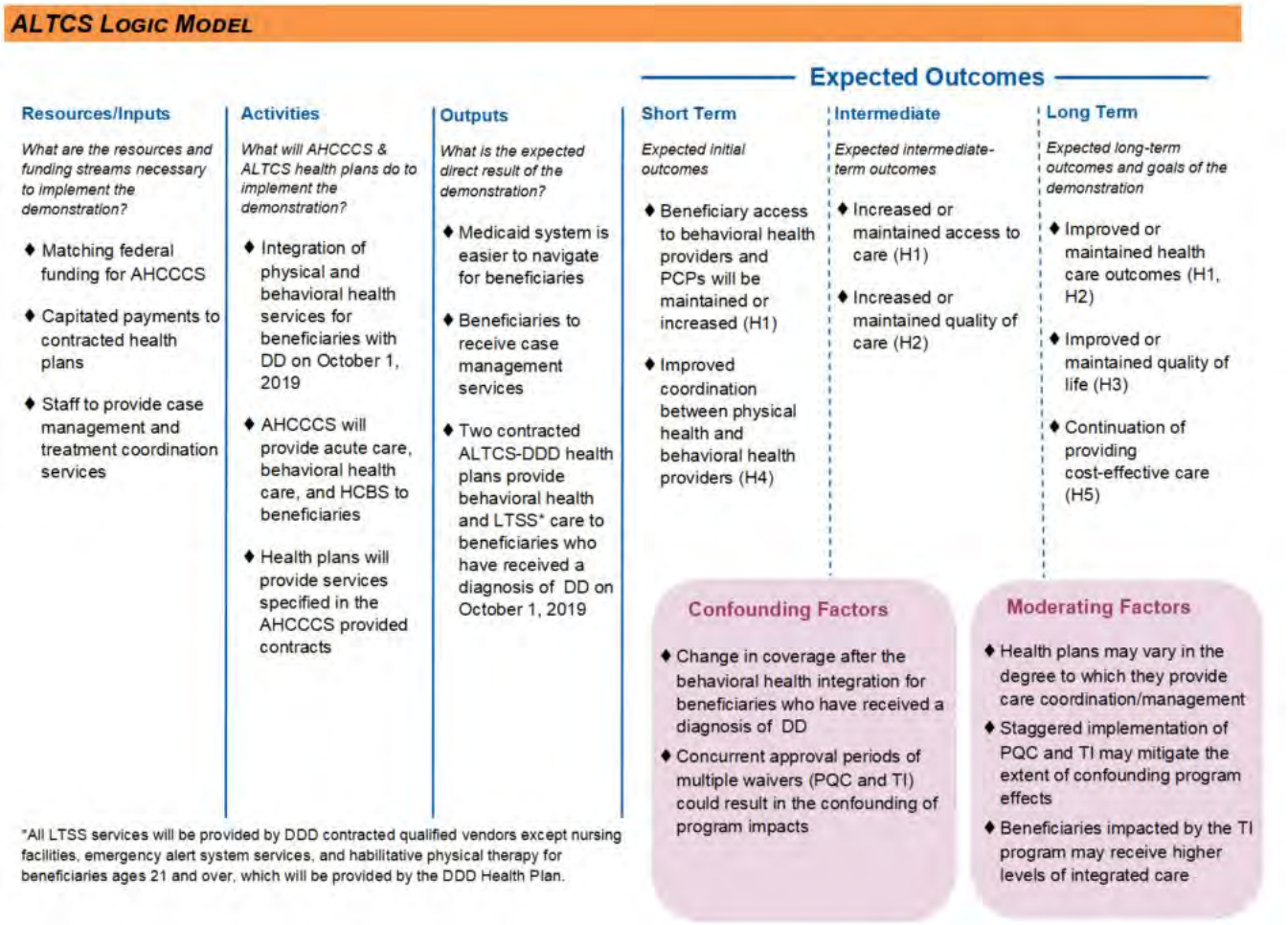
H1: Health plans encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.	• RQ1.1: What care coordination strategies did the plans implement as a result of ACC? • RQ1.2: Did the plans encounter barriers to implementing care coordination strategies? • RQ1.3: Did the plans encounter barriers not related specifically to implementing care coordination strategies during the transition to ACC? • RQ 1.4: Did AHCCCS encounter barriers related to the transition to ACC? • RQ1.5: Did providers encounter barriers related to the transition to ACC? • RQ1.6: Do beneficiaries perceive their doctors to have better care coordination as a result of ACC?
H2: Access to care will maintain or improve as a result of the integration of behavioral and physical care.	• RQ2.1: Do beneficiaries enrolled in an ACC plan have the same or better access to primary care services compared to prior to integrated care? • RQ2.2: Do beneficiaries enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to integrated care?
H3: Quality of care will maintain or improve as a result of the integration of behavioral and physical care.	• RQ3.1: Do beneficiaries enrolled in an ACC plan have the same or higher rates of preventive or wellness services compared to prior to integrated care? • RQ3.2: Do beneficiaries enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to integrated care? • RQ3.3: Do beneficiaries enrolled in an ACC plan have the same or better management of behavioral health conditions compared to prior to integrated care? • RQ3.4: Do beneficiaries enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to integrated care? • RQ3.5: Do beneficiaries enrolled in an ACC plan have equal or lower ED or hospital utilization compared to prior to ACC?
H4: Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care.	• RQ4.1: Do beneficiaries enrolled in an ACC plan have the same or higher overall health rating compared to prior to integrated care? • RQ4.2: Do beneficiaries enrolled in an ACC plan have the same or higher overall mental or emotional health rating compared to prior to integrated care?
H5: Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care.	• RQ5.1: Are beneficiaries equally or more satisfied with their health care as a result of integrated care?
H6: The ACC program provides cost-effective care.	• RQ6.1: What are the costs associated with the integration of care under ACC? • RQ6.2: What are the benefits/savings associated with the integration of care under ACC?

ALTCS

Logic Model

Figure 2-4 illustrates that, with additional funding to support integration and fund the ALTCS plans, beneficiaries will find the Medicaid system easier to navigate, continue to receive case management, and prioritize practices with integrated services over those with non-integrated services. With improvements to the navigation of the Medicaid system, beneficiary access to care will improve. With better case management, beneficiaries will see improved health outcomes, first shown by an increase in quality and access of care. In the long term, this will improve beneficiaries' health outcomes and well-being while providing cost-effective care.

Figure 2-4: ALTCS Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the ALTCS program, five hypotheses (H) will be tested using 18 research questions (RQs) (Table 2-3).

Table 2-3: ALTCS Hypotheses and Research Questions

H1: Access to care will maintain or improve over the waiver demonstration period.	• RQ1.1: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with DD have the same or higher access to care compared to baseline rates and out-of-state comparisons? • RQ1.2: Do child beneficiaries with DD have the same or higher rates of access to care compared to baseline rates and out-of-state comparisons? • RQ1.3: Do adult beneficiaries with DD have the same or improved rates of access to care as a result of the integration of care for beneficiaries with DD?
H2: Quality of care will maintain or improve over the waiver demonstration period.	• RQ2.1: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of preventive care compared to baseline rates and out-of-state comparisons? • RQ2.2: Do child beneficiaries with DD have the same or higher rates of preventive care compared to baseline rates and out-of-state comparisons? • RQ2.3: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or better management of behavioral health conditions compared to baseline rates and out-of-state comparisons? • RQ2.4: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with DD have the same or better management of prescriptions compared to baseline rates and out-of-state comparisons? • RQ2.5: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of utilization of care compared to baseline rates and out-of-state comparisons?
H3: Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.	• RQ3.1: Do beneficiaries have the same or higher rates of living in their own home as a result of the ALTCS waiver renewal? • RQ3.2: Do adult beneficiaries have the same or higher rates of feeling satisfied with their living arrangements as a result of the integration of care for beneficiaries with DD? • RQ3.3: Do adult beneficiaries have the same or higher rates of feeling engaged as a result of the integration of care for beneficiaries with DD?
H4: ALTCS encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.	• RQ4.1: Did DES/DDD or its contracted plans encounter barriers during the integration of care for beneficiaries with DD? • RQ4.2: What care coordination strategies did DES/DDD and its contracted plans implement as a result of integration of care? • RQ4.3: Did DES/DDD or its contracted plans encounter barriers to implementing care coordination strategies? • RQ4.4: Did AHCCCS encounter barriers related to integration of care for beneficiaries with DD?

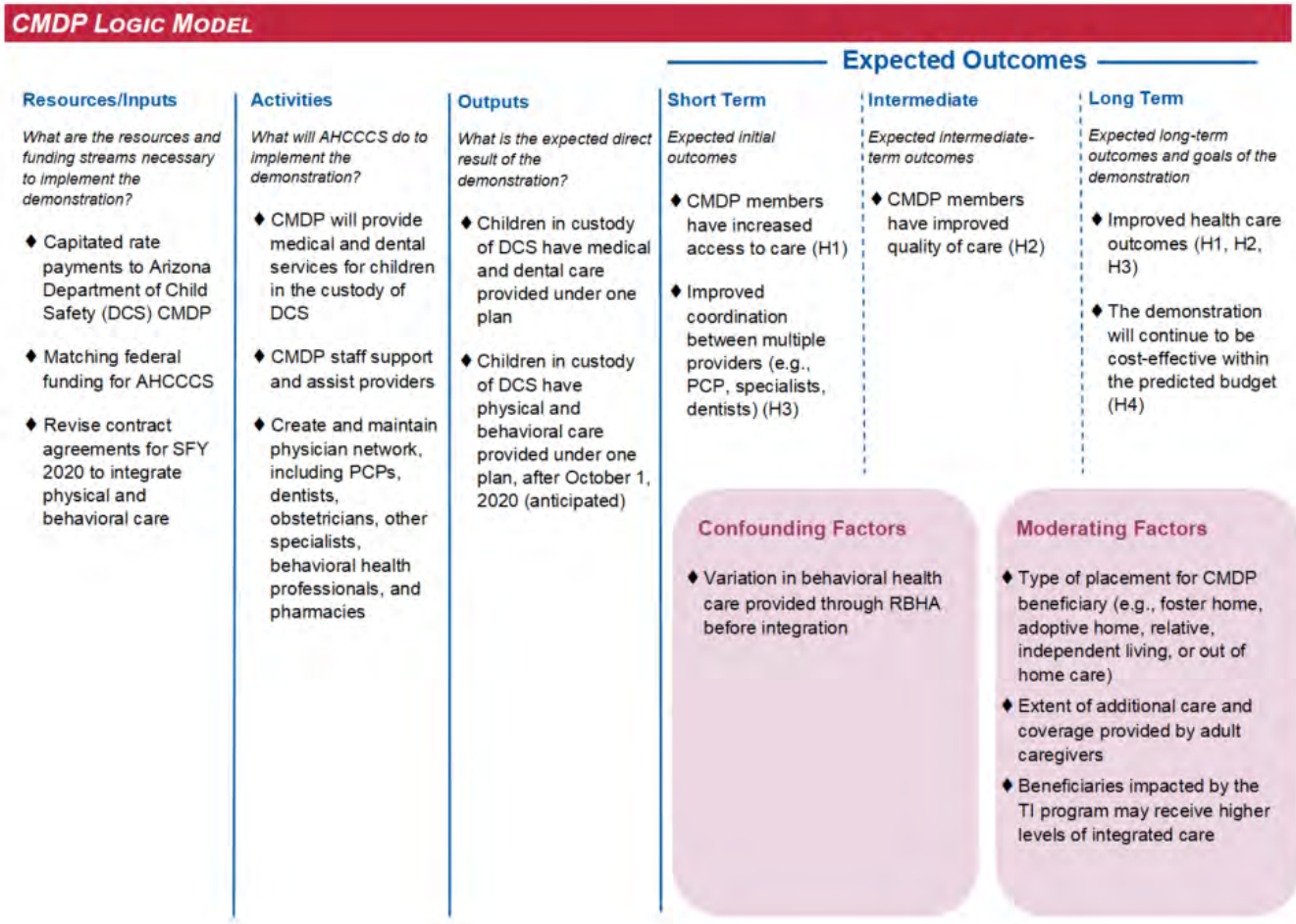
	• RQ4.5: Did providers encounter barriers related to integration of care for beneficiaries with DD?
H5: ALTCS provides cost-effective care.	• RQ5.1: What are the costs associated with the integration of care under ALTCS? • RQ5.2: What are the benefits/savings associated with the integration of care under ALTCS?

CMDP

Logic Model

Figure 2-5 illustrates that, with additional funding to support integration and fund the CMDP, children in custody of DCS will have medical and dental care provided under a single plan, and will have physical and behavioral health care provided under a single plan after April 1, 2021. With improved access to and integration of care, children covered by the CMDP will experience improved health outcomes under a cost-effective care model. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-4).

Figure 2-5: CMDP Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the CMDP program, four hypotheses (H) will be tested using 10 research questions (RQs) (Table 2-4).

Table 2-4: CMDP Hypotheses and Research Questions

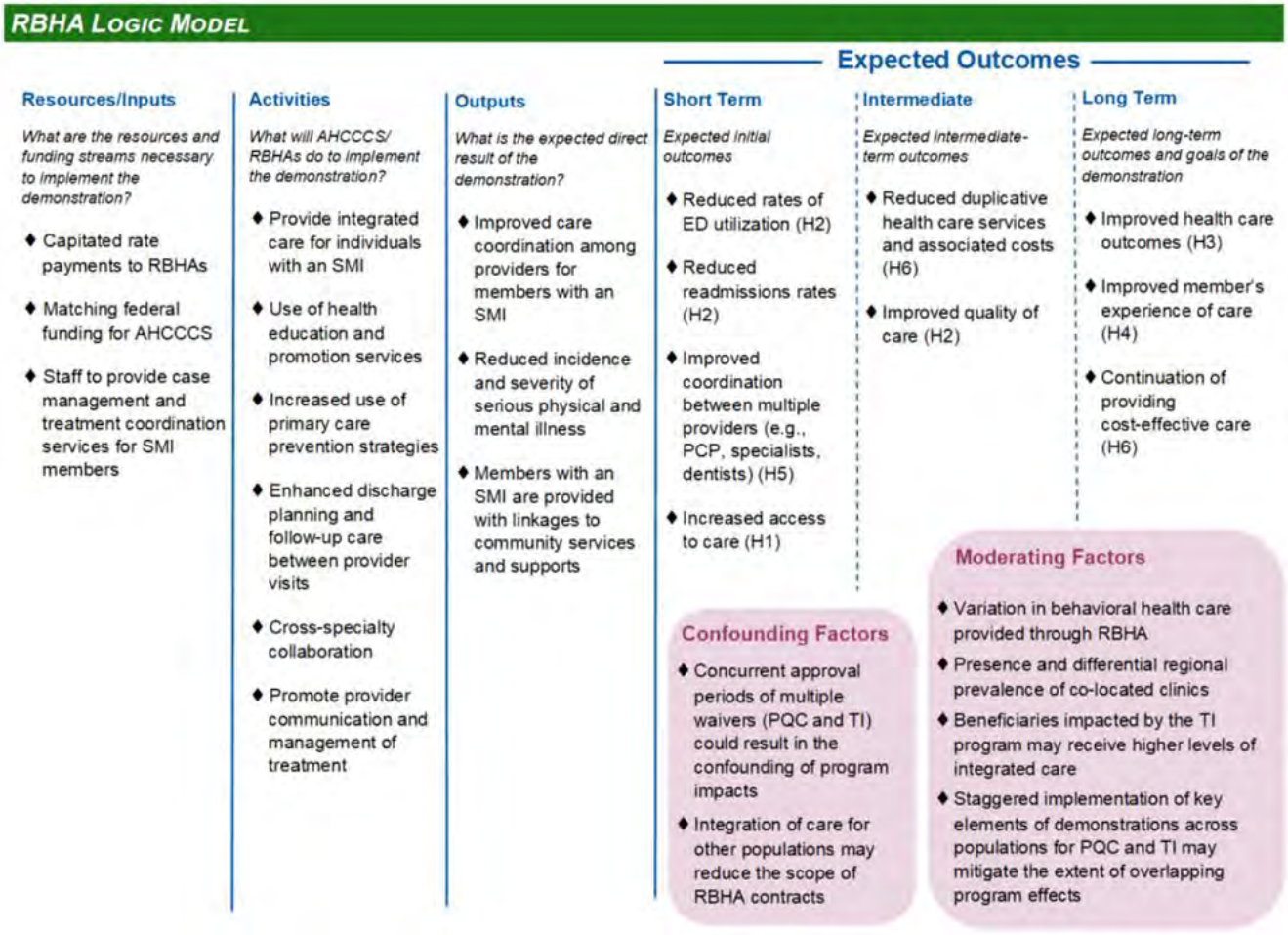
H1: Access to care will be maintained or increase during the demonstration.	• RQ1.1: Do CMDP beneficiaries have the same or increased access to PCPs and specialists in the remeasurement period compared to the baseline?
H2: Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.	• RQ2.1: Do CMDP beneficiaries have the same or higher rates of preventive or wellness services in the remeasurement period compared to the baseline? • RQ2.2: Do CMDP beneficiaries have the same or better management of chronic conditions in the remeasurement period compared to the baseline? • RQ2.3: Do CMDP beneficiaries have the same or better management of behavioral health conditions in the remeasurement period compared to the baseline? • RQ2.4: Do CMDP beneficiaries have the same or lower hospital utilization in the remeasurement period compared to the baseline?
H3: CMDP encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.	• RQ3.1: What barriers did CMDP anticipate/encounter during the integration? • RQ3.2: What care coordination strategies did CMDP plan/implement during integration? • RQ3.3: What barriers to implementing care coordination strategies did the CMDP anticipate/encounter?
H4: CMDP provides cost-effective care.	• RQ4.1: What are the costs associated with the integration of care in the CMDP? • RQ4.2: What are the benefits/savings associated with the integration of care in the CMDP?

RBHA

Logic Model

Figure 2-6 shows that, given resources to fund the RBHAs, adult beneficiaries with an SMI will continue to receive care coordination/management, their providers will follow enhanced discharge planning guidelines and conduct cross-specialty collaboration, thereby promoting communication among providers. By integrating physical and behavioral health care, beneficiary satisfaction will be maintained or improve during the demonstration period. With better care coordination/management, beneficiaries will have equal or improved access to care and utilization of ED visits resulting in equal or better health outcomes, overall health, and satisfaction with their health care experiences. In the long term, this will improve beneficiaries' health and well-being while providing cost-effective care.

Figure 2-6: RBHA Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the RBHA program, six hypotheses (H) will be tested using 17 research questions (RQs) (Table 2-5).

Table 2-5: RBHA Hypotheses and Research Questions

H1: Access to care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or increase during the demonstration.	• RQ1.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to primary care services compared to prior to the demonstration renewal? • RQ1.2: Do adult beneficiaries with an SMI enrolled in RBHA have the same or increased access to substance abuse treatment compared to prior to the demonstration renewal?
H2: Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.	• RQ2.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rates of preventive or wellness services compared to prior to demonstration renewal? • RQ2.2: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of chronic

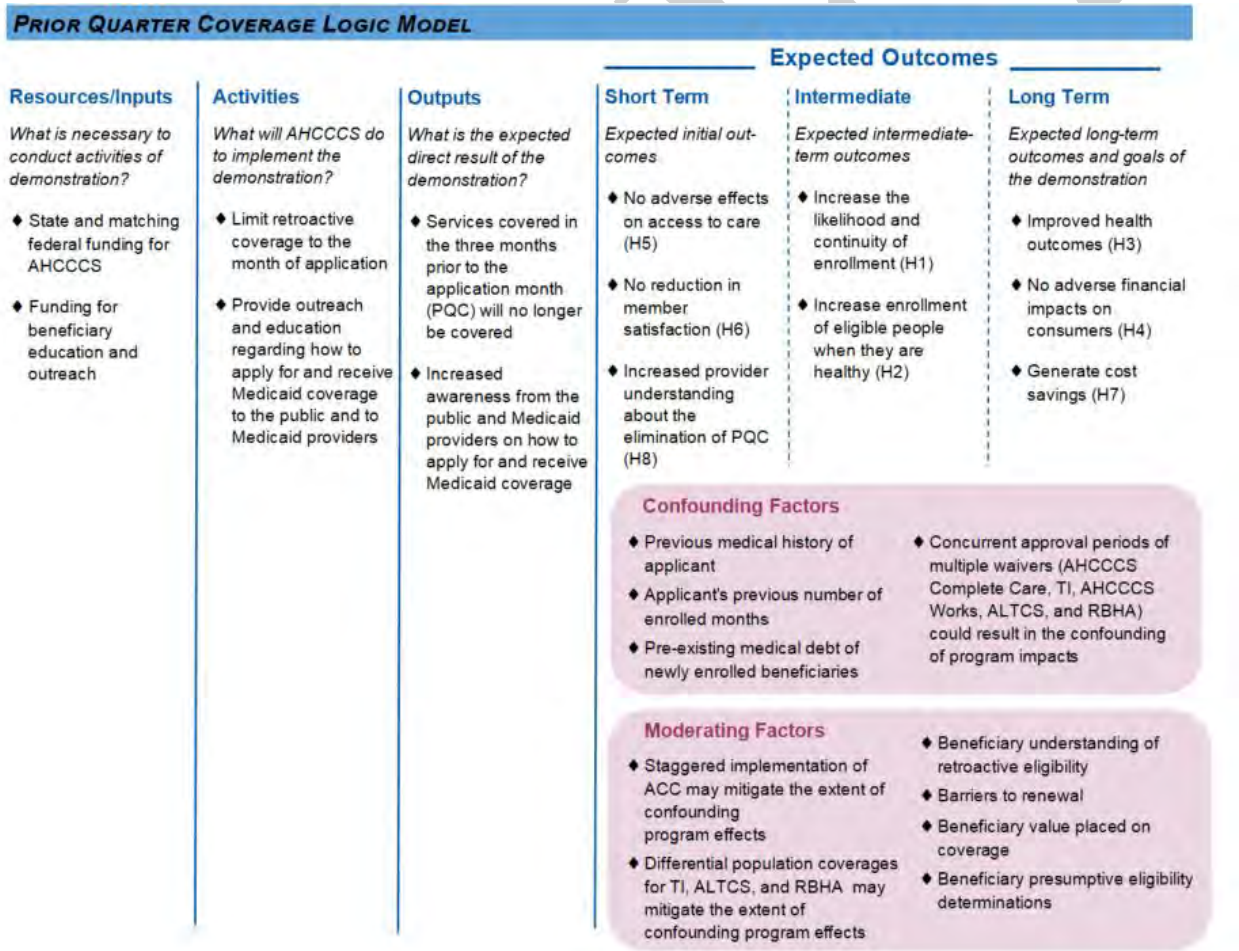
	conditions compared to prior to the demonstration renewal? • RQ2.3: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of behavioral health conditions compared to prior to the demonstration renewal? • RQ2.4: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of opioid prescriptions compared to prior to the demonstration renewal? • RQ2.5: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or lower tobacco usage compared to prior to the demonstration renewal? • RQ2.6: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or lower hospital utilization compared to prior to the demonstration renewal?
H3: Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.	• RQ3.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rating of health compared to prior to the demonstration renewal?
H4: Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration.	• RQ4.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher satisfaction in their health care compared to prior to the demonstration renewal? • RQ4.2: Do adult beneficiaries with an SMI enrolled in a RBHA perceive their doctors to have the same or better care coordination compared to prior to the demonstration renewal?
H5: RBHAs encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.	• RQ5.1: What care coordination strategies are the RBHAs conducting for their SMI population? • RQ5.2: Have care coordination strategies for the SMI population changed as a result of ACC? • RQ5.3: What care coordination strategies is AHCCCS conducting for its SMI population? • RQ5.4: What care coordination strategies and/or activities are providers conducting for their SMI patients served by the RBHAs?
H6: RBHAs will provide cost-effective care for beneficiaries with an SMI.	• RQ6.1: What are the costs associated with providing care for beneficiaries with an SMI through the RBHAs? • RQ6.2: What are the benefits/savings associated with providing care for beneficiaries with an SMI through the RBHAs?

PQC Waiver

Logic Model

Figure 2-7 illustrates that providing outreach and education to the public and providers regarding the demonstration and limiting retroactive eligibility to the month of application will lead to improved health outcomes, while having no negative effects on access to care and beneficiary satisfaction, as well as no negative financial impact to beneficiaries. These expected outcomes will not all happen simultaneously. Any effects on access to care and beneficiary satisfaction are expected to occur first. Later, it is expected that there will be an increase in the likelihood and continuity of enrollment and in the enrollment of eligible people while they are healthy. This aligns with the set objectives of the amendment. Longer-term, there should be no financial impact on beneficiaries, while generating cost savings to promote Arizona Medicaid sustainability. Ultimately, this leads to improved health outcomes among beneficiaries. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-6).

Figure 2-7: PQC Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the PQC waiver, eight hypotheses (H) will be tested using 14 research questions (RQs) (Table 2-6).

Table 2-6: PQC Hypotheses and Research Questions

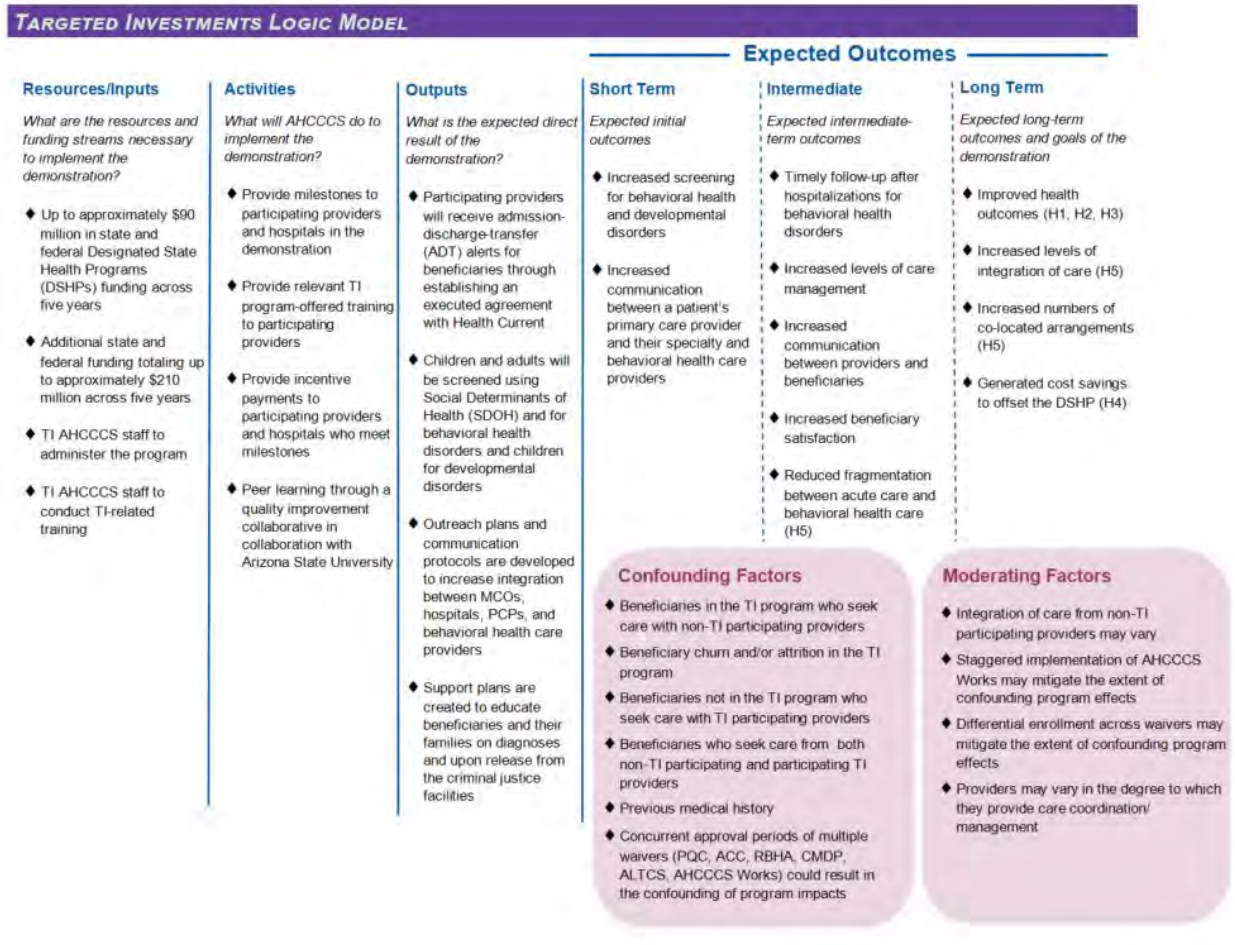
H1: Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.	• RQ1.1: Do eligible people without prior quarter coverage enroll in Medicaid at the same rate as other eligible people with prior quarter coverage? • RQ1.2: What is the likelihood of enrollment continuity for those without prior quarter coverage compared to other Medicaid beneficiaries with prior quarter coverage? • RQ1.3: Do beneficiaries without prior quarter coverage who disenroll from Medicaid have shorter enrollment gaps than other beneficiaries with prior quarter coverage?
H2: Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.	• RQ2.1: Do newly enrolled beneficiaries without prior quarter coverage have higher self-assessed health status than continuously enrolled beneficiaries?
H3: Health outcomes will be better for those without prior quarter coverage compared to Medicaid beneficiaries with prior quarter coverage.	• RQ3.1: Do beneficiaries without prior quarter coverage have better health outcomes compared to baseline rates and out-of-state comparisons with prior quarter coverage?
H4: Eliminating prior quarter coverage will not have adverse financial impacts on consumers.	• RQ4.1: Does the prior quarter coverage waiver lead to changes in the incidence of beneficiary medical debt?
H5: Eliminating prior quarter coverage will not adversely affect access to care.	• RQ5.1: Do beneficiaries without prior quarter coverage have the same or higher rates of office visits compared to baseline rates and out-of-state comparisons with prior quarter coverage? • RQ5.2: Do beneficiaries without prior quarter coverage have the same or higher rates of service and facility utilization compared to baseline rates and out-of-state comparisons with prior quarter coverage?
H6: Eliminating prior quarter coverage will not result in reduced member satisfaction.	• RQ6.1: Do beneficiaries without prior quarter coverage have the same or higher satisfaction with their healthcare compared to baseline rates and out-of-state comparisons with prior quarter coverage?
H7: Eliminating prior quarter coverage will generate cost savings over the term of the waiver.	• RQ7.1: What are the costs associated with eliminating prior quarter coverage? • RQ7.2: What are the benefits/savings associated with eliminating prior quarter coverage? • RQ7.3: Do costs to non-AHCCCS entities stay the same or decrease after implementation of the waiver?
H8: Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.	• RQ8.1: What activities did AHCCCS perform to educate beneficiaries and providers about changes to retroactive eligibility? • RQ8.2: Did AHCCCS encounter barriers related to informing providers about eliminating PQC?

TI

Logic Model

Figure 2-8 illustrates how providing financial investments to participating providers and hospitals in the demonstration will ultimately lead to improved health outcomes and increased levels of integration of care, and generate cost savings that will offset the time-limited federal Designated State Health Program (DSHP). By providing milestones that must be met at specific time frames to earn financial incentives, AHCCCS expects to encourage increased levels of integration of care among participating providers. In the short term, AHCCCS expects that there will be increased communication between a patient's primary care provider and specialty and behavioral health care providers. This will lead to increased levels of care management, which in the longer term will lead to improved health outcomes among targeted beneficiaries. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-7).

Figure 2-8: TI Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the TI program, six hypotheses (H) will be tested using 21 research questions (RQs) (Table 2-7).

Table 2-7: TI Hypotheses and Research Questions

H1: The TI program will improve physical and behavioral health care integration for children.	• RQ1.1: What is the percentage of providers that have an executed agreement with Health Current and receive admission-discharge-transfer (ADT) alerts? • RQ1.2: Do children subject to the TI program have higher rates of screening and well-child visits compared to those who are not subject to the demonstration? • RQ1.3: Do children subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration? • RQ1.4: Do parents/guardians of children subject to the program perceive their doctors have better care coordination than those not subject to the demonstration?
H2: The TI program will improve physical and behavioral health care integration for adults.	• RQ2.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts? • RQ2.2: Do adults subject to the TI program have higher rates of screening than those who are not subject to the demonstration? • RQ2.3: Do adults subject to the TI program have lower rates of ED utilization than those who are not subject to the demonstration? • RQ2.4: Do adults subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration? • RQ2.5: Do adults subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration? • RQ2.6: Do adults subject to the TI program perceive their doctors have better care coordination than those not subject to the demonstration?
H3: The TI program will improve care coordination for AHCCCS-enrolled adults released from criminal justice facilities.	• RQ3.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts? • RQ3.2: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of access to care than those who were not subject to the demonstration? • RQ3.3: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration? • RQ3.4: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have

	lower rates of ED utilization than those who were not subject to the demonstration? • RQ3.5: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have better management of opioid prescriptions than those who were not subject to the demonstration?
H4: The TI program will provide cost-effective care.	• RQ4.1: What are the costs associated with care coordination provided under TI? • RQ4.2: What are the benefits/savings associated with care coordination provided under TI?
H5: Providers will increase the level of care integration over the course of the demonstration.	• RQ5.1: Do providers progress across the Substance Abuse and Mental Health Services Administration (SAMHSA) national standard of six levels of integrated health care? • RQ5.2: Do providers increase the level of integration within each broader category (i.e., coordinated, co-located, and integrated care) during the demonstration period?
H6: Providers will conduct care coordination activities.	• RQ6.1: Did AHCCCS encounter barriers related to the pre-implementation and implementation phases of TI? • RQ6.2: Did providers encounter barriers related to the pre-implementation and implementation phases of TI?

3. Methodology

The primary goal of an impact assessment in policy and program evaluation is to establish a causal relationship between the introduction of a policy or program and related outcomes. To accomplish this, a comparison of outcomes between the intervention group and a valid counterfactual—the intervention group had its members not been exposed to the intervention—must be made. The gold standard for experimental design is a randomized controlled trial which would be implemented by first identifying an intervention population, and then randomly assigning individuals to the intervention and the rest to a comparison group, which would serve as the counterfactual. However, random assignment is rarely feasible in practice, particularly as it relates to healthcare policies.

As such, a variety of quasi-experimental or observational methodologies have been developed for evaluating the effect of policies on outcomes. The research questions presented in the previous section will be addressed through at least one of these methodologies. The selected methodology largely depends on data availability factors relating to (1) data to measure the outcomes, (2) data for a valid comparison group, and (3) data collection during the time periods of interest—typically defined as the year prior to implementation and annually thereafter. Table 3-1 illustrates a sampling of analytic approaches that will be used as part of the evaluation and whether the approach requires data gathered at the baseline (i.e., pre-implementation), requires a comparison group, or allows for causal inference to be drawn. It also notes key requirements unique to a particular approach.

Table 3-1: Analytic Approaches

Analytic Approach	Baseline Data	Comparison Group	Allows Causal Inference	Notes
Difference-in-Differences	✓	✓	✓	Trends in outcomes should be similar between comparison and intervention groups at baseline.
Panel Data Analysis	✓		✓	Requires sufficient data points both prior to and after implementation.
Regression Discontinuity		✓	✓	Program eligibility must be determined by a threshold.
Interrupted Time Series	✓		✓	Requires sufficient data points prior to implementation.
Cohort Analysis	✓			
Cross-Sectional Analysis		✓		

Evaluation Design Summary

Ideally, the Interim Evaluation Report would present a comparison between the baseline period and at least part of the full evaluation period. However, due to several factors,[3-1] the Interim Evaluation Report will only present baseline rates for the Arizona Health Care Cost Containment System (AHCCCS) beneficiaries (i.e., treatment group) that rely on administrative data sources for all programs except the Regional Behavioral Health Authority (RBHA) program. Some evaluation period rates for RBHA will be presented, but no conclusions will be drawn between the baseline and evaluation period rates since the analytic approaches presented in Table 3-1 have not been applied. Additionally, rates for the comparison or counterfactual groups will not be presented as part of the Interim Evaluation Report; however, rates for the AHCCCS Complete Care (ACC) program are compared to National Committee for Quality Assurance (NCQA) national benchmarks for informational purposes only. Subsequent evaluation reports will include full evaluations between the baseline and evaluation periods, and employ the analytic approaches presented in Table 3-1. Therefore, limited conclusions and findings will be presented in this report.

It is also important to note that the baseline rates presented in the Interim Evaluation Report are subject to change in future evaluation reports. The rates presented in the Results section will change for several reasons including additional receipt of updated encounter data as well as application of analytic approaches such as propensity score matching to create comparable treatment and control groups. For a full description of the techniques, methods, data sources, and measure specifications that will be employed in future reports, please refer to Appendix A. Table 3-2 presents the baseline and evaluation periods for each program.

Table 3-2: Time Periods

Program	Baseline Period	Evaluation Period
ACC	• October 1, 2015 – September 30, 2018	• October 1, 2018 – September 30, 2021
ALTCS	• October 1, 2014 – September 30, 2016 (pre-renewal) • October 1, 2014 – September 30, 2019 (pre-integration)	• October 1, 2016 – September 30, 2021 (renewal) • October 1, 2019 – September 30, 2021 (integration)
CMDP	• October 1, 2014 – September 30, 2016 (pre-renewal) • October 1, 2014 – September 30, 2020 (pre-integration)	• October 1, 2016 – September 30, 2021 (renewal) • April 1, 2021 – September 30, 2021 (integration)*
PQC	• July 1, 2017 – June 30, 2019	• July 1, 2019 – June 30, 2021
RBHA	• October 1, 2011 – September 30, 2013	• October 1, 2013 – September 30, 2021
TI	• October 1, 2014 – September 30, 2016	• October 1, 2019 – September 30, 2021

ACC: AHCCCS Complete Care, ALTCS: Arizona Long Term Care System, CMDP: Comprehensive Medical and Dental Program, PQC: Prior Quarter Coverage, and TI: Targeted Investments * There is a six month gap between the end of the baseline period and the beginning of the evaluation period.

[3-1] The Phase II Scope of Work began on March 12, 2020, which did not allow sufficient time to complete qualitative data collection from several sources including focus groups, key informant interviews, and beneficiary surveys—nor did it allow for time to obtain or acquire data that could be used to construct appropriate comparison groups. The coronavirus disease 2019 (COVID-19) pandemic also contributed to delays and will have an unknown impact on future activities essential to the Interim Evaluation Report such as resuming focus groups, key informant interviews, and beneficiary surveys.

Performance Measure Rates Weighted Calculations

All members enrolled in their respective program during each baseline year were included in measure calculation provided they met defined continuous enrollment requirements. These continuous enrollment requirements were applied using overall enrollment in Medicaid, irrespective of program enrollment. Because beneficiaries could have switched programs during the course of the year and still meet defined continuous enrollment criteria, rates presented in this report are weighted by duration in the program. For example, rates for an individual enrolled in the Comprehensive Medical and Dental Program (CMDP) for six months and an Acute Care plan as part of the AHCCCS Complete Care (ACC) population would contribute 50 percent to CMDP and 50 percent to ACC.

Research Hypotheses

To comprehensively evaluate the six programs, 35 hypotheses will be tested. Table 3-3 lists the hypothesis that will be evaluated for each program. Appendix A provide additional details on the methods, data sources, and associated measures for each of the research questions presented below.

Table 3-3: Waiver Program Hypotheses

AHCCCS Complete Care (ACC)
H1: Health plans encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.
H2: Access to care will maintain or improve as a result of the integration of behavioral and physical care.
H3: Quality of care will maintain or improve as a result of the integration of behavioral and physical care.
H4: Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care.
H5: Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care.
H6: The ACC program provides cost-effective care.
Arizona Long Term Care System (ALTCS)
H1: Access to care will maintain or improve over the waiver demonstration period.
H2: Quality of care will maintain or improve over the waiver demonstration period.
H3: Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.
H4: ALTCS encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.
H5: ALTCS provides cost-effective care.
Comprehensive Medical and Dental Program (CMDP)
H1: Access to care will be maintained or increase during the demonstration.
H2: Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.
H3: CMDP encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.
H4: CMDP provides cost-effective care.
Regional Behavioral Health Authority (RBHA)
H1: Access to care for adult beneficiaries with a serious mental illness (SMI) enrolled in a RBHA will be maintained or increase during the demonstration.
H2: Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.
H3: Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.
H4: Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration.
H5: RBHAs encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.
H6: RBHAs will provide cost-effective care for beneficiaries with an SMI.
Prior Quarter Coverage (PQC) Waiver
H1: Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.

H2: Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.

H3: Health outcomes will be better for those without prior quarter coverage compared to Medicaid beneficiaries with prior quarter coverage.

H4: Eliminating prior quarter coverage will not have adverse financial impacts on consumers.

H5: Eliminating prior quarter coverage will not adversely affect access to care.

H6: Eliminating prior quarter coverage will not result in reduced member satisfaction.

H7: Eliminating prior quarter coverage will generate cost savings over the term of the waiver.

H8: Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.

Targeted Investments (TI)
H1: The TI program will improve physical and behavioral health care integration for children.
H2: The TI program will improve physical and behavioral health care integration for adults.
H3: The TI program will improve care coordination for AHCCCS-enrolled adults released from criminal justice facilities.
H4: The TI program will provide cost-effective care.
H5: Providers will increase the level of care integration over the course of the demonstration.
H6: Providers will conduct care coordination activities.

Data Sources

Multiple data sources are used to evaluate the 35 hypotheses for the evaluation. Only the data sources used in the Interim Evaluation Report are described below—please refer to Appendix A for a full listing of data sources that will be used in future evaluation reports. Data collection will include administrative and survey-based data such as the Integrated Public Use Microdata Series (IPUMS) and National Core Indicators (NCI). Administrative data sources will include information extracted from the Prepaid Medical Management Information System (PMMIS). PMMIS will be used to collect, manage, and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics), fee-for-service (FFS) claims, and managed care encounter data. The combination of national survey and administrative data sources will be used to assess the 35 research hypotheses.

IPUMS

Data from the IPUMS American Community Surveys (ACS) are used to estimate the number of Medicaid-eligible individuals in Arizona, as part of the analysis of *Percentage of Medicaid Enrollees by Eligibility Group* (Measure 1-1) and *Percentage of New Medicaid Enrollees by Eligibility Group* (Measure 1-2). The IPUMS ACS is a "database providing access to over 60 integrated, high-precision samples of the American population drawn from 16 federal censuses, from the ACS of 2000–present."[3-2] The data executed will include demographic information, employment, disability, income data, and program participation such as Medicaid enrollment information.

Administrative

Administrative data extracted from the PMMIS will be used to calculate most measures presented in this Interim Evaluation Report. These data include administrative claims/encounter data, beneficiary eligibility, enrollment, and demographic data. Provider data will also be used as necessary to identify provider type and beneficiary attribution.

Use of managed care encounters will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded from all evaluations because these types of records introduce a level of

[3-2] IPUMS. Available at: https://usa.ipums.org/usa/intro.shtml. Accessed on: Apr 1, 2020.

uncertainty (from matching adjustments and third-party liabilities to the index claims) that can impact reported rates and cost calculations.

Program administrative data pertaining to the Targeted Investments (TI) program are used to identify TI providers who were initially eligible for the program and assess providers' self-reported scores from the Integrated Practice Assessment Tool (IPAT).[3-3] The self-reported IPAT scores will be used to assess TI Hypothesis 5: Providers will increase the level of care integration over the course of the demonstration.

National Core Indicators (NCI)

The NCI surveys national Medicaid beneficiaries with intellectual or developmental disabilities. These surveys are conducted annually in-person, and it is expected that half of states participate annually. Survey periods cycle annually between July 1 to June 30, with states submitting data by June 30. Each state is required to survey at least 400 individuals, allowing for a robust comparison. However, beneficiary-level data are not publicly available, and information is not publicly provided on methodology and survey administration which could vary across states. State participation is voluntary, and states may elect to participate or not annually. Use of these data assumes that Arizona will participate in the NCI survey for the years covered by this evaluation. In addition to state-specific reports, NCI provides aggregate data that may be stratified by demographic factors, such as race/ethnicity, gender, and age, as well as certain diagnoses and living arrangements. As of the writing of this Interim Evaluation Report, rates for Arizona respondents are only available for the 2015–16 time period. This will serve as a baseline; however, it is not known if follow-up rates will be available for Arizona in time to develop the summative evaluation report. If follow-up rates are available, a difference-in-differences study design may be employed, and rates may be stratified by demographics or diagnoses within the limits of sample size and statistical power.

[3-3] Waxmonksy J, Auxier A, Romero PW, Heath B (2014) Integrated Practice Assessment Tool Version 2.0. Available at: https://www.integration.samhsa.gov/operations-administration/IPAT_v_2.0_FINAL.pdf. Accessed on: Apr 14, 2020.

4. Methodology Limitations

The Interim Evaluation Report includes multiple data sources, methods, and metrics, each with strengths that support the validity and reliability of the results. In contrast, each of these elements also has weaknesses that limit the ability of this interim report to provide a comprehensive evaluation of the Arizona Health Care Cost Containment System (AHCCCS) waiver programs under review. This section elaborates on the strengths and weaknesses of the data sources, methods, and metrics used in the Interim Evaluation Report.

Strengths and Weaknesses

In this Interim Evaluation Report, Health Services Advisory Group, Inc. (HSAG), presents baseline rates for performance measures chosen to represent key processes and outcomes expected to be impacted by the six AHCCCS programs included. HSAG selected the data sources and performance measures, in part, because of particular strengths that contribute to a robust and multi-modal program evaluation. The analyses presented in this Interim Evaluation Report are intended to provide baseline performance measure rates across the six AHCCCS programs included in the evaluation. The baseline rates will provide the basis against which the analyses to be included in the summative evaluation report will evaluate changes over time. The performance metrics included in the evaluation were selected because of their relevance to the processes and outcomes intended to be impacted by the AHCCCS programs evaluated. Additionally, the performance measures in this report are based on standardized, well-validated metrics from recognized measure stewards such as the National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®) metrics and the Centers for Medicare & Medicaid Services (CMS) Core Sets.[4-1] The interim report also leverages external survey data from the National Core Indicators (NCI) and Integrated Public Use Microdata Series–American Community Surveys (IPUMS–ACS) data. While the interim report presents baseline rates of specific measures from these surveys without comparison to other states or national rates, the national nature of the NCI and IPUMS–ACS data will allow future analyses for the summative evaluation report to make such comparisons. The interim report is therefore based on data and analyses that provide a strong foundation for the final summative evaluation report. The data, measures, and methods, however, also have limitations that must be understood to place the results in the overall context of AHCCCS' programs, and to establish the limits of the results presented in this report vis-à-vis the summative evaluation report to be completed at a later date.

Three key limitations exist for the data, measures, and methods used for this Interim Evaluation Report. First, there is no comparison group defined at this time. A comparison group of similarly situated Medicaid beneficiaries who have not received the programming changes delivered by AHCCCS will be critical for obtaining a proper counterfactual comparison in the summative evaluation report. The comparison group will serve as the basis for understanding what may have happened to the health care and health outcomes of AHCCCS beneficiaries if the programs being evaluated were not put in place. At this time, however, the comparison groups for the summative evaluation have not been defined. Therefore, the Interim Evaluation Report cannot speak to the baseline health care and outcomes beyond those of AHCCCS beneficiaries who have experienced the changes in health care delivery and integration implemented by the programs.

A second limitation of the results presented in this Interim Evaluation Report is that they do not include any data beyond the established baseline periods for five of the included AHCCCS programs; for the Regional Behavioral Health Authorities (RBHAs), results for the first five years of the evaluation period are included. Because this

[4-1] HEDIS® is a registered trademark of the NCQA.

interim report only includes baseline data for five programs, the results cannot speak to how the implemented programs may have changed the delivery of health care or health outcomes for the AHCCCS beneficiaries targeted by each of the programs. Although five years post-integration are included for RBHA, no comparison groups or statistical testing have been conducted in this interim report that could identify changes in health care or health outcomes attributable to the integration. To perform a complete evaluation, an updated interim report and summative evaluation report will expand on the baseline rates to include additional data from the evaluation period of performance and an assessment of whether AHCCCS beneficiaries experienced any significant changes in care or outcomes from the programs as implemented.

A third limitation of the data, methods, and results in this interim report is the absence of several key data sources that will be included in the summative evaluation report. Specifically, the evaluation design plans call for patient experience surveys to be fielded with AHCCCS beneficiaries to better understand their experience of care during the program implementation phase. Qualitative key informant interviews with AHCCCS staff and managed care plan staff responsible for implementing the programs as intended are also absent from the current report. Additionally, provider focus groups aimed at understanding how the implemented programs impact the process of care delivery from a provider perspective will be included for the summative evaluation report. Each of these data collection efforts is currently in a preliminary planning phase and is expected to be implemented within the coming months. The absence of these data means that this Interim Evaluation Report cannot shed light on the implementation experience of the AHCCCS programs, including understanding the barriers and facilitators related to successful implementation, nor can the Interim Evaluation Report speak to the experience of beneficiaries in receiving healthcare after the implementation of the programs targeting them.

Data Sources

The data used in the Interim Evaluation Report include administrative data about the program implementation, Medicaid enrollment, demographic data, claims and encounter data, and national survey data obtained from the NCI and the IPUMS–ACS data. This section presents the strengths and weaknesses associated with each of these data sources.

The data sources used in the Interim Evaluation Report have several strengths making them suitable for the evaluation. First, administrative data about program implementation provide the only source of information about the participation of providers in the Targeted Investments (TI) and Comprehensive Medical and Dental Program (CMDP) waiver programs. The AHCCCS Complete Care (ACC), Prior Quarter Coverage (PQC), RBHA, and Arizona Long Term Care System (ALTCS) waiver programs target specific beneficiary populations that receive services from plans that are contracted with AHCCCS and providers accepting Medicaid coverage. In contrast, the TI program requires provider participation in the form of an application to participate and annual attestations of progress toward integration; and the CMDP program operates within the Arizona Department of Child Safety (DCS) as a contracted health plan with AHCCCS. Administrative program data are therefore necessary for the TI and CMDP programs to identify the participating providers and populations receiving services under the programs.

Second, the IPUMS–ACS data are well-suited for identifying the size of the eligible Medicaid population within Arizona. While AHCCCS determines Medicaid eligibility during the beneficiary application process for enrollment, the agency does not routinely identify the population of Medicaid-eligible individuals on a statewide basis. To identify the eligible Medicaid population within the State, a representative data source containing information about age, family income, the presence and number of children, disabilities, institutional group quarters, and pregnancy status would provide a number of key data elements. The IPUMS–ACS survey data are collected by the U.S. Census Bureau and represent a 1 percent sample of the population. The data for the State of

Arizona can be aggregated to provide a statewide estimate of the size of the eligible Medicaid population. This data source is used for two measures in evaluating of the PQC program.

Third, the NCI data represent another national survey effort. The data for the NCI are collected from states that choose to participate and consist of at least 400 randomly sampled respondents from the eligible population of adults with intellectual or developmental disabilities (DD) to yield statistically valid comparisons across states with 95 percent confidence and a margin of error of ± 5 percent. The NCI data therefore allow the estimation of a limited number of health and healthcare-related outcomes for both Arizona and other comparison states in the evaluation of the ALTCS program, specifically among those with DD. The NCI data, therefore, will ultimately contribute to the summative evaluation findings and are included in the Interim Evaluation Report to present baseline estimates for Arizona.

While each of the data sources used in this Interim Evaluation Report has strengths that are desirable to include in the evaluation design, they each have weaknesses as well which are important to understand within the context of the evaluation. For example, the claims/encounter data used to calculate performance metrics are generated as part of the billing process for Medicaid and, as a result, may not be as complete or sensitive for identifying specific healthcare processes and outcomes as may be expected from a thorough review of a patient's medical chart.[4-2] This weakness may be mitigated in part if the lack of sensitivity in the claims/encounter data remains relatively stable over time and if the measures calculated from these data follow trends consistent with the underlying processes and outcomes of interest.

The IPUMS–ACS data do not include all the covariates necessary to precisely identify the eligible Medicaid population within Arizona. This is particularly true when attempting to identify the proportion of individuals with a serious mental illness (SMI), women who are currently pregnant, or individuals in long-term care (LTC) facilities. The IPUMS–ACS data are also self-reported and may be susceptible to measurement error such as inflation of income by respondents, and different definitions of what constitutes difficulty when ambulating, with self-care, or independent living (e.g., running errands, going to a doctor's office). Finally, the IPUMS-ACS data do not include a set of health outcomes or healthcare processes that the current evaluation can leverage to test the associated hypotheses and answer specific research questions.

In contrast to the IPUMS-ACS data, the NCI data include a limited number of health outcome measures that can be used in the context of the current evaluation. The NCI data, however, do not include the full set of performance measures needed to evaluate the impact of the six AHCCCS programs with suitable out-of-state comparison groups. At best, these data are limited to a small subset of indicators for a specific population and must be used in conjunction with other data sources, metrics, and methods to perform thorough evaluation.

Methods

The methodology used in the Interim Evaluation Report relies entirely on the calculation of performance metrics and presentation of descriptive statistics such as percentages and rates. These methods are appropriate for establishing baseline rates of performance metrics that will be used to evaluate the impact of the AHCCCS programs in the summative evaluation. This methodology, however, is not able to provide any preliminary estimates of the impact of the six AHCCCS programs on the health and healthcare experiences of the targeted

[4-2] For example, the administrative specifications for CMS Adult Core set measure *CDF-AD: Screening for Depression and Follow-up Plan* (generally referred to in this interim report as: the percentage of beneficiaries with a screening for clinical depression and follow-up plan) rely on Level II Healthcare Common Procedure Coding System (HCPCS) G-codes to identify numerator compliance. Without electronic health record data, rates for this measure will be underreported, as these codes are not generally reimbursable; therefore, providers have little incentive to report these procedures on the claim.

populations. The performance measure rates and descriptive statistics contained in the Interim Evaluation Report therefore are informational only and do not reflect any improvement or worsening of the quality of health care delivered to, or health outcomes experienced by, AHCCCS beneficiaries that may be attributable to the program performance. The summative evaluation report will include additional analyses and data specifically intended to determine whether the AHCCCS programs were associated with the intended effects to improve care for beneficiaries within Arizona. While some research questions specify comparisons to baseline rates or comparison groups, no such comparisons have been made in the results presented in this report, apart from baseline comparisons for RBHA. These rates are intended to provide the baseline calculations for which future comparisons may be based upon.

5. ACC Results

The following section details measure results by research question and related hypotheses for the Arizona Health Care Cost Containment System (AHCCCS) Complete Care (ACC) waiver program. Due to the lack of data availability and the required timeline for submission of the Interim Evaluation Report, this report only offers the baseline measure calculations for most of the hypotheses and research questions. For details on the measure definitions and specifications, reference Appendix A. Full measure results with denominator data are presented in Appendix B.

ACC Description

The overarching goals of the ACC delivery system are to reduce fragmentation of care by providing beneficiaries with a single health plan, payer, and provider network to cover their physical and behavioral health care. Additionally, health plans are expected to conduct and manage care coordination efforts among providers. In turn, this will make the Medicaid system easier to navigate, streamline care coordination, and ultimately improve a person's whole health outcomes.

Prior to October 2018, most AHCCCS beneficiaries received coverage for physical care through health plans known as Acute Care plans. Behavioral health coverage was provided through separate health plans, the Regional Behavioral Health Authorities (RBHAs). Since 2013, AHCCCS has taken steps to integrate medical and behavioral health care coverage, as described in the Background section. The transition to ACC managed care plans signified the largest integration effort by providing approximately 1.5 million Arizonans with a single plan for physical and behavioral health care coverage.

The findings presented in this interim report focus on quantitative performance measure calculations during the baseline period. Because ACC began on October 1, 2018, two years after the start of the demonstration renewal period, the baseline period extends from October 1, 2015 (the year prior to demonstration renewal), through September 30, 2018. The purpose of providing baseline rate calculations is to gauge performance of the ACC population prior to the program's implementation. Results from each year are calculated separately in alignment with federal fiscal years (FFYs) and reported individually.

Future evaluation reports will combine baseline rate calculations with rates calculated after the implementation of the program and with comparisons to national benchmarks where possible. Future evaluation reports will also include findings from key informant interviews with health plan representatives, other stakeholders including AHCCCS, provider focus groups, and beneficiary surveys. As described in the Methodology section, the mixed methods approach will evaluate ACC across six hypotheses.

Results presented in this section are organized by hypothesis and by research question within each hypothesis. Most hypotheses include multiple research questions, and most research questions use multiple measures.

Results Summary

In total, 20 measures were calculated for the years of 2016, 2017 and 2018.[5-1] For ACC, both an assessment of trends and comparisons to 2018 National Committee of Quality Assurance (NCQA) benchmarks are reported. Benchmarks for measures that utilize a hybrid methodology are not reported due to differences in data collection methods for rates presented in this section. Table 5-1 presents the number of measures by research question for

[5-1] Additional indicators were calculated for certain measures and are reported in full in the results section and in Appendix B.

the baseline period that moved in the desired direction (improved), moved opposite the desired direction (worsened), or did not demonstrably change. The table also shows the number of measures for which there is no desired direction, such as ED or inpatient utilization measures. For a measure to be considered to have improved it must have demonstrated an annual relative change of at least 5 percent in the desired direction. Similarly, for a measure to have worsened, it must have demonstrated an annual relative change of at least 5 percent opposite to the desired direction. Measures with an annual relative change within ±5 percent are considered to have not changed. Information about the performance of these measures can be found in the detailed tables below.

Table 5-1: ACC Results Baseline Summary

Research Questions	Average Relative Change				NCQA Percentiles (2018)			
	Improved	Worsened	No Change	N/A[1]	Below 25th	25th to 50th[2]	50th to 75th[3]	Above 75th
2.1: Do beneficiaries enrolled in an ACC plan have the same or better access to primary care services compared to prior to integrated care?	0	0	3	0	0	1	1	0
2.2: Do beneficiaries enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to integrated care?	1	0	1	0	0	0	2	0
3.1: Do beneficiaries enrolled in an ACC plan have the same or higher rates of preventive or wellness services compared to prior to integrated care?	1	0	2	0	0	0	0	0
3.2: Do beneficiaries enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to integrated care?	0	0	1	0	0	1	0	0
3.3: Do beneficiaries enrolled in an ACC plan have the same or better management of behavioral health conditions compared to prior to integrated care?	0	1	4	1	2	1	1	2
3.4: Do beneficiaries enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to integrated care?	1	0	1	0	0	0	0	0
3.5: Do beneficiaries enrolled in an ACC plan have equal or lower ED or hospital utilization compared to prior to ACC?	0	0	1	2	0	1	0	1

[1]Determination of improvement is not applicable or is dependent on context.
[2] At or above the 25th percentile but below the 50th percentile
[3] At or above the 50th percentile but below the 75th percentile

Improvement or worsening of rates, or comparison to benchmarks are not indicative of program performance or impact. Average relative change during the pre-implementation baseline period is used only to assess pre-implementation trends of measures that will be used for assessing performance of the program during the post-implementation evaluation period.

Hypothesis 1—Health plans encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.

Hypothesis 1 is designed to identify in detail the activities the plans conducted to further AHCCCS' goal of care integration by implementing strategies supporting care coordination and management. Barriers encountered during the transition to ACC and implementation of these strategies will also be a focus of Hypothesis 1.

Measures in Hypothesis 1 will be evaluated through a beneficiary survey, provider focus groups, and key informant interviews with health plan subject matter experts, AHCCCS, and other pertinent stakeholders. These methods will allow for an in-depth analysis detailing activities focused on care integration and any potential successes or barriers surrounding these activities. Findings from these interviews will be included in future evaluation reports.

Hypothesis 2—Access to care will maintain or improve as a result of the integration of behavioral and physical care.

Hypothesis 2 will test whether access to care increased after integrating behavioral and physical health care into a single health plan. This will be evaluated by calculating quantitative performance measures using administrative encounter data and through a beneficiary survey. Combined, these results will aid in fully understanding the impact the integration has on beneficiaries' access to care. Two research questions assess Hypothesis 2.

Research Question 2.1 Assesses rates of primary care visits and preventive services for children, adolescents, and adults.

Three measures from Research Question 2.1 in Table 5-2 and Figure 5-1–Figure 5-3 show that rates for access to primary care services during the baseline period remained steady. The rate for adults who accessed a PCP remained mostly unchanged throughout the baseline period, at around 77 percent (close to the 25th 2018 national percentile). The rate of child and adolescent PCP visits remained steady during the baseline period with little change between 2017 and 2018, declining by only an average of 0.8 percent per year. There were no comparable benchmarks for Measure 2-2.[5-2] The rate of dental visits for children remained largely unchanged during the baseline period falling between the 50th and 75th 2018 national percentiles for all three years.

[5-2] While benchmarks are available for age stratifications, the rates reported in this report are aggregated across all ages, for which benchmarks are not available.

Figure 5-1

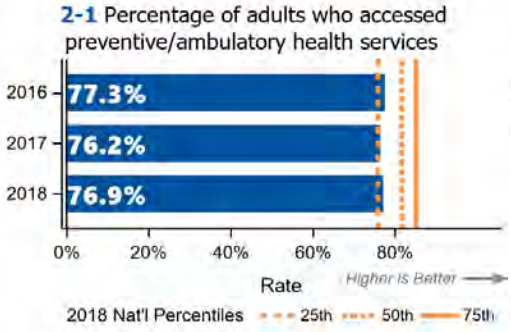


Figure 5-2

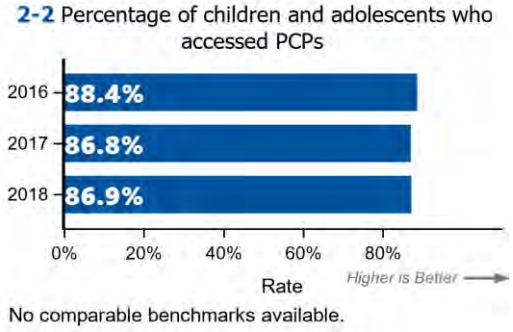


Figure 5-3

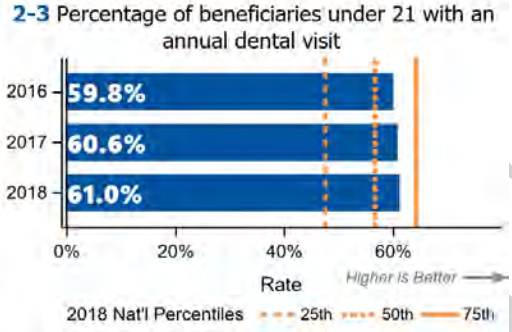


Table 5-2: Research Question 2.1

Do beneficiaries enrolled in an ACC plan have the same or better access to primary care services compared to prior to integrated care?					
		Weighted Rate[1]			Average Relative Change[2]
		2016	2017	2018	
2-1	Percentage of adults who accessed preventive/ambulatory health services	77.3%	76.2%	76.9%	-0.2%
2-2	Percentage of children and adolescents who accessed PCPs	88.4%	86.8%	86.9%	-0.8%
2-3	Percentage of beneficiaries under 21 with an annual dental visit	59.8%	60.6%	61.0%	0.9%

[1]Rates are weighted by duration of enrollment in ACC.

[2]Average relative change reports the averaged relative percentage changes between years 1 and 2 and between years 2 and 3.

Beneficiary surveys will be administered to assess beneficiaries' experience in getting needed care in a timely manner and ability to schedule appointments in a timely manner. Specifically, Measure 2-4, *Percentage of beneficiaries who reported they received care as soon as they needed*, will assess beneficiaries' experience in getting needed care. Measure 2-5, *Percentage of beneficiaries who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed*, and Measure 2-6, *Percentage of beneficiaries who reported they were able to schedule an appointment with a specialist as soon as they needed* will assess beneficiaries' ability to schedule appointments in a timely manner. Results from these surveys will be included in future evaluation reports.

Research Question 2.2 Assesses rates of access to substance abuse treatment.

Rates for initiation and engagement of alcohol and other drug abuse trended slightly upwards during the baseline period, as shown in Table 5-3, Figure 5-4 and Figure 5-5. Rates for initiation of treatment increased slightly from 41.7 percent to 44.2 percent between 2016 and 2018. Engagement of treatment had a relatively larger increase, from 12.6 percent in 2016 to 14.3 percent in 2018. Rates for both initiation and engagement of treatment fell at or below the national median (50th percentile) in 2016 and 2017 and between the 50th and 75th percentiles in 2018.

Figure 5-4

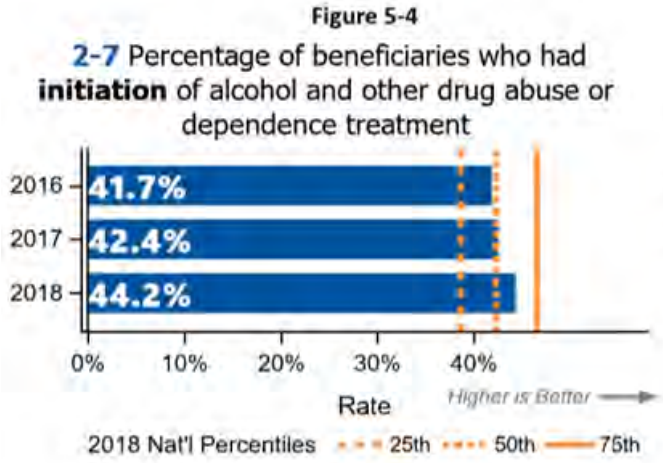


Figure 5-5

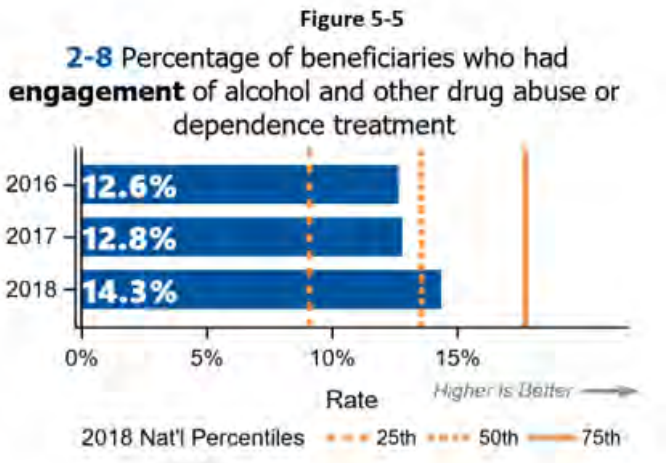


Table 5-3: Research Question 2.2

Do beneficiaries enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to integrated care?					
		Weighted Rate[1]			Average Relative Change[2]
		2016	2017	2018	
2-7	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	41.7%	42.4%	44.2%	2.9%
2-8	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	12.6%	12.8%	14.3%	6.6%

[1]Rates are weighted by duration of enrollment in ACC.

[2]Average relative change reports the averaged relative percentage changes between years 1 and 2 and between years 2 and 3.

Hypothesis 3—Quality of care will maintain or improve as a result of the integration of behavioral and physical care.

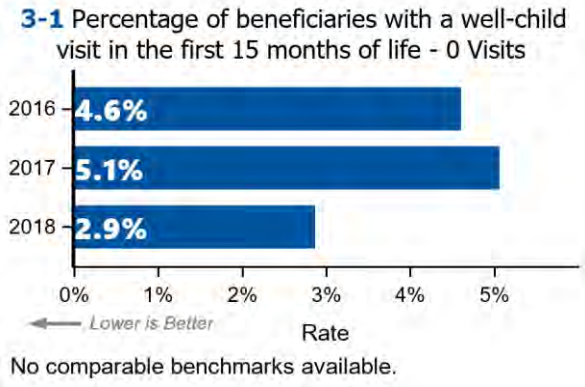
The primary goal of the transition to ACC is to promote the health and wellness of its beneficiaries by improving quality of care, particularly among those with both physical and behavioral health conditions. Hypothesis 3 will measure the impact of the integration on quality of care by assessing Healthcare Effectiveness Data and

Information Set (HEDIS®) measure rates and results from beneficiary surveys.[5-3] Five research questions assess Hypothesis 3.

Research Question 3.1 Assesses rates of well-care visits and immunizations for infants, children, and adolescents.

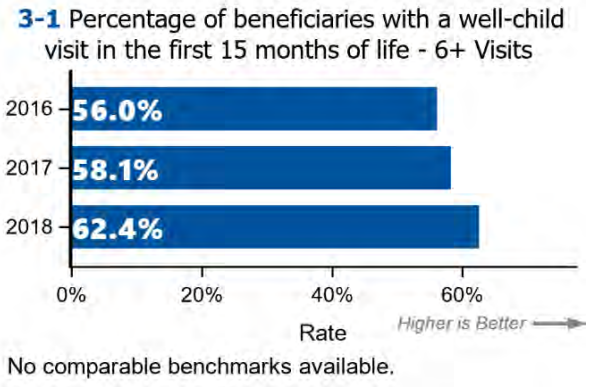
Table 5-4, Figure 5-6 and Figure 5-7 shows that rates for well-child visits in the first 15 months of life improved during the baseline period. The percentage of beneficiaries with no visits declined from 5.1 percent in 2017 to 2.9 percent in 2018. Meanwhile, the percentage of beneficiaries with six or more visits steadily increased by an average relative change of 5.6 percent from 56.0 percent in 2016 to 62.4 percent in 2018.

Figure 5-6



No comparable benchmarks available.

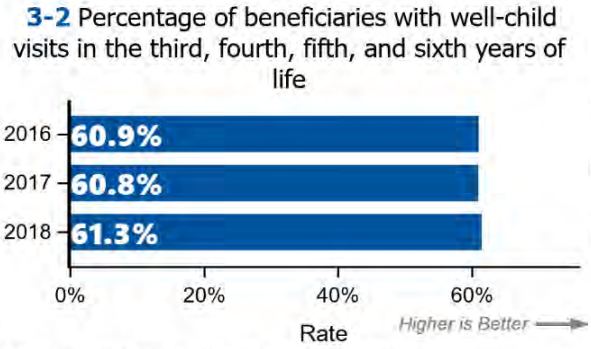
Figure 5-7



No comparable benchmarks available.

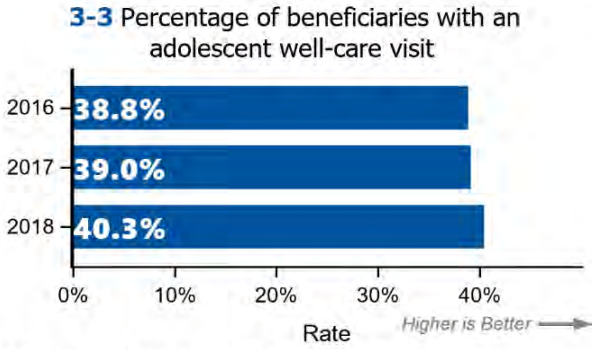
Rates of wellness services for older children and adolescents remained steady during the baseline period, with rates of well-child visits for those ages 3 to 6 holding steady at approximately 61 percent as shown in Figure 5-8, while adolescents with a well-care visit remained at approximately 39 and 40 percent for all three years of the baseline period.

Figure 5-8



No comparable benchmarks available.

Figure 5-9



No comparable benchmarks available.

[5-3] HEDIS® is a registered trademark of the NCQA.

Table 5-4: Research Question 3.1

Do beneficiaries enrolled in an ACC plan have the same or higher rates of preventive or wellness services compared to prior to integrated care?					
		Weighted Rate[1]			Average Relative Change[2]
		2016	2017	2018	
3-1	Percentage of beneficiaries with a well-child visit in the first 15 months of life				
	0 Visits (lower is better)	4.6%	5.1%	2.9%	-16.7%
	1 Visit	3.8%	3.9%	3.0%	-11.1%
	2 Visits	4.6%	4.3%	3.9%	-8.6%
	3 Visits	6.6%	5.9%	5.5%	-8.4%
	4 Visits	9.7%	8.9%	8.7%	-5.5%
	5 Visits	14.7%	13.8%	13.7%	-3.3%
	6+ Visits (higher is better)	**56.0%**	**58.1%**	**62.4%**	5.6%
3-2	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life	60.9%	60.8%	61.3%	0.4%
3-3	Percentage of beneficiaries with an adolescent well-care visit	38.8%	39.0%	40.3%	2.0%

Note: Indicators in bold denote inclusion for evaluation in summary table.

[1]Rates are weighted by duration of enrollment in ACC.

[2]Average relative change reports the averaged relative percentage changes between years 1 and 2 and between years 2 and 3.

Baseline rates for childhood and adolescent immunizations are not presented in this report due to the unavailability of immunization registry data. Future evaluation reports will incorporate additional immunization data to provide a fuller context of immunization rates among the ACC population.

Table 5-5: Research Question 3.1

Do beneficiaries enrolled in an ACC plan have the same or higher rates of preventive or wellness services compared to prior to integrated care?					
		Weighted Rate			Average Relative Change
		2016	2017	2018	
3-4	Percentage of children two years of age with appropriate immunization status	--	--	--	--
3-5	Percentage of adolescents 13 years of age with appropriate immunizations	--	--	--	--

Note: Results for these measures are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.

Data for Measure 3-6, *Percentage of adult beneficiaries who reported having a flu shot or nasal flu spray since July 1,* will be collected through beneficiary surveys. Results from these surveys will be presented in future evaluation reports.

Research Question 3.2 Assesses rates of asthma control during each year of the baseline period.

Table 5-6 and Figure 5-10 shows that the percentage of beneficiaries with persistent asthma for whom controller medication represented at least 50 percent of their total asthma medications remained steady during the baseline period, at approximately 59 percent and falling between the 25th and 50th 2018 national percentiles.

Figure 5-10

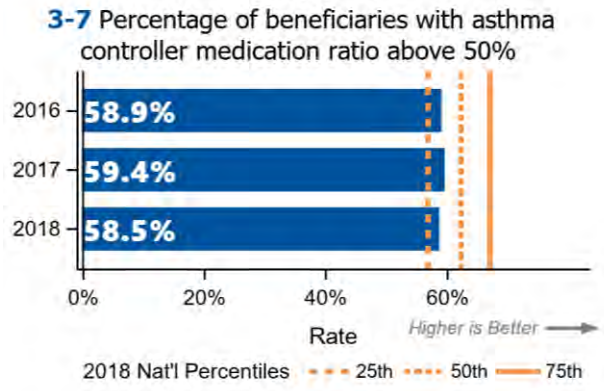


Table 5-6: Research Question 3.2

Do beneficiaries enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to integrated care?					
		Weighted Rate[1]			Average Relative Change[2]
		2016	2017	2018	
3-7	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	58.9%	59.4%	58.5%	-0.3%

[1]Rates are weighted by duration of enrollment in ACC.

[2]Average relative change reports the averaged relative percentage changes between years 1 and 2 and between years 2 and 3.

Research Question 3.3 Assesses management of behavioral health conditions, including antidepressant medication treatment, follow-up visits after hospitalization or ED visit for mental illness or substance abuse, screening for clinical depression, and utilization of mental health services.

Table 5-7, Figure 5-11 and Figure 5-12 shows that the rates of antidepressant medication adherence declined throughout the baseline period, particularly for the 180 day indicator. The percentage of beneficiaries remaining on antidepressant treatment during the effective acute phase treatment (84 days) remained relatively steady. The rate of effective continuation phase treatment (180 days) declined from 26.2 percent in 2016 to 22.9 percent in 2018, an average of 6.4 percent relative decline annually. Both indicators fell below the 25th 2018 national percentile for all three years.

Figure 5-11

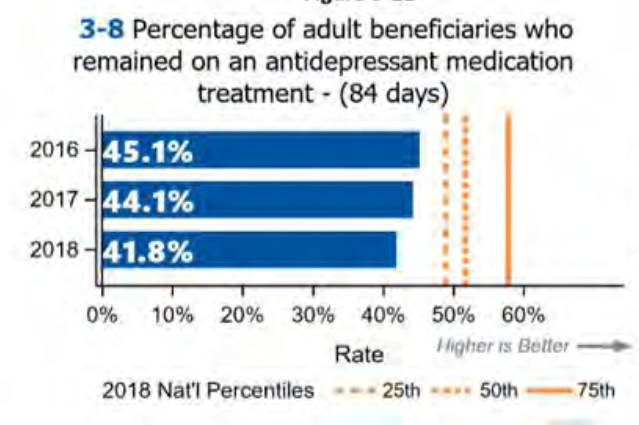
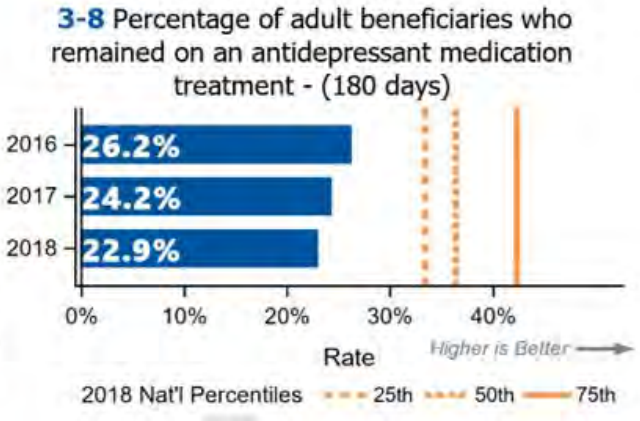


Figure 5-12



Rates of follow-up visits with a mental health practitioner after an inpatient stay (Measure 3-9) remained steady at approximately 49 percent and fell above the 75th 2018 national percentile for all three years of the baseline period as shown in Figure 5-13. Similarly, rates for emergency department (ED) visit for mental illness (Measure 3-10) remained steady at approximately 48 percent, but fell between the 50th and 75th 2018 national percentile for all three years as shown in Figure 5-14. Rates for follow-up after an ED visit for alcohol and other drug abuse or dependence (Measure 3-11) remained relatively steady during the baseline period, ranging between approximately 21 and 23 percent between 2016 and 2018 and staying above the 75th national percentile, as shown in Figure 5-15.

Figure 5-13

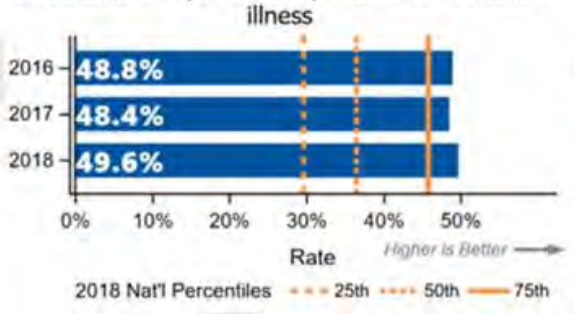


Figure 5-14

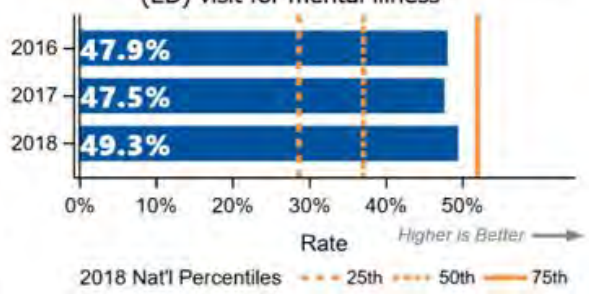
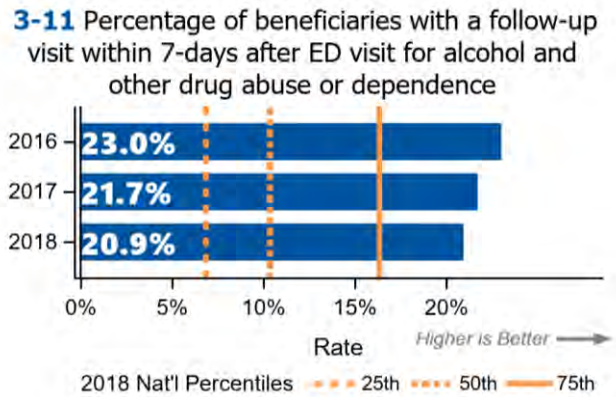


Figure 5-15



The percentage of beneficiaries using any mental health services increased during the baseline period as illustrated in Figure 5-16, with the majority of beneficiaries using outpatient services as shown in Table 5-6. In 2016, the percentage of beneficiaries receiving any mental health services fell just below the 25th national benchmark from 2018, increasing to between the 25th and 50th national percentile in 2018.

Figure 5-16

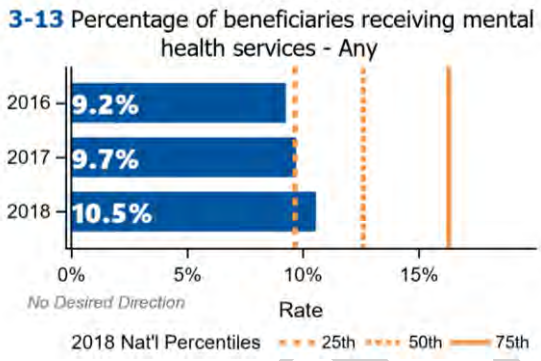


Table 5-7: Research Question 3.3

Do beneficiaries enrolled in an ACC plan have the same or better management of behavioral health conditions compared to prior to integrated care?

		Weighted Rate[1]			Average Relative Change[2]
		2016	2017	2018	
3-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (84 days)	45.1%	44.1%	41.8%	-3.7%
3-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (180 days)	26.2%	24.2%	22.9%	-6.4%
3-9	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	48.8%	48.4%	49.6%	0.8%
3-10	Percentage of beneficiaries with a follow-up visit within 7-days after emergency department (ED) visit for mental illness	47.9%	47.5%	49.3%	1.5%
3-11	Percentage of beneficiaries with a follow-up visit within 7-days after ED visit for alcohol and other drug abuse or dependence	23.0%	21.7%	20.9%	-4.6%
3-12	Percentage of beneficiaries with a screening for clinical depression and follow-up plan	--	--	--	--
3-13	Percentage of beneficiaries receiving mental health services (no desired direction)				
	Any[3]	**9.2%**	**9.7%**	**10.5%**	**6.8%**
	ED	0.1%	0.1%	0.1%	-1.7%
	Intensive outpatient or partial hospitalization	0.5%	0.5%	0.5%	4.9%
	Inpatient	0.7%	0.8%	0.9%	15.0%
	Outpatient	9.0%	9.4%	10.2%	6.4%
	Telehealth	0.4%	0.5%	0.7%	21.7%

Note: Indicators in bold denote inclusion for evaluation in summary table. Results for Measure 3-12 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.

[1]Rates are weighted by duration of enrollment in ACC.

[2]Average relative change reports the averaged relative percentage changes between years 1 and 2 and between years 2 and 3.

[3]The Any Services category is not a sum of the Inpatient, Intensive Outpatient or Partial Hospitalization, Outpatient, ED and Telehealth categories.

Although rates for screening for clinical depression (Measure 3-12) were calculated, as described in the Methodology Limitations section, this measure relies on level II Healthcare Common Procedure Coding System (HCPCS) codes to identify numerator compliance, which yields artificially low rates calculated through administrative data. Therefore no results for this measure are displayed.

Research Question 3.4 Assesses beneficiaries' management of opioid prescriptions.

Table 5-8 and Figure 5-17 shows the percentage of beneficiaries with opioid prescriptions at high dosage remained steady during the baseline period, falling slightly from 13.3 and 13.5 percent in 2016 and 2017, respectively, to 12.4 percent in 2018. The percentage of beneficiaries who had overlapping prescriptions for an opioid and a benzodiazepine for at least 30 days declined over the course of the baseline period dropping by an average of 15.6 percent annually, demonstrated in Figure 5-18.

Figure 5-17

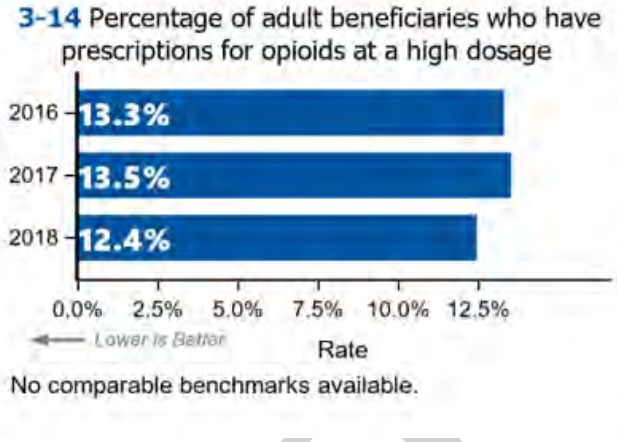


Figure 5-18

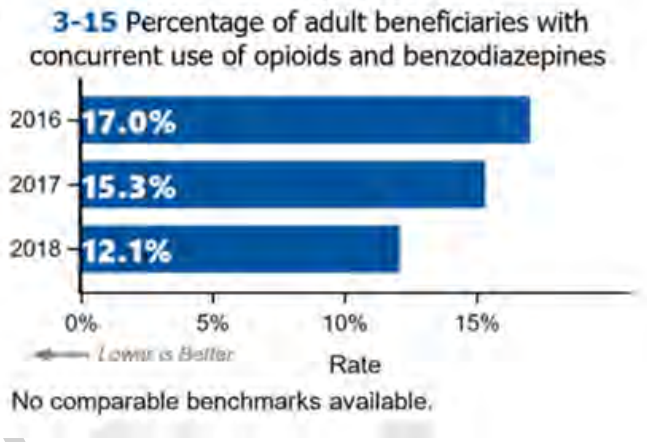


Table 5-8: Research Question 3.4

Do beneficiaries enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to integrated care?					
		Weighted Rate[1]			Average Relative Change[2]
		2016	2017	2018	
3-14	Percentage of adult beneficiaries who have prescriptions for opioids at a high dosage (lower is better)	13.3%	13.5%	12.4%	-3.1%
3-15	Percentage of adult beneficiaries with concurrent use of opioids and benzodiazepines (lower is better)	17.0%	15.3%	12.1%	-15.6%

[1]Rates are weighted by duration of enrollment in ACC.

[2]Average relative change reports the averaged relative percentage changes between years 1 and 2 and between years 2 and 3.

Research Question 3.5 Assesses beneficiaries' utilization of the emergency department (ED) and inpatient hospitalization, along with all-cause 30-day hospital readmissions.

Table 5-9, Figure 5-19 and Figure 5-20 shows that ED utilization (Measure 3-16) and inpatient utilization (Measure 3-17) remained relatively steady during the baseline period. The rate of ED visits fell between the 25th and 50th national percentile while inpatient stays remained just above the 75th national percentile. Similarly, 30-

day all-cause hospital readmissions (Measure 3-18) remained relatively steady particularly during the latter two years of the baseline period at 16.6 percent in 2017 and 16.8 percent in 2018 shown in Figure 5-21.

Figure 5-19

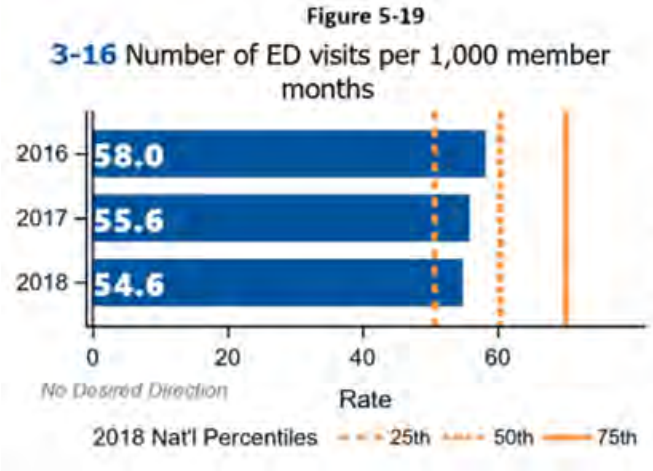


Figure 5-20

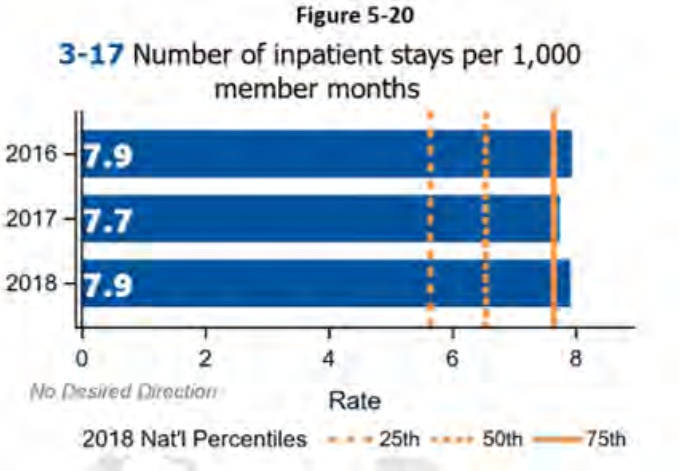
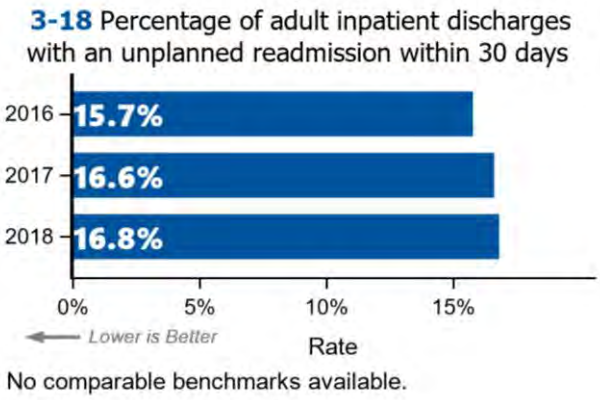


Figure 5-21



No comparable benchmarks available.

Table 5-9: Research Question 3.5

Do beneficiaries enrolled in an ACC plan have equal or lower ED or hospital utilization compared to prior to ACC?					
		Weighted Rate[1]			Average Relative Change[2]
		2016	2017	2018	
3-16	Number of ED visits per 1,000 member months (no desired direction)	58.0	55.6	54.6	-3.0%
3-17	Number of inpatient stays per 1,000 member months (no desired direction)	7.9	7.7	7.9	-0.1%
3-18	Percentage of adult inpatient discharges with an unplanned readmission within 30 days (lower is better)	15.7%	16.6%	16.8%	3.3%

[1]Rates are weighted by duration of enrollment in ACC.

[2]Average relative change reports the averaged relative percentage changes between years 1 and 2 and between years 2 and 3.

Hypothesis 4—Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care.

One of the primary goals of the ACC is to provide higher quality care for its beneficiaries, ultimately leading to better health status, which will be evaluated under Hypothesis 4. Beneficiary surveys will be administered to measure self-reported overall health (Measure 4-1, P*ercentage of beneficiaries who reported a high rating of overall health*), and mental and emotional health (Measure 4-2, *Percentage of beneficiaries who reported a high rating of overall mental or emotional health*). Results from these surveys will be included in future evaluation reports.

Hypothesis 5—Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care.

Hypothesis 5 seeks to measure beneficiary satisfaction and experience of care with the ACC plans through administering a beneficiary survey. These surveys will capture beneficiary rating of health plan (Measure 5-1, *Percentage of beneficiaries who reported a high rating of health plan*), and rating of overall health care (Measure 5-2, *Percentage of beneficiaries who reported a high rating of overall health care*). Results from these surveys will be included in future evaluation reports.

Hypothesis 6—The ACC program provides cost-effective care.

Hypothesis 6 seeks to measure the cost-effectiveness of the ACC demonstration waiver through evaluating the costs of the integration and potential savings from the integration by performing a cost-effective analysis. A long-term goal of the ACC is to provide cost-effective care for its beneficiaries. Results from this analysis will be provided in future evaluation reports.

6. ALTCS Results

The following section details measure results by research question and related hypotheses for the Arizona Long Term Care System (ALTCS) waiver program. Due to the lack of data availability and the required timeline for submission of the Interim Evaluation Report, this report only offers the baseline measure calculations for most of the hypotheses and research questions. For details on the measure definitions and specifications, reference Appendix A. Full measure results with denominator data are presented in Appendix B.

ALTCS Description

The ALTCS program provided integrated behavioral and physical health care for qualifying elderly or physically disabled (EPD) beneficiaries and has historically provided physical health care for beneficiaries with intellectual or developmental disabilities (DD). As described in the Background section, ALTCS began providing integrated care for DD beneficiaries beginning on October 1, 2019. The evaluation of the ALTCS program will consist of two components. The first component will assess the performance of the ALTCS program throughout the duration of the demonstration period. The second component will assess the impact of integrating care for DD beneficiaries.

The evaluation of integration will consist of a mixed-methods approach with quantitative performance measures using administrative claims/encounter data, and key informant interviews with subject matter experts at Department of Economic Security Division of Developmental Disabilities (DES/DDD), contracted health plans, the Arizona Health Care Cost Containment System (AHCCCS), and provider focus groups.

Results presented in this section are reported separately for the ALTCS-DD and ALTCS-EPD populations and organized by hypothesis and by research question within each hypothesis. Most hypotheses include multiple research questions, and most research questions use multiple measures. While most research questions pertain to both groups, some research questions are only applicable to the ALTCS-DD population. Each measure presented in this section uses administrative claims/encounter data calculated during the baseline period of October 1, 2015, through September 30, 2016. Results from subsequent years and from qualitative data collection will be included in the summative evaluation report.

Results Summary

In total, 29 measures were calculated for the years of 2015 and 2016.[6-1] Table 6-1 presents the number of measures by research question for the baseline period that moved in the desired direction (improved), moved opposite the desired direction (worsened), or did not demonstrably change. Seventeen of the 29 measures where two years of data were available are assessed. The table also shows the number of measures for which there is no desired direction, such as emergency department (ED) or inpatient utilization measures. For a measure to be considered to have improved it must have demonstrated a relative change of at least 5 percent in the desired direction. Similarly, for a measure to have worsened, it must have demonstrated a relative change of at least 5 percent opposite to the desired direction. Measures with a relative change within ±5 percent are considered to have not changed. Information about the performance of these measures can be found in the detailed tables below.

[6-1] Additional indicators were calculated for certain measures and are reported in full in the results section and in Appendix B.

Table 6-1: ALTCS Results Baseline Summary

Research Questions	ALTCS-DD				ALTCS-EPD			
	Number of Measures				Number of Measures			
	Improved	Worsened	No Change	N/A[1]	Improved	Worsened	No Change	N/A[1]
1.1: Do adult beneficiaries who are EPD and adult beneficiaries with DD have the same or higher access to care compared to baseline rates and out-of-state comparisons?	0	0	1	0	0	0	1	0
1.2: Do child beneficiaries with DD have the same or higher rates of access to care compared to baseline rates and out-of-state comparisons?	0	0	2	0	N/A	N/A	N/A	N/A
2.1: Do beneficiaries who are EPD and beneficiaries with DD have the same or higher rates of preventive care compared to baseline rates and out-of-state comparisons?	0	0	3	0	2	0	1	0
2.2: Do child beneficiaries with DD have the same or higher rates of preventive care compared to baseline rates and out-of-state comparisons?	1	0	1	0	N/A	N/A	N/A	N/A
2.3: Do beneficiaries who are EPD and beneficiaries with DD have the same or better management of behavioral health conditions compared to baseline rates and out-of-state comparisons?	0	2	1	1	1	0	2	1
2.4: Do adult beneficiaries who are EPD and adult beneficiaries with DD have the same or better management of prescriptions compared to baseline rates and out-of-state comparisons?	1	2	0	0	0	1	2	0
2.5: Do beneficiaries who are EPD and beneficiaries with DD have the same or higher rates of utilization of care compared to baseline rates and out-of-state comparisons?	1	0	0	2	0	0	1	2

[1]Determination of improvement is not applicable or is dependent on context

Improvement or worsening of rates are not indicative of waiver program performance or impact. Relative change during the pre-implementation baseline periods is used only to assess pre-implementation trends of measures that will be used for assessing performance of the program during the post-implementation evaluation periods.

Hypothesis 1—Access to care will maintain or improve over the waiver demonstration period.

Research Question 1.1 Assesses adults' access to ambulatory and preventive health services among both DD and EPD beneficiaries.

Table 6-2 shows that rate of ambulatory or preventive services for the ALTCS-EPD population and the ALTCS-DD population. Rates for both populations remained relatively consistent during the baseline period.

Table 6-2: Research Question 1.1

Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with developmental disabilities (DD) have the same or higher access to care compared to baseline rates and out-of-state comparisons?		ALTCS-DD			ALTCS-EPD		
		Weighted Rate[1]		Relative Change	Weighted Rate[1]		Relative Change
		2015	2016		2015	2016	
1-1	Percentage of beneficiaries who accessed preventive/ambulatory health services	87.1%	87.8%	0.8%	88.6%	91.0%	2.8%

[1]Rates are weighted by duration of enrollment in ALTCS.

Research Question 1.2 assesses the rates of access to care among children in ALTCS-DD.

The percentage of children and adolescents with a primary care visit during the baseline period essentially remained unchanged between 2015 and 2016. The relative change for annual dental visit was -3.7 percent, as illustrated in Table 6-3.

Table 6-3: Research Question 1.2

Do child beneficiaries with DD have the same or higher rates of access to care compared to baseline rates and out-of-state comparisons?		ALTCS-DD			ALTCS-EPD			
		Weighted Rate[1]		Relative Change	Weighted Rate[1]			Relative Change
		2015	2016		2015	2016		
1-2	Percentage of children and adolescents who accessed primary care practitioners	91.1%	91.2%	0.1%	N/A	N/A	N/A	N/A
1-3	Percentage of beneficiaries under 21 with an annual dental visit	55.5%	53.4%	-3.7%	N/A	N/A	N/A	N/A

[1]Rates are weighted by duration of enrollment in ALTCS.

Research Question 1.3 Assesses rates of access to care among adults in ALTCS-DD.

Results from survey-based measures on access to primary care practitioners (PCPs) collected through the National Core Indicator (NCI) interview survey show general alignment with the encounter/claims-based measures calculated for DD adults and DD children from Research Questions 1.1 and 1.2. As shown in Table 6-4, nearly all (97 percent) of Arizona DD beneficiaries who responded to the question reported having a primary care doctor, and 81 percent of respondents reported having a physical exam. Seventy-five percent of respondents reported having a dental exam in the past year, although this was substantially higher than the proportion of DD children with visits reported above, and 61 percent of respondents reported having an eye exam.

Table 6-4: Research Question 1.3

Do adult beneficiaries with DD have the same or improved rates of access to care as a result of the integration of care for beneficiaries with DD?		Number of Responses	Rate
1-4	Has a primary care doctor or practitioner	463	97%
1-5	Had a complete physical exam in the past year	365	81%
1-6	Had a dental exam in the past year	313	75%
1-7	Had an eye exam in the past year	226	61%
1-8	Had a flu vaccine in the past year	166	80%

Source: National Core Indicators Adult Consumer Survey Arizona Report 2015-2016. Total sample size = 476.

Hypothesis 2—Quality of care will maintain or improve over the waiver demonstration period.

To determine if quality of care is maintained or increased, five research questions will be used to assess Hypothesis 2, including measures associated with preventive care, behavioral health care management, and utilization of care.

Research Question 2.1 Assesses rates of preventive care visits among both children and adults in ALTCS-DD and ALTCS-EPD.

Rates for breast cancer screening, cervical cancer screening, and asthma medication control remained steady for the ALTCS-DD population between 2015 and 2016. For the ALTCS-EPD population, rates increased for both types of cancer screening, as illustrated in Table 6-5.

Table 6-5: Research Question 2.1

Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of preventive care compared to baseline rates and out-of-state comparisons?		ALTCS-DD			ALTCS-EPD			
		Weighted Rate[1] 2015	Weighted Rate[1] 2016	Relative Change	Weighted Rate[1] 2015	Weighted Rate[1] 2016		Relative Change
2-1	Percentage of adult beneficiaries with a breast cancer screening	43.9%	45.7%	**4.1%**	28.0%	31.1%		**11.4%**
2-2	Percentage of adult beneficiaries with a cervical cancer screening	17.8%	17.4%	**-2.5%**	21.4%	23.3%		**8.8%**
2-3	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	77.1%	79.0%	**2.6%**	65.9%	67.7%		**2.6%**

[1]Rates are weighted by duration of enrollment in ALTCS.

Research Question 2.2 Assesses rates of preventive care visits among children in ALTCS-DD.

During the baseline period, the rate for well-child visits among those ages 3 to 6 remained steady, dropping by only 2.0 percent, while the rate of well-care visits among beneficiaries ages 12 through 21 increased by 8.4 percent, as illustrated in Table 6-6.

Table 6-6: Research Question 2.2

Do child beneficiaries with DD have the same or higher rates of preventive care compared to baseline rates and out-of-state comparisons?

		ALTCS-DD				ALTCS-EPD			
		Weighted Rate[1]			Relative Change	Weighted Rate[1]			Relative Change
		2015	2016			2015	2016		
2-4	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life	52.2%	51.2%	→	**-2.0%**	N/A	N/A	N/A	**N/A**
2-5	Percentage of beneficiaries with an adolescent well-care visit	39.8%	43.1%	→	**8.4%**	N/A	N/A	N/A	**N/A**

[1]Rates are weighted by duration of enrollment in ALTCS.

Measure 2-6, *Percentage of beneficiaries with an influenza vaccine*, will be calculated using data from the Arizona State Immunization Information System (ASIIS), which was not available at time of study.

Research Question 2.3 Assesses management of behavioral health conditions among children and adults in ALTCS-DD and ALTCS-EPD.

The percentage of beneficiaries with a follow-up visit with a mental health practitioner after hospitalization for mental illness increased by almost 40 percent for the ALTCS-EPD population during the baseline period. The ALTCS-DD population had rates decrease between 2015 and 2016 for adherence to antidepressant treatment during the baseline period. The rate of mental health utilization (for any mental health service) remained relatively unchanged during the baseline period for both the ALTCS-DD and EPD populations.

Table 6-7: Research Question 2.3

Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or better management of behavioral health conditions compared to baseline rates and out-of-state comparisons?

		ALTCS-DD			ALTCS-EPD		
		Weighted Rate[1]		Relative	Weighted Rate[1]		Relative
		2015	2016	Change	2015	2016	Change
2-7	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	68.3%	69.2%	**1.3%**	21.4%	29.9%	**39.7%**
2-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (84 days)	52.3%	45.9%	**-12.2%**	61.3%	63.2%	**3.1%**
2-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (180 days)	38.8%	33.1%	**-14.7%**	44.2%	45.7%	**3.3%**
2-9	Percentage of beneficiaries with a screening for depression and follow-up plan	--	--	**--**	--	--	**--**
2-10	Percentage of beneficiaries receiving mental health services (no desired direction)						
	Any	**31.2%**	**31.5%**	**0.8%**	**19.8%**	**19.7%**	**-0.8%**
	ED	0.2%	0.3%	**95.2%**	0.1%	0.1%	**-0.3%**
	Intensive outpatient or partial hospitalization	0.9%	0.9%	**3.9%**	0.2%	0.3%	**52.5%**
	Inpatient	1.2%	1.2%	**-2.2%**	7.4%	6.9%	**-7.1%**
	Outpatient	31.1%	31.4%	**0.8%**	13.7%	14.2%	**3.8%**
	Telehealth	0.4%	0.7%	**73.3%**	0.1%	0.1%	**-35.8%**

Note: Indicators in bold denote inclusion for evaluation in summary table. Results for Measure 2-9 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.

[1]Rates are weighted by duration of enrollment in ALTCS.

Although rates for screening for clinical depression (Measure 2-9) were calculated, as described in the Methodology Limitations section, this measure relies on level II Healthcare Common Procedure Coding System (HCPCS) codes to identify numerator compliance, which yields artificially low rates calculated through administrative data. Therefore no results for this measure are displayed.

Research Question 2.4 Assesses management of prescriptions, including that of opioids, among adults in ALTCS-DD and ALTCS-EPD.

As illustrated in Table 6-8, the percentage of adult beneficiaries with monitoring for persistent medications (including monitoring for beneficiaries on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARB) and beneficiaries on diuretics) increased for the ALTCS-DD population by almost 10 percent and remained steady for the ALTCS-EPD population. Both the ALTCS-DD and EPD populations saw increased use of opioids at high dosage. The percentage of beneficiaries concurrently using opioids and benzodiazepines increased for the ALTCS-DD population but essentially remained unchanged for the ALTCS-EPD population during the baseline period.

Table 6-8: Research Question 2.4

Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with DD have the same or better management of prescriptions compared to baseline rates and out-of-state comparisons?

		ALTCS-DD			ALTCS-EPD		
		Weighted Rate[1]		Relative	Weighted Rate[1]		Relative
		2015	2016	Change	2015	2016	Change
2-11	Percentage of adult beneficiaries with monitoring for persistent medications	72.6%	79.3%	**9.1%**	95.9%	92.5%	**-3.5%**
2-12	Percentage of beneficiaries with opioid use at high dosage (lower is better)	8.5%	10.0%	**18.3%**	23.5%	25.8%	**9.8%**
2-13	Percentage of beneficiaries with a concurrent use of opioids and benzodiazepines (lower is better)	16.7%	18.6%	**11.2%**	36.3%	36.3%	**0.1%**

[1]Rates are weighted by duration of enrollment in ALTCS.

Research Question 2.5 Assesses hospital and ED utilization in addition to unplanned 30-day hospital readmissions among ALTCS-DD and ALTCS-EPD beneficiaries.

Table 6-9 shows that ALTCS-EPD beneficiaries had higher inpatient stays and ED utilization in 2016 than in 2015, while unplanned readmissions remained steady. The ALTCS-DD beneficiaries had steady ED utilization, but a decrease in both inpatient stays and unplanned readmissions.

Table 6-9: Research Question 2.5

Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of utilization of care compared to baseline rates and out-of-state comparisons?

		ALTCS-DD			ALTCS-EPD		
		Weighted Rate[1]		Relative	Weighted Rate[1]		Relative
		2015	2016	Change	2015	2016	Change
2-14	Number of ED visits per 1,000 member months (no desired direction)	44.5	46.0	**3.3%**	63.6	68.0	**6.9%**
2-15	Number of inpatient stays per 1,000 member months (no desired direction)	10.8	9.8	**-9.1%**	37.1	39.2	**5.6%**
2-16	Percentage of adult inpatient discharges with an unplanned readmission within 30 days (lower is better)	14.7%	13.3%	**-9.5%**	19.2%	18.9%	**-1.3%**

[1]Rates are weighted by duration of enrollment in ALTCS.

Hypothesis 3—Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.

One of the goals of the ALTCS program is to maximize the quality of life for ALTCS program beneficiaries through a focus on member-centered case management, provision of member-directed options, use of person-centered planning, and creation of opportunities for beneficiaries to live in the most community-integrated settings possible.

Research Question 3.1 Assesses rates of independent living among adults in ALTCS.

Independent living and community integration are thought to be positively associated with improved quality of life among the disabled population. Beneficiaries living in their own home is a measure of independent living. Two different data sources were used to answer this research question: residency placement data from AHCCCS and survey data collected through the NCI. As shown in Table 6-10, AHCCCS placement data indicate that the

ALTCS-DD population resided in a home setting (including both their own house or apartment and living with their parents or other relatives) for 85 percent of the baseline period, and the ALTCS-EPD population resided in a home-based setting for just over half of the baseline period. NCI survey data suggest that the proportion of the ALTCS-DD population living in their own homes is lower, and that only a small fraction of them (10 percent) live in their own home or apartment, while 61 percent live in a parent or relative's home.

Table 6-10: Research Question 3.1

Do beneficiaries have the same or higher rates of living in their own home as a result of the ALTCS waiver renewal?

			ALTCS-DD		Relative	ALTCS-EPD		Relative
		Denominator	2015	2016	Change	2015	2016	Change
3-1	Percentage of Placement Days Beneficiary Resided in Their Own Home[1]	N/A	85%	85%	**0.2%**	54%	52%	**-3.6%**
3-2	Percentage of beneficiaries living in own home[2]							
	NCI Type of Residence: Own home or apartment	476	N/A	10%	N/A	N/A	N/A	N/A
	NCI Type of Residence: Parent or relative's home	476	N/A	61%	N/A	N/A	N/A	N/A
	NCI Type of Residence: Total home-based (own home/apartment or parent/relative's home)	476	N/A	71%	N/A	N/A	N/A	N/A

[1]Source: AHCCCS Placement Report. Calculated as the percentage of days during the measurement year beneficiary resided at home or in parent/caretakers' home. This measure is being used in lieu of percentage of beneficiaries residing in their own home, as described in the draft Evaluation Design Plan.

[2]Source: National Core Indicators Adult Consumer Survey Arizona Report 2015-2016. Total sample size = 476.

Research Question 3.2 Assesses satisfaction with living arrangements and services and supports among adults in ALTCS-DD.

As evidenced in Table 6-11, surveyed DD individuals in Arizona express high levels of satisfaction with their living arrangements and the services and supports they receive. One in eight beneficiaries (13 percent) say they would prefer to live somewhere else, and 97 percent indicate that services and supports help them live a good life.

Table 6-11: Research Question 3.2

Do adult beneficiaries have the same or higher rates of feeling satisfied with their living arrangements as a result of the integration of care for beneficiaries with DD?

		Denominator	Rate
3-3	Wants to live somewhere else	418	**13%**
3-4	Services and supports help the person live a good life	416	**97%**

Research Question 3.3 Assesses community integration and autonomy among adults in ALTCS-DD.

As shown in Table 6-12, nearly all (93 percent) of surveyed Arizona DD adults reported being satisfied with their ability to engage with the community. Two-thirds have friends outside their families and service providers. Most (89 percent) also report a high or moderate degree of autonomy, at least with respect to planning or having a voice in planning their daily schedules.

Table 6-12: Research Question 3.3

Do adult beneficiaries have the same or higher rates of feeling engaged as a result of the integration of care for beneficiaries with DD?		Denominator	Rate
3-5	Able to go out and do the things s/he like to do in the community	412	93%
3-6	Has friends who are not staff or family members	422	67%
3-7	Decides or has input in deciding daily schedule	468	89%

Hypothesis 4—ALTCS encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.

Hypothesis 4 measures whether the provision of behavioral services for beneficiaries with DD was impacted during the integration. DD beneficiaries began receiving integrated physical and behavioral health care on October 1, 2019, through health plans contracted with the Department of Economic Security/Division of Developmental Disabilities (DES/DDD). Hypothesis 4 consists of research questions that address this integration of care and will be answered through key informant interviews with subject matter experts at DES/DDD, contracted health plans, AHCCCS, and through provider focus groups. Results from this qualitative data collection will be presented in future evaluation reports.

Hypothesis 5—ALTCS provides cost-effective care.

Hypothesis 5 measures the cost-effectiveness of the ALTCS demonstration waiver. A long-term goal of ALTCS is to provide cost-effective care for its beneficiaries. Results from this cost-effectiveness evaluation will be included in future evaluation reports.

7. CMDP Results

The following section details measure results by research question and related hypotheses for the Comprehensive Medical and Dental Program (CMDP) waiver program. Due to the lack of data availability and the required timeline for submission of the Interim Evaluation Report, this report only offers the baseline measure calculations for most of the hypotheses and research questions. For details on the measure definitions and specifications, reference Appendix A. Full measure results with denominator data are presented in Appendix B.

CMDP Description

As described in the Background section, CMDP provides medical and dental services for children in the custody of Department of Child Services (DCS). CMDP is administered by DCS and complies with the Arizona Health Care Cost Containment System (AHCCCS) regulations to cover children in foster care who are eligible for Medicaid services.[7-1] The CMDP promotes the well-being of Arizona's children in foster care by ensuring, in partnership with the foster care community, the provision of appropriate, quality health care services.

Behavioral health services for CMDP children are covered through a Regional Behavioral Health Authority (RBHA) through April 1, 2021. After this date, AHCCCS intends to integrate behavioral health coverage into the CMDP plan to further simplify healthcare coverage and encourage better care coordination.

Results presented in this section are organized by hypothesis and by research question within each hypothesis. Most hypotheses include multiple research questions, and most research questions use multiple measures. Measures presented in this section use administrative claims/encounter data. Qualitative data will be gathered through key informant interviews with AHCCCS, CMDP representatives, and provider focus groups to assess the integration of medical and behavioral health care coverage planned for April 1, 2021. Results from this qualitative data collection will be presented in the final summative report.

Results Summary

In total, 11 measures were calculated for the years of 2015 and 2016.[7-2] Table 7-1 presents the number of measures by research question for the baseline period that moved in the desired direction (improved), moved opposite the desired direction (worsened), or did not demonstrably change. The table also shows the number of measures for which there is no desired direction, such as ED or inpatient utilization measures. For a measure to be considered to have improved it must have demonstrated a relative change of at least 5 percent in the desired direction. Similarly, for a measure to have worsened, it must have demonstrated a relative change of at least 5 percent opposite to the desired direction. Measures with a relative change within ±5 percent are considered to have not changed. Information about the performance of these measures can be found in the detailed tables below.

[7-1] Arizona Department of Child Safety. Comprehensive Medical and Dental Program (CMDP) Provider Manual, 2018. Available at: https://dcs.az.gov/sites/default/files/DCS-PamphletsandFlyers/CMDP-1711-ProviderManual2018.pdf. Accessed on: Apr 1, 2020.

[7-2] Additional indicators were calculated for certain measures and are reported in full in the results section and in Appendix B.

Table 7-1: CMDP Results Baseline Summary

Research Questions	Number of Measures			
	Improved	Worsened	No Change	N/A[1]
1.1: Do CMDP beneficiaries have the same or increased access to primary care practitioners (PCPs) and specialists in the remeasurement period compared to the baseline?	0	0	2	0
2.1: Do CMDP beneficiaries have the same or higher rates of preventive or wellness services in the remeasurement period compared to the baseline?	0	0	2	0
2.2: Do CMDP beneficiaries have the same or better management of chronic conditions in the remeasurement period compared to the baseline?	1	0	0	0
2.3: Do CMDP beneficiaries have the same or better management of behavioral health conditions in the remeasurement period compared to the baseline?	2	0	1	1
2.4: Do CMDP beneficiaries have the same or lower hospital utilization in the remeasurement period compared to the baseline?	0	0	0	2

[1]Determination of improvement is not applicable or is dependent on context

Improvement or worsening of rates are not indicative of waiver program performance or impact. Relative change during the pre-implementation baseline periods is used only to assess pre-implementation trends of measures that will be used for assessing performance of the program during the post-implementation evaluation periods.

Hypothesis 1—Access to care will be maintained or increase during the demonstration.

Hypothesis 1 is designed to determine whether the CMDP activities during the demonstration maintain or improve beneficiary access to primary care practitioners (PCPs) and specialists. Access to care will be assessed by focusing on beneficiaries' access to PCPs and dental utilization.

Research Question 1.1 Assessed the percentage of children and adolescents with access to PCPs and annual dental visits.

Table 7-2 shows that in both 2015 and 2016, over 95 percent of children and adolescents enrolled in CMDP had a visit with a PCP. Approximately two out of three CMDP beneficiaries had an annual dental visit in both 2015 and 2016, dropping by less than 2 percent between the two years.

Table 7-2: Research Question 1.1

Do CMDP beneficiaries have the same or increased access to primary care practitioners (PCPs) and specialists in the remeasurement period as compared to the baseline?					
		Weighted Rate[1]			Relative Change
		2015	2016		
1-1	Percentage of children and adolescents with access to PCPs	95.4%	95.3%		-0.1%
1-2	Percentage of beneficiaries with an annual dental visit	67.6%	66.3%		-1.9%

[1]Rates are weighted by duration of enrollment in CMDP.

Hypothesis 2—Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.

Hypothesis 2 is designed to determine whether the CMDP activities during the demonstration maintain or improve the quality of care provided to beneficiaries. Four research questions were used to assess Hypothesis 2.

The research questions for this hypothesis will focus on preventive and wellness services; management of chronic conditions, mental health, and opioid prescriptions; and hospital utilization.

Research Question 2.1 Assessed rates of well-care visits and immunizations.

In 2015 and 2016, approximately 69 and 61 percent of children and adolescents, respectively, had a well-care visit during the year prior to demonstration renewal, as illustrated in Table 7-3.

Table 7-3: Research Question 2.1

Do CMDP beneficiaries have the same or higher rates of preventive or wellness services in the remeasurement period compared to the baseline?					
		Weighted Rate[1]			Relative Change
		2015	2016		
2-1	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life	68.9%	69.4%		0.7%
2-2	Percentage of beneficiaries with an adolescent well-care visit	60.6%	61.3%		1.1%
2-3	Percentage of children two years of age with appropriate immunization status	--	--		--
2-4	Percentage of adolescents 13 years of age with appropriate immunizations[2]	--	--		--

Note: Results for Measures 2-3 and 2-4 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data

[1]Rates are weighted by duration of enrollment in CMDP.

[2]Immunization measures rely on encounter data.

Baseline rates for childhood and adolescent immunizations are not presented in this report due to the unavailability of immunization registry data. Future evaluation reports will incorporate additional immunization data to provide a fuller context of immunization rates among the CMDP population.

Research Question 2.2 Assessed rates of asthma control among beneficiaries ages 5 to 18 during the year prior to demonstration renewal.

Table 7-4 shows that approximately 68 percent CMDP beneficiaries with asthma had more controller medications than other asthma medications during 2015 and increased by 9 percent to 74.4 percent in 2016.

Table 7-4: Research Question 2.2

Do CMDP beneficiaries have the same or better management of chronic conditions in the remeasurement period as compared to the baseline?					
		Weighted Rate[1]			Relative Change
		2015	2016		
2-5	Percentage of beneficiaries ages 5 to 18 who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year	68.3%	74.4%		9.0%

[1]Rates are weighted by duration of enrollment in CMDP.

Research Question 2.3 Assessed management of behavioral health conditions through measuring rates of follow-up with a behavioral health practitioner after hospitalization for mental illness, management of antipsychotic medications, depression screening, and percentage of beneficiaries using mental health services.

As illustrated in Table 7-5, approximately 55 percent of CMDP beneficiaries with a hospitalization for mental illness had a follow-up visit with a behavioral health practitioner within seven days of discharge in 2015. This rate increased by 12.4 percent in 2016. About half of children and adolescents with two or more antipsychotic prescriptions had metabolic testing in both 2015 and 2016. However, only 0.4 percent of CMDP beneficiaries had a claim indicating a screening for depression was performed in 2015 and this number fell to 0.1 percent in 2016. As described in the Methodology Limitations section, this measure relies on level II Healthcare Common Procedure Coding System (HCPCS) codes to identify numerator compliance, which contributes to the low observed rate calculated through administrative data. Mental health utilization among CMDP beneficiaries remained relatively high, with 37 percent using mental health services, primarily outpatient services, in both 2015 and 2016.

Table 7-5: Research Question 2.3

Do CMDP beneficiaries have the same or better management of behavioral health conditions in the remeasurement period as compared to the baseline?					
		Weighted Rate[1]			Relative Change
		2015	2016		
2-6	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	55.2%	62.0%		12.4%
2-7	Percentage of children and adolescents on antipsychotics with metabolic monitoring	50.5%	50.2%		-0.7%
2-8	Percentage of beneficiaries with screening for depression and follow-up plan	--	--		--
2-9	Percentage of children and adolescents with use of multiple concurrent antipsychotics	2.3%	1.8%		-21.1%
2-10	Percentage of beneficiaries receiving mental health services (no desired direction)				
	Any	**36.5%**	**36.9%**		**1.1%**
	ED	0.1%	0.0%		-34.6%
	Intensive outpatient or partial hospitalization	1.6%	1.6%		3.5%
	Inpatient	2.6%	2.9%		11.7%
	Outpatient	36.3%	36.6%		1.0%
	Telehealth	0.6%	1.1%		95.7%

Note: Indicators in bold denote inclusion for evaluation in summary table. Results for measure 2-8 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data

[1]Rates are weighted by duration of enrollment in CMDP.

[2]The Any Services category is not a sum of the Inpatient, Intensive Outpatient or Partial Hospitalization, Outpatient,

Although rates for screening for clinical depression (Measure 2-8) were calculated, as described in the Methodology Limitations section, this measure relies on level II Healthcare Common Procedure Coding System (HCPCS) codes to identify numerator compliance, which yields artificially low rates calculated through administrative data. Therefore no results for this measure are displayed.

Research Question 2.4 Measures emergency department (ED) and inpatient utilization during the year prior to demonstration renewal.

Table 7-6 shows that there were 44.3 ED visits and 3.3 inpatient stays per 1,000 member months among CMDP beneficiaries during 2015. These rates decreased by more than 5 percent in 2016 to 41.8 ED visits and 3.1 inpatient stays per 1,000 member months.

Table 7-6: Research Question 2.4

Do CMDP beneficiaries have the same or lower hospital utilization in the remeasurement period compared to the baseline?				
		Weighted Rate[1]		Relative Change
		2015	2016	
2-11	Number of ED visits per 1,000 member months (no desired direction)	44.3	41.8	-5.6%
2-12	Number of inpatient stays per 1,000 member months (no desired direction)	3.3	3.1	-5.9%

[1]Rates are weighted by duration of enrollment in CMDP.

Hypothesis 3—CMDP encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.

Hypothesis 3 is designed to identify in detail the activities CMDP conducted to further AHCCCS' goal of care integration through implementing strategies supporting care coordination and management. Barriers encountered during the transition to integrated care and implementing these strategies will also be a focus of Hypothesis 3. Three research questions will be used to assess perspectives on CMDP's planned care integration efforts scheduled for April 1, 2021. Key informant interviews will gather qualitative insights regarding any barriers encountered during the transition to integrated care, CMDP's planned activities, and any barriers specific to implementing care coordination strategies. Results from these interviews will be presented in the future evaluation reports.

Hypothesis 4—CMDP provides cost-effective care.

Hypothesis 4 will assess the costs associated with the provision of care for CMDP members. Results from this analysis will be provided in future evaluation reports.

8. RBHA Results

The following section details measure results by research question and related hypotheses for the Regional Behavioral Health Authority (RBHA) waiver program. Due to the lack of data availability and the required timeline for submission of the Interim Evaluation Report, this report offers results for the baseline measure calculations and the first five years of the evaluation period for most of the hypotheses and research questions. For details on the measure definitions and specifications, reference Appendix A. Full measure results with denominator data are presented in Appendix B.

RBHA Description

Due to integration efforts of physical and behavioral health care before and during the demonstration period, the evaluation of the RBHA health plans will assess provision of care specifically to adult beneficiaries with a serious mental illness (SMI), as described in the Background section. Although RBHAs provided behavioral health care for most Arizona Health Care Cost Containment System (AHCCCS) beneficiaries until October 1, 2018 (upon introduction of AHCCCS Complete Care [ACC]), behavioral health related outcomes for this population will be presented in the ACC Results section. Likewise, behavioral health related outcomes for the Arizona Long Term Care System intellectual or developmental disability (ALTCS-DD) and Comprehensive Medical and Dental Program (CMDP) populations, which also underwent or will undergo similar integration efforts will be presented in their respective sections. Thus, the RBHA evaluation will focus on adult beneficiaries with an SMI, which have been receiving integrated care through the RBHAs statewide since 2014.

By providing coordinated and integrated physical and behavioral health care to AHCCCS beneficiaries with an SMI, AHCCCS expects RBHAs to improve access to primary care services; increase prevention, early identification, and intervention services; reduce the incidence and impact of serious physical and mental illnesses; and improve the overall health and quality of life for their beneficiaries.

Results Summary

In total, 17 measures were calculated for the years between 2012 and 2018.[8-1] Table 8-1 presents the number of measures by research question for the baseline and evaluation periods that moved in the desired direction (improved), moved opposite the desired direction (worsened), or did not demonstrably change. The table also shows the number of measures for which there is no desired direction, such as emergency department (ED) or inpatient utilization measures. For a measure to be considered to have improved it must have demonstrated a relative change of at least 5 percent in the desired direction between the average baseline rate and the average evaluation period rate. Similarly, for a measure to have worsened, it must have demonstrated a relative change of at least 5 percent opposite to the desired direction between the average baseline rate and the average evaluation period rate. Measures with a relative change within ±5 percent are considered to have not changed between the average baseline rate and the average evaluation period rate. Information about the performance of these measures can be found in the detailed tables below.

Improvement or worsening of rates is not indicative of waiver program performance or impact. The relative change between the pre-integration baseline period and post-integration evaluation period is presented here for descriptive purposes only. These data have not been analyzed using the statistical methods described in the evaluation design plan that would allow making statements about the program impact. Measures characterized as

[8-1] Additional indicators were calculated for certain measures and are reported in full in the results section and in Appendix B.

improving or worsening when evaluated using a relative change of ±5 percent may have been influenced by factors other than the RBHA program that have not been statistically controlled for in these results. Therefore, the results presented below for the RBHA program should not be interpreted as indications supporting or opposing any program impact. A more robust statistical analysis utilizing methods capable of identifying the impact of the RBHA program will be included in future evaluation reports.

Table 8-1: RBHA Results Summary

Research Questions	Number of Measures			
	Improved	Worsened	No Change	N/A[1]
1.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to primary care services compared to prior to the demonstration renewal?	0	0	1	0
1.2: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to substance abuse treatment compared to prior to the demonstration renewal?	1	0	1	0
2.2: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of chronic conditions compared to prior to the demonstration?	0	1	2	0
2.3: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of behavioral health conditions compared to prior to the demonstration renewal?	4	0	1	1
2.4: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of opioid prescriptions compared to prior to the demonstration renewal?	2	0	0	0
2.6: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or lower hospital utilization compared to prior to the demonstration?	0	0	1	2

[1]Determination of improvement is not applicable or is dependent on context

Results presented in this section are organized by hypothesis and by research question within each hypothesis. Most hypotheses include multiple research questions, and most research questions use multiple measures. Measures presented in this section use administrative claims/encounter data. Beneficiary survey data will be used where possible to triangulate the impact of RBHA on the research questions posed. Results from these surveys will be presented in future evaluation reports.

Hypothesis 1—Access to care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or increase during the demonstration.

Two research questions using both administrative claims/encounter data and beneficiary surveys will be used to assess Hypothesis 1. The first measures access to care and ability to get care in general, while the second focuses on substance abuse treatment.

Research Question 1.1 Assesses beneficiaries' rates of preventive health services and ability to get needed care.

Rates of preventive or ambulatory health services remained steady from an average baseline period rate of 88.5 percent to an average evaluation period rate of 92.5 percent in the second, as depicted in Table 8-2.

Table 8-2: Research Question 1.1

Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to primary care services compared to prior to the demonstration renewal?		Weighted Rate[1]							
		Baseline		Evaluation					Relative Change[2]
		2012	2013	2014	2015	2016	2017	2018	
1-1	Percentage of adults who accessed preventive/ambulatory health services	84.1%	92.8%	93.5%	92.0%	93.0%	92.4%	91.8%	4.6%

[1]Rates are weighted by duration of enrollment in RBHA.
[2]Relative Change reports the relative percentage change between the average rate during the evaluation period compared to the average rate during the baseline period.

Measures 1-2, 1-3, and 1-4 will assess beneficiary responses to getting care as soon as needed, ability to schedule an appointment for checkup or routine care, and ability to schedule appointment with a specialist as soon as needed. Results from these surveys will be presented in the summative evaluation report.

Research Question 1.2 Assesses rates of substance abuse treatment for the baseline period and the first two years of the demonstration.

The percentage of beneficiaries initiating treatment for alcohol, opioid, or other drug abuse remained steady from an average rate of 46.8 percent in the baseline period to an average rate of 45.0 percent in the evaluation period. In contrast, rates of engagement of treatment increased by more than 200 percent from an average rate of 2.4 percent in the baseline to an average rate of 7.7 percent in the evaluation period (Table 8-3).

Table 8-3: Research Question 1.2

Do adult beneficiaries with an SMI enrolled in RBHA have the same or increased access to substance abuse treatment compared to prior to the demonstration renewal?		Weighted Rate[1]							
		Baseline		Evaluation					Relative Change[2]
		2012	2013	2014	2015	2016	2017	2018	
1-5	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	46.6%	47.0%	50.1%	42.6%	42.9%	44.5%	44.9%	-3.9%
1-6	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	3.1%	1.6%	1.9%	6.9%	8.7%	9.8%	11.0%	229.5%

[1]Rates are weighted by duration of enrollment in RBHA.
[2]Relative Change reports the relative percentage change between the average rate during the evaluation period compared to the average rate during the

Hypothesis 2—Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.

The primary goal of providing integrated care for RBHA beneficiaries with an SMI is to promote health and wellness by improving the quality of care. Hypothesis 2 will test whether the quality of care provided to RBHA beneficiaries with an SMI improved or was maintained during the demonstration renewal period by assessing

rates of preventive services, management of chronic and behavioral health conditions, management of opioid prescriptions, tobacco usage, and hospital utilization.

Research Question 2.1 Assesses rates of preventive services as measured by flu shot immunization rates.

Rates for Measure 2-1 will be gathered through beneficiary surveys and reported in the summative evaluation report.

Research Question 2.2 Assesses management of chronic conditions among adult beneficiaries with an SMI during the pre-renewal period and first two years of demonstration.

Table 8-4 shows the percentage of beneficiaries with persistent asthma for whom controller medication represented the majority of their medications declined from an average rate of 60.2 percent in the baseline period to an average rate of 50.3 percent in the evaluation period, a 16.5 percent decline, largely through a decline in rates of the first year of the demonstration (federal fiscal year [FFY] 2014).

Rates for diabetes screening among beneficiaries with schizophrenia or bipolar disorder who were dispensed an antipsychotic medication remained steady between the baseline and evaluation periods. Similarly, rates of adherence to antipsychotics among beneficiaries with schizophrenia varied year-over-year, but did not show substantive change from baseline during the evaluation period.

Table 8-4: Research Question 2.2

Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of chronic conditions compared to prior to the demonstration renewal?		Weighted Rate[1]							
		Baseline		Evaluation					Relative Change[2]
		2012	2013	2014	2015	2016	2017	2018	
2-2	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	60.9%	59.5%	44.7%	50.1%	54.8%	50.1%	51.7%	-16.5%
2-3	Percentage of beneficiaries with schizophrenia or bipolar disorder using antipsychotic medications who had a diabetes screening test	80.1%	79.4%	79.1%	81.2%	77.8%	77.4%	75.8%	-1.8%
2-4	Percentage of beneficiaries with schizophrenia who adhered to antipsychotic medications	57.5%	58.5%	53.3%	52.7%	57.8%	60.4%	55.4%	-3.6%

[1]Rates are weighted by duration of enrollment in RBHA.

[2]Relative Change reports the relative percentage change between the average rate during the evaluation period compared to the average rate during the

Research Question 2.3 Assesses management of behavioral health conditions among adult beneficiaries with an SMI.

Rates for beneficiaries who remained on an antidepressant medication for at least 84 days (acute phase treatment) remained steady with an average rate of 42.8 percent in the baseline period and an average rate of 44.4 percent in the evaluation period, as reported in Table 8-5. In contrast, the percentage of beneficiaries with effective continuation of treatment for 180 days increased by 6.1 percent during the evaluation period compared to the baseline period, with the average rate changing from 25.4 percent to 26.9 percent.

The percentage of beneficiaries with a follow-up visit with a mental health practitioner after hospitalization for a mental illness increased substantially from a baseline rate of 40.1 percent to an average evaluation period rate of 64.7 percent. However, the increase was less dramatic for follow-up visit rates after an ED visit for mental illness, and for follow-up visits after ED visits for alcohol and other drug abuse, with relative increases of 7.8 percent and

8.4 percent, respectively. Similarly, rates for claims indicating a depression screening increased from the average baseline rate of 0.0 percent, but low during the evaluation period.

Utilization of any mental health services increased between the baseline and evaluation periods from an average rate of 78.5 percent to an average rate of 85.2 percent. This increase was driven primarily by the increase of inpatient mental health services from an average rate of 12.7 percent in the baseline to an average rate of 14.9 percent in the evaluation period. Rates of intensive outpatient or partial hospitalization, and outpatient service utilization increased by lesser amounts of 7.9 percent and 8.8 percent, respectively. Beneficiaries accessing mental health services through the ED or telehealth both increased from baseline rates close to zero in the baseline period, but remained low during the evaluation period.

Table 8-5: Research Question 2.3

Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of behavioral health conditions compared to prior to the demonstration renewal?

		Weighted Rate[1]							
		Baseline		Evaluation					Relative Change[2]
		2012	2013	2014	2015	2016	2017	2018	
2-5	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (84 days)	39.3%	46.3%	44.2%	42.5%	45.7%	46.2%	43.5%	3.7%
2-5	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (180 days)	23.3%	27.5%	26.9%	26.4%	28.9%	27.7%	24.8%	6.1%
2-6	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	N/A[3]	40.1%	47.2%	65.1%	70.7%	70.6%	70.0%	61.5%
2-7	Percentage of beneficiaries with a follow-up visit within 7-days after emergency department (ED) visit for mental illness	56.1%	59.3%	61.0%	62.0%	62.7%	63.8%	61.5%	7.8%
2-8	Percentage of beneficiaries with a follow-up visit within 7-days after ED visit for alcohol and other drug abuse or dependence	18.8%	18.4%	17.5%	21.6%	21.1%	19.7%	21.0%	8.4%
2-9	Percentage of beneficiaries with a screening for depression and follow-up plan	--	--	--	--	--	--	--	--
2-10	Percentage of beneficiaries receiving mental health services (no desired direction)								
	Any[4]	**73.6%**	**83.4%**	**85.5%**	**82.5%**	**85.9%**	**86.4%**	**85.9%**	8.6%
	ED	0.0%	0.1%	0.4%	0.9%	1.5%	1.5%	1.2%	--
	Intensive outpatient or partial hospitalization	12.3%	13.2%	12.8%	12.1%	14.3%	14.8%	14.9%	7.9%
	Inpatient	12.2%	13.1%	13.2%	14.2%	14.9%	16.0%	16.3%	18.1%
	Outpatient	72.8%	82.9%	85.0%	81.9%	85.4%	85.9%	85.3%	8.8%
	Telehealth	0.1%	0.8%	1.6%	2.1%	2.8%	4.2%	6.7%	--

Note: Indicators in bold denote inclusion for evaluation in summary table. Results for Measure 2-9 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.

[1]Rates are weighted by duration of enrollment in RBHA.

[2]Relative Change reports the relative percentage change between the average rate during the evaluation period compared to the average rate during the baseline period. Some changes have been suppressed due to low rates and high variability leading to unreliable change calculations.

[3]The rate was not presented due to large rate variation attributable to changes in specifications.

[4]The Any Services category is not a sum of the Inpatient, Intensive Outpatient or Partial Hospitalization, Outpatient, ED and Telehealth categories.

Although rates for screening for clinical depression (Measure 2-9) were calculated, as described in the Methodology Limitations section, this measure relies on level II Healthcare Common Procedure Coding System

(HCPCS) codes to identify numerator compliance, which yields artificially low rates calculated through administrative data. Therefore no results for this measure are displayed.

Research Question 2.4 Assesses opioid utilization among adult beneficiaries with an SMI.

During the first two years of the demonstration period, rates of opioid utilization declined, as shown in Table 8-6. The percentage of beneficiaries with prescriptions for opioids at high dosage decreased from an average rate of 20.6 percent in the baseline period to an average rate of 16.8 percent in the evaluation period. The percentage of beneficiaries with overlapping prescriptions for both opioids and benzodiazepines declined substantially from an average of 42.8 percent in the baseline period to an average of 30.8 percent in the evaluation period.

Table 8-6: Research Question 2.4

Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of opioid prescriptions compared to prior to the demonstration renewal?		Weighted Rate[1]							
		Baseline		Evaluation					Relative Change[2]
		2012	2013	2014	2015	2016	2017	2018	
2-11	Percentage of beneficiaries who have prescriptions for opioids at a high dosage (lower is better)	20.2%	20.9%	19.0%	18.8%	17.2%	16.2%	12.8%	-18.2%
2-12	Percentage of beneficiaries with concurrent use of opioids and benzodiazepines (lower is better)	43.7%	41.9%	39.2%	34.7%	31.8%	27.6%	20.7%	-28.0%

[1]Rates are weighted by duration of enrollment in RBHA.

[2]Relative Change reports the relative percentage change between the average rate during the evaluation period compared to the average rate during the baseline period.

Research Question 2.5 Assesses tobacco utilization among adult beneficiaries with an SMI.

A beneficiary survey will be administered asking respondents about their tobacco use habits for Measure 2-13. Results from these surveys will be included in future evaluation reports.

Research Question 2.6 Assesses hospital utilization among adult beneficiaries with an SMI.

The number of beneficiaries utilizing the ED decreased in the evaluation period compared to the baseline, falling to an average of 136.9 visits per 1,000 member months from 143.4 during the baseline, as shown in Table 8-7. Inpatient stays exhibited a more substantial decline than ED utilization, falling over 20 percent from an average of 22.1 visits per 1,000 member months in the baseline period to 17.6 during the evaluation period. Additionally, 30-day unplanned readmission rates remained steady during the evaluation period, increasing by 2.9 percent over the baseline rate.

Table 8-7: Research Question 2.6

Do adult beneficiaries with an SMI enrolled in a RBHA have the same or lower hospital utilization compared to prior to the demonstration renewal?		Weighted Rate[1]							
		Baseline		Evaluation					Relative Change[2]
		2012	2013	2014	2015	2016	2017	2018	
2-14	Number of ED visits per 1,000 member months (no desired direction)	145.9	140.8	141.9	142.1	140.3	136.8	123.5	-4.5%
2-15	Number of inpatient stays per 1,000 member months (no desired direction)	22.7	21.4	20.5	18.6	16.8	16.6	15.4	-20.2%
2-16	Percentage of inpatient discharges with an unplanned readmission within 30 days (lower is better)	22.1%	22.5%	21.6%	22.8%	22.3%	24.5%	23.5%	2.9%

[1]Rates are weighted by duration of enrollment in RBHA.

[2]Relative Change reports the relative percentage change between the average rate during the evaluation period compared to the average rate during the baseline period.

Hypothesis 3—Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.

To determine the overall health status among RBHA beneficiaries with an SMI, the independent evaluator will use two survey questions asking beneficiaries to report their overall health and overall mental or emotional health. Results from these surveys will be presented in future evaluation reports.

Hypothesis 4—Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration period.

Hypothesis 4 will measure beneficiary satisfaction and experience of care with the RBHAs using three survey questions about their ratings of the healthcare received from the RBHAs and providers. Results from these surveys will be presented in future evaluation reports.

Hypothesis 5—RBHAs encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.

RBHAs have provided integrated behavioral and physical care for their adult beneficiaries with an SMI throughout the demonstration renewal period. Hypothesis 5 seeks to assess the activities and any challenges related to providing coordinated care for adults with an SMI through key informant interviews with subject matter experts at each RBHA and with AHCCCS, and by conducting provider focus groups. Results from this qualitative data collection will be provided in future evaluation reports.

Hypothesis 6—RBHAs will provide cost-effective care for beneficiaries with an SMI.

Hypothesis 6 will measure the cost-effectiveness of providing behavioral and physical care to beneficiaries with an SMI through the RBHAs. Results from this analysis will be included in future evaluation reports.

9. PQC Waiver Results

The following section details measure results by research question and related hypotheses for the Prior Quarter Coverage (PQC) waiver program. Due to the lack of data availability and the required timeline for submission of the Interim Evaluation Report, this report only offers the baseline measure calculations for most of the hypotheses and research questions. For details on the measure definitions and specifications, reference Appendix A. Full measure results with denominator data are presented in Appendix B.

PQC Waiver Description

The PQC waiver revises retroactive eligibility for the Arizona Health Care Cost Containment System (AHCCCS) from three months prior to the month of application to the month of application. By limiting the period of retroactive eligibility, AHCCCS expects to encourage beneficiaries to (1) obtain and maintain health coverage, even when healthy, or to obtain health coverage as soon as possible after becoming eligible; and (2) increase continuity of care by reducing gaps in coverage that occur when members "churn" (i.e., individuals moving on and off Medicaid repeatedly). In turn, these successes will improve health outcomes and reduce costs to AHCCCS, ensuring the long-term fiscal sustainability of the Arizona Medicaid program.

As described in the Background section, the PQC waiver took effect on July 1, 2019. The baseline period for evaluating the PQC waiver, therefore, extends from July 1, 2017, through June 30, 2019. The results presented in this section are reported separately for each baseline year for measures that use administrative eligibility, enrollment, and encounter data. Beneficiary surveys will be administered to further assess the PQC waiver on beneficiary satisfaction, experience of care, and medical debt. Additional qualitative data collection through key informant interviews and focus groups among providers and other stakeholders will assess beneficiary education and outreach concerning the removal of prior quarter coverage. Results from these beneficiary surveys and qualitative data collection will be presented in the summative evaluation report. Results presented in this section are organized by hypothesis and by research question within each hypothesis. Most hypotheses include multiple research questions, and most research questions use multiple measures.

Results Summary

In total, 8 measures were calculated for the years of 2017 and 2018.[9-1] Table 9-1 presents the number of measures by research question for the baseline period that moved in the desired direction (improved), moved opposite the desired direction (worsened), or did not demonstrably change. The table also shows the number of measures for which there is no desired direction, such as emergency department (ED) or inpatient utilization measures. For a measure to be considered to have improved it must have demonstrated a relative change of at least 5 percent in the desired direction. Similarly, for a measure to have worsened, it must have demonstrated a relative change of at least 5 percent opposite to the desired direction. Measures with a relative change within ±5 percent are considered to have not changed. Information about the performance of these measures can be found in the detailed tables below.

[9-1] Additional indicators were calculated for certain measures and are reported in full in the results section and in Appendix B.

Table 9-1: PQC Results Baseline Summary

Research Questions	Number of Measures			
	Improved	Worsened	No Change	N/A[1]
1.1: Do eligible people without prior quarter coverage enroll in Medicaid at the same rates as other eligible people with prior quarter coverage?	1	0	1	0
1.2: What is the likelihood of enrollment continuity for those without prior quarter coverage compared to other Medicaid beneficiaries with prior quarter coverage?	0	0	1	0
1.3: Do beneficiaries without prior quarter coverage who disenroll from Medicaid have shorter enrollment gaps than other beneficiaries with prior quarter coverage?	1	1	2	0
5.2: Do beneficiaries without prior quarter coverage who disenroll from Medicaid have shorter enrollment gaps than other beneficiaries with prior quarter coverage?	0	1	0	0

[1]Determination of improvement is not applicable or is dependent on context

Improvement or worsening of rates are not indicative of waiver program performance or impact. Relative change during the pre-implementation baseline periods is used only to assess pre-implementation trends of measures that will be used for assessing performance of the program during the post-implementation evaluation periods.

Hypothesis 1—Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.

Hypothesis 1 will test whether the demonstration results in an increase in the likelihood and continuity of enrollment. AHCCCS eligibility and enrollment data, along with estimates of the eligible Medicaid population from national data, will be used to address this hypothesis. Data related to renewals were not available at the time of this interim report and will be included in future evaluation reports.

Research Question 1.1 Assesses the estimated take-up rates of Medicaid and enrollment into Medicaid.

Table 9-2 shows the *Proportion of eligible Medicaid recipients enrolled with coverage* (Measure 1-1) and the *Percentage of new Medicaid enrollees* (Measure 1-2) out of the estimated eligible Medicaid recipients by eligibility group using American Community Survey (ACS) data from Integrated Public Use Microdata Series (IPUMS). The percentage of estimated eligible Medicaid recipients enrolled is comparable across the two baseline years, with parents demonstrating the highest percentage of enrolled eligible Medicaid recipients and Supplemental Security Income (SSI) Aged people showing the lowest. The percentage of new Medicaid enrollees out of estimated eligible Medicaid recipients is highest for adults and SSI Aged people and lowest for Disabled Freedom to Work (FTW) and disabled Seniors.

Table 9-2: Research Question 1.1

Do eligible people without prior quarter coverage enroll in Medicaid at the same rates as other eligible people with prior quarter coverage?					
		Baseline Y1[1]	Baseline Y2[1]		Relative Change
1-1	Percentage of estimated eligible Medicaid recipients enrolled, by eligibility group				
	Eligible - Total	**38.9%**	**39.1%**		0.5%
	Eligible - adult	36.3%	36.3%		0.0%
	Eligible - disabled (FTW)	25.5%	30.2%		18.6%
	Eligible - parent	57.6%	55.1%		-4.4%
	Eligible - senior (DIS)	43.2%	43.9%		1.6%
	Eligible - SSI aged	25.1%	28.9%		15.4%
1-2	Percentage of estimated eligible Medicaid recipients newly enrolled, by eligibility group[2]				
	Eligible - Total	**3.3%**	**3.5%**		8.4%
	Eligible - adult	4.1%	4.3%		5.5%
	Eligible - disabled (FTW)	0.1%	0.0%		-26.0%
	Eligible - parent	1.9%	3.0%		53.3%
	Eligible - senior (DIS)	0.2%	0.3%		14.5%
	Eligible - SSI aged	3.9%	3.8%		-1.1%

Note: Indicators in bold denote inclusion for evaluation in summary table.
[1]Rates are based on calendar year 2017 (Baseline Y1) and 2018 (Baseline Y2) due to IPUMS annual reporting periods.
[2]Newly enrolled beneficiaries are those who did not have Medicaid enrollment in the six months prior to joining.

Measure 1-3, *Number of Medicaid enrollees per month by eligibility group and/or per-capita of state*, and Measure 1-4, *Number of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage*, will be assessed through rapid-cycle reporting and therefore are not included in the Interim Evaluation Report.

Research Question 1.2 Assesses enrollment continuity for Medicaid beneficiaries.

Table 9-3 presents the average number of months with Medicaid coverage for both baseline years as comparable, with approximately 10 months of coverage in both years.

Table 9-3: Research Question 1.2

What is the likelihood of enrollment continuity for those without prior quarter coverage compared to other Medicaid beneficiaries with prior quarter coverage?					
		Baseline Y1[1]	Baseline Y2[1]		Relative Change
1-6	Average number of months with Medicaid coverage	10.0	10.2		1.2%

[1]Baseline Y1 extends from 7/1/2017 through 6/30/2018, and Baseline Y2 extends from 7/1/2018 through 6/30/2019.

Measure 1-5, *Percentage of Medicaid beneficiaries due for renewal who complete the renewal process*, will be calculated using data from Health Current, which was not available at time of analysis; results will be presented in future evaluation reports.

Research Question 1.3 Assesses length of gaps in enrollment for Medicaid beneficiaries who disenroll and subsequently re-enroll within six months.

Results for the length of enrollment gaps for Medicaid beneficiaries who disenroll and re-enroll after a gap of up to six months are illustrated in Table 9-4. In year 1, over 22 percent of beneficiaries re-enrolled within six months of disenrolling compared to 19.3 percent in year 2. The average number of months without coverage, average number of gaps in coverage, and average number of days per gap in Medicaid coverage are comparable for both years.

Table 9-4: Research Question 1.3

Do beneficiaries without prior quarter coverage who disenroll from Medicaid have shorter enrollment gaps than other beneficiaries with prior quarter coverage?					
		Baseline Y1[1]	Baseline Y2[1]		Relative Change
1-7	Percentage of Medicaid beneficiaries who re-enroll after a gap of up to six months	22.2%	19.3%		-13.0%
1-8	Average number of months without Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	2.5	2.6		4.5%
1-9	Average number of gaps in Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	1.3	1.2		-8.1%
1-10	Average number of days per gap in Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	73.4	74.9		2.1%

[1]Baseline Y1 extends from 7/1/2017 through 6/30/2018, and Baseline Y2 extends from 7/1/2018 through 6/30/2019.

Hypothesis 2—Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.

Hypothesis 2 will test whether eliminating PQC increases the number of healthy enrollees. Beneficiary surveys will be used to assess reported rating of health, hospital utilization, and getting repeated care for the same condition among beneficiaries newly enrolled into Medicaid. These measures are:

- Measure 2-1: *Beneficiary reported rating of overall health*
- Measure 2-2: *Beneficiary reported rating of overall mental or emotional health*
- Measure 2-3: *Percentage of beneficiaries who reported prior year emergency room (ER) visit*
- Measure 2-4: *Percentage of beneficiaries who reported prior year hospital admission*
- Measure 2-5: *Percentage of beneficiaries who reported getting healthcare three or more times for the same condition or problem*

Results from these surveys will be presented in future evaluation reports.

Hypothesis 3—Health outcomes will be better for those without prior quarter coverage compared to Medicaid beneficiaries with prior quarter coverage.

A key goal of waiving PQC is that health outcomes among both newly enrolled and established beneficiaries will be improved. Hypothesis 3 will use beneficiary surveys to measure self-reported health among both newly

enrolled and established beneficiaries. Specifically, Measure 3-1, *Beneficiary reported rating of overall health for all beneficiaries* and Measure 3-2, *Beneficiary reported rating of overall mental or emotional health for all beneficiaries* will be used to assess this hypothesis. Results from these surveys will be presented in future evaluation reports.

Hypothesis 4—Eliminating prior quarter coverage will not have adverse financial impacts on consumers.

It is crucial to evaluate the financial impact that the PQC waiver has on beneficiaries. This can determine if there are any unintended consequences, such as consumers having additional expenses due to the PQC waiver not covering medical expenses during the prior quarter. Hypothesis 4 evaluates the impact that the waiver has by measuring reported beneficiary medical debt. This information will be collected through beneficiary surveys (Measure 4-1: *Percentage of beneficiaries who reported medical debt*). Results from these surveys will be presented in future evaluation reports.

Hypothesis 5—Eliminating prior quarter coverage will not adversely affect access to care.

It is important to ensure that the PQC waiver does not adversely impact access to care. Hypothesis 5 assesses this by examining utilization of office visits and facility visits for beneficiaries subject to the PQC waiver compared to those who were not subject to the waiver.

Research Question 5.1 Assesses beneficiaries' ability to get needed care or an appointment for routine care.

Two beneficiary survey questions will be used to address research question 5.1; Measure 5-1, *Beneficiary response to getting needed care right away*; and Measure 5-2, *Beneficiary response to getting an appointment for a check-up or routine care at a doctor's office or clinic*. Results from these surveys will be presented in future evaluation reports.

Research Question 5.2 Assesses service and facility utilization rates for Medicaid beneficiaries.

Table 9-5 shows the percentage of Medicaid beneficiaries with a visit to a non-primary care practitioner (PCP) specialist provider for each baseline year, with a higher percentage reported for year 1 compared to year 2.

Table 9-5: Research Question 5.2

Do beneficiaries without prior quarter coverage have the same or higher rates of service and facility utilization compared to baseline rates and out-of-state comparisons with prior quarter coverage?					
		Baseline Y1[1]	Baseline Y2[1]		Relative Change
5-3	Percentage of beneficiaries with a visit to a specialist	56.5%	50.1%		-11.3%

[1]Baseline Y1 extends from 7/1/2017 through 6/30/2018, and Baseline Y2 extends from 7/1/2018 through 6/30/2019.

Hypothesis 6—Eliminating prior quarter coverage will not result in reduced member satisfaction.

As these changes will directly impact the beneficiaries, it is important to ensure that the beneficiaries remain satisfied with their health care. Hypothesis 6 seeks to quantify the change that the implementation of the waiver has on beneficiary satisfaction through assessing beneficiaries' rating of overall health care (Measure 6-1). Results from these surveys will be presented in future evaluation reports.

Hypothesis 7—Eliminating prior quarter coverage will generate cost savings over the term of the waiver.

Hypothesis 7 seeks to measure the cost effectiveness of the eliminating retroactive eligibility demonstration waiver. A long-term goal of doing so is to provide cost-effective care for beneficiaries. Results from this analysis will be presented in future evaluation reports.

Hypothesis 8—Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.

Hypothesis 8 seeks to determine if barriers were encountered while eliminating PQC. Key informant interviews with subject matter experts at AHCCCS, the health plans, and provider focus groups will be used to assess this hypothesis. Results from this qualitative data collection will be presented in future evaluation reports.

10. TI Program Results

The following section details measure results by research question and related hypotheses for the Targeted Investments (TI) waiver program. Due to the lack of data availability and the required timeline for submission of the Interim Evaluation Report, this report only offers the baseline measure calculations for most of the hypotheses and research questions. For details on the measure definitions and specifications, reference Appendix A. Full measure results with denominator data are presented in Appendix B.

TI Program Description

The TI program is designed to encourage participating providers to increase the level of physical and behavioral health care integration and coordination. The goals of the TI program are to support the provision of whole person care through the integration of physical and behavioral health, and the screening and intervention for social determinants of health (SDOH) and other psychosocial factors affecting health status. It is expected that at the conclusion of the TI program, the Arizona Health Care Cost Containment System (AHCCCS) Complete Care (ACC) health plans will continue and sustain these efforts systemwide.[10-1] As described in the Background section, the TI program was approved in January 2017, and providers were onboarded and began implementing protocols in October 2017 to meet key milestones by September 30, 2019.

The evaluation of the TI program will follow a mixed-methods approach consisting of measures assessing both provider-level experience and success with the overall goals of TI, and beneficiary-level experience of care and quantitative measures of health effectiveness. The results presented in this report are measured during the baseline period prior to demonstration renewal (October 1, 2014–September 30, 2016). Results for subsequent years after implementation of the TI program and results from qualitative data collection will be included in the summative evaluation report.

Beneficiaries impacted by the TI program were identified as having any visit with a TI practitioner[10-2] in the year prior to the baseline period and are separated into three groups: (1) adults, (2) children/youth, (3) and adults transitioning from the criminal justice system. Likewise, the hypotheses and results presented in this section are separated to address the unique needs of these populations and are organized by hypothesis and by research question within each hypothesis. Most hypotheses include multiple research questions, and most research questions use multiple measures. Measures presented in this section use administrative claims/encounter data and TI program participation data.

Results Summary

In total, 18 measures were calculated for the years of 2015 and 2016.[10-3] Table 10-1 presents the number of measures by research question for the baseline period that moved in the desired direction (improved), moved opposite the desired direction (worsened), or did not demonstrably change. Sixteen of the 18 measures where two years of data were available are assessed. The table also shows the number of measures for which there is no desired direction, such as emergency department (ED) or inpatient utilization measures. For a measure to be

[10-1] Arizona Health Care Cost Containment System. *AHCCCS Targeted Investments Program Sustainability Plan, March 29, 2019*. Available at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-target-stability-plan-20190812.pdf. Accessed on: Apr 13, 2020.

[10-2] TI practitioners were any behavioral health or primary care providers (PCPs) who indicated meeting initial eligibility criteria for the TI program. Justice beneficiaries were identified as having been released into a ZIP code of a participating TI practitioner.

[10-3] Additional indicators were calculated for certain measures and are reported in full in the results section and in Appendix B.

considered to have improved it must have demonstrated a relative change of at least 5 percent in the desired direction. Similarly, for a measure to have worsened, it must have demonstrated a relative change of at least 5 percent opposite to the desired direction. Measures with a relative change within ±5 percent are considered to have not changed. Information about the performance of these measures can be found in the detailed tables below.

Table 10-1: TI Program Results Baseline Summary

Research Questions	Number of Measures			
	Improved	Worsened	No Change	N/A[1]
1.2: Do children subject to the TI program have higher rates of screening and well-child visits compared to those who are not subject to the demonstration?	0	0	2	0
1.3: Do children subject to the TI program have higher rates of follow-up after hospitalization or an emergency department (ED) visit for mental illness than those who are not subject to the demonstration?	1	0	0	0
2.3: Do adults subject to the TI program have lower rates of ED utilization than those who are not subject to the demonstration?	0	0	0	2
2.4: Do adults subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration?	0	0	2	0
2.5: Do adults subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?	1	0	1	0
3.2: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of access to care than those who were not subject to the demonstration?	0	0	1	0
3.3: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?	2	0	0	0
3.4: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have lower rates of ED utilization than those who were not subject to the demonstration?	0	0	0	2
3.5 Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have better management of opioid prescriptions than those who were not subject to the demonstration?	1	1	0	0

[1]Determination of improvement is not applicable or is dependent on context

Improvement or worsening of rates are not indicative of waiver program performance or impact. Relative change during the pre-implementation baseline periods is used only to assess pre-implementation trends of measures that will be used for assessing performance of the program during the post-implementation evaluation periods.

Hypothesis 1—The TI program will improve physical and behavioral health care integration for children.

Hypothesis 1 uses administrative TI program data, claims/encounter data, and beneficiary surveys to test whether the goals of the TI program are met among participating pediatricians and their associated beneficiaries. Four research questions are used to assess Hypothesis 1.

Research Question 1.1 Assesses the rates of participating pediatric practices that have an agreement and receive admission-discharge-transfer (ADT) alerts from Health Current, Arizona's Health Information Exchange (HIE).

Results for research question will be provided as rapid cycle reporting measures separately from this interim evaluation report.

Research Question 1.2 Assesses the percentage of children and adolescents with well-care visits, depression screening, and ability to get needed care.

During the baseline period, two-thirds of TI-affiliated children had a well-child visit in the third, fourth, fifth, and sixth years of life, while just over half of TI-affiliated adolescents had a well-care visit, as indicated in Table 10-2.

Table 10-2: Research Question 1.2

Do children subject to the TI program have higher rates of screening and well-child visits compared to those who are not subject to the demonstration?		Rate			Relative Change
		2015	2016		
1-3	Percentage of beneficiaries with a well-child visit in the third, fourth, fifth, and sixth years of life	69.0%	66.9%		-3.1%
1-4	Percentage of beneficiaries with a depression screening and follow-up plan	--	--		--
1-5	Percentage of beneficiaries with an adolescent well-care visit	53.0%	54.0%		2.0%

Note: Results for Measure 1-4 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.

Although rates for screening for clinical depression (Measure 1-4) were calculated, as described in the Methodology Limitations section, this measure relies on level II Healthcare Common Procedure Coding System (HCPCS) codes to identify numerator compliance, which yields artificially low rates calculated through administrative data. Therefore no results for this measure are displayed.

Research Question 1.3 Assesses the rates of children and adolescents with a follow-up visit to a mental health practitioner after a hospitalization for mental illness.

Table 10-3 shows the percent of TI-affiliated children with a hospitalization for mental illness had a follow-up visit with a mental health practitioner within seven days. About two-thirds of TI-affiliated children had a follow-up visit in 2015 and this number increased to about 71 percent in 2016.

Table 10-3: Research Question 1.3

Do children subject to the TI program have higher rates of follow-up after hospitalization or an emergency department (ED) visit for mental illness than those who are not subject to the demonstration?		Rate			Relative Change
		2015	2016		
1-7	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	66.4%	71.1%		7.0%

Research Question 1.4 Assesses beneficiary perception of care coordination among their health providers.

Beneficiary surveys will be used to calculate Measure 1-8, *Beneficiary response to their child's doctor seeming informed about the care their child received from other health providers*. Results from these surveys will be presented in future evaluation reports.

Hypothesis 2—The TI program will improve physical and behavioral health care integration for adults.

Hypothesis 2 uses administrative TI program data, claims/encounter data, and beneficiary surveys to test whether the demonstration improves the integration of physical and behavioral health care for adults impacted by the TI program. Six research questions are used to assess Hypothesis 2.

Research Question 2.1 Assesses the rates of participating adult primary care practitioner (PCP) and behavioral health practices that have an agreement and receive ADT alerts from Health Current, Arizona's HIE.

Results for research question will be provided as rapid cycle reporting measures separately from this Interim Evaluation Report.

Research Question 2.2 Assesses the rates of depression screening for TI-affiliated adults.

Although rates for screening for clinical depression (Measure 2-3) were calculated, as described in the Methodology Limitations section, this measure relies on level II Healthcare Common Procedure Coding System (HCPCS) codes to identify numerator compliance, which yields artificially low rates calculated through administrative data. Therefore no results for this measure are displayed in Table 10-4.

Table 10-4: Research Question 2.2

Do adults subject to the TI program have higher rates of screening than those who are not subject to the demonstration?				
		Rate		Relative Change
		2015	2016	
2-3	Percentage of beneficiaries with a depression screening and follow-up plan	--	--	--

Note: Results for Measure 2-3 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.

Research Question 2.3 Assesses the rates of ED utilization for TI-affiliated adults.

During the baseline years prior to demonstration renewal, TI-affiliated adults had about 110 ED visits per 1,000 member months for both 2015 and 2016, as shown in Table 10-5. During the same time period, the rate of ED visits specifically for substance use disorder (SUD) or opioid use disorder (OUD) was just under 2 per 1,000 member months for baseline years.

Table 10-5: Research Question 2.3

Do adults subject to the TI program have lower rates of ED utilization than those who are not subject to the demonstration?				
		Rate		Relative Change
		2015	2016	
2-5	Number of ED visits per 1,000 member months (no desired direction)	113.4	110.9	-2.2%
2-6	Number of ED visits for substance use disorder (SUD) or opioid use disorder (OUD) per 1,000 member months (no desired direction)	1.7	1.9	14.2%

Research Question 2.4 Assesses the rates of follow-up visits with a mental health practitioner after a hospitalization or ED visit for mental illness among TI-affiliated adults.

During the baseline years prior to demonstration renewal, about 60 percent of TI adults had a follow-up visit with a behavioral health practitioner within seven days of discharge following a hospitalization for mental illness for both 2015 and 2016. Likewise, approximately 54 percent of TI adults had a follow-up visit following an ED visit for mental illness in both baseline years (Table 10-6).

Table 10-6: Research Question 2.4

Do adults subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration?					
		Rate			Relative Change
		2015	2016		
2-7	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	57.8%	60.3%		4.3%
2-8	Percentage of beneficiaries with a follow-up visit within 7-days after emergency department (ED) visit for mental illness	54.3%	54.1%		-0.3%

Research Question 2.5 Assesses the rates of alcohol and other drug abuse or dependence treatment and medication assisted treatment (MAT) among TI-affiliated adults.

Table 10-7 shows the overall rate of initiation of treatment for alcohol and other drug abuse or dependence remained steady between both baseline years, with the highest rate of treatment for opioids over both baseline years. The rate of treatment *engagement* was only 9 percent overall in 2015 and increased to 11 percent overall, or about one in 11 beneficiaries with an episode of alcohol or other drug abuse or dependence in 2015 and one in nine in 2016. Similar to initiation of treatment, the rate of treatment engagement was highest for opioids at 13.5 percent for both baseline years, while rates for alcohol and other drug were both below 10 percent for both baseline years. Just under one-third of TI-affiliated adults with an opioid use disorder received MAT in 2016.

Table 10-7: Research Question 2.5

Do adults subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?					
		Rate			Relative Change
		2015	2016		
2-9	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment				
	Total	**40.6%**	**42.5%**		4.9%
	Alcohol	42.9%	44.2%		3.0%
	Opioid	43.7%	48.2%		10.4%
	Other Drug	40.0%	40.1%		0.4%
2-10	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment				
	Total	**9.3%**	**11.1%**		19.1%
	Alcohol	8.9%	9.7%		8.9%
	Opioid	13.5%	13.5%		-0.4%
	Other Drug	7.0%	9.8%		39.3%
2-11	Percentage of beneficiaries with OUD receiving any medication assisted treatment	N/A[1]	30.5%		N/A

Note: Indicators in bold denote inclusion for evaluation in summary table.

[1]The rate was not presented due to large rate variation attributable to changes in specifications.

Research Question 2.6 Assesses beneficiary perception of care coordination among their health providers.

Beneficiary surveys will be used to calculate Measure 2-12, *Beneficiaries' response to their doctor seeming informed about the care they received from other health providers*. Results from these surveys will be presented in future evaluation reports.

Hypothesis 3—The TI program will improve care coordination for AHCCCS-enrolled adults released from criminal justice facilities.

Hypothesis 3 uses administrative TI program data, claims/encounter data, and beneficiary surveys to test whether the demonstration improves the integration of physical and behavioral health care for adults who were recently released from the criminal justice system. Five research questions are used to assess Hypothesis 3.

Research Question 3.1 Assesses the rates of TI practices participating in the adult criminal justice transition project that have an agreement and receive ADT alerts from Health Current, Arizona's HIE.

Results for research question will be provided as rapid cycle reporting measures separately from this interim evaluation report.

Research Question 3.2 Assesses access to care and ability to get care among TI-affiliated adult beneficiaries transitioning from the criminal justice system.

During the year prior to the demonstration renewal, approximately two-thirds of beneficiaries transitioning from the criminal justice system who were released into a ZIP code of a TI-participating provider had a preventive or ambulatory visit in both 2015 and 2016, as depicted in Table 10-8. Results from Measures 3-4 and 3-5, *Beneficiary response to getting needed care,* and *beneficiary response to getting routine care right away* will be presented in future evaluation reports.

Table 10-8: Research Question 3.2

Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of access to care than those who were not subject to the demonstration?					
		Rate			Relative Change
		2015	2016		
3-3	Percentage of recently released beneficiaries who had a preventive/ambulatory health service visit	66.6%	67.1%		0.7%

Research Question 3.3 Assesses the rates of alcohol and other drug abuse or dependence treatment and MAT among TI-affiliated adult beneficiaries transitioning from the criminal justice system.

Approximately 43 percent of all TI-affiliated adult beneficiaries transitioning from the criminal justice system-initiated alcohol or other drug treatment during 2015 as shown in Table 10-9. This rate increased to nearly 50 percent in 2016, a relative change of 13.6 percent. Similar to the general adult population as discussed above in Research Question 2.5, the rates for opioid treatment for both baseline years was highest. In 2015, the lowest rate was for initiation of alcohol treatment and similarly to the general adult population from Research Question 2.5 in 2016, the lowest rate was for other drug treatment. Rates of overall engagement of treatment increased 22 percent between baseline years. Engagement in alcohol treatment was the lowest for both years, whereas engagement in opioid use was the highest for both baseline years. Approximately one-fifth of beneficiaries with an opioid use disorder were receiving MAT during the baseline period in 2016.

Table 10-9: Research Question 3.3

Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?		Rate		Relative Change
		2015	2016	
3-6	Percentage of recently released beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment			
	Total	**43.2%**	**49.1%**	**13.6%**
	Alcohol	40.0%	48.9%	**22.3%**
	Opioid	57.6%	57.5%	**-0.1%**
	Other Drug	41.2%	46.9%	**13.9%**
3-7	Percentage of recently released beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment			
	Total	**14.7%**	**17.9%**	**22.0%**
	Alcohol	10.9%	14.3%	**31.0%**
	Opioid	24.8%	22.3%	**-9.9%**
	Other Drug	12.2%	16.1%	**32.0%**
3-8	Percentage of recently released beneficiaries with OUD receiving any medication assisted treatment	N/A	21.1%	**N/A**

Note: Indicators in bold denote inclusion for evaluation in summary table.

[1]The rate was not presented due to large rate variation attributable to changes in specifications.

Research Question 3.4 Assesses the rates of ED utilization for TI-affiliated adults transitioning from the criminal justice system.

During the baseline year prior to demonstration renewal, TI-affiliated adults transitioning from the criminal justice system had 148.7 ED visits per 1,000 member months in 2015, as shown in Table 10-10. This number increased by 7.1 percent in 2016 to 159.4 ED visits per 1,000 member months. During the same time period, the rate of ED visits specifically for SUD or OUD was 6.3 per 1,000 member months in 2015 and 7.6 per 1,000 member months, an increase of 20.3 percent.

Table 10-10: Research Question 3.4

Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have lower rates of ED utilization than those who were not subject to the demonstration?		Rate		Relative Change
		2015	2016	
3-9	Number of ED visits per 1,000 member months for recently released beneficiaries (no desired direction)	148.7	159.4	**7.1%**
3-10	Number of ED visits for SUD or OUD per 1, 000 member months for recently released beneficiaries (no desired direction)	6.3	7.6	**20.3%**

Research Question 3.5 Assesses management of opioid prescriptions through measuring beneficiaries with high opioid dosages and the percentage of beneficiaries with simultaneous prescriptions for opioids and benzodiazepines.

Table 10-11 shows that prior to demonstration renewal, the percent of TI-affiliated adult beneficiaries transitioning from the criminal justice system with an opioid prescription had dosages equivalent to over 90mg of morphine dropped 13.5 percent between baseline years. Conversely, the percentage of TI-affiliated adult

beneficiaries transitioning from the criminal justice system with an opioid prescription who had concurrent prescriptions for benzodiazepines increased 8 percent between 2015 and 2016.

Table 10-11: Research Question 3.5

Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have better management of opioid prescriptions than those who were not subject to the demonstration?		Rate		Relative Change
		2015	2016	
3-11	Percentage of recently released beneficiaries who have prescriptions for opioids at a high dosage (lower is better)	17.3%	14.9%	-13.5%
3-12	Percentage of recently released beneficiaries who have prescriptions for concurrent use of opioids and benzodiazepines (lower is better)	21.8%	23.6%	8.0%

Hypothesis 4—The TI program will provide cost-effective care.

Hypothesis 4 evaluates the impact that the demonstration has by measuring costs and cost-effectiveness associated with the TI demonstration. Results from this analysis will be presented in future evaluation reports.

Hypothesis 5—Providers will increase the level of care integration over the course of the demonstration.

Hypothesis 5 uses administrative program data to assess the percentage of providers who transition to a higher level of care integration, as defined by the Substance Abuse and Mental Health Services Administration (SAMHSA) and used in the Integrated Practice Assessment Tool (IPAT). SAMHSA defines six levels of coordinated/integrated care grouped into three broad categories, depicted in Figure 10-1.[10-4] Additional details regarding the IPAT may be found in *A Review and Proposed Standard Framework for Levels of Integrated Healthcare*.[10-5]

Figure 10-1: SAMHSA Coordinated/Integrated Care Categories

Coordinated Key Element: Communication		Co-Located Key Element: Physical Proximity		Integrated Key Element: Practice Change	
LEVEL 1 Minimal Collaboration	LEVEL 2 Basic Collaboration at a Distance	LEVEL 3 Basic Collaboration On site	LEVEL 4 Close Collaboration On site with Some Systems Integration	LEVEL 5 Close Collaboration Approaching an Integrated Practice	LEVEL 6 Full Collaboration in Transformed/Merged Integrated Practice

Source: Waxmonsky J, Auxier A, Wise Romero P, and Heath B. Integrated Practice Assessment Tool Version 2.0. Available at: https://www.integration.samhsa.gov/operations-administration/IPAT_v_2.0_FINAL.pdf. Accessed on: Apr 13, 2020.

The following measures assess providers' self-reported IPAT scores as of May 31, 2018 (year 2) prior to implementing protocols associated with the TI program, against IPAT scores reported as of September 30, 2019 (year 3).[10-6] Table 10-12 presents a summary of the number of TI participating locations at the end of year 2 and whether they completed the IPAT for years 2 or 3. There were 568 provider locations (excluding hospitals) who indicated they were participating in the TI program at the end of year 2. Nearly every location participating in

[10-4] Waxmonsky J, Auxier A, Wise Romero P, and Heath B. Integrated Practice Assessment Tool Version 2.0. Available at: https://www.integration.samhsa.gov/operations-administration/IPAT_v_2.0_FINAL.pdf; Accessed on: Apr 16, 2020.

[10-5] Heath B, Wise Romero P, and Reynolds K. *A Review and Proposed Standard Framework for Levels of Integrated Healthcare*. Washington, D.C. SAMHSA-HRSA Center for Integrated Health Solutions. March 2013. Available at: https://www.integration.samhsa.gov/integrated-care-models/A_Standard_Framework_for_Levels_of_Integrated_Healthcare.pdf. Accessed on: Apr 16, 2020.

[10-6] See, e.g., adult PCP years 2 and 3 core components and milestones: Arizona Health Care Cost Containment System. Adult Primary Care Provider, AHCCCS Targeted Investments Program Core Components and Milestones, Version Jun 20, 2019. Available at: https://www.azahcccs.gov/PlansProviders/Downloads/TI/CoreComponents/Adult_PCP_webpage.pdf. Accessed on: Apr 16, 2020.

year 2 reported IPAT scores in year 2, while 66 sites—primarily adult PCPs—did not provide a valid IPAT response in year 3. These 66 sites are excluded from the results presented in this section.

Table 10-12: TI Participating Locations and IPAT Completion

Type	Number of Sites Participating in Year 2	Valid Year 2 IPAT Response	No Valid Year 3 IPAT Response
Adult Behavioral Health	157	157	4
Adult PCP	191	189	50
Pediatric Behavioral Health	118	117	7
Pediatric PCP	90	89	5
Justice	12	9	0
Total	**568**	**561**	**66**

Research Question 5.1 Assesses progression of TI participating sites across broad categories of integration (e.g., from coordinated care to co-located care).

Table 10-13 shows that providers across all areas of concentration (excluding justice) generally increased their attested integration status between demonstration years two and three. For all areas of concentration there were fewer providers attesting to the lowest integration level of minimal collaboration by the end of year three compared to year two. Likewise, there were more providers attesting to the top two integration levels (five or six) by the end of year 3 than there were at the end of year two. For instance, at the end of year two, there were 68 adult PCP sites at the lowest integration level while by the end of year three, there were only six such providers. Furthermore, 56 additional provider locations attested to either level 5 or 6 integration by the end of year three compared to year two.

Table 10-13: Attested TI Sites, by Year and Area of Concentration

Number of TI Sites that Attested to Each IPAT Level, by Year and Area of Concentration							
		Adult Providers					
		Behavioral Health			PCP		
Integration Level	IPAT Score	Year 2	Year 3	Difference	Year 2	Year 3	Difference
Integrated	6	6	18	12 *(200%)*	7	15	8 *(114%)*
	5	33	49	16 *(48%)*	18	66	48 *(267%)*
Co-located	4	13	22	9 *(69%)*	15	25	10 *(67%)*
	3	22	7	-15 *(-68%)*	13	7	-6 *(-46%)*
Coordinated	2	26	33	7 *(27%)*	18	20	2 *(11%)*
	1	53	24	-29 *(-55%)*	68	6	-62 *(-91%)*
		Pediatric Providers					
		Behavioral Health			PCP		
Integration Level	IPAT Score	Year 2	Year 3	Difference	Year 2	Year 3	Difference
Integrated	6	5	9	4 *(80%)*	5	11	6 *(120%)*
	5	19	37	18 *(95%)*	17	23	6 *(35%)*
Co-located	4	5	14	9 *(180%)*	3	15	12 *(400%)*
	3	8	8	0 *(0%)*	4	4	0 *(0%)*
Coordinated	2	35	26	-9 *(-26%)*	11	24	13 *(118%)*
	1	38	16	-22 *(-58%)*	44	7	-37 *(-84%)*

While Table 10-13 shows a general increase in integration levels across all providers, Table 10-14 and Table 10-15 illustrate these changes in further detail. Table 10-14 shows that many providers who attested to having level 1 or level 2 integration (coordinated care) in year 2 of the program continued to have coordinated care at the end of year 3. For example, out of 79 participating adult behavioral health provider sites who reported having coordinated care in year 2, only 13 (16 percent) transitioned to level 3 or level 4 integration (co-located care) and 11 (14 percent) transitioned to level 5 or level 6 integration (integrated care). Adult PCPs had higher transition rates—particularly from coordinated care to fully-integrated care—and only about a quarter of all sites who were level 1 or level 2 in year 2 remained at those levels by the end of year 3. All four justice providers who reported the lowest levels of integrated care in year 2, however, reported having the highest levels of integrated care by the end of year 3.

Approximately equal transitions from lowest levels of integration to either the middle or highest levels suggests that the ***marginal cost of transitioning to highest levels of integrated care is low.***

Providers transitioning from the middle level of integrated care—levels 3 or 4—seemed to have better success transitioning to integrated care, with the majority of providers moving from co-located care to integrated care. This would indicate that providers who are already co-located find it easier to increase levels of internal communication and collaboration (thereby meeting the objectives of integrated care) than providers who are at separate locations to re-locate to the same facilities.

While rates of transitioning out of the lowest levels of care coordination appear low, achieving such success is likely costlier and more logistically challenging than transitioning from the middle levels (co-located) to the highest levels (integrated). Indeed, having roughly the same proportion of providers transitioning out of the lowest levels to either the middle or highest levels suggests that the marginal cost of transitioning to the highest levels of care is low.

Table 10-14: Research Question 5.1

Do providers progress across the SAMHSA national standard of six levels of integrated health care?				
Measure and Type of Provider		**Denominator**	**Numerator**	**Rate**
5-1a	Percentage of providers transitioning from Level 1 or Level 2 (coordinated care) to Level 3 or Level 4 (co-located care)			
	Adult Behavioral Health	79	13	16%
	Adult PCP	86	24	28%
	Pediatric Behavioral Health	73	13	18%
	Pediatric PCP	55	15	27%
	Justice Providers	4	0	0%
5-1b	Percentage of providers transitioning from Level 1 or Level 2 (coordinated care) to Level 5 or Level 6 (integrated care)			
	Adult Behavioral Health	79	11	14%
	Adult PCP	86	42	49%
	Pediatric Behavioral Health	73	18	25%
	Pediatric PCP	55	12	22%
	Justice Providers	4	4	100%
5-2	Percentage of providers transitioning from Level 3 or Level 4 (co-located care) to Level 5 or Level 6 (integrated care)			
	Adult Behavioral Health	35	21	60%
	Adult PCP	28	22	79%
	Pediatric Behavioral Health	13	9	69%
	Pediatric PCP	7	6	86%
	Justice Providers	2	2	100%

Research Question 5.2 Assesses progression of TI participating sites within each broad category of integration.

Excluding adult PCPs, between 30 and 40 percent of TI participating locations that indicated having the lowest level of integrated care reported transitioning to level 2 by the end of year 3 as shown in Table 10-15. While only three out of 68 adult PCPs reported transitioning to level 2 from level 1, many of these providers transitioned to levels beyond level 2, as results for Measures 5-1a and 5-1b suggest.

Similarly, very few locations transitioned to level 4 from level 3, reflecting the relatively large number of transitions from levels 3 or 4 to levels 5 or 6 as reported in Measure 5-2. Only about one in six providers who reported level 5 integration during year 2 increased to the highest level of integration by the end of year 3.

Table 10-15: Research Question 5.2

Do providers increase level of integration within each broader category (i.e., coordinated, co-located, and integrated care) during the demonstration period?

Measure and Type of Provider		Denominator	Numerator	Rate
5-3	Percentage of providers transitioning from Level 1 to Level 2 integration			
	Adult Behavioral Health	53	16	30%
	Adult PCP	68	3	4%
	Pediatric Behavioral Health	38	16	42%
	Pediatric PCP	44	18	41%
	Justice Providers	4	0	0%
5-4	Percentage of providers transitioning from Level 3 to Level 4 integration			
	Adult Behavioral Health	22	4	18%
	Adult PCP	13	0	0%
	Pediatric Behavioral Health	8	1	13%
	Pediatric PCP	4	0	0%
	Justice Providers	0	0	N/A
5-5	Percentage of providers transitioning from Level 5 to Level 6 integration			
	Adult Behavioral Health	33	5	15%
	Adult PCP	18	4	22%
	Pediatric Behavioral Health	19	3	16%
	Pediatric PCP	17	3	18%
	Justice Providers	3	0	0%

Hypothesis 6—Providers will conduct care coordination activities.

Hypothesis 6 is designed to identify in detail the activities the providers conducted to further AHCCCS' goal of care coordination and integration through the TI program and assess barriers encountered during implementation. Key informant interviews with subject matter experts at AHCCCS and provider focus groups will be used to address this hypothesis. Results from these qualitative data collection activities will be presented in future evaluation reports.

11. Conclusions

Due to several confounding factors,[11-1] the Interim Evaluation Report presents limited information and results. All six program evaluations rely on numerous quantitative and qualitative data sources to measure the impact on outcomes, quality, access, and cost. Only quantitative (e.g., administrative and publicly available national surveys) data sources were available to calculate measure rates for the baseline time period(s). Furthermore, no qualitative data collection or procurement was possible prior to drafting of the report. Because of the incomplete number of data sources available for this report, and the lack of both complete baseline and post-baseline rates, no hypotheses could be tested. Although numerous measures are presented for each program, given the significant limitations, no conclusions can be drawn surrounding the barriers and facilitators to the implementation process or the impact of the programs on outcomes, quality, access, and cost.

Generally, the rates during the baseline periods across programs other than Regional Behavioral Health Authority (RBHA) do not exhibit substantial variation. About 60 percent of measures (43 out of 71) demonstrated relative changes within ±5 percent. For RBHA, seven measures exhibited improvements from the baseline period to the evaluation period, and one measure worsened. However, the observed changes in measure rates for all programs were not tested for statistical differences and did not include controls for other confounding factors. Therefore, no clear inferences can be drawn from these results. Future evaluation reports will benefit from the collection and calculation of the full suite of measures. Once a full suite of measures is available for the baseline and evaluation time periods, hypotheses can be tested and impacts of the programs can begin to be assessed following the robust and rigorous methods laid out in the evaluation design plan (Appendix A). Table 13-1 in the Lessons Learned and Recommendations section provides an outline of outstanding items necessary to provide initial evaluation findings.

[11-1] The Phase II Scope of Work began on March 12, 2020, which did not allow sufficient time to complete qualitative data collection from several sources including focus groups, key informant interviews, and beneficiary surveys – nor did it allow for time to obtain or acquire data that could be used to construct appropriate comparison groups. The coronavirus disease 2019 (COVID 19) pandemic also contributed to delays and will have an unknown impact on future activities essential to the Interim Evaluation Report such as resuming focus groups, key informant interview, and beneficiary surveys.

12. Interpretations, Policy Implications, and Interactions With Other State Initiatives

Due to several confounding factors,[12-1] the Interim Evaluation Report presents limited information and results. The results presented include baseline rates, and, apart from the Regional Behavioral Health Authority (RBHA), do not describe program performance during the implementation period. The results of the RBHA component include a description of program performance during only the first five years of the implementation period and do not evaluate for significant changes. Because of this limitation, the data cannot be interpreted with respect to program performance, efficacy, implementation or policy issues, or regarding potential interactions with other State initiatives.

Future evaluation reports will include additional quantitative and qualitative data collected from baseline and evaluation periods. The additional data and analysis will allow the testing of hypotheses and interpretation of results germane to this section of the report as outlined in the evaluation design plan (Appendix A). Table 12-1 in the Lessons Learned and Recommendations section provides an outline of outstanding items necessary to provide initial evaluation findings.

[12-1] The Phase II Scope of Work began on March 12, 2020, which did not allow sufficient time to complete qualitative data collection from several sources including focus groups, key informant interviews, and beneficiary surveys – nor did it allow for time to obtain or acquire data that could be used to construct appropriate comparison groups. The coronavirus disease 2019 (COVID 19) pandemic also contributed to delays and will have an unknown impact on future activities essential to the Interim Evaluation Report such as resuming focus groups, key informant interview, and beneficiary surveys.

13. Lessons Learned and Recommendations

Due to several confounding factors,[13-1] the Interim Evaluation Report presents limited information and results. The results presented include baseline rates and do not describe program performance during the implementation period. Because of this limitation, the data cannot be interpreted with respect to lessons learned or recommendations for program improvements.

Future evaluation reports will include additional quantitative and qualitative data collected from baseline and evaluation periods. The additional data and analysis will allow the testing of hypotheses and interpretation of results relevant to this section of the report as outlined in the evaluation design plan (Appendix A). Table 13-1 provides an outline of outstanding items necessary to provide initial evaluation findings. At a minimum the first year of the implementation period for all components will be included apart from the evaluation of integration of care for the Comprehensive Medical and Dental Program (CMDP), planned for April 1, 2021. Many of the components below, particularly regarding beneficiary surveys and qualitative data collection, are dependent on external factors primarily related to the coronavirus disease 2019 (COVID-19) pandemic.

Table 13-1: Evaluation Timeline

Component	July – Sept 2020	Oct – Dec 2020	Jan – Mar 2021	Apr – Jun 2021
Evaluation Planning	• Refine evaluation plan pending CMS feedback			
Quantitative Data Collection				
Administrative Data		• Collect additional program data (TI provider participation)	• Collect PMMIS data through September 2020 • Collect additional program data (TI provider participation, ALTCS placement, Health Current, HEAPlus)	
National Survey Data		• Collect national data as available (IPUMS/ACS, NCI)	• Collect national data as available (IPUMS/ACS, NCI)	
Beneficiary Survey		• Develop survey instrument and materials • Identify sampling methodology and sample frame	• Field beneficiary survey	Process and analyze survey data
Qualitative Data Collection				
Provider and Key Informant Interviews		• Begin scheduling and conducting interviews	• Schedule and conduct interviews	

[13-1] The Phase II Scope of Work began on March 12, 2020, which did not allow sufficient time to complete qualitative data collection from several sources including focus groups, key informant interviews, and beneficiary surveys—nor did it allow for time to obtain or acquire data that could be used to construct appropriate comparison groups. The COVID-19 pandemic also contributed to delays and will have an unknown impact on future activities essential to the Interim Evaluation Report such as resuming focus groups, key informant interviews, and beneficiary surveys.

Component	July – Sept 2020	Oct – Dec 2020	Jan – Mar 2021	Apr – Jun 2021
Data Analysis			• Qualitative analysis • Process national survey data	• Process beneficiary survey data • Process national survey data • Qualitative analysis
Rapid Cycle Reporting		• Develop rapid-cycle reporting	• Release rapid-cycle reporting	• Release rapid-cycle reporting
Evaluation Reports		• Revise Interim Report following AHCCCS feedback	• Revise Interim Report following public comment period • Submit to CMS	• Revise Interim Report following CMS feedback

TI: Targeted Investments; PMMIS: Prepaid Medical Management Information System; ALTCS: Arizona Long Term Care System; HEAPlus: Health-e-Arizona PLUS; IPUMS: Integrated Public User Microdata Series; ACS: American Community Survey; NCI: National Core Indicators; FFY: Federal Fiscal Year; AHCCCS: Arizona Health Care Cost Containment System; CMS: Centers for Medicare & Medicaid Services.

Arizona Health Care Cost Containment System

Arizona Section 1115 Waiver Evaluation

Interim Evaluation Report, Appendices

September 2020

—Draft Copy for CMS Review—

This demonstration is operated under a Section 1115 Research and Demonstration Waiver initially approved by the Centers for Medicare & Medicaid Services (CMS) on September 30, 2016.

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Appendix A. Evaluation Design Plan

Appendix A contains the Arizona Health Care Cost Containment System (AHCCCS) Section 1115 waiver demonstration evaluation design plan.

Arizona Health Care Cost Containment System

Arizona's Section 1115 Waiver Independent Evaluation – Design Plan

AHCCCS Complete Care (ACC), Arizona Long Term Care System (ALTCS), Comprehensive Medical and Dental Program (CMDP), Regional Behavioral Health Authority (RBHA), Prior Quarter Coverage (PQC), and Targeted Investments (TI)

July 2020

This program is operated under an 1115 Research and Demonstration Waiver initially approved by the Centers for Medicare & Medicaid Services (CMS) on September 30, 2016

HSAG HEALTH SERVICES ADVISORY GROUP

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1. Background

The Centers for Medicare & Medicaid Services (CMS) and federal law set standards for the minimum care states must provide Medicaid-eligible populations, while also giving states an opportunity to design and test their own strategies for funding and providing health care services. Section 1115 of the Social Security Act permits states to test innovative demonstration projects and evaluate state-specific policy changes to increase efficiency and reduce costs. On September 30, 2016, CMS approved Arizona's request to extend its Section 1115 demonstration project, Arizona Health Care Cost Containment System (AHCCCS). The demonstration extension was approved for an additional five years effective October 1, 2016, through September 30, 2021.[1-1] The following six Section 1115 waiver programs have been implemented or extended:

- AHCCCS Complete Care (ACC)
- Arizona Long Term Care System (ALTCS)
- Comprehensive Medical and Dental Program (CMDP)
- Regional Behavioral Health Authority (RBHA)
- Prior Quarter Coverage (PQC) Waiver
- Targeted Investments (TI)

Additional Components

AHCCCS Works

AHCCCS had additionally received approval for and intended to implement AHCCCS Works during the current demonstration period. However, in October 2019, AHCCCS announced a delay in implementation citing ongoing litigation nationally.[1-2] An evaluation design plan has been drafted for this component as Appendix G if the demonstration is implemented.

AHCCCS CARE

AHCCCS describes the Choice Accountability Responsibility Engagement (CARE) program in its approved special terms and conditions (STCs), describing a planned implementation date of January 2017. The AHCCCS CARE program would have required Group VIII expansion beneficiaries to make monthly contributions into AHCCCS CARE accounts, providing certain incentives for timely payment and completion of "healthy targets"

[1-1] CMS Approval Letter. Centers for Medicare & Medicaid Services. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-demo-ext-09302016.pdf. Accessed on: Sept 23, 2019.

[1-2] AHCCCS Letter to CMS, RE: Implementation of AHCCCS Works, October 17, 2019; https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-postponement-ltr-ahcccs-works-10172019.pdf. Accessed on: July 6, 2020.

under a separate but related program.[1-3] However, AHCCCS has not, and does not intend to implement the CARE program. As a result, this component is not included in either the evaluation design plan or the evaluation reports.

Descriptions, goals, and populations for each waiver program are described below.

ACC

On November 26, 2018, AHCCCS submitted a request to amend the Special Terms and Conditions (STCs) of the previously approved Section 1115 demonstration waiver to "reflect the delivery system changes that resulted from the ACC managed care contract award."[1-4]

Throughout recent years, AHCCCS has made strides to integrate behavioral health and physical health care among its Medicaid beneficiaries. These integration efforts included a statewide integrated contract with the implementation of the ACC contract on October 1, 2018. AHCCCS streamlined services for beneficiaries by transitioning them to seven new ACC integrated health care plans with member outreach and communication planning began in 2017. On October 1, 2018, AHCCCS transitioned approximately 1.5 million AHCCCS beneficiaries into ACC managed care plans that provide integrated physical and behavioral health care services. Specifically, the ACC plans serve AHCCCS Acute Care Program enrollees except for adults determined to have a serious mental illness (SMI) and foster children enrolled in CMDP.

The ACC contract was awarded to seven health plans across three geographical service areas (GSAs): Northern Arizona, Central Arizona, and Southern Arizona. Contractors under ACC are responsible for provision of integrated physical and behavioral health care for adults who are not determined to have an SMI (excluding beneficiaries enrolled with Department of Economic Security/Division of Developmental Disabilities [DES/DDD]), children with and without special health care needs (excluding beneficiaries enrolled with DES/DDD and Department of Child Safety/CMDP), and beneficiaries determined to have an SMI who opt out and transfer to an ACC for the provision of physical health services.

As part of the ACC contract, health plans are expected to "develop specific strategies to promote the integration of physical and behavioral health service delivery and care integration activities."[1-5] Such strategies include the following:

- Implementing care coordination and care management best practices for physical and behavioral health care
- Proactive identification of beneficiaries for engagement in care management
- Providing the appropriate level of care management/coordination of services to beneficiaries with comorbid physical health and behavioral health conditions and collaborating on an ongoing basis with both the member and other individuals involved in the member's care

[1-3] AHCCCS Special Terms and Conditions, updated September 13, 2019; https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/az-hccc-ca.pdf. Accessed on: July 6, 2020.
[1-4] AHCCCS Letter to CMS, RE: Arizona's 1115 Waiver: AHCCCS Complete Care Technical Clarification, November 26, 2018; https://www.azahcccs.gov/Resources/Downloads/ACC_TechnicalAmendmentCorrection_11262018.pdf. Accessed on: Aug 22, 2019.
[1-5] AHCCCS Complete Care contract #YH19-0001, Section D; https://www.azahcccs.gov/Resources/Downloads/ContractAmendments/ACC/YH190001_ACC_AMD6.pdf. Accessed on: Aug 22, 2019.

- Ensuring continuity and coordination of physical and behavioral health services and collaboration/communication among physical and behavioral health care providers
- Operating a single member services toll-free telephone line, and a single nurse triage line, both available to all beneficiaries for physical health and behavioral health services
- Developing strategies to encourage beneficiaries to utilize integrated service settings
- Considering the behavioral health and physical health care needs of beneficiaries during network development and contracting practices that consider providers and settings with an integrated service delivery model to improve member care and health outcomes
- Developing organizational structure and operational systems and practices that support the delivery of integrated services for physical and behavioral health care

ALTCS

In 1988, the original Section 1115 Research and Demonstration Waiver was amended to allow Arizona to implement a capitated long-term care program for the elderly, beneficiaries with physical disabilities, and beneficiaries with intellectual or developmental disabilities—the ALTCS program. ALTCS provides acute care, long-term care, behavioral care, and home- and community-based services to Medicaid beneficiaries at risk for institutionalization. Services are provided through contracted prepaid, capitated arrangements with managed care organizations (MCOs). MCOs that contracted with the state under ALTCS provide care to eligible beneficiaries who are elderly and/or physically disabled (EPD). These plans are referred as ALTCS-EPD health plans. ALTCS also contracts with DES/DDD. MCOs that contracted with DES/DDD, referred to as ALTCS-DDD health plans, provide care to Medicaid beneficiaries with intellectual/developmental disabilities (DD).[1-6]

There were no substantive policy changes upon renewal of the demonstration; therefore, outcomes should not substantively change between pre-renewal and post-renewal. However, on October 1, 2019, behavioral health for beneficiaries with DD were transitioned into ALTCS-DDD health plans.[1-7] Behavioral services, along with physical health services and certain Long Term Services and Supports (LTSS) (i.e., nursing facilities, emergency alert system services, and rehabilitative physical therapy for beneficiaries 21 years of age and older), are subcontracted by DES/DDD to managed care organizations called DDD health plans. Therefore, part of this waiver evaluation will assess changes in rates attributable to this integration of behavioral and physical care.

The goals of the ALTCS program are to ensure that beneficiaries are living in the most integrated setting and actively engaged and participating in community life. The ALTCS program's goals are to improve the quality of and access to care for ALTCS program beneficiaries, the quality of life for ALTCS program beneficiaries, and ALTCS program beneficiary satisfaction.

CMDP

CDMP operates as an acute care health plan under contract with Arizona's Medicaid Agency, AHCCCS, for children who are determined Medicaid eligible and in the custody of the Arizona Department of Child Safety

[1-6] Arizona's Section 1115 Waiver Demonstration Annual Report. https://www.azahcccs.gov/Resources/Downloads/FY2018AnnualReportCMS.pdf. Accessed on: Sep 27, 2019.
[1-7] DDD Health Plans. https://des.az.gov/services/disabilities/developmental-disabilities/new-ddd-health-plans. Accessed on: Sep 30, 2019.

(DCS). CMDP provides medical and dental services for children in foster homes; the custody of DCS and placed with a relative, or placed in a certified adoptive home prior to the entry of the final order of adoption, or in an independent living program as provided in Arizona Revised Statutes (A.R.S) § 8-521; or in the custody of a probation department and placed in out of home care. CMDP is administered by DCS and complies with AHCCCS regulations to cover children in foster care who are eligible for Medicaid services.[1-8]

The CMDP promotes the well-being of Arizona's children in foster care by ensuring, in partnership with the foster care community, the provision of appropriate and quality health care services. The CMDP's primary objectives are to proactively respond to the unique health care needs of Arizona's children in foster care, ensure the provision of high quality, clinically appropriate, and medically necessary health care, in the most cost-effective manner, and promote continuity of care and support caregivers, custodians, and guardians through integration and coordination of services. CMDP staff assist and support providers through a range of activities, including but not limited to the management of beneficiaries who do not follow through on appointments and/or treatment; facilitating clean claims for authorized services within 30 days, providing information regarding referrals to CMDP registered providers; assisting with beneficiary referrals to community programs; and coordinating medical care for at-risk children.

Behavioral health services for CMDP children are anticipated to be covered through a RBHA until April 1, 2021. After this date, AHCCCS intends to integrate behavioral health coverage into the CMDP plans to further simplify health care coverage and encourage better care coordination.

RBHA

As part of this demonstration renewal, adult AHCCCS beneficiaries with an SMI continue to receive acute care and behavioral health services through a geographically designated RBHA contracted with AHCCCS.[1-9]

Historically, RBHAs provided coverage for behavioral health services for all AHCCCS beneficiaries with few exceptions.[1-10] In March 2013, AHCCCS awarded Mercy Maricopa Integrated Care (MMIC) the RBHA contract for Maricopa County, Arizona's most populous county, to take effect April 2014. As part of this contract, MMIC provided integrated physical and behavioral health care coverage for individuals with an SMI in Maricopa county. In October 2015, RBHA contractors statewide began providing integrated care for their beneficiaries with an SMI.[1-11, 1-12] On October 1, 2018, AHCCCS conducted its largest care integration initiative by transitioning all acute care beneficiaries who do not have an SMI to seven ACC integrated health care plans, which provided coverage for physical and behavioral health care. Following the implementation of the ACC integration, the RBHAs provided specific services for several well-defined populations:

- Integrated physical and behavioral health services for beneficiaries determined to have an SMI

[1-8] CMDP Provider Manual, 2018, https://dcs.az.gov/sites/default/files/DCS-PamphletsandFlyers/CMDP-1711-ProviderManual2018.pdf. Accessed on: Sept 24, 2019.
[1-9] Ibid.
[1-10] These exceptions include ALTCS elderly and physically disabled.
[1-11] "Supportive Service Expansion for Individuals with Serious Mental Illness: A Case Study of Mercy Maricopa Integrated Care," *NORC,* August 18, 2017. Available at: https://news.aetna.com/wp-content/uploads/2018/02/NORC-Mercy-Maricopa-Case-Study-FINAL-v-2.pdf. Accessed on: Sept 26, 2019.
[1-12] Draft Data Quality Strategy Assessment and Performance Improvement Report, *AHCCCS,* July 1, 2018. Available at: https://www.azahcccs.gov/PlansProviders/Downloads/DraftQualityStrategyJuly2018.pdf. Accessed on: Sept 26, 2019.

- Behavioral health services for beneficiaries in the custody of the Department of Child Safety (DCS) and enrolled in DCS/CMDP
- Behavioral health services for ALTCS beneficiaries enrolled with the DES/DDD

Beginning October 1, 2019, AHCCCS intends to integrate behavioral and physical health care for the DES/DDD population covered through ALTCS (ALTCS-DD). Beneficiaries enrolled in CMDP will transition to integrated behavioral and physical health care services care under the CMDP waiver beginning October 1, 2020. Due to these integration initiatives, the focus of this evaluation will be on assessing outcomes among adult beneficiaries with an SMI only. Measures and outcomes for the other populations will be included in the respective waiver evaluation design plans—measures for children covered by CMDP will be included in the evaluation design plan for CMDP and measures for ALTCS-DD beneficiaries will be included in the evaluation design plan for ALTCS.

PQC Waiver

On January 18, 2019, CMS approved Arizona's requests to amend its Section 1115 Demonstration project to waive PQC retroactive eligibility. PQC allows individuals who are applying for Title XIX coverage retroactive coverage for up to three months prior to the month of application as long as the individual remained eligible for Medicaid during that time. The amendment will allow AHCCCS to limit retroactive coverage to the month of application, which is consistent with the AHCCCS historical waiver authority prior to January 2014. [1-13] The amendment will allow AHCCCS to implement the waiver no earlier than April 1, 2019, with an anticipated effective date of July 1, 2019, with the demonstration approved from January 18, 2019, through September 30, 2021.[1-14] The demonstration will apply to all Medicaid beneficiaries, except for pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age. AHCCCS will provide outreach and education to eligible members, current beneficiaries, and providers to inform those that may be impacted by the change.

The goals of the demonstration are to encourage beneficiaries to obtain and maintain health coverage, even when healthy, or to obtain health coverage as soon as possible after becoming eligible, increase continuity of care by reducing gaps in coverage that occur when members "churn" (individuals moving on and off Medicaid repeatedly), and therefore, improve health outcomes and reduce costs to AHCCCS, ensuring the long term fiscal sustainability of the Arizona Medicaid program.

TI

On January 18, 2017, CMS approved the five-year TI demonstration program, effective January 18, 2017, through the expiration date of September 30, 2021.[1-15] The TI program provides a total of up to $300 million across the demonstration approval period to support the physical and behavioral health care integration and coordination for beneficiaries with behavioral health needs who are enrolled in AHCCCS. These beneficiaries include adults with

[1-13] Arizona Health Care Cost Containment System. Arizona Section 1115 Waiver Amendment Request: Proposal to Waive Prior Quarter Coverage. Apr 6, 2019. Available at: https://www.azahcccs.gov/Resources/Downloads/PriorQuarterCoverageWaiverToCMS_04062018.pdf. Accessed on: Jun 19, 2019.
[1-14] Centers for Medicare & Medicaid Services. CMS Approval Letter. Jan 18, 2019. Available at: https://www.azahcccs.gov/Resources/Downloads/CMSApprovalLetter.pdf. Accessed on: Jun 19, 2019.
[1-15] CMS Approval Letter. Centers for Medicare & Medicaid Services. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-trgtd-invstmnts-prgrm-appvl-01182017.pdf. Accessed on: Aug 20, 2019.

behavioral health needs, children with behavioral health needs, including children with or at risk for Autism Spectrum Disorder (ASD), and children engaged in the child welfare system, and individuals transitioning from incarceration who are AHCCCS-eligible.

The TI program directs its managed care plans to make payments to certain providers and provide financial incentives to eligible Medicaid providers who meet certain benchmarks for integrating and coordinating physical and behavioral health care for Medicare beneficiaries pursuant to 42 CFR 438.6(c) and the 1115 Waiver. These payments are incorporated into the actuarially sound capitation rates, to incentivize providers to improve performance. The TI program's overall goals are to reduce fragmentation between acute care and behavioral health care, increase efficiencies in service delivery for members with behavioral health needs by improving integration at the provider level, and improve health outcomes for the affected populations.

This demonstration is funded by up to $300 million from multiple sources, which include a maximum of $90,824,900 from a CMS-approved time-limited expenditure from the Designated State Health Programs (DSHP). This one-time investment of DSHP funding will be phased down over the demonstration period and is meant to provide a short-term federal investment. AHCCCS and CMS expect that by the end of the demonstration, the care coordination will be supported through ongoing payment arrangements without the need for demonstration authority.[1-16] There are certain amounts of DSHP funds during years three through five of the TI Program that are designated "at risk". If the State does not meet certain performance requirements in a given demonstration year, the TI program will lose the amount of DSHP funds specified as "at risk" for that year. This would lower total TI program spending unless Intergovernmental Transfers (IGTs) are available to fill the gap.[1-17]

[1-16] Ibid.
[1-17] Ibid.

2. Evaluation Questions and Hypotheses

This section provides each program's logic model, hypotheses, and research questions, which focus on evaluating the impact of the Arizona Health Care Cost Containment System's (AHCCCS') waiver demonstration.

There are several concurrent programs and components to the AHCCCS waiver demonstration that may affect certain groups of beneficiaries. The logic models presented below depict each program's interaction between the demonstration components, the waiver programs and policy changes, and populations covered by AHCCCS.

Most AHCCCS beneficiaries in the managed care system have coverage through one of four different programs:

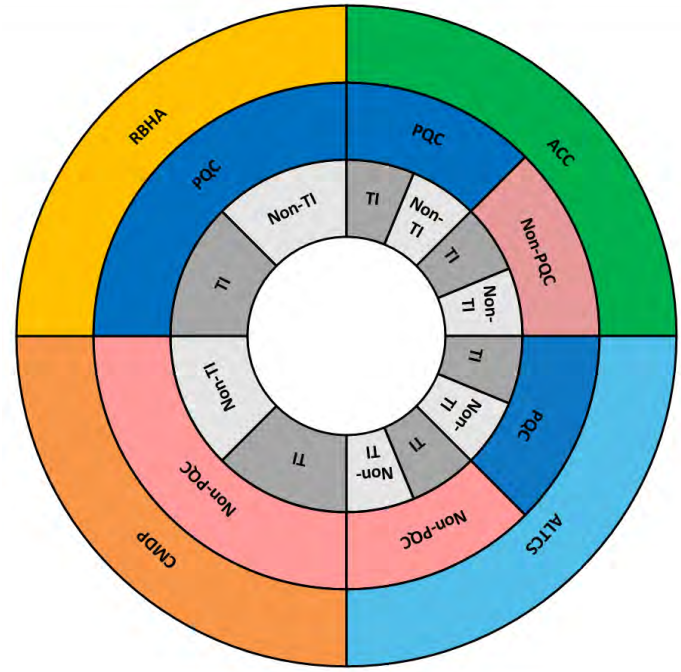
1. **AHCCCS Complete Care (ACC)**—Covers the following populations:
   a. Adults who are not determined to have a serious mental illness (SMI) (excluding beneficiaries enrolled with Department of Economic Security/Division of Developmental Disabilities [DES/DDD]);
   b. Children, including those with special health care needs (excluding beneficiaries enrolled with DES/DDD and Department of Child Safety [DCS]/Comprehensive Medical and Dental Program [CMDP]); and
   c. Beneficiaries determined to have an SMI who opt out of a Regional Behavioral Health Authority (RBHA) and transfer to an ACC for the provision of physical health services.
2. **Arizona Long Term Care System (ALTCS)**—Covers beneficiaries with an intellectual or developmental disability (ALTCS-DD) and beneficiaries who are elderly or physically disabled (ALTCS-EPD).
3. **Comprehensive Medical and Dental Program (CMDP)**—Covers beneficiaries in custody of the DCS.
4. **Regional Behavioral Health Authority (RBHA)**—Covers adult beneficiaries with an SMI.

The Prior Quarter Coverage (PQC) waiver impacts all adults on AHCCCS.[2-1] Therefore, evaluations that only cover children (i.e., CMDP) will not be affected by PQC, and evaluations that only cover adults (i.e., RBHA) will be impacted entirely by PQC (with few exceptions). The Targeted Investments (TI) program is designed to encourage participating practitioners to provide integrated care for their beneficiaries. This impacts all children and adult beneficiaries attributed or assigned to TI-participating practitioners; however, it does not impact beneficiaries who are not attributed or assigned to practitioners who are not participating in TI. Therefore, the TI program is expected to impact every eligibility category. Figure 2-1 illustrates that the populations covered by ACC, CMDP, ALTCS, and RBHA are mutually exclusive and that each of these may have a subset impacted by PQC and/or TI.

[2-1] Exceptions include children under the age of 19 and women who are pregnant or 60 days post-partum.

Figure 2-1: Population Relationships Across Waivers

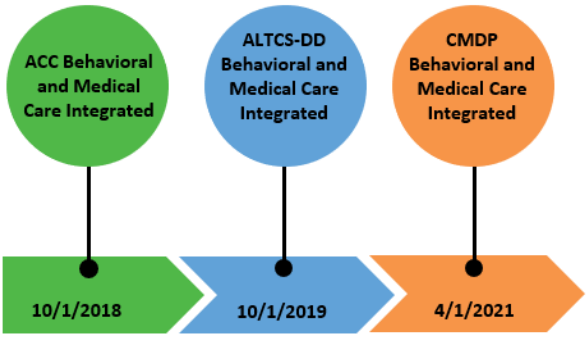
Note: The size of each segment does not represent population size.



The four broad populations, with few exceptions, are distinct and mutually exclusive. For example, beneficiaries with an SMI may opt-out of RBHA coverage and instead choose an ACC plan that is available in their region. Children in the custody DCS with an intellectual or developmental disability are covered through the ALTCS-DD program.

Prior to the demonstration renewal, RBHA provided behavioral health coverage for much of the AHCCCS population, while medical care was provided through other plans. Prior to and during the demonstration renewal period, AHCCCS has made several structural changes to care delivery by integrating behavioral and medical care at the payer level. This integration process began with the award of the Mercy Maricopa Integrated Care (MMIC) contract in 2013, effective April 2014. MMIC was a RBHA that, in addition to providing behavioral health coverage for most AHCCCS beneficiaries in central Arizona, provided integrated physical and behavioral health care coverage for adult beneficiaries with an SMI in Maricopa County. In October 2015, RBHA contractors statewide began providing integrated care for their beneficiaries with an SMI. On October 1, 2018, AHCCCS conducted its largest care integration initiative by transitioning all acute care beneficiaries who do not have an SMI to seven integrated health plans, which provided coverage for physical and behavioral health care. Beginning October 1, 2019, AHCCCS integrated behavioral and physical health care for the DES/DDD population covered through ALTCS-DD. Beneficiaries enrolled in CMDP will transition to integrated behavioral and physical health care services under the CMDP waiver beginning April 1, 2021. Figure 2-2 depicts a timeline of the payer-level integration of behavioral health and medical health care for the ACC, ALTCS-DD, and CMDP populations.

Figure 2-2: Timeline of Payer-Level Integration of Behavioral Health and Medical Health Care



ACC

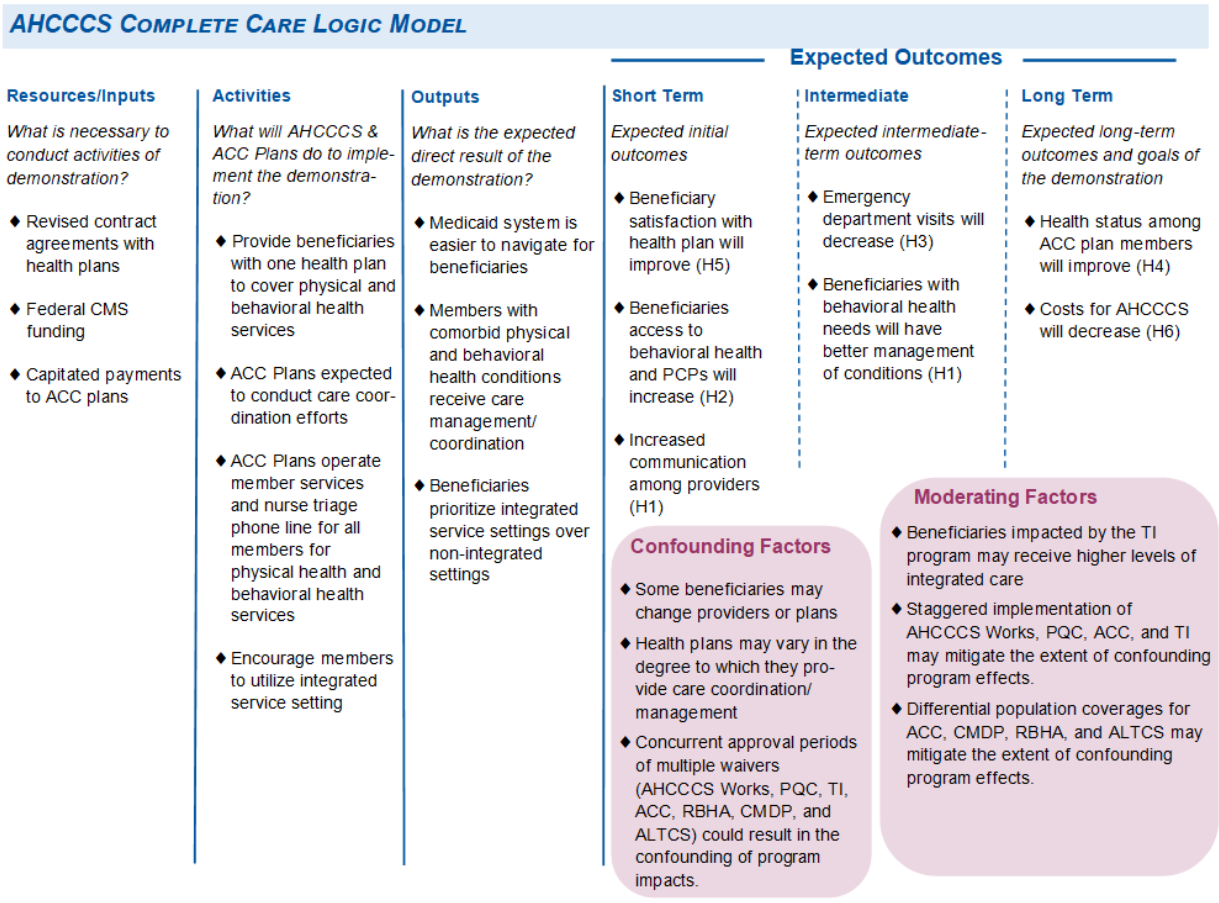
The overarching goals of the ACC delivery system are to reduce fragmentation of care by providing beneficiaries with a single health plan, payer, and provider network to cover their physical and behavioral health care. Additionally, health plans are expected to conduct and manage care coordination efforts among providers. In turn, this will make the Medicaid system easier to navigate, streamline care coordination, and ultimately improve a person's whole health outcomes.

The primary purpose of this evaluation is to determine whether the ACC demonstration waiver is achieving these goals. To develop hypotheses and research questions associated with these goals, AHCCCS created a logic model which relates the inputs and activities of the program (i.e., providing beneficiaries with a single health plan that covers both physical and behavioral care and requiring health plans to conduct care coordination efforts) to anticipated initial, intermediate, and long-term outcomes.

Logic Model

Figure 2-3 illustrates that, given resources to fund the ACC plans, beneficiaries will find the Medicaid system easier to navigate, those with physical and behavioral health comorbidities will receive care coordination/management, and beneficiaries will prioritize practices with integrated services over those with non-integrated services. With an easier to navigate Medicaid system, beneficiary satisfaction will improve. With better care coordination/management, beneficiaries with complex needs will see improved health outcomes, first shown by increased access to care and reduced utilization of emergency department visits. In the long term, this will improve beneficiaries' health and well-being while providing cost-effective care. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-1).

Figure 2-3: ACC Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the ACC demonstration waiver, six hypotheses will be tested using 18 research questions. Table 2-1 lists the six hypotheses.

Table 2-1: ACC Hypotheses

ACC Hypotheses	
1	Health plans encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.
2	Access to care will maintain or improve as a result of the integration of behavioral and physical care.
3	Quality of care will maintain or improve as a result of the integration of behavioral and physical care.
4	Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care.
5	Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care.
6	The ACC program will provide cost-effective care.

Hypothesis 1 is designed to identify in detail the activities the plans conducted to further AHCCCS' goal of care integration by implementing strategies supporting care coordination and management. Barriers encountered during the transition to ACC and implementation of these strategies will also be a focus of Hypothesis 1. These research questions will be addressed through semi-structured key informant interviews with representatives from the ACC health plans and AHCCCS staff, as well as through beneficiary surveys and provider focus groups. The research questions and associated measures for Hypothesis 1 are presented in Table 2-2.

Table 2-2: Hypothesis 1 Research Questions and Measures

Hypothesis 1—Health plans encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.	
Research Question 1.1: What care coordination strategies did the plans implement as a result of ACC?	
1-1	Health plans' reported care coordination activities
Research Question 1.2: Did the plans encounter barriers to implementing care coordination strategies?	
1-2	Health plans' reported barriers to implementing care coordination strategies
Research Question 1.3: Did the plans encounter barriers not related specifically to implementing care coordination strategies during the transition to ACC?	
1-3	Health plans' reported barriers not related specifically to implementing care coordination strategies during the transition to ACC
Research Question 1.4: Did AHCCCS encounter barriers related to the transition to ACC?	
1-4	AHCCCS' reported barriers before, during, and shortly following the transition to ACC
Research Question 1.5: Did providers encounter barriers related to the transition to ACC?	
1-5	Providers' reported barriers before, during, and shortly following the transition to ACC
Research Question 1.6: Do beneficiaries perceive their doctors to have better care coordination as a result of ACC?	
1-6	Percentage of beneficiaries who reported their doctor seemed informed about the care they received from other health providers

Hypothesis 2 will test whether access to care increased after integrating behavioral and physical health care into a single health plan. This hypothesis will be addressed using both claims/encounter data and beneficiary surveys. Where possible, rates will be calculated or reported both prior to and after the integration of care. The measures and associated research questions associated with Hypothesis 2 are presented in Table 2-3.

Table 2-3: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Access to care will maintain or improve as a result of the integration of behavioral and physical care.	
Research Question 2.1: Do beneficiaries enrolled in an ACC plan have the same or better access to primary care services compared to prior to integrated care?	
2-1	Percentage of adults who accessed preventive/ambulatory health services
2-2	Percentage of children and adolescents who accessed PCPs
2-3	Percentage of beneficiaries under 21 with an annual dental visit
2-4	Percentage of beneficiaries who reported they received care as soon as they needed

Hypothesis 2—Access to care will maintain or improve as a result of the integration of behavioral and physical care.	
2-5	Percentage of beneficiaries who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed
2-6	Percentage of beneficiaries who reported they were able to schedule an appointment with a specialist as soon as they needed
Research Question 2.2: Do beneficiaries enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to integrated care?	
2-7	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment
2-8	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment

The primary goal of the transition to ACC is to promote the health and wellness of its beneficiaries by improving quality of care, particularly among those with both physical and behavioral health conditions, which be assessed under Hypothesis 3. This hypothesis will be addressed using both claims/encounter data and beneficiary surveys. Where possible, rates will be calculated or reported both prior to and after integration of care. Table 2-4 describes the research questions and measures that AHCCCS will use to determine whether ACC is meeting the goal associated with Hypothesis 3.

Table 2-4: Hypothesis 3 Research Questions and Measures

Hypothesis 3—Quality of care will maintain or improve as a result of the integration of behavioral and physical care.	
Research Question 3.1: Do beneficiaries enrolled in an ACC plan have the same or higher rates of preventive or wellness services compared to prior to integrated care?	
3-1	Percentage of beneficiaries with a well-child visit in the first 15 months of life
3-2	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life
3-3	Percentage of beneficiaries with an adolescent well-care visit
3-4	Percentage of children two years of age with appropriate immunization status
3-5	Percentage of adolescents 13 years of age with appropriate immunizations
3-6	Percentage of adult beneficiaries who reported having a flu shot or nasal flu spray since July 1
Research Question 3.2: Do beneficiaries enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to integrated care?	
3-7	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent
Research Question 3.3: Do beneficiaries enrolled in an ACC plan have the same or better management of behavioral health conditions compared to prior to integrated care?	
3-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment
3-9	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
3-10	Percentage of beneficiaries with a follow-up visit after emergency department (ED) visit for mental illness
3-11	Percentage of beneficiaries with follow-up after ED visit for alcohol and other drug abuse or dependence

Hypothesis 3—Quality of care will maintain or improve as a result of the integration of behavioral and physical care.	
3-12	Percentage of beneficiaries with a screening for clinical depression and follow-up plan
3-13	Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth)
Research Question 3.4: Do beneficiaries enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to integrated care?	
3-14	Percentage of adult beneficiaries who have prescriptions for opioids at a high dosage
3-15	Percentage of adult beneficiaries with concurrent use of opioids and benzodiazepines
Research Question 3.5: Do beneficiaries enrolled in an ACC plan have equal or lower ED or hospital utilization compared to prior to ACC?	
3-16	Number of ED visits per 1,000 member months
3-17	Number of inpatient stays per 1,000 member months
3-18	Percentage of adult inpatient discharges with an unplanned readmission within 30 days

One of the primary goals of the ACC is to provide higher quality care for its beneficiaries, ultimately leading to better health status, which will be evaluated under Hypothesis 4. To determine the overall health status among ACC beneficiaries, the independent evaluator will utilize two survey questions asking beneficiaries to report their overall health and overall mental or emotional health. The research questions and measures pertaining to Hypothesis 4 are listed in Table 2-5.

Table 2-5: Hypothesis 4 Research Questions and Measures

Hypothesis 4— Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care.	
Research Question 4.1: Do beneficiaries enrolled in an ACC plan have the same or higher overall health rating compared to prior to integrated care?	
4-1	Percentage of beneficiaries who reported a high rating of overall health
Research Question 4.2: Do beneficiaries enrolled in an ACC plan have the same or higher overall mental or emotional health rating compared to prior to integrated care?	
4-2	Percentage of beneficiaries who reported a high rating of overall mental or emotional health

Hypothesis 5 seeks to measure beneficiary satisfaction with the ACC plans. Table 2-6 presents the measures and survey questions that will be used to assess beneficiary satisfaction.

Table 2-6: Hypothesis 5 Research Questions and Measures

Hypothesis 5—Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care.	
Research Question 5.1: Are beneficiaries equally or more satisfied with their health care as a result of integrated care?	
5-1	Percentage of beneficiaries who reported a high rating of health plan
5-2	Percentage of beneficiaries who reported a high rating of overall health care

Hypothesis 6 (Table 2-7) seeks to measure the cost-effectiveness of the ACC demonstration waiver. A long-term goal of the ACC is to provide cost-effective care for its beneficiaries. Because cost-effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 6. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not been renewed or implemented. Program savings will be identified as reductions in administrative and/or service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures for which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of the ACC is described in detail in the Cost-Effectiveness Analysis section.

Table 2-7: Hypothesis 6 Research Questions and Measures

Hypothesis 6—The ACC program provides cost-effective care.
Research Question 6.1: What are the costs associated with the integration of care under ACC?
Research Question 6.2: What are the benefits/savings associated with the integration of care under ACC?

ALTCS

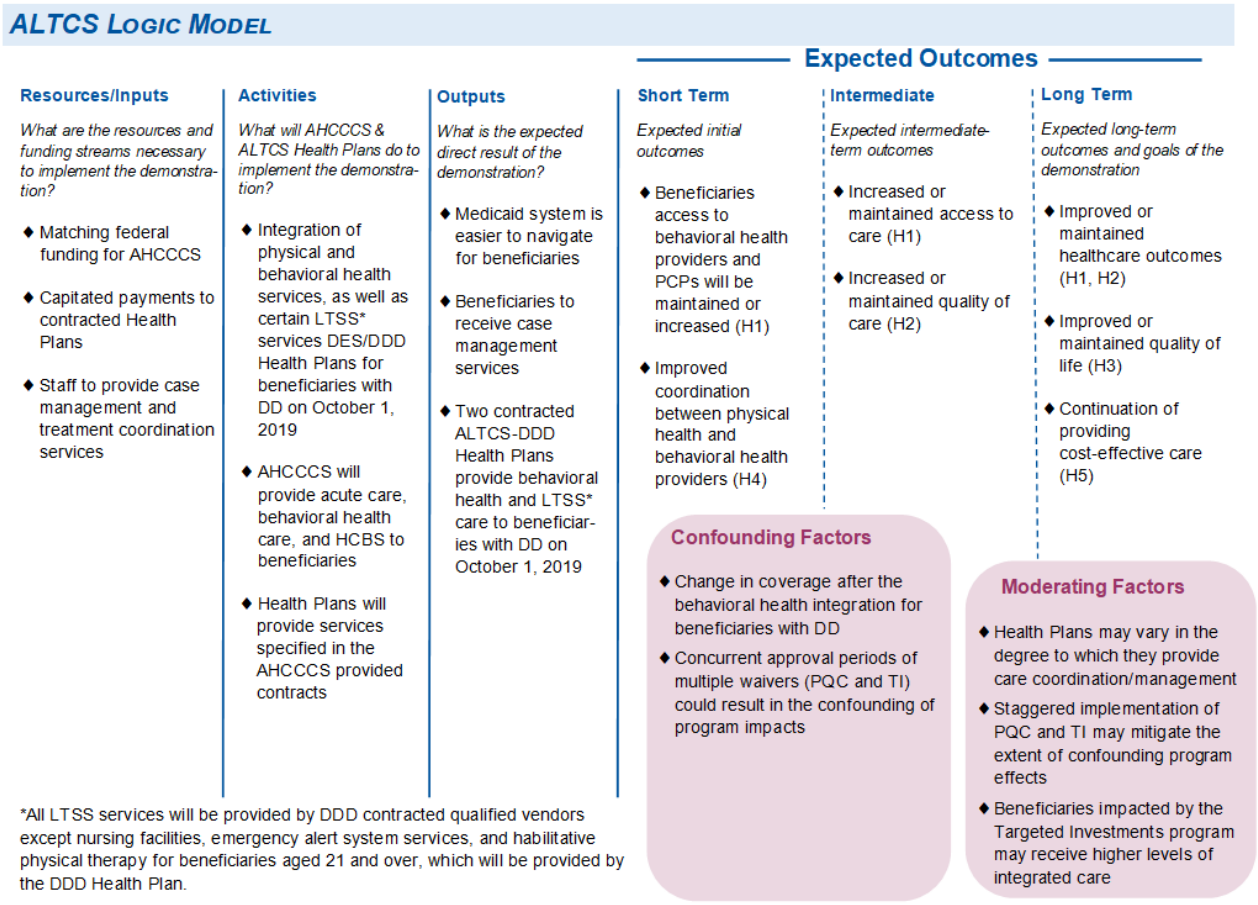
The goal of the ALTCS is to ensure beneficiaries who are elderly and/or have physical disabilities (EPD) or beneficiaries who have intellectual/developmental disabilities (DD) are living in the most integrated setting while remaining actively engaged in community life by providing physical health, long term care, behavioral health, and home- and community-based services (HCBS) to beneficiaries who are at risk for institutionalization.

The primary purpose of this evaluation is to determine whether the ALTCS demonstration waiver renewal is achieving these goals.

Logic Model

To develop hypotheses and research questions associated with these goals, AHCCCS developed a logic model which relates the inputs and activities of the program to anticipated initial, intermediate, and long-term outcomes, which are associated with the hypotheses to be tested. Figure 2-4 illustrates that, given resources to fund the ALTCS plans, beneficiaries will find the Medicaid system easier to navigate, beneficiaries will continue to receive case management, and beneficiaries will prioritize practices with integrated services over those with non-integrated services. With improvements to the navigation of the Medicaid system, beneficiary access to care will improve. With better case management, beneficiaries will see improved health outcomes, first shown by an increase in quality and access of care. In the long term, this will improve beneficiaries' health outcomes and well-being while providing cost-effective care.

Figure 2-4: ALTCS Program Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the ALTCS Program demonstration waiver, five hypotheses will be tested using 19 research questions. Table 2-8 lists the five hypotheses.

Table 2-8: ALTCS Hypotheses

Hypotheses	
1	Access to care will maintain or improve over the waiver demonstration period.
2	Quality of care will maintain or improve over the wavier demonstration period.
3	Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.
4	ALTCS encourages and/or facilitates care coordination among Primary Care Practitioners (PCPs) and behavioral health practitioners.
5	ALTCS provides cost-effective care.

Hypothesis 1 is designed to determine if access to care will be maintained or improved. The measures to test this hypothesis and answer the associated research questions are listed below in Table 2-9.

Table 2-9: Hypothesis 1 Research Questions and Measures

Hypothesis 1—Access to care will maintain or improve over the waiver demonstration period.	
Research Question 1.1: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with developmental disabilities (DD) have the same or higher access to care compared to baseline rates and out-of-state comparisons?	
1-1	Percentage of beneficiaries who accessed preventive/ambulatory health services
Research Question 1.2: Do child beneficiaries with DD have the same or higher rates of access to care compared to baseline rates and out-of-state comparisons?	
1-2	Percentage of children and adolescents who accessed primary care practitioners
1-3	Percentage of beneficiaries under 21 with an annual dental visit
Research Question 1.3: Do adult beneficiaries with DD have the same or improved rates of access to care as a result of the integration of care for beneficiaries with DD?	
1-4	Percentage of beneficiaries who have a primary care doctor or practitioner
1-5	Percentage of beneficiaries who had a complete physical exam in the past year
1-6	Percentage of beneficiaries who had a dental exam in the past year
1-7	Percentage of beneficiaries who had an eye exam in the past year
1-8	Percentage of beneficiaries who had an influenza vaccine in the past year

To determine if quality of care is maintained or increased, Hypothesis 2 will evaluate measures associated with preventative care, behavioral health care management, and utilization of care. The measures and associated research questions are presented in Table 2-10.

Table 2-10: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Quality of care will maintain or improve over the wavier demonstration period.	
Research Question 2.1: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of preventative care compared to baseline rates and out-of-state comparisons?	
2-1	Percentage of adult beneficiaries with a breast cancer screening
2-2	Percentage of adult beneficiaries with a cervical cancer screening
2-3	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent
Research Question 2.2: Do child beneficiaries with DD have the same or higher rates of preventative care compared to baseline rates and out-of-state comparisons?	
2-4	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life
2-5	Percentage of beneficiaries with an adolescent well-care visit
2-6	Percentage of beneficiaries with an influenza vaccine

Hypothesis 2—Quality of care will maintain or improve over the wavier demonstration period.	
Research Question 2.3: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or better management of behavioral health conditions compared to baseline rates and out-of-state comparisons?	
2-7	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
2-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment
2-9	Percentage of beneficiaries with a screening for depression and follow-up plan
2-10	Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, emergency department [ED], or telehealth)
Research Question 2.4: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with DD have the same or better management of prescriptions compared to baseline rates and out-of-state comparisons?	
2-11	Percentage of adult beneficiaries with monitoring for persistent medications
2-12	Percentage of beneficiaries with opioid use at high dosage
2-13	Percentage of beneficiaries with a concurrent use of opioids and benzodiazepines
Research Question 2.5: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of utilization of care compared to baseline rates and out-of-state comparisons?	
2-14	Number of ED visits per 1,000 member months
2-15	Number of inpatient stays per 1,000 member months
2-16	Percentage of adult inpatient discharges with an unplanned readmission within 30 days

Hypothesis 3 evaluates if the quality of life for beneficiaries remain the same or improves. The measures and associated research questions are presented in Table 2-11.

Table 2-11: Hypothesis 3 Research Questions and Measures

Hypothesis 3—Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.	
Research Question 3.1: Do beneficiaries have the same or higher rates of living in their own home as a result of the ALTCS waiver renewal?	
3-1	Percentage of beneficiaries residing in their own home
3-2	Type of residence for adult beneficiaries with DD
Research Question 3.2: Do adult beneficiaries have the same or higher rates of feeling satisfied with their living arrangements as a result of the integration of care for beneficiaries with DD?	
3-3	Percentage of beneficiaries who want to live somewhere else
3-4	Percentage of beneficiaries who believe services and supports help them live a good life
Research Question 3.3: Do adult beneficiaries have the same or higher rates of feeling engaged as a result of the integration of care for beneficiaries with DD?	
3-5	Percentage of beneficiaries able to go out and do things s/he likes to do in the community

Hypothesis 3—Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.	
3-6	Percentage of beneficiaries who have friends who are not staff or family members
3-7	Percentage of beneficiaries who decide or has input in deciding their daily schedule

Hypothesis 4 measures if the provision of behavioral services for beneficiaries with DD was impacted during the integration by performing key informant interviews and provider focus groups. The research questions and measures pertaining to this hypothesis are listed in Table 2-12.

Table 2-12: Hypothesis 4 Research Questions and Measures

Hypothesis 4—ALTCS encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.	
Research Question 4.1: Did Department of Economic Security/Division of Developmental Disabilities (DES/DDD) or its contracted plans encounter barriers during the integration of care for beneficiaries with DD?	
4-1	DES/DDD and its contracted plans' barriers during transition
Research Question 4.2: What care coordination strategies did DES/DDD and its contracted plans implement as a result of integration of care?	
4-2	DES/DDD and its contracted plans' care coordination activities
Research Question 4.3: Did DES/DDD or its contracted plans encounter barriers to implementing care coordination strategies?	
4-3	DES/DDD and its contracted plans' barriers to implementing care coordination strategies
Research Question 4.4: Did AHCCCS encounter barriers related to integration of care for beneficiaries with DD?	
4-4	AHCCCS' reported barriers before, during, and shortly after the integration of care
Research Question 4.5: Did providers encounter barriers related to integration of care for beneficiaries with DD?	
4-5	Providers' reported barriers before, during, and shortly after the integration of care

Hypothesis 5 seeks to measure the cost-effectiveness of the ALTCS demonstration waiver. A long-term goal of ALTCS is to provide cost-effective care for its beneficiaries. Because cost-effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 5. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not be renewed. Program savings will be identified as reductions in administration and/or service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures in which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of ALTCS is described in detail in the Methodology section and the research questions are listed in Table 2-13.

Table 2-13: Hypothesis 5 Research Questions and Measures

Hypothesis 5—ALTCS provides cost-effective care.
Research Question 5.1: What are the costs associated with the integration of care under ALTCS?
Research Question 5.2: What are the benefits/savings associated with the integration of care under ALTCS?

CMDP

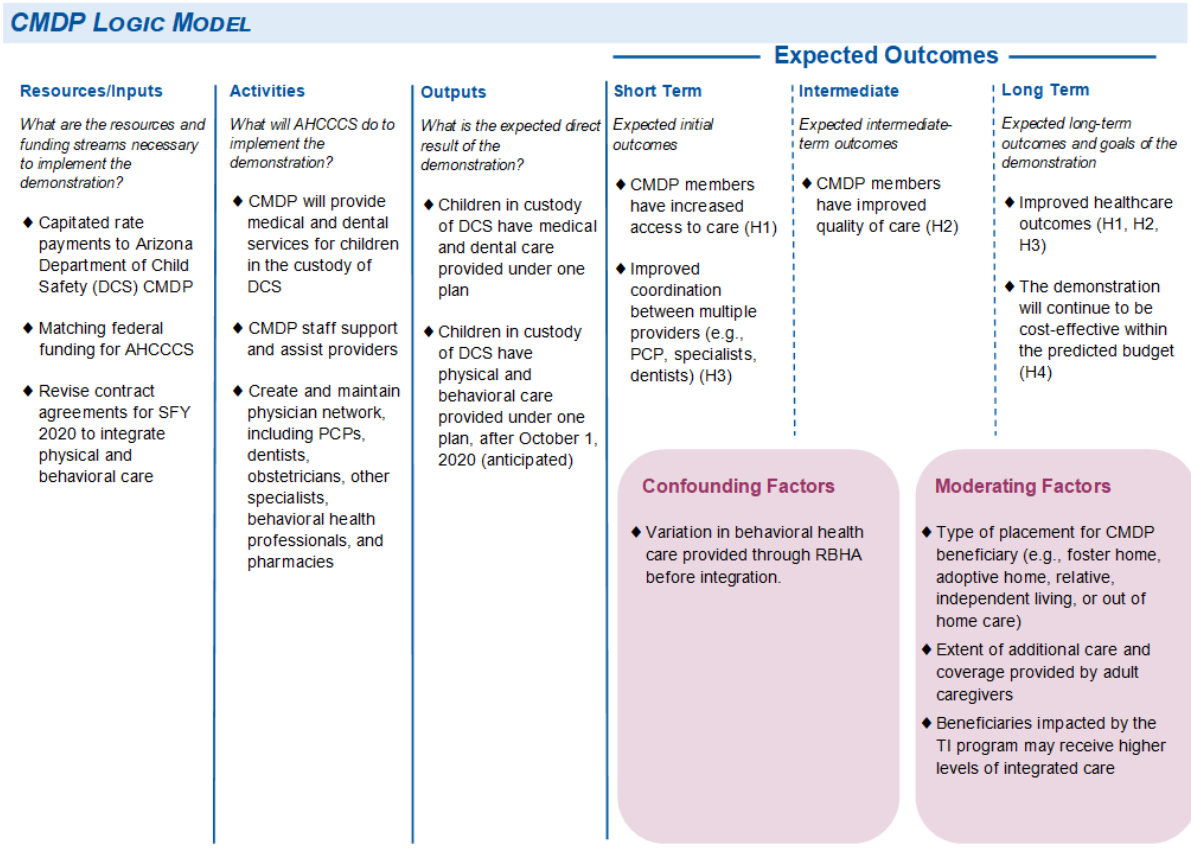
Through providing medical and dental care, the CMDP's goal is to promote the well-being of Arizona's children in foster care. Promoting well-being takes the form of providing quality and timely care for this population, therefore it is essential for the CMDP to work with foster parents, community members, health care providers, behavioral health care providers, specialists and coordinators to meet these goals.

The primary purpose of this evaluation is to determine whether the CMDP demonstration waiver is achieving these goals. To develop hypotheses and research questions associated with these goals, AHCCCS developed a logic model which relates the inputs and activities of the program (i.e., providing beneficiaries with timely immunizations and dental care) to anticipated initial, intermediate, and long-term outcomes, which are associated with hypotheses.

Logic Model

Figure 2-5 illustrates that, given the resources and contracting to fund the CMDP and integrate care, children in custody of the Arizona Department of Child Safety (DCS) will have medical and dental care provided under a single plan, and have physical and behavioral health care provided under a single plan after October 1, 2020. With improved access to and integration of care, children covered by the CMDP will experience improved health outcomes under a cost-effective care model. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-14).

Figure 2-5: CMDP Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the CMDP demonstration waiver, four hypotheses will be tested using 10 research questions. Table 2-14 lists the four hypotheses.

Table 2-14: CMDP Hypotheses

Hypotheses	
1	Access to care will be maintained or increase during the demonstration.
2	Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.
3	CMDP encourages and/or facilitates care coordination among Primary Care Practitioners (PCPs) and behavioral health practitioners.
4	CMDP will provide cost-effective care.

Hypothesis 1 is designed to determine whether the CMDP activities during the demonstration maintain or improve beneficiary access to PCPs and specialists. Access to care will be assessed by focusing on beneficiaries' PCPs, dental utilization, and opportunities to make appointments. The hypothesis will be addressed using claims/encounter data and through beneficiary survey responses. The measures to test this hypothesis and answer the associated research question are listed below in Table 2-15.

Table 2-15: Hypothesis 1 Research Questions and Measures

Hypothesis 1—Access to care will be maintained or increase during the demonstration.	
Research Question 1.1: Do CMDP beneficiaries have the same or increased access to PCPs and specialists in the remeasurement period compared to the baseline?	
1-1	Percentage of children and adolescents with access to PCPs
1-2	Percentage of beneficiaries with an annual dental visit

Hypothesis 2 is designed to determine whether the CMDP activities during the demonstration maintain or improve the quality of care provided to beneficiaries. The research questions for this hypothesis will focus on preventive and wellness services; management of chronic conditions, mental health, and opioid prescriptions, and hospital utilization. This hypothesis will be addressed using both claims/encounter data and through beneficiary surveys. The measures and associated research questions are presented in Table 2-16.

Table 2-16: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.	
Research Question 2.1: Do CMDP beneficiaries have the same or higher rates of preventive or wellness services in the remeasurement period compared to the baseline?	
2-1	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life
2-2	Percentage of beneficiaries with an adolescent well-care visit
2-3	Percentage of children two years of age with appropriate immunization status
2-4	Percentage of adolescents 13 years of age with appropriate immunizations

Hypothesis 2—Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.	
Research Question 2.2: Do CMDP beneficiaries have the same or better management of chronic conditions in the remeasurement period compared to the baseline?	
2-5	Percentage of beneficiaries ages 5 to 18 who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year
Research Question 2.3: Do CMDP beneficiaries have the same or better management of behavioral health conditions in the remeasurement period compared to the baseline?	
2-6	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
2-7	Percentage of children and adolescents on antipsychotics with metabolic monitoring
2-8	Percentage of beneficiaries with screening for depression and follow-up plan
2-9	Percentage of children and adolescents with use of multiple concurrent antipsychotics
2-10	Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, emergency department [ED], or telehealth)
Research Question 2.4: Do CMDP beneficiaries have the same or lower hospital utilization in the remeasurement period compared to the baseline?	
2-11	Number of ED visits per 1,000 member months
2-12	Number of inpatient stays per 1,000 member months

Hypothesis 3 (Table 2-17) is designed to identify in detail the activities CMDP conducted to further AHCCCS' goal of care integration through implementing strategies supporting care coordination and management. Barriers encountered during the transition to integrated care and implementing these strategies will also be a focus of Hypothesis 3. These research questions will be addressed through semi-structured key informant interviews with representatives from CMDP.

Table 2-17: Hypothesis 3 Research Questions and Measures

Hypothesis 3—CMDP encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.	
Research Question 3.1: What barriers did CMDP anticipate/encounter during the integration?	
3-1	CMDP's anticipated/reported barriers during transition
Research Question 3.2: What care coordination strategies did CMDP plan/implement during integration?	
3-2	CMDP's planned/reported care coordination activities
Research Question 3.3: What barriers to implementing care coordination strategies did the CMDP anticipate/encounter?	
3-3	CMDP's anticipated/reported barriers to implementing care coordination strategies

Hypothesis 4 (Table 2-18) seeks to measure the cost-effectiveness of the CMDP. A goal of the CMDP is to provide cost-effective care for its beneficiaries. Because cost-effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 4. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not been renewed or implemented. Program savings will be identified as reductions in administrative and/or

service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures for which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of the CMDP is described in detail in the Cost-Effectiveness Analysis section.

Table 2-18: Hypothesis 4 Research Questions and Measures

Hypothesis 4—CMDP provides cost-effective care.
Research Question 4.1: What are the costs associated with the integration of care in the CMDP?
Research Question 4.2: What are the benefits/savings associated with the integration of care in the CMDP?

RBHA

By providing coordinated and integrated physical and behavioral health care to AHCCCS beneficiaries with an SMI, AHCCCS expects the RBHAs to improve access to primary care services, increase prevention, early identification, and intervention services and to reduce the incidence and impact of serious physical and mental illnesses and to improve the overall health and quality of life for their beneficiaries. Specifically, the RBHAs are expected to both conduct care coordination activities and provide care management activities to beneficiaries with an SMI in the top tier of high need/high cost.[2-2] The goals of care management are to identify high-risk beneficiaries with an SMI, effectively transition beneficiaries across levels of care, streamline, monitor, and adjust care plans based on progress and outcomes, reduce hospital admissions and emergency department and crisis service use, and provide beneficiaries with tools to self-manage care.[2-3]

The primary purpose of this evaluation is to determine whether the RBHAs are achieving these goals for its SMI population as part of AHCCCS' overarching Section 1115 demonstration waiver.

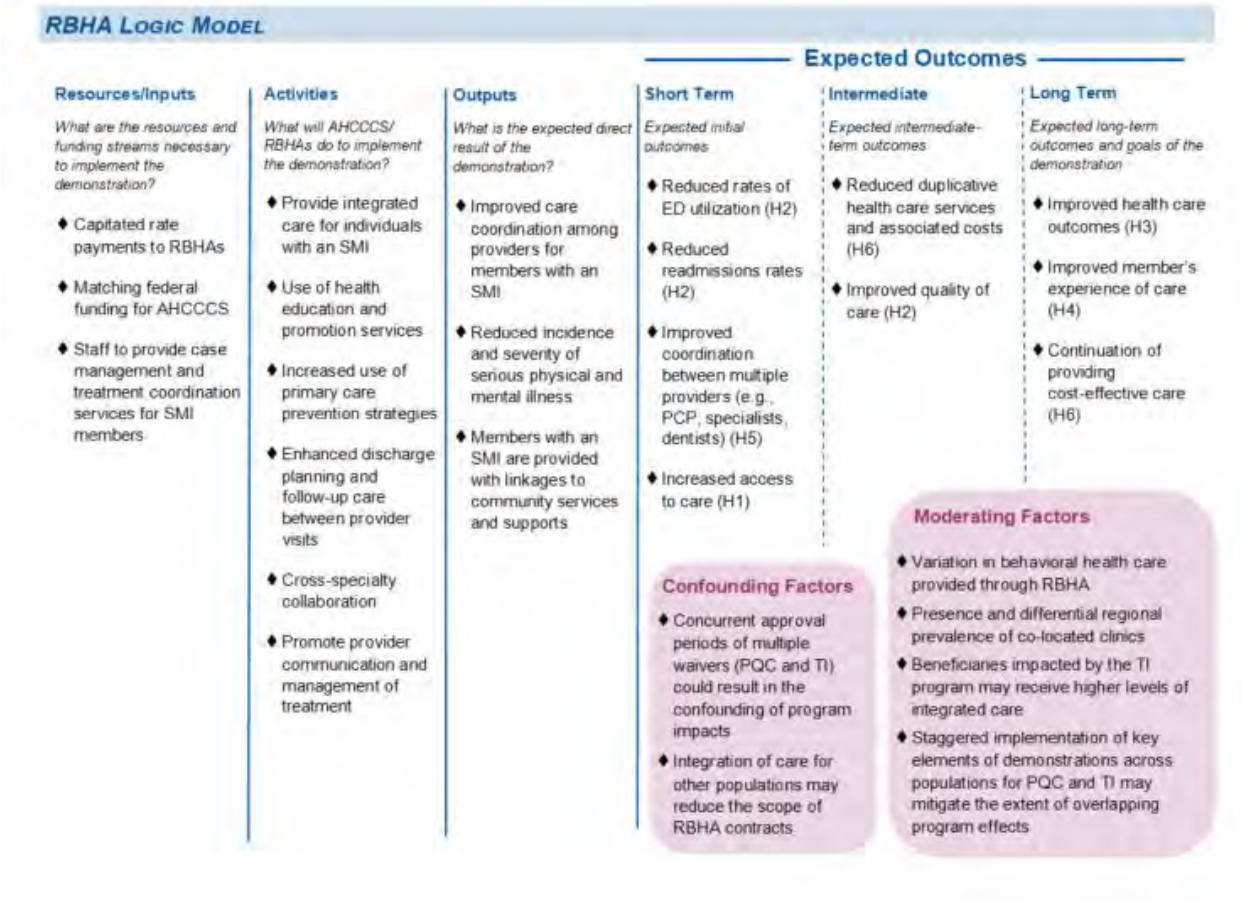
Logic Model

To develop hypotheses and research questions associated with these goals, AHCCCS created a logic model which relates the inputs and activities of the program to anticipated initial, intermediate, and long-term outcomes. Figure 2-6 shows that, given resources to fund the RBHAs, adult beneficiaries with an SMI will continue to receive care coordination/management, their providers will follow enhanced discharge planning guidelines and conduct cross-specialty collaboration, thereby promoting communication among providers. By integrating physical and behavioral health care, beneficiary satisfaction will be maintained or improve during the demonstration period. With better care coordination/management, beneficiaries will have equal or improved access to care and utilization of emergency department visits resulting in equal or better health outcomes, overall health, and satisfaction with their health care experiences. In the long term, this will improve beneficiaries' health and well-being while providing cost-effective care.

[2-2] AHCCCS Medical Policy Manual (AMPM) Policies 541 and 1020, respectively. Available at: AHCCCS Medical Policy Manual https://www.azahcccs.gov/shared/MedicalPolicyManual/. Accessed on: Oct 18, 2019.

[2-3] RBHA Contract YH17-0001 effective 10/01/2019, for Greater Arizona, available at: https://www.azahcccs.gov/Resources/Downloads/ContractAmendments/RBHAs/YH170001_GAZ_AMD11.pdf. Accessed on: Oct 18, 2019; and RBHA Contract YH17-0001 effective 10/01/2019, for Maricopa County, available at https://www.azahcccs.gov/Resources/Downloads/ContractAmendments/RBHAs/YH170001_MMIC_AMD11.pdf. Accessed on: Oct 18, 2019.

Figure 2-6: RBHA Program Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the RBHA demonstration waiver, six hypotheses will be tested using 16 research questions. Table 2-19 lists the six hypotheses.

Table 2-19: RBHA Hypotheses

RBHA Hypotheses	
1	Access to care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or increase during the demonstration.
2	Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.
3	Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.
4	Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration period.
5	RBHAs encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.

RBHA Hypotheses	
6	RBHAs will provide cost-effective care for beneficiaries with an SMI.

Hypothesis 1 will test whether access to care increased or was maintained throughout the demonstration renewal period. This hypothesis will be addressed using both claims/encounter data and beneficiary survey responses. The research question and measures associated with this hypothesis are listed in Table 2-20.

Table 2-20: Hypothesis 1 Research Questions and Measures

Hypothesis 1—Access to care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or increase during the demonstration.	
Research Question 1.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to primary care services compared to prior to the demonstration renewal?	
1-1	Percentage of adults who accessed preventive/ambulatory health services
1-2	Percentage of beneficiaries who reported they received care as soon as they needed
1-3	Percentage of beneficiaries who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed
1-4	Percentage of beneficiaries who reported they were able to schedule an appointment with a specialist as soon as they needed
Research Question 1.2: Do adult beneficiaries with an SMI enrolled in RBHA have the same or increased access to substance abuse treatment compared to prior to the demonstration renewal?	
1-5	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment
1-6	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment

The primary goal of providing integrated care for RHBA beneficiaries with an SMI is to promote health and wellness by improving the quality of care. Hypothesis 2 will test whether the quality of care provided to RBHA beneficiaries with an SMI improved or was maintained during the demonstration renewal period. This hypothesis will be addressed using both claims/encounter data and beneficiary survey responses. The research questions and measures associated with the hypothesis are presented in Table 2-21.

Table 2-21: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.	
Research Question 2.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rates of preventive or wellness services compared to prior to demonstration renewal?	
2-1	Percentage of beneficiaries who reported having a flu shot or nasal flu spray since July 1
Research Question 2.2: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of chronic conditions compared to prior to the demonstration renewal?	
2-2	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent
2-3	Percentage of beneficiaries with schizophrenia or bipolar disorder using antipsychotic medications who had a diabetes screening test

Hypothesis 2—Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.	
2-4	Percentage of beneficiaries with schizophrenia who adhered to antipsychotic medications
Research Question 2.3: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of behavioral health conditions compared to prior to the demonstration renewal?	
2-5	Percentage of beneficiaries who remained on antidepressant medication treatment
2-6	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
2-7	Percentage of beneficiaries with a follow-up visit after emergency department (ED) visit for mental illness
2-8	Percentage of beneficiaries with follow-up after ED visit for alcohol and other drug abuse or dependence
2-9	Percentage of beneficiaries with a screening for depression and follow-up plan
2-10	Percentage of beneficiaries receiving mental health services (total and by inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth)
Research Question 2.4: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of opioid prescriptions compared to prior to the demonstration renewal?	
2-11	Percentage of beneficiaries who have prescriptions for opioids at a high dosage
2-12	Percentage of beneficiaries with concurrent use of opioids and benzodiazepines
Research Question 2.5: Do adult beneficiaries with an SMI enrolled in a RBHA have the same lower tobacco usage compared to prior to the demonstration renewal?	
2-13	Percentage of beneficiaries who indicated smoking cigarettes or using tobacco
Research Question 2.6: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or lower hospital utilization compared to prior to the demonstration renewal?	
2-14	Number of ED visits per 1,000 member months
2-15	Number of inpatient stays per 1,000 member months
2-16	Percentage of inpatient discharges with an unplanned readmission within 30 days

To determine the overall health status among RBHA beneficiaries with an SMI, the independent evaluator will utilize two survey questions asking beneficiaries to report their overall health and overall mental or emotional health. The measures and associated research questions are presented in Table 2-22.

Table 2-22: Hypothesis 3 Research Questions and Measures

Hypothesis 3—Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.	
Research Question 3.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rating of health compared to prior to the demonstration renewal?	
3-1	Percentage of beneficiaries who reported a high rating of overall health
3-2	Percentage of beneficiaries who reported a high rating of overall mental or emotional health

Hypothesis 4 will measure beneficiary satisfaction and experience of care with the RBHAs, using three survey questions about their ratings of the health care received from the RBHAs and providers. Table 2-23 presents the measures and survey questions that will be used to measure these outcomes.

Table 2-23: Hypothesis 4 Research Questions and Measures

Hypothesis 4—Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration period.	
Research Question 4.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher satisfaction in their health care compared to prior to the demonstration renewal?	
4-1	Percentage of beneficiaries who reported a high rating of overall health care
4-2	Percentage of beneficiaries who reported a high rating of health plan
Research Question 4.2: Do adult beneficiaries with an SMI enrolled in a RBHA perceive their doctors to have the same or better care coordination compared to prior to the demonstration renewal?	
4-3	Percentage of beneficiaries who reported their doctor seemed informed about the care they received from other health providers

While RBHAs provide integrated behavioral and physical care for their adult beneficiaries with an SMI throughout the demonstration renewal period, there have been changes to care delivery for other AHCCCS beneficiaries, namely the introduction of ACC in October 2018. Hypothesis 5 will consist of key informant interviews with health plan representatives, subject matter experts from AHCCCS, and providers to assess care coordination activities for the SMI population and identify any changes that could have resulted from the implementation of ACC. Table 2-24 presents the measures and research questions related to this hypothesis.

Table 2-24: Hypothesis 5 Research Questions and Measures

Hypothesis 5—RBHAs encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.	
Research Question 5.1: What care coordination strategies are the RBHAs conducting for their SMI population?	
5-1	Health plans' reported care coordination activities for SMI population
Research Question 5.2: Have care coordination strategies for the SMI population changed as a result of ACC?	
5-2	Reported changes in health plans' care coordination strategies for SMI population
Research Question 5.3: What care coordination strategies is AHCCCS conducting for its SMI population?	
5-3	AHCCCS's reported care coordination strategies and activities for the SMI population served by the RBHAs
Research Question 5.4: What care coordination strategies and/or activities are providers conducting for their SMI patients served by the RBHAs?	
5-4	Providers' reported care coordination strategies and activities for their SMI patients

Hypothesis 6 (Table 2-25) will measure the cost-effectiveness of providing behavioral and physical care to beneficiaries with an SMI through the RBHAs. A long-term goal of the RBHAs is to provide cost-effective care for its beneficiaries. Because cost-effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 5. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs prior to demonstration renewal. Program savings will

be identified as reductions in administration and/or service expenditures beyond those projected prior to demonstration renewal. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures in which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of the RBHAs is described in detail in the Cost-Effectiveness Analysis section.

Table 2-25: Hypothesis 6 Research Questions and Measures

Hypothesis 6—RBHAs will provide cost-effective care for beneficiaries with an SMI.
Research Question 6.1: What are the costs associated with providing care for beneficiaries with an SMI through the RBHAs?
Research Question 6.2: What are the benefits/savings associated with providing care for beneficiaries with an SMI through the RBHAs?

PQC

The overarching goals of the AHCCCS demonstration in waiving prior quarter coverage from three months of retroactive coverage to the month of enrollment are that members will be encouraged to obtain and continuously maintain health coverage, even when healthy; members will be encouraged to apply for Medicaid without delays, promoting continuity of eligibility and enrollment for improved health status; and Medicaid costs will be contained.[2-4] This will support the sustainability of the Medicaid program while more efficiently focusing resources on providing accessible high-quality health care and limiting the resource-intensive process associated with PQC eligibility.

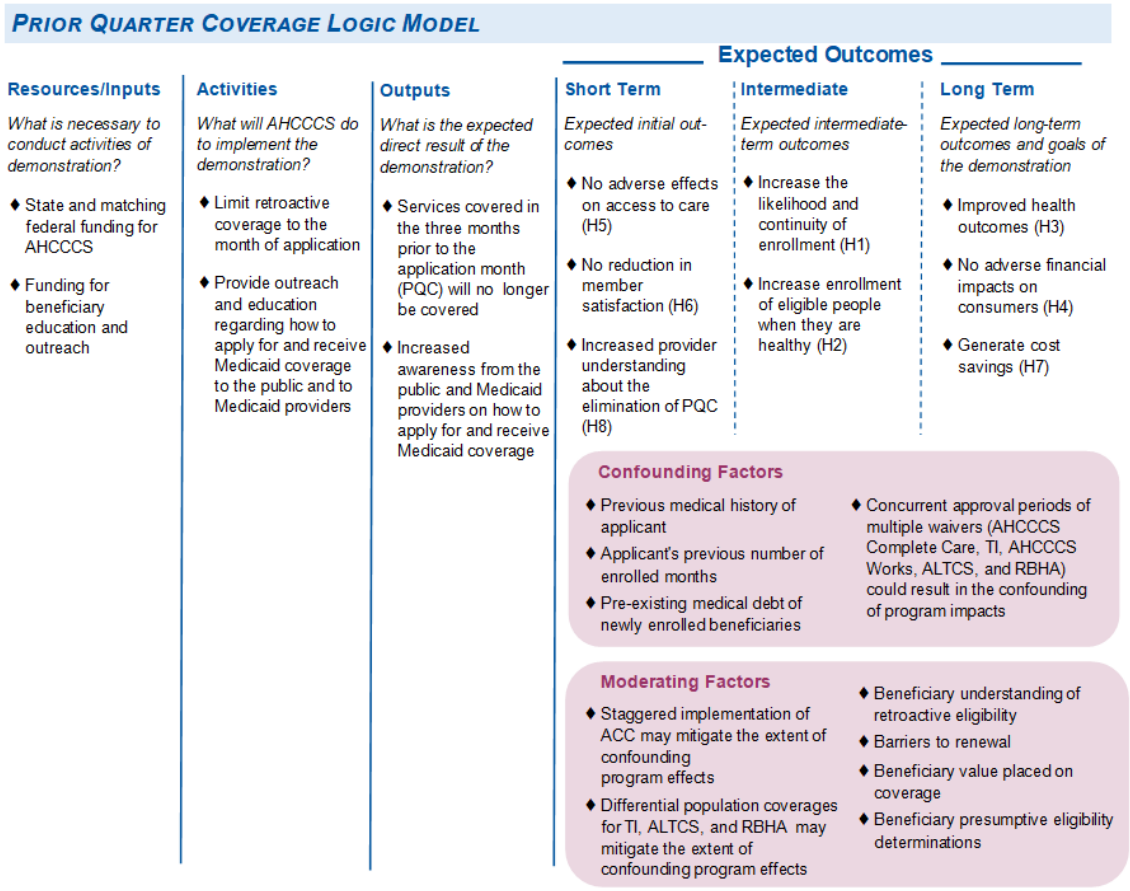
A primary purpose of this evaluation is to determine whether the AHCCCS demonstration to waive PQC is achieving these goals. To develop hypotheses and research questions associated with these goals, AHCCCS developed a logic model that relates the inputs and activities of the program to the anticipated initial, intermediate, and long-term outcomes, which are associated with hypotheses.

Logic Model

Figure 2-7 illustrates that through providing outreach and education to the public and providers regarding the demonstration and limiting retroactive eligibility to the month of application will lead to improved health outcomes, while having no negative effects on access to care and beneficiary satisfaction, as well as no negative financial impact to beneficiaries. These expected outcomes will not all happen simultaneously. Any effects on access to care and beneficiary satisfaction are expected to occur first. Later, there is the expectation that there will be an increase in the likelihood and continuity of enrollment and in the enrollment of eligible people while they are healthy. This aligns with the set objectives of the amendment. Longer term, there should be no financial impact on beneficiaries, while generating cost savings to promote Arizona Medicaid sustainability. Ultimately, this leads to improved health outcomes among beneficiaries. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-26).

[2-4] Arizona Health Care Cost Containment System. Arizona Section 1115 Waiver Amendment Request: Proposal to Waive Prior Quarter Coverage. Apr 6, 2019. Available at: https://www.azahcccs.gov/Resources/Downloads/PriorQuarterCoverageWaiverToCMS_04062018.pdf. Accessed on: Jun 19, 2019.

Figure 2-7: PQC Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the PQC demonstration waiver, eight hypotheses will be tested using 14 research questions. Table 2-26 lists the eight hypotheses.

Table 2-26: PQC Hypotheses

Hypotheses	
1	Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.
2	Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.
3	Health outcomes will be better for those without prior quarter coverage compared to Medicaid beneficiaries with prior quarter coverage.
4	Eliminating prior quarter coverage will not have adverse financial impacts on consumers.
5	Eliminating prior quarter coverage will not adversely affect access to care.

Hypotheses	
6	Eliminating prior quarter coverage will not result in reduced member satisfaction.
7	Eliminating prior quarter coverage will generate cost savings over the term of the waiver.
8	Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.

Hypothesis 1 will test whether the demonstration results in an increase in the likelihood and continuity of enrollment. The measures and associated research questions are listed in Table 2-27. Improvements in these outcomes would support the demonstration's goal of increasing enrollment and its continuity among eligible beneficiaries.

Table 2-27: Hypothesis 1 Research Questions and Measures

Hypothesis 1—Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.	
Research Question 1.1: Do eligible people without prior quarter coverage enroll in Medicaid at the same rates as other eligible people with prior quarter coverage?	
1-1	Percentage of Medicaid enrollees by eligibility group out of estimated eligible Medicaid recipients
1-2	Percentage of new Medicaid enrollees by eligibility group, as identified by those without a recent spell of Medicaid coverage out of estimated eligible Medicaid recipients
1-3	Number of Medicaid enrollees per month by eligibility group and/or per-capita of state
1-4	Number of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage
Research Question 1.2: What is the likelihood of enrollment continuity for those without prior quarter coverage compared to other Medicaid beneficiaries with prior quarter coverage?	
1-5	Percentage of Medicaid beneficiaries due for renewal who complete the renewal process
1-6	Average number of months with Medicaid coverage
Research Question 1.3: Do beneficiaries without prior quarter coverage who disenroll from Medicaid have shorter enrollment gaps than other beneficiaries with prior quarter coverage?	
1-7	Percentage of Medicaid beneficiaries who re-enroll after a gap of up to six months
1-8	Average number of months without Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months
1-9	Average number of gaps in Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months
1-10	Average number of days per gap in Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months

Hypothesis 2 will test whether eliminating PQC increases the number of healthy enrollees. The measure and associated research question are presented in Table 2-28.

Table 2-28: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.	
Research Question 2.1: Do newly enrolled beneficiaries without prior quarter coverage have higher self-assessed health status than continuously enrolled beneficiaries?	
2-1	Beneficiary reported rating of overall health
2-2	Beneficiary reported rating of overall mental or emotional health
2-3	Percentage of beneficiaries who reported prior year emergency room (ER) visit
2-4	Percentage of beneficiaries who reported prior year hospital admission
2-5	Percentage of beneficiaries who reported getting health care three or more times for the same condition or problem

A key goal of waiving PQC is that there will be improved health outcomes among both newly enrolled and established beneficiaries. Hypothesis 3 will test this by determining if beneficiaries without PQC have better outcomes than those with PQC or who have been enrolled since pre-implementation of the waiver. The measures and associated research questions are presented in Table 2-29.

Table 2-29: Hypothesis 3 Research Questions and Measures

Hypothesis 3—Health outcomes will be better for those without prior quarter coverage compared to Medicaid beneficiaries with prior quarter coverage.	
Research Question 3.1: Do beneficiaries without prior quarter coverage have better health outcomes than compared to baseline rates and out-of-state comparisons with prior quarter coverage?	
3-1	Beneficiary reported rating of overall health for all beneficiaries
3-2	Beneficiary reported rating of overall mental or emotional health for all beneficiaries

It is crucial to evaluate the financial impact that the PQC waiver has on beneficiaries. This can determine if there are any unintended consequences, such as consumers having additional expenses due to the PQC waiver not covering medical expenses during the prior quarter. Hypothesis 4 evaluates the impact that the waiver has by measuring reported beneficiary medical debt. The measure and associated research question are presented in Table 2-30.

Table 2-30: Hypothesis 4 Research Question and Measure

Hypothesis 4—Eliminating prior quarter coverage will not have adverse financial impacts on consumers.	
Research Question 4.1: Does the prior quarter coverage waiver lead to changes in the incidence of beneficiary medical debt?	
4-1	Percentage of beneficiaries who reported medical debt

It is important to ensure that the PQC waiver does not have an impact on access to care. Hypothesis 5 assesses this by examining utilization of office visits and facility visits for beneficiaries subject to the PQC wavier compared to those who were not subject to the wavier. The measures and associated research questions are presented in Table 2-31.

Table 2-31: Hypothesis 5 Research Questions and Measures

Hypothesis 5—Eliminating prior quarter coverage will not adversely affect access to care.	
Research Question 5.1: Do beneficiaries without prior quarter coverage have the same or higher rates of office visits compared to baseline rates and out-of-state comparisons with prior quarter coverage?	
5-1	Beneficiary response to getting needed care right away
5-2	Beneficiary response to getting an appointment for a check-up or routine care at a doctor's office or clinic
Research Question 5.2: Do beneficiaries without prior quarter coverage have the same or higher rates of service and facility utilization compared to baseline rates and out-of-state comparisons with prior quarter coverage?	
5-3	Percentage of beneficiaries with a visit to a specialist (e.g., eye doctor, Ears Nose Throat [ENT], cardiologist)

As these changes will directly impact the beneficiaries, it is important to ensure that the beneficiaries remain satisfied with their health care. Hypothesis 6 seeks to quantify the change that the implementation of the waiver has on beneficiary satisfaction. The measure and associated research question are presented in Table 2-32.

Table 2-32: Hypothesis 6 Research Question and Measure

Hypothesis 6—Eliminating prior quarter coverage will not result in reduced member satisfaction.	
Research Question 6.1: Do beneficiaries without prior quarter coverage have the same or higher satisfaction with their health care compared to baseline rates and out-of-state comparisons with prior quarter coverage?	
6-1	Beneficiary rating of overall health care

Hypothesis 7 seeks to measure the cost effectiveness of the eliminating retroactive eligibility demonstration waiver. A long-term goal of doing so is to provide cost-effective care for its beneficiaries. Because cost effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under research questions 7-1 and 7-2 for Hypothesis 7. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not be renewed. Program savings will be identified as reductions in administration and/or service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures in which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of eliminating PQC is described in detail in the Cost-Effectiveness Analysis section and the research questions are listed in Table 2-33.

Table 2-33: Hypothesis 7 Research Questions and Measures

Hypothesis 7—Eliminating prior quarter coverage will generate cost savings over the term of the waiver.	
Research Question 7.1: What are the costs associated with eliminating prior quarter coverage??	
Research Question 7.2: What are the benefits/savings associated with eliminating prior quarter coverage?	
Research Question 7.3: Do costs to non-AHCCCS entities stay the same or decrease after implementation of the waiver compared to before?	
7-1	Reported costs for uninsured and/or likely eligible Medicaid recipients among potentially impacted providers and/or provider networks

Hypothesis 8 seeks to determine if there were barriers in the implementation of eliminating PQC. The measure and associated research question are presented in Table 2-34.

Table 2-34: Hypothesis 8 Research Question and Measure

Hypothesis 8—Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.	
Research Question 8.1: What activities did AHCCCS perform to educate beneficiaries and providers about changes to retroactive eligibility?	
8-1	AHCCCS' reported education activities
8-2	Providers' knowledge on eliminating PQC
Research Question 8.2: Did AHCCCS encounter barriers related to informing providers about eliminating PQC?	
8-3	AHCCCS' reported barriers to providing education on eliminating PQC

TI

The overarching goal of the AHCCCS demonstration for TI is to improve health by providing financial incentives to encourage integration of care between primary care providers and behavioral health care providers. Success will be measured by providers' ability to reach integration milestones, and improved health outcomes for children with behavioral health disorders, including children with ASD and children in the foster care system, adults with behavioral health needs, and adults with behavioral health needs who are transitioning from the criminal justice system. To participate in the TI program, providers and hospitals are required to meet specific requirements (Table 2-35). [2-5]

Table 2-35: TI Provider Requirements

TI Providers	Requirements
Primary Care Providers	• Have a minimum threshold of assigned AHCCCS members across all health plans with which they are contracted; • Attest to having an electronic health record (EHR) system which has the ability to exchange and use electronic health information from other systems without special effort on the part of the user; and • Have completed a behavioral health integration assessment.
Behavioral Health Care Providers	• Have delivered an AHCCCS-defined minimum number of qualifying outpatient services to members during a recent 12-month period; • Attest to having an EHR system, which has the ability to exchange and use electronic health information from other systems without special effort on the part of the user; and • Have completed a behavioral health integration assessment.

[2-5] Arizona Health Care Cost Containment System. Targeted Investments Program Overview. Available at: https://www.azahcccs.gov/PlansProviders/TargetedInvestments/. Accessed on: Aug 14, 2019.

TI Providers	Requirements
Hospitals	• Have had an AHCCCS-defined minimum number of qualifying member discharges across all health plans during a recent 12-month period; and • Attest to having an EHR system, which has the ability to exchange and use electronic health information from other systems without special effort on the part of the user.

A key step in the integration process for participating TI participating providers is establishing an executed agreement with Health Current and receiving Admission-Discharge-Transfer (ADT) alerts. Providers who receive ADT alerts receive an automated clinical summary in response to an inpatient admission, emergency department registration or ambulatory encounter registration, and a comprehensive continuity of care document that contains the patient's most recent clinical and encounter information. [2-6] This allows providers to receive key information to improve patient care.

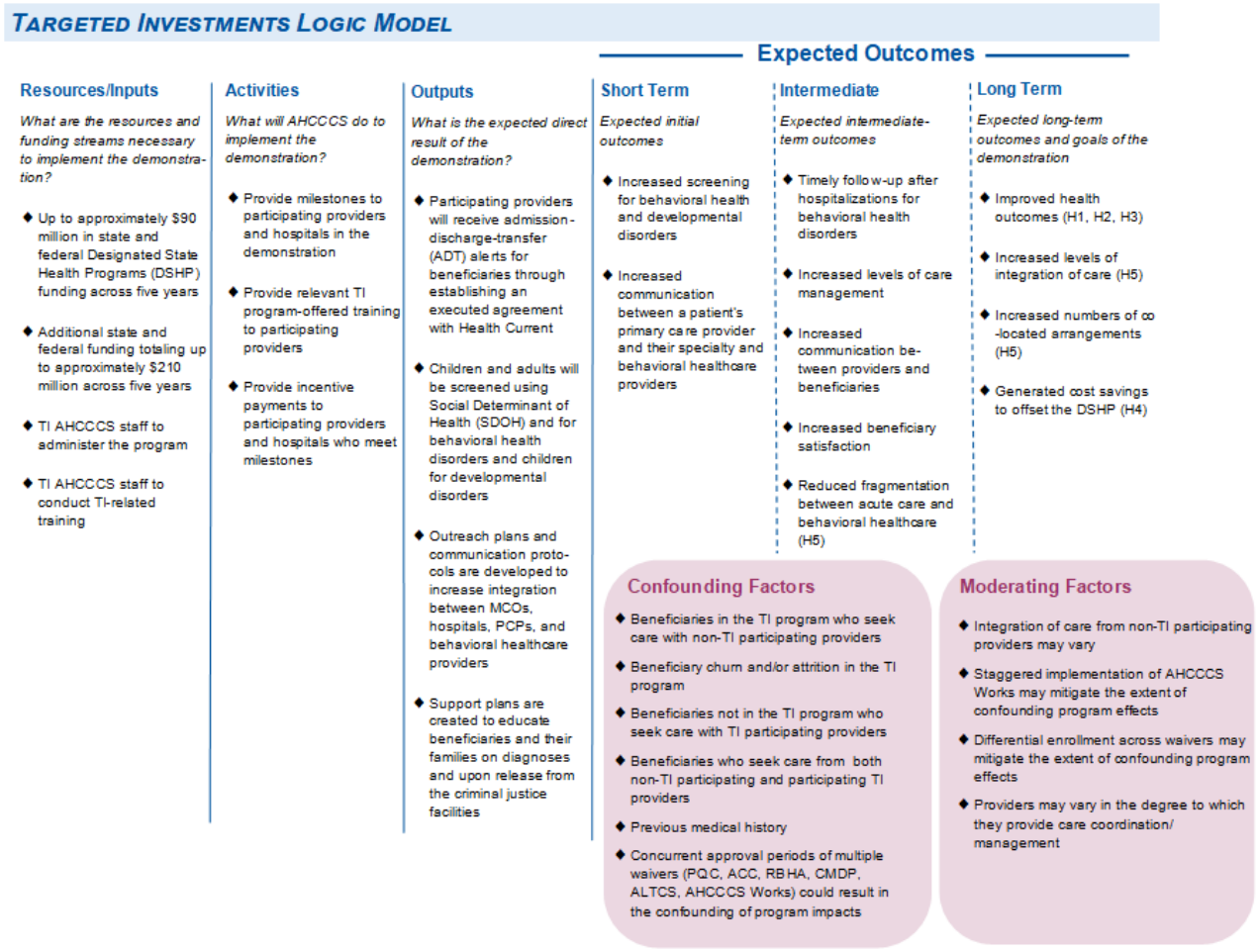
A primary purpose of this evaluation is to determine whether the AHCCCS demonstration to integrate physical health and behavioral health care services with TI is achieving the goals of the program. To develop hypotheses and research questions associated with these goals, AHCCCS created a logic model that relates the inputs and activities of the program to the anticipated initial, intermediate, and long-term outcomes.

Logic Model

The logical model presented in Figure 2-8 illustrates how providing financial investments to participating providers and hospitals in the demonstration will ultimately lead to improved health outcomes, increased levels of integration of care, and generate cost savings that will offset the time-limited federal Designated State Health Program (DSHP). By providing milestones that must be met at specific timeframes to earn financial incentives, AHCCCS expects to encourage increased levels of integration of care among participating providers. In the short term, AHCCCS expects that there will be increased communication between a patient's primary care provider and their specialty and behavioral health care providers. This will lead to increased levels of care management, which in the longer term, will lead to improved health outcomes among targeted beneficiaries. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-36).

[2-6] Health Current. HIE Services. Available at: https://healthcurrent.org/hie/benefits-services/. Accessed on: Aug 21, 2019.

Figure 2-8: TI Logic Model



Historically, RBHA provided behavioral health coverage for much of the AHCCCS population, while medical care was provided through other plans.

AHCCCS expects that the simultaneous implementation of TI along with the payer-level care integration (most notably ACC) will provide an opportunity for both providers and health plans to leverage their experience and share strategies in delivering whole person integrated care.[2-7] This in turn may introduce an interaction effect between the TI program and the provision of integrated behavioral and medical care under a single plan. This may lead to confounding program effects; however, as described in Disentangling Confounding Events section below, both the differential timing in the integration of care and the TI program and the differential between program participation may be leveraged to mitigate the impact from these confounding factors.

[2-7] AHCCCS Targeted Investments Program Sustainability Plan, March 29, 2019. Available at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-target-stability-plan-20190812.pdf. Accessed on: Feb 11, 2020.

Hypotheses and Research Questions

To comprehensively evaluate the TI program, six hypotheses will be tested using 21 research questions. Table 2-36 lists the six hypotheses.

Table 2-36: TI Hypotheses

Hypotheses	
1	The TI program will improve physical and behavioral health care integration for children.
2	The TI program will improve physical and behavioral health care integration for adults.
3	The TI program will improve care coordination for AHCCCS enrolled adults released from criminal justice facilities.
4	The TI program will provide cost-effective care.
5	Providers will increase the level of care integration over the course of the demonstration.
6	Providers will conduct care coordination activities.

Hypothesis 1 will test whether the demonstration improves the integration of physical and behavioral health care for children. The measures and associated research questions are listed in Table 2-37. Improvements in these outcomes would support the demonstration's goal of improving health outcomes for children with behavioral health disorders, children with or at risk for ASD, and children who are engaged in the foster care system.

Table 2-37: Hypothesis 1 Research Questions and Measures

Hypothesis 1— The TI program will improve physical and behavioral health care integration for children.	
Research Question 1.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	
1-1	Percentage of participating pediatric primary care and behavioral health care practices that have an executed agreement with Health Current
1-2	Percentage of participating pediatric primary care and behavioral health care practices that routinely receive ADT alerts
Research Question 1.2: Do children subject to the TI program have higher rates of screening and well-child visits compared to those who are not subject to the demonstration?	
1-3	Percentage of beneficiaries with a well-child visit in the third, fourth, fifth, and sixth years of life
1-4	Percentage of beneficiaries with a depression screening and follow-up plan
1-5	Percentage of beneficiaries with an adolescent well-care visit
1-6	Beneficiary response to getting needed care right away
Research Question 1.3: Do children subject to the TI program have higher rates of follow-up after hospitalization or an emergency department (ED) visit for mental illness than those who are not subject to the demonstration?	
1-7	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
Research Question 1.4: Do parents/guardians of children subject to the program perceive their doctors have better care coordination than those not subject to the demonstration?	

Hypothesis 1— The TI program will improve physical and behavioral health care integration for children.	
1-8	Beneficiary response to their child's doctor seeming informed about the care their child received from other health providers

Hypothesis 2 will test whether the demonstration improves the integration of physical and behavioral health care for adults with behavioral health needs. The measures and associated research questions are listed in Table 2-38.

Table 2-38: Hypothesis 2 Research Questions and Measures

Hypothesis 2— The TI program will improve physical and behavioral health care integration for adults.	
Research Question 2.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	
2-1	Percentage of participating adult primary care and behavioral health care practices that have an executed agreement with Health Current
2-2	Percentage of participating adult primary care and behavioral health care practices that routinely receive ADT alerts
Research Question 2.2: Do adults subject to the TI program have higher rates of screening than those who are not subject to the demonstration?	
2-3	Percentage of beneficiaries with a depression screening and follow-up plan
2-4	Beneficiary response to getting needed care right away
Research Question 2.3: Do adults subject to the TI program have lower rates of ED utilization than those who are not subject to the demonstration?	
2-5	Number of ED visits per 1,000 member months
2-6	Number of ED visits for substance use disorder (SUD) or opioid use disorder (OUD) per 1,000 member months
Research Question 2.4: Do adults subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration?	
2-7	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
2-8	Percentage of beneficiaries with a follow-up visit after an ED visit for mental illness
Research Question 2.5: Do adults subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?	
2-9	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment
2-10	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment
2-11	Percentage of beneficiaries with OUD receiving any Medication Assisted Treatment (MAT)
Research Question 2.6: Do adults subject to the TI program perceive their doctors have better care coordination than those not subject to the demonstration?	
2-12	Beneficiary response to their doctor seeming informed about the care they received from other health providers

Hypothesis 3 will test whether the demonstration improves the integration of physical and behavioral health care for adults who were recently released from the criminal justice system. The measures and associated research questions are listed in Table 2-39.

Table 2-39: Hypothesis 3 Research Questions and Measures

Hypothesis 3— The TI program will improve care coordination for AHCCCS enrolled adults released from criminal justice facilities.	
Research Question 3.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	
3-1	Percentage of integrated practices participating in the justice transition project that have an executed agreement with Health Current
3-2	Percentage of integrated practices participating in the justice transition project that routinely receive ADT alerts
Research Question 3.2: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of access to care than those who were not subject to the demonstration?	
3-3	Percentage of recently released beneficiaries who had a preventive/ambulatory health service visit
3-4	Recently released beneficiary response to getting needed care right away
3-5	Recently released beneficiary response to getting routine care right away
Research Question 3.3: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?	
3-6	Percentage of recently released beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment
3-7	Percentage of recently released beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment
3-8	Percentage of recently released beneficiaries with OUD receiving any Medication Assisted Treatment (MAT)
Research Question 3.4: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have lower rates of ED utilization than those who were not subject to the demonstration?	
3-9	Number of ED visits per 1,000 member months for recently released beneficiaries
3-10	Number of ED visits for SUD or OUD per 1, 000 member months for recently released beneficiaries
Research Question 3.5: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have better management of opioid prescriptions than those who were not subject to the demonstration?	
3-11	Percentage of recently released beneficiaries who have prescriptions for opioids at a high dosage
3-12	Percentage of recently released beneficiaries who have prescriptions for concurrent use of opioids and benzodiazepines

It is crucial to evaluate the financial impact that the TI demonstration will have. Because the demonstration is partially financed by time-limited DSHP funds, AHCCCS intends for the demonstration to become self-sufficient by the end of the demonstration period. Consequently, one of the expectations is for the program to generate cost savings that are equal to or exceed the time-limited DSHP funding. Hypothesis 4 evaluates the impact that the demonstration has by measuring costs and cost-effectiveness associated with the TI demonstration. Because cost-effectiveness will not be evaluated solely on the basis of the outcome of specific financial measurements, no specific measures are included under Hypothesis 4. The independent evaluator will calculate costs and savings

associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not been renewed or implemented. Program savings will be identified as reductions in administrative and/or service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (reductions) in any of the above measures for which a monetary value cannot be assigned. As part of the cost-effectiveness analysis, a comparison of benefits/savings to the time-limited DSHP funding will be performed to determine whether the program offsets this funding. The approach for assessing cost-effectiveness of the TI program is described in further detail in the Cost-Effectiveness Analysis section. Table 2-40 presents the measures and associated research questions.

Table 2-40: Hypothesis 4 Research Questions and Measures

Hypothesis 4— The TI program will provide cost-effective care.
Research Question 4.1: What are the costs associated with care coordination provided under TI?
Research Question 4.2: What are the benefits/savings associated with care coordination provided under TI?

Direct payments to participating providers are designed to support increasing care integration at the practice level. In turn, the higher levels of care integration are expected to ultimately be associated with better health outcomes and patient satisfaction. For these reasons, it is important to ensure that the level of integration for participating TI practices is increasing during the demonstration period. Hypothesis 5 assesses the percentage of providers who transition to a higher level of care integration, as defined by the Substance Abuse and Mental Health Services Administration (SAMHSA) and used in the Integrated Practice Assessment Tool (IPAT).[2-8] Table 2-41 presents the measures and associated research questions.

Table 2-41: Hypothesis 5 Research Questions and Measures

Hypothesis 5— Providers will increase the level of care integration over the course of the demonstration.	
Research Question 5.1: Do providers progress across the Substance Abuse and Mental Health Services Administration (SAMHSA) national standard of six levels of integrated health care?	
5-1	Percentage of providers transitioning from Level 1 or Level 2 (coordinated care[2-9]) to Level 3 or Level 4 (co-located care)[2-10]
5-2	Percentage of providers transitioning from Level 3 or Level 4 (co-located care) to Level 5 or Level 6 (integrated care)[2-11]
Research Question 5.2: Do providers increase level of integration within each broader category (i.e., coordinated, co-located, and integrated care) during the demonstration period?	

2-8 Waxmonsky, J., Auxier, A., Wise Romero, P., and Heath, B., Integrated Practice Assessment Tool Version 2.0. Available at: https://www.thenationalcouncil.org/integrated-health-coe/. Accessed on: Feb 11, 2020.

2-9 Note: "co-located care" in this context refers to the SAMHSA definition of physical proximity between behavioral health and primary care providers; it does not refer to the co-location of integrated health care settings with select county probation offices and/or parole offices, as used by AHCCCS in reference to adults transitioning from the criminal justice system. For purposes of these measures, "co-located care" will refer to physical proximity between behavioral health and primary care providers for all providers, including criminal justice providers.

2-10 Heath B, Wise Romero P, and Reynolds K. A Review and Proposed Standard Framework for Levels of Integrated Healthcare. Washington, D.C. SAMHSA-HRSA Center for Integrated Health Solutions. March 2013. Available at: https://www.integration.samhsa.gov/integrated-care-models/A_Standard_Framework_for_Levels_of_Integrated_Healthcare.pdf. Accessed on: Feb 11, 2020.

2-11 Ibid.

Hypothesis 5— Providers will increase the level of care integration over the course of the demonstration.	
5-3	Percentage of providers transitioning from Level 1 to Level 2 integration
5-4	Percentage of providers transitioning from Level 3 to Level 4 integration
5-5	Percentage of providers transitioning from Level 5 to Level 6 integration

Hypothesis 6 (Table 2-42) is designed to identify in detail the activities the providers conducted to further AHCCCS' goal of care coordination and integration through the TI program. Barriers encountered during implementation of the TI program will be a focus of this hypothesis. These research questions will be addressed through semi-structured key informant interviews or focus groups with representatives from AHCCCS and TI providers.

Table 2-42: Hypothesis 6 Research Questions and Measures

Hypothesis 6— Providers will conduct care coordination activities.	
Research Question 6.1: Did AHCCCS encounter barriers related to the pre-implementation and implementation phases of TI?	
6-1	AHCCCS' reported barriers before, during, and shortly following the implementation of TI
Research Question 6.2: Did providers encounter barriers related to the pre-implementation and implementation phases of TI?	
6-2	Providers' reported barriers before, during, and shortly following the implementation of TI

3. Methodology

To assess the impact of the program, a comparison of outcomes between the intervention group and a valid counterfactual—the intervention group had they not been exposed to the intervention—must be made. The gold standard for experimental design is a randomized controlled trial which would be implemented by first identifying an intervention population, and then randomly assigning individuals to the intervention and the rest to a comparison group, which would serve as the counterfactual. However, random assignment is rarely feasible or desirable in practice, particularly as it relates to health care policies.

As such, a variety of quasi-experimental or observational methodologies have been developed for evaluating the effect of policies on outcomes. The research questions presented in the previous section will be addressed through at least one of these methodologies. The selected methodology depends on data availability factors relating to: (1) data to measure the outcomes; (2) data for a valid comparison group; and (3) data during the time periods of interest—typically defined as the year prior to implementation and annually thereafter. Table 3-1 illustrates a sampling of standard analytic approaches and whether the approach requires data gathered at the baseline (i.e., pre-implementation), requires a comparison group, or allows for causal inference to be drawn. It also notes key requirements unique to a particular approach.

Table 3-1: Sampling of Analytic Approaches

Analytic Approach	Baseline Data	Comparison Group	Allows Causal Inference	Notes
Randomized Controlled Trial		✓	✓	Requires full randomization of intervention and comparison group.
Difference-in-Differences	✓	✓	✓	Trends in outcomes should be similar between comparison and intervention groups at baseline.
Panel Data Analysis	✓		✓	Requires sufficient data points both prior to and after implementation.
Regression Discontinuity		✓	✓	Program eligibility must be determined by a threshold
Interrupted Time Series	✓		✓	Requires sufficient data points prior to and after implementation.
Pre-test/post-test	✓			
Cross-Sectional Analysis		✓		

Given that each demonstration component (Arizona Health Care Cost Containment System [AHCCCS] Complete Care [ACC], Comprehensive Medical and Dental Program [CMDP], Arizona Long Term Care System [ALTCS], Regional Behavioral Health Authority [RBHA], Prior Quarter Coverage [PQC], and Targeted Investments [TI]) implemented under AHCCCS serve different populations, selection of a comparison group must be specific to each program.

ACC

The ACC plans affected most Medicaid children and adults statewide on October 1, 2018, and thus the viability of an in-state counterfactual group not exposed to the intervention (i.e., ACC) is limited by several factors. First, the number of beneficiaries available for a potential comparison group is far smaller than the number of beneficiaries enrolled in ACC plans. This restricts the ability to apply often-used one-to-one matching techniques. Possible solutions include propensity score weighting or matching with replacement. The small pool for the eligible comparison group, however, increases the likelihood that the comparison group would be dominated by only a few individuals, leading to inaccurate and misleading results. Second, the small comparison group reduces statistical power. Finally, and most importantly, AHCCCS beneficiaries not enrolled in an ACC plan are fundamentally different from those who are enrolled in an ACC plan. For example, the theoretical in-state comparison group would consist of those with a serious mental illness (SMI), foster children, those with developmental disabilities, and the elderly and physically disabled. It is possible that these groups could serve as a comparison group with a risk-adjustment algorithm applied; however, this approach is unlikely to sufficiently adjust for the substantial differences across subpopulations to produce accurate and reliable results. Since Arizona does not have an all-payer claims database, it is not possible to identify and use an in-state low-income non-Medicaid population as a comparison group.

Despite these limitations, since ACC covers most children and adults on Medicaid, many measure rates for the ACC population may be compared to national benchmarks, with regional adjustments if available. By comparing ACC rates both before and after implementation against national benchmarks during the same time periods, a difference-in-differences (DiD) calculation can be performed.

ALTCS

The ALTCS has been in existence since prior to the current Section 1115 demonstration waiver renewal period, which began on October 1, 2016. There were no substantive changes to the program on this date. However, behavioral health services for beneficiaries with intellectual/developmental disabilities (DD) were transitioned to the Arizona Department of Economic Security/Division of Developmental Disabilities (DES/DDD), which is contracted with ALTCS, on October 1, 2019. Behavioral services, along with physical health services and certain Long Term Services and Supports (LTSS) (i.e., nursing facilities, emergency alert system services, and habilitative physical therapy for beneficiaries 21 years of age and older), are subcontracted by DES/DD to managed care organizations called DDD health plans. Therefore, the results from the evaluation of the ALTCS program will be split by population (beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD) and consist of two components:

1. Evaluation of demonstration renewal period, beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD (October 1, 2016—September 30, 2021)
2. Evaluation of behavioral health care integration beneficiaries with DD only (October 1, 2019 – September 30, 2021)

Because there were no substantive policy changes upon renewal of the demonstration, the objective of the pre-integration evaluation is to assess the general performance and sustainability of ALTCS during this timeframe. In contrast, the evaluation of integration will assess the impact of care integration on outcomes. Therefore, different methodologies will be used for each component of the evaluation.

Given that ALTCS only impacts individuals with intellectual/developmental disabilities and individuals who are elderly and/or with physical disabilities, the viability of an in-state comparison group consisting of similar

beneficiaries is limited by several factors. First, there are few in-state people with developmental disabilities who are not enrolled in Medicaid and ALTCS. While the number of people who are elderly and/or with physical disabilities who are not enrolled in Medicaid may be somewhat larger, the size of the comparison group is estimated to be far smaller than the similar ALTCS population, thereby reducing the ability to use valid and robust matching techniques to ensure reliable results and reducing statistical power. In the event that such in-state population were sufficient and appropriate as a comparison group, Arizona does not have an all-payer claims database with which to identify and calculate relevant measures for the comparison group. As a result, an out-of-state comparison group, if available, will serve as the most appropriate counterfactual.

A second potential comparison may be used comprising of national or regional benchmarks of similar populations during the same time periods. By comparing ALTCS rates both during the baseline and evaluation periods against national or regional benchmarks, a DiD calculation can be performed. However, it is important to note that because the ALTCS population differ substantially from that of national or regional benchmarks reported for Medicaid programs, such comparisons and DiD testing may not be appropriate for all measures. The independent evaluator will determine which comparison group is best suited for the evaluation or if both can be used for each measure once data has obtained.

CMDP

The CMDP has been in existence since prior to the current Section 1115 waiver demonstration renewal period, beginning on October 1, 2016, with no substantive changes to the program on this date. However, AHCCCS anticipates that behavioral health services will be integrated into CMDP on April 1, 2021. Therefore, the evaluation of the CMDP will consist of two components:

1. Evaluation of demonstration renewal period (October 1, 2016—September 30, 2021)
2. Evaluation of behavioral healthcare integration (April 1, 2021 – March 31, 2022)

Because there were no substantive policy changes upon renewal of the demonstration, the objective of the pre-integration evaluation is to assess the general performance and sustainability of CMDP during this timeframe. In contrast, the evaluation of integration will assess the impact of care integration on outcomes. Therefore, different methodologies will be used for each component of the evaluation.

Given that CMDP only impacts children in the custody of the Arizona Department of Child Safety (DCS) and the unique health care needs of this population, the viability of an in-state comparison group consisting of similar beneficiaries is limited. As such, an out-of-state comparison group, if available, would serve as the most appropriate counterfactual. To account for differences between the two groups, propensity score matching, or weighting would be used to identify non-CMDP beneficiaries who share similar characteristics to those in the intervention (i.e., foster children from another state). An out-of-state comparison group may be obtained by using aggregate rates calculated for a population of foster children served by Medicaid services in another state. To obtain data for a comparison group in this way will require the independent evaluator to obtain a Data Use Agreement (DUA) with comparison state Medicaid authority.

A second potential comparison may be used comprising of national or regional benchmarks of similar populations during the same time periods. By comparing CMDP rates both before and after during the baseline and evaluation period against an out-of-state comparison group or national or regional benchmarks, a DiD calculation can be performed. However, it is important to note that because the CMDP population will differ substantially from that of national or regional benchmarks, DiD statistical testing may not be performed, and the benchmarks will provide context in which to interpret results for the CMDP population.

RBHA

The RBHA have been in existence prior to the current Section 1115 waiver demonstration renewal period which began on October 1, 2016. During the existence of the RBHAs, there have been no substantive changes to the provision of behavioral and physical health care services to adult beneficiaries with a SMI. However, the integration efforts that began with Mercy Maricopa in April 2014 and expanded statewide in October 2015 have not been rigorously evaluated as part of a formal 1115 demonstration evaluation under CMS's revised guidance. Therefore, this evaluation will build upon existing studies of the RBHAs by assessing the impact of the integration on rates through statistical testing and quasi-experimental research design. Previous studies of the RBHAs include a case study conducted by NORC, which consisted of a qualitative assessment of Mercy Maricopa, an issue brief by the Commonwealth Fund, and an independent evaluation of the RBHAs conducted by Mercer Government Human Services Consulting.[3-1] While Mercer's independent evaluation assessed a wide range of performance measures both before and after integration, the evaluation was conducted prior to CMS's revised guidance for 1115 waiver evaluations, and therefore does not include statistical testing or causal analysis. The objective of this evaluation is to assess the integration of care over the 2014/2015 timeframe on pertinent measures for the adult SMI population.. The rates for RBHA beneficiaries with an SMI will be compared to historical rates (i.e., pre-demonstration renewal) and tested to determine if the observed changes are statistically significant.

PQC

The PQC waiver demonstration impacts all new AHCCCS beneficiaries, excluding pregnant woman, women who are 60 days or less postpartum, and infants and children under 19 years of age. Therefore, the excluded populations may serve as a comparison group. To account for differences between the two groups, propensity score matching, or weighting will be used to identify beneficiaries who share similar characteristics to those in the intervention (i.e., new members subject to the waiver requirements). Since age can impact many of the outcomes studied, one important consideration is adequately controlling for the impact of age on the outcomes. This will isolate the effect of the demonstration on outcomes, rather than contaminate that effect with the impact of age on the outcome. This is discussed in sections below.

A second potential comparison group can be used comprising current beneficiaries who were not impacted by the PQC waiver because they enrolled prior to the waiver implementation. The independent evaluator will determine which comparison group is best suited for the evaluation or if both can be used.

TI

The demonstration measures the improvement of health on beneficiaries who are assigned to primary care practitioner (PCP) or behavioral health care providers participating in the TI program. Thus, beneficiaries who receive care from PCPs or behavioral health care providers not participating in the program may serve as the comparison group. To account for differences between the two groups, propensity score matching or weighting,

[3-1] "Supportive Service Expansion for Individuals with Serious Mental Illness: A Case Study of Mercy Maricopa Integrated Care," NORC, August 18, 2017; Bachrach. D., Boozang, P. M., Davis, H. E., "How Arizona Medicaid Accelerated the Integration of Physical and Behavioral Health Services," Issue Brief: *The Commonwealth Fund,* May 2017. Available at: https://www.commonwealthfund.org/publications/issue-briefs/2017/may/how-arizona-medicaid-accelerated-integration-physical-and. Accessed on Jun 19, 2020; "Independent Evaluation of Arizona's Medicaid Integration Efforts," Mercer, November 27, 2018. Available at: https://www.azahcccs.gov/shared/Downloads/News/CRS_SMI_IndependentEvaluationReport_11_27_18.pdf. Accessed on: Jun 19, 2020.

will be used to identify beneficiaries who share similar characteristics to those in the intervention (i.e., children and adults with behavioral health needs and beneficiaries who are transitioning from the criminal justice system).

Evaluation Design Summary

A DiD study design may be used to evaluate measures in which (1) a valid comparison group and baseline data are available, or (2) comparable national or regional benchmarks are available both before and after implementation. DiD compares the changes in outcomes for the intervention group against the changes in the outcomes for the comparison group. Assuming that the trends in outcomes between the two groups would be the same in absence of the intervention, the changes in outcomes for the comparison group would serve as the expected change in outcomes for the intervention group, thereby providing an estimated counterfactual.

There are two general limitations to the planned DiD approach:

1. Medicaid member composition as represented in the national or regional benchmarks may differ from the target population (e.g., ACC, CMDP, or ALTCS populations).
2. Measurement time periods between national or regional benchmarks and rate calculation may not align. Specifically, benchmarks are calculated on a calendar year basis, while the demonstration approval period aligns with the federal fiscal year. To mitigate this limitation, the independent evaluator can align measurement periods for specific measures as necessary.

Where a comparison group is not available, multiple data points in the baseline may be used to support an interrupted time series (ITS) design. Program specific considerations are described below.

ACC

For the evaluation of ACC, the comparison group will be Medicaid beneficiaries nationally or regionally and incorporated into a DiD approach.

If comparable national or regional benchmarks are not available and the measure relies on state administrative claims data that have monthly or quarterly measurements taken both prior to and after implementation across multiple years, then an ITS methodology may be utilized. This can serve to build pre- and post-implementation trends, which can evaluate the impact that the ACC had on health outcomes, assuming enough measurements can be taken both prior to and after the implementation of the ACC.

If there are insufficient data points before and after implementation of ACC to support an ITS, then causal inferences cannot be drawn. For these measures, the independent evaluator will compare rates calculated before and after the implementation of the ACC to assess changes in a pre-test/post-test analysis. To the extent multiple data points are available prior to the implementation of ACC and measure specifications are comparable across years, trends can be estimated by which to compare post-implementation rates outside the framework of a formal interrupted time series analysis. In short, the independent evaluator can use historical Arizona rate calculations for the Acute Care population and/or benchmarks to triangulate an estimate of the impact of the ACC on outcomes.

ALTCS

The evaluation of the ALTCS program will consist of two components: the demonstration renewal period and the integration of behavioral health care. The evaluation of the demonstration renewal period prior to care integration will rely on comparisons to historical AHCCCS rates and national or regional benchmarks. With the presence of a

pre-implementation period, the integration of care evaluation may utilize either a DiD approach or a pre-test/post-test design, depending on the availability of a viable comparison group for the specific measure.

CMDP

The evaluation of the pre-integration renewal period will rely on aggregate measures for a similar population from other states if available or on pre-test/post-testing if such data is unavailable. With the presence of multiple data points in the pre-implementation period, the integration of care evaluation may utilize either a DiD approach or an ITS design, depending on the availability of a viable comparison group.

For the evaluation of CMDP, the comparison group will be children in the custody of DCS nationally or Medicaid children nationally. Where possible, the independent evaluator will seek aggregate rates calculated for a population of foster children served by Medicaid services in another state. To obtain data for a comparison group in this way will require the independent evaluator to obtain a DUA with comparison state Medicaid authority.

RBHA

A robust approach to evaluating the integration of care is the inclusion and identification of an in-state comparison group. Although the target population of the RBHA evaluation are adults with an SMI as defined by A.R.S. §36-550, there could be a subset of AHCCCS beneficiaries who have not gone through the formal SMI determination process yet exhibit similar characteristics. Propensity scores can be used to identify beneficiaries similar to the target population who are not enrolled in a RBHA as an adult SMI beneficiary. The independent evaluator will assess the comparability of a potential comparison group following best practices in the literature prior to proceeding with statistical testing.[3-2] If a suitable in-state comparison group can be found, then a robust difference-in-differences design can be employed to conduct statistical testing. Given the selection and SMI determination process for RBHA coverage, we do not anticipate finding a comparable group similar to the RBHA SMI population.[3-3] If no suitable in-state comparison group is found, then the independent evaluator will leverage multiple data points before and after integration to construct an interrupted time series analysis.

PQC

Because the PQC waiver is hypothesized to increase the rate of enrollment among the eligible population, the demonstration has a partial focus on newly enrolled Medicaid beneficiaries. Specifically, because the waiver is expected to increase the rate of enrollment when individuals in the eligible population are healthy, and because there are no readily available administrative data or survey data for the eligible and unenrolled population, the independent evaluator will need to collect data for the evaluation from newly-enrolled beneficiaries. In the context of the PQC waiver, newly enrolled refers to beneficiaries who satisfy two criteria:

1. Enrolled no earlier than the first day of the month prior to the month of sampling
2. Experienced a gap in enrollment of at least two months immediately before the month prior to the month of sampling

[3-2] See, e.g., Guo, S., and Fraser, M.W., (2010) *Propensity Score Analysis: Statistical Methods and Applications,* SAGE Publications, Inc., Thousand Oaks, CA; or Austin, P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/.

[3-3] Due to the subjective and qualitative nature of the clinical determination of an SMI, there is no uniform screening tool that could be used to identify a hypothetical comparison group through a regression discontinuity approach.

Because many measures consider continuously enrolled beneficiaries to be those enrolled for at least five out of the previous six months, the criteria defined for a newly enrolled beneficiary captures those persons who did not have a recent spell of continuous enrollment and who had recently enrolled. This represents the population of beneficiaries for whom the PQC waiver is expected to increase the likelihood of enrollment when healthy. The evaluation design will therefore capture survey data from newly enrolled beneficiaries at multiple points in time to assess whether their self-reported health status is increasing as expected. Self-reported health status will also be captured for other beneficiaries meeting the traditional continuous enrollment criteria. This will also allow the independent evaluator to determine if the health status of beneficiaries who are not newly enrolled increases over time after implementing the PQC waiver.

Outcomes that rely on state administrative data pertaining to enrollment by eligibility category and rates of enrollment can have intra-year (e.g., monthly) measurements taken both prior to and after implementation. This can serve to build pre- and post-implementation trends that can be evaluated via an interrupted time series analysis and through a pre-test/post-test analysis. These analyses will not utilize a comparison group because no comparable populations exist within Arizona that would not be impacted by the elimination of PQC. Additionally, a descriptive analysis of these measures will be included in the rapid-cycle reporting for the State's implementation of the waiver.

Due to the implementation of multiple waivers that will be evaluated, the independent evaluator will leverage the staggered implementation of each waiver along with variations among intervention and comparison groups to identify waiver-specific impacts. This will be accomplished through varying the timing of survey collections as well as judicious employment of statistical controls identifying individual participation in each waiver.

TI

DiD may be used for all outcomes that rely on administrative data when a valid comparison group can be utilized. However, in situations where a valid comparison group is not available and the outcome relies on state administrative claims data that can have intra-year (e.g., monthly) measurements taken both prior to and after implementation, then an ITS methodology can be utilized. This can serve to build pre- and post-implementation trends, which can evaluate the impact that the TI demonstration had on health outcomes. This is assuming that enough measurements can be taken both prior to and after the implementation of the TI program. This analysis would serve as valuable rapid-cycle reporting for the State's implementation of the demonstration.

For measures in which a survey is utilized and a valid comparison group exists, a chi-square test can be used to compare results of the survey between the intervention group and the comparison group. A chi-square test is a test statistic that determines if there is a relationship between a categorical outcome for two groups.

Due to the implementation of multiple program that will be evaluated, the independent evaluator will leverage the staggered implementation of each program along with variations among intervention and comparison groups to identify program-specific impacts. This will be accomplished through varying the timing of survey collections as well as judicious employment of statistical controls identifying individual participation in each program.

Intervention and Comparison Populations

ACC

Intervention Population

The intervention group will consist of AHCCCS beneficiaries previously covered by "Acute Care" plans who, as of October 1, 2018, transitioned into ACC plans. Specifically, AHCCCS beneficiaries meeting the following criteria are affected:

- Adults who are not determined to have an SMI (excluding beneficiaries enrolled with DES/DDD);
- Children, including those with special health care needs (excluding beneficiaries enrolled with DES/DDD and DCS/CMDP); and
- Beneficiaries determined to have an SMI who opt out and transfer to an ACC for the provision of physical health services.

Results for each of these populations will be presented separately; however, it is anticipated that the number of beneficiaries with an SMI who opt out of a RBHA and transfer to an ACC is too small to support meaningful analysis. Therefore, ACC results will be stratified by adults and children for measures where supported by the data (i.e., sufficiently covers both adults and children).

Comparison Populations

In-State Comparison Groups

AHCCCS does not maintain or have access to an all-payer claims database from which to pull commercial insurance claims and enrollment information to identify low income commercial insurance enrollees who may be similar to AHCCCS beneficiaries. Additionally, as mentioned above, the intervention group covers virtually all non-SMI, non-disabled, and non-foster care children, limiting the viability of an in-state comparison group.

Aggregate Data

The evaluation design will rely on national benchmarks based on aggregate data to represent a comparison group. Regional benchmarks will be used when available, since they would provide a more accurate comparison to the population specific to Arizona. The independent evaluator will utilize the most granular data available, such as at the health plan level. The level of granularity will determine the extent to which statistical testing can be performed.

ALTCS

Intervention Population

As described in the Background section, the intervention group will consist of individuals who:

- Are EPD
- With DD

To qualify for EPD, individuals must be 65 or older and/or medically require long-term care services. Long-term care service needs are determined by a pre-admission screening (PAS).[3-4]

A DD qualifying diagnosis is a cognitive disability, cerebral palsy, epilepsy, or autism. Since children often do not have a specific diagnosis, individuals six and under must either have one of the four previously mentioned diagnoses, be determined to be at risk for one of the four diagnoses, or demonstrate a delay that may lead to one of the four diagnoses. Similar to EPD eligibility, beneficiaries with DD must pass the PAS and require institutional level of care.[3-5]

Comparison Populations

In-State Comparison Groups

AHCCCS does not maintain or have access to an all-payer claims database from which to pull commercial insurance claims and enrollment information to identify low income commercial insurance enrollees who may be similar to AHCCCS beneficiaries. Additionally, as mentioned above and in the Background section, the intervention group covers virtually all people with physical and developmental disabilities, eliminating the use of an in-state comparison group.

Out-of-State Comparison Groups

Aggregate Data

An out-of-state comparison group could also be obtained by using aggregate rates calculated for a population of beneficiaries who are EDP or with DD served by Medicaid services in another state. Ideally, the state chosen to serve as the comparison group would not have physical and behavioral health care services integrated throughout the period of the demonstration. It may be challenging to identify and confirm states that will not make such an integration prior to the end of the AHCCCS ALTCS evaluation period. As an alternative, however, a state that has already integrated physical and behavioral health care prior to the ALTCS baseline for integration could also serve as a viable comparison group. In effect, the evaluation would compare the performance of ALTCS after integration to a group already receiving integrated care and who, all else equal, should not exhibit any significant changes. To obtain data for a comparison group in this way will require the independent evaluator to obtain a Data Use Agreement (DUA) with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS ALTCS model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in populations for ALTCS and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their foster care population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the population of beneficiaries who are EPD or with DD when using aggregate rates.

[3-4] Medical Assistance Eligibility Policy Manual. https://www.azahcccs.gov/Resources/guidesmanualspolicies/eligibilitypolicy/eligibilitypolicymanual/Policy/Chapter_500_Non-Financial_Conditions_of_Eligibility/MA0509.htm. Accessed on Oct 16, 2019.

[3-5] DDD Eligibility. https://des.az.gov/sites/default/files/10_DDD_Eligibility.pdf. Accessed on Oct 16, 2019.

CMDP

Intervention Population

As described in the Background section, the intervention group will consist of children in the custody of DCS. More specifically, children in:

- Foster homes
- The custody of DCS and placed with a relative
- The custody of DCS and placed in a certified adoptive home prior to the entry of the final order of adoption
- The custody of DCS and in an independent living program as provided in Arizona Revised Statutes (A.R.S.) § 8-521
- The custody of a probation department and placed in out-of-home care

CMDP provides health care to eligible beneficiaries from birth to 18 years of age, and up to age 21 in rare instances when the beneficiary is not Medicaid eligible.

Comparison Populations

In-State Comparison Groups

AHCCCS does not maintain or have access to an all-payer claims database from which to pull commercial insurance claims and enrollment information to identify low income commercial insurance enrollees who may be similar to AHCCCS beneficiaries. Additionally, as mentioned above, the intervention group covers all children in the state of Arizona in the custody of DCS and in out-of-home care. As such, the CMDP beneficiaries represent a qualitatively unique population with health care needs that often exceed other children, and no comparable group of individuals within the state for whom CMDP was not already providing physical health care coverage and where the integration of physical and behavioral health care will not occur. For these reasons, no viable in-state comparison group exists for this evaluation.

Out-of-State Comparison Groups

Aggregate Data

An out-of-state comparison group could be obtained by using aggregate rates calculated for a population of foster children served by Medicaid services in another state. Ideally, the state chosen to serve as the comparison group would not have physical and behavioral health care services integrated throughout the period of the demonstration. It may be challenging to identify and confirm states that will not make such an integration prior to the end of the AHCCCS CMDP evaluation period. As an alternative, however, a state that has already integrated physical and behavioral health care prior to the CMDP baseline for integration could also serve as a viable comparison group. In effect, the evaluation would compare the performance of CMDP after integration to a group already receiving integrated care and who, all else equal, should not exhibit any significant changes. To obtain data for a comparison group in this way will require the independent evaluator to obtain a DUA with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS CMDP model and does not have other confounding quality improvement

activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in populations for CMDP and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their foster care population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the CMDP population when using aggregate rates.

RBHA

Intervention Population

The intervention group will consist of beneficiaries 18 years of age or older and designated with an SMI, as defined as a substantial disorder of emotional processes, thought, cognition or memory that require supporting treatment or long-term support services to remain in the community.[3-6]

Comparison Populations

In-State Comparison Groups

AHCCCS does not maintain or have access to an all-payer claims database from which to pull commercial insurance claims and enrollment information to identify low income commercial insurance enrollees who may be similar to AHCCCS beneficiaries with an SMI. Additionally, as mentioned above and in the Background section, the intervention group consists of all Medicaid beneficiaries with an SMI, effectively eliminating the use of other Medicaid beneficiaries as an in-state comparison group. With these limitations, an in-state comparison group is unlikely to be feasible.

Out-of-State Comparison Groups

Aggregate Data

An out-of-state comparison group could be obtained by using aggregate rates calculated for a population with an SMI served by Medicaid services in another state. Ideally, the state chosen to serve as the comparison group would not have physical and behavioral health care services integrated throughout the period of the demonstration. It may be challenging to identify and confirm states that will not make such an integration prior to the end of the AHCCCS RHBA evaluation period. As an alternative, however, a state that has already integrated physical and behavioral health care prior to the RBHA baseline for integration could also serve as a viable comparison group. In effect, the evaluation would compare the performance of RBHA after integration to a group already receiving integrated care and who, all else equal, should not exhibit any significant changes. To obtain data for a comparison group in this way will require the independent evaluator to obtain a Data Use Agreement (DUA) with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS RHBA model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in populations for RHBAs and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made.

[3-6] Arizona Revised Statute § 36-550 and 36-501, https://www.azleg.gov/ars/36/00550.htm; https://www.azleg.gov/ars/36/00501.htm.

Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their population designated with an SMI, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the RBHA population when using aggregate rates.

PQC

Intervention Population

The intervention group will consist of all eligible members who apply for coverage after implementation, expected to be July 1, 2019, excluding pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age. Comparison Populations

Comparison Populations

Out-of-State Comparison Groups

Aggregate Data

An out-of-state comparison group for survey responses could also be obtained by using aggregate rates calculated for a population of beneficiaries age 19 and older, women who are not pregnant, and women who are not less than 60 days postpartum, who are served by Medicaid services in another state. Aggregate rates based on enrollment data could also be used to calculate measures evaluating enrollment activities. The state chosen to serve as the comparison group would not have implemented a demonstration that limits retroactive eligibility or implement other demonstrations during the time period of the demonstration. To obtain data for a comparison group in this way will require the independent evaluator to obtain a DUA with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in the intervention population and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their Medicaid population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the AHCCCS intervention population when using aggregate rates. However, the independent evaluator will work with other states to obtain aggregate data for the most appropriate comparison population possible for each measure for which aggregate data will be used.

Identifying Comparison States

The selection of states used in an out-of-state comparison group will be based on similarity to Arizona in terms of overall demographics and Medicaid programs and policies. Potential comparison states would also not have implemented a retroactive eligibility waiver during the baseline or evaluation periods. There are several key limiting factors in identifying and using data on specific states. In addition to sharing demographic factors and similar Medicaid policies, comparison state(s) should not have a major change in Medicaid policies during either the baseline or evaluation period. Selection of states will be conducted on a case-by-case basis depending on the available data and state willingness to share data.

TI

Intervention Population

Although the TI demonstration's ultimate goal is to improve health outcomes of select beneficiaries, the participating providers are also measured on their level of integration. The evaluation design has measures targeted towards both populations: the providers and the beneficiaries.

Identification of Participating Providers

A state-provided list of providers and hospitals who successfully applied to the TI program will be utilized to identify participating providers. This list will be provided at least annually. To address potential bias that may arise from provider attrition, participating providers will be split into two groups upon analysis. Providers who participated in TI throughout the duration will be identified and separated from providers who did not participate throughout the duration. This will allow for the independent evaluator to identify and estimate any self-selection bias as a result of provider attrition.

Identification of Participating Beneficiaries

The intervention group will consist of beneficiaries assigned to or attributed to participating providers who are:

- Adults with behavioral health needs;
- Children with behavioral health needs, including children with or at risk for Autism Spectrum Disorder (ASD), and children engaged in the child welfare system; or
- Individuals transitioning from incarceration who are AHCCCS-eligible.

The independent evaluator will continue collaboration with AHCCCS to refine the identification of TI beneficiaries for purposes of evaluating the program. AHCCCS contracted with Arizona State University Center for Health Information and Research (ASU CHiR) to calculate performance measures used for provider incentive payments. Beneficiaries for ASU CHiR's analysis will be attributed to providers through a stepwise process that combines attribution algorithms with plan assignment lists. Beneficiaries are attributed to TI participating practitioners through the following process, where attribution is made by the first criterion met:

1. Physical examination or assessment by one of the eligible PCP specialties and PCP assigned via enrollment.[3-7]
2. Most recent physical examination or assessment by any physician with one of the eligible PCP specialties. Non-physician specialties do not qualify.
3. Ambulatory or nursing facility visit or professional supervision service by one of the eligible PCP specialties and PCP assigned via enrollment.
4. Largest number of any combination of the following by one of the eligible PCP specialties
    a. Ambulatory visits, nursing facility visits, professional supervision services. The most recent visit breaks any ties.
5. Prenatal, postpartum, or antepartum visit, or routine obstetrical care services performed by one of the eligible PCP specialties and PCP assigned via enrollment.
6. Largest number of prenatal, postpartum, or antepartum visits, or routine obstetrical care services by one of the eligible PCP specialties. The most recent visit breaks any ties.

[3-7] Eligible PCP specialties defined as provider types 08, 19, and 31 with one of the following specialty codes: 055, 060, 050, 150.

7. PCP assigned via enrollment. The PCP can be any specialty

The lookback period for member attribution is the twelve months prior to each evaluation year.

While this methodology is suitable for calculating provider-level rates for purposes of determining incentive payments, it is not feasible to use for this evaluation, in part due to the reliance on plan assignment files, which do not exist for the proposed baseline period. As a result, logic from the above methodology will be extended to accurately and appropriately identify beneficiaries impacted by the TI program without reliance on the plan assignment files. Provider attribution could be accomplished by identifying members with multiple visits to a TI participating provider (both PCPs and BH providers) in the year prior to each measurement year and taking the most recent visit in case of a tie.

Comparison Populations

For measures at the provider level (e.g., the percentage of providers who routinely receive Admission-Discharge-Transfer [ADT] alerts), the comparison group will be non-TI participating providers.

For all other measures, the comparison group will include beneficiaries who are attributed to non-TI participating providers, and have never been assigned, attributed to, nor received any health care services from a TI participating provider. The attribution methodology for the comparison group will follow the steps described above to identify the intervention group. Statistical methods will be used to identify and select members of the comparison group who have similar characteristics to the intervention group, including comparable levels of access to care as the intervention group.

Excluding beneficiaries who have received any care from TI participating providers should minimize any crossover effects from beneficiaries who have not been assigned to a TI participating provider receiving TI-influenced care from a TI participating provider. However, once program participation data are available, the independent evaluator will determine the feasibility and appropriateness of this comparison group criteria and may revise it to accommodate details of program implementation and the idiosyncrasies of the available data, while ensuring a scientific and rigorous evaluation.

Identification of Similar Beneficiaries

Propensity score matching will be used to identify a subset of the eligible comparison group that is most similar to the intervention population based on observable characteristics, including demographic factors and health conditions prior to implementation of the demonstration.[3-8] Propensity score matching has been used extensively to match individuals from an eligible comparison group to individuals in the intervention group.[3-9] However, there are several risks to the use of propensity scores and subsequent matching on the propensity score (Table 3-2).

[3-8] See, e.g., Selecting the Best Comparison Group and Evaluation Design: A Guidance Document for State Section 1115 Demonstration Evaluations" for a detailed discussion of appropriate evaluation designs based on comparison group strategies (https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/comparison-grp-evaldsgn.pdf).

[3-9] Guo, S., and Fraser, M.W., (2010) *Propensity Score Analysis: Statistical Methods and Applications,* SAGE Publications, Inc., Thousand Oaks, CA; or Austin, P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/.

Table 3-2: Propensity Score Risks

Risk	Description
Insufficient coverage	Not enough individuals in the eligible comparison group similar enough to intervention population for 1:1 matching
Unbalanced groups	Observable characteristics of the intervention and comparison groups after matching are not balanced

When confronted with insufficient coverage, the independent evaluator should first explore alternative specifications in either the propensity score model and/or the matching algorithm before moving to alternative approaches. For example, instead of a typical 1:1 greedy matching algorithm, the independent evaluator could explore matching with replacement or optimal matching algorithms.[3-10] If alternative matching algorithms do not yield a matched comparison group with sufficient coverage and balance, then propensity score weighting can be explored as the next step. Propensity score weighting utilizes the full eligible comparison group and assigns a higher statistical weight to beneficiaries who are predicted to be part of the intervention but were not. A risk of this methodology is that the analysis may be dominated by a handful of beneficiaries with extremely high weights.

Balance between the matched comparison and intervention groups will be assessed using a three-pronged approach to evaluate the similarity between the intervention group and comparison groups across observable characteristics, or covariates. Table 3-3 summarizes each of the three prongs.

Table 3-3: Assessment Approaches

Assessment Approach	Advantage	Cautionary Note
Covariate-level statistical testing	Provides quantitative evidence, or lack thereof, of significant differences between matched groups	Susceptible to false positives for large sample sizes and false negatives for small sample sizes
Standardized differences	Does not rely on sample size	No universal threshold to indicate balance or unbalance
Omnibus test	Provides a single quantitative assessment of balance across all covariates as a whole	Susceptible to false positives for large sample sizes and false negatives for small sample sizes

Each of these approaches ultimately assesses the similarity of the *mean* of the distribution for each covariate. Additional metrics pertaining to the distribution should also be considered as part of the balance assessment, such as reporting the standard deviations.[3-11]

These categories represent a starting place for building the comparison group and may not reflect the final selection identified by the independent evaluator.

Similarities in observable characteristics between the intervention population and those meeting exemptions will be assessed and if systematic differences are found, propensity score matching, or weighting will be used to normalize the comparison group to match the intervention group.

[3-10] See, e.g., Austin P. C. (2014). A comparison of 12 algorithms for matching on the propensity score. *Statistics in medicine*, 33(6), 1057–1069. doi:10.1002/sim.6004; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4285163/.

[3-11] Austin P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/.

Out-of-State Comparison Groups

The independent evaluator will consider utilizing an out-of-state comparison group if data are available and complete enough to support rigorous statistical testing of outcomes. One possible data source for beneficiary-level data is through national surveys, such as the Behavioral Risk Factors Surveillance System (BRFSS), the National Health Interview Survey (NHIS), Medical Expenditure Panel Survey (MEPS), National Survey on Drug Use and Health (NSDUH) or National Core Indicators (NCI) survey, and data collection efforts like the HHS Administration for Children and Families Adoption and Foster Care Analysis and Reporting System (AFCARS) and the National Survey of Children's Health (NSCH). The ACC, PQC, and RBHA evaluations will utilize the BRFSS, NHIS and MEPS datasets, ALTCS will utilize the NCI survey, and the CMDP evaluation will utilize AFCARs and NSCH. Details on each of these national surveys are described under each specific program.

When considering such data sources, there are several pieces that need to align in order to leverage the data source in the evaluation. First, ideally beneficiary-level data should be available, which will allow for identification of additional key features to control for in statistical testing. Second, the data source must include a method to identify Medicaid beneficiaries. Third, the data source must include state indicators to separate Medicaid beneficiaries in Arizona from other states. Fourth, the data source should include a method to identify specific subpopulations of interest, specifically Medicaid expansion beneficiaries. Fifth, the data source must contain relevant outcomes to measure that are pertinent to the waiver evaluation. Finally, the timing of survey administration and lag time in data availability should be taken into consideration as it relates to the implementation of each program specifically and the demonstration renewal period.

Another potential source for beneficiary-level data, is the Transformed Medicaid Statistical Information System (T-MSIS) maintained and collected by the Centers for Medicare & Medicaid Services (CMS). The evaluation of ACC, ALTCS, CMDP, PQC, and RBHAs will utilize the T-MSIS data. It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support individual-level matching to beneficiaries of each program. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group. If these data become available in time for the summative evaluation report, the independent evaluator will examine the completeness and viability of using these data in the analyses. With robust beneficiary-level data covering the baseline period and multiple years during the demonstration period (if not the entire demonstration period), then more robust methods can be employed to estimate the effect of the demonstration on outcomes. Measures that utilize administrative claims/encounter data or enrollment and eligibility data may use methods such as propensity score matching or reweighting to construct a valid out-of-state comparison group.

When these pieces are aligned and the data source appears viable, there are several additional limitations that confront usage of these data—some that may be anticipated while others may be uncovered upon closer inspection of the data. A discussion of the limitations of these data sets specific to each program can be found below.

ACC

Many national surveys such as NHIS or MEPS are designed to be nationally representative, but once limited to the Medicaid population in certain states, this sample may not be representative of each state's Medicaid population. Similarly, sample sizes and response frequencies may be too small to provide a sufficiently powered statistical analysis once the subpopulations are identified. The NHIS indicates that pooling multiple years together may yield sufficient statistical power; however, given the multitude of programs and demonstration components

implemented before and during the current demonstration renewal period, a redesign of the NHIS, and the time-limited nature of the summative evaluation report, the aggregation of survey results across time may not provide unbiased results indicative of the causal impact of the ACC on outcomes with sufficient statistical power.

An alternative use of national survey data, which can in part address the possibility of inadequate or unrepresentative sample for AHCCCS beneficiaries, is to leverage the survey questions for use in surveys conducted as part of the waiver evaluation and compare these responses to beneficiaries in other states. One limitation to this approach is that the survey instruments would not be the same, which could introduce bias in the responses. This is especially pertinent when the mode of fielding the survey is different. For example, the NHIS survey is conducted face-to-face while Consumer Assessment of Healthcare Providers and Systems (CAHPS®) surveys (which could be modified to include additional questions) are typically administered through a combination of telephone and mail and have lower response rates than face-to-face surveys.[3-12] Another limitation to this approach is because the survey was not fielded at baseline, only a single, post-implementation data point would be included in the summative evaluation, which would not provide causal inferences.

For the ACC evaluation, such national survey data sources do not appear to be viable or cost-effective if in-person data collection is required. The NHIS and MEPS data sources do not include state identifiers in their public use files, the sample sizes are likely too small to provide reliable single-state estimates without aggregating across multiple years, and they are administered in-person, which would add significant costs to the evaluation and departs from the typical CAHPS survey administration method. Similarly, while BRFSS contains a state indicator, the Medicaid coverage indicator is part of an optional module collected by only six states in 2017 and 11 states in 2016, and Arizona is not included in either year. Additionally, this survey is only administered via telephone, which departs from the collection methods of the standard CAHPS survey. The primary benefit of leveraging such data sources, therefore, is to use beneficiary-level responses as a comparison group for several measures. Because national benchmarks for CAHPS surveys can be used as a comparison group for the ACC population, this advantage is lessened. One exception to this is Measure 4-1, percentage of beneficiaries who reported a high rating of overall health, which may utilize data from BRFSS to create an out-of-state comparison group among beneficiaries in states that include a Medicaid indicator. A comparison of possible data sources, their requirements, limitations, and anticipated utility is described in Appendix E.

ALTCS

Because of the specific nature of the ALTCS population, none of the standard nationally representative datasets, used to measure national trends in physical and behavioral health, such as the BRFSS, the NHIS, or MEPS, would identify a comparison group similar the ALTCS population. A comparison of possible data sources, their requirements, limitations, and anticipated utility is described in Appendix E. However, the NCI survey captures a range of data for Medicaid beneficiaries with DD. The survey has been issued annually since 1997, and this year 39 states are expected to participate.[3-13] Results from other states with similar Medicaid eligibility criteria along with national aggregated results can be used as a comparison group for beneficiaries with a developmental disability.

Identifying Comparison States

For measures in which individual level data are not available, the selection of states used for an out-of-state comparison group will be based on similarity to Arizona in terms of overall demographics and Medicaid

[3-12] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality.
[3-13] National Core Indicators. https://www.nationalcoreindicators.org/. Accessed on Oct 15, 2019.

programs and policies. In addition to sharing demographic factors and similar Medicaid policies, comparison state(s) should not have a major change in Medicaid policies during either the baseline or evaluation period. Selection of states will be conducted on a measure-by-measure basis depending on the available data and state willingness to share data.

CMDP

The AFCARS data contain information on the demographics of children in adoption and foster care systems, and the timing of entry to and exit from the system. The data do not, however, contain information on the health care services received or outcomes experienced by children within the foster care system. Therefore, while the AFCARS data captures data from the correct population and at the desired scale, the breadth of data is insufficient for the purpose of this evaluation. The NSCH is sponsored by the Health Resources and Services Administration, Maternal and Child Health Bureau and is designed to produce national and state-level estimates of the health and emotional well-being of all children. While the survey design allows for the identification of adults in the survey who self-report being a foster parent, the proportion of respondents self-reporting as a foster parent is approximately 0.3 percent. In 2017, the NSCH sampled 3,664 households in Arizona, completing 1,204 screening surveys with basic demographic information, and limited questions regarding current healthcare needs of children (e.g., limitations in abilities; special therapy needs; emotional, developmental, or behavioral problems). For the detailed topical survey components that include questions about experiences with providers and access to care, there were 434 surveys completed. Based on the estimated number of foster parent surveys completed, the NSCH foster child sample for Arizona would be fewer than 10 respondents with sufficiently detailed information for inclusion in the current evaluation. The NSCH, therefore, captures data at the national and state level and contains detailed questions that could be of use to the CMDP evaluation, but is not sufficiently powered in sample size to adequately capture a representative sample of the population receiving care through CMDP at the state level. For these reasons, no known national survey data source or data collection efforts for this population can produce a viable estimate of a treatment and comparison group. A comparison of possible data sources, their requirements, and anticipated utility is described in Appendix E.

RBHA

The BRFSS and NHIS surveys do not contain indicators that could identify the adult with an SMI enrolled in Medicaid with an acceptable degree of reliability and accuracy. The NSDUH contains an indicator for beneficiaries with an SMI. The NSDUH is an annual survey directed by the Substance Abuse and Mental Health Services Administration (SAMHSA) and conducted by RTI International. This survey provides information on tobacco, alcohol, drug use, mental health, and other health-related issues.[3-14]

While the NSDUH allows for the identification of Medicaid beneficiaries with an SMI, there are several critical limitations to using this dataset for the purposes of evaluating program or waiver performance. First, there is an unknown degree of bias between definitions of SMI for RBHA eligibility and the SMI indicator in the NSDUH.[3-15] Lastly, because only a single round of surveys will be administered during the current demonstration renewal period, the evaluation would be limited to comparisons to the control population at only a single point in time. Such single-point-in-time-comparisons are of limited utility and provide no useful data to evaluate the performance of the waiver program. Comparisons to control groups or national averages would only be useful for waiver program performance evaluation when compared over multiple years. As a result, the NSDUH data cannot

[3-14] What is NSDUH? https://nsduhweb.rti.org/respweb/homepage.cfm; Accessed Oct 12, 2019

[3-15] The SMI indicator in NSDUH is derived from a predictive model using survey responses as predictors. Therefore, the selection of pertinent measures is limited due to many measures exhibiting endogeneity with the SMI indicator.

be used for the evaluation for the waiver during the current renewal/evaluation period. However, questions similar to those in NSDUH that are identified as appropriate given the limitations described above will be included in the CAHPS administered to the waiver population to generate baseline data for future evaluations and build a sound foundation for rigorous program evaluations in future years, within the limitations above.

Identifying Comparison States

The selection of states used for an out-of-state comparison group will be based on similarity to Arizona in terms of overall demographics and Medicaid programs and policies. In addition to sharing demographic factors and similar Medicaid policies, comparison state(s) should not have a major change in Medicaid policies during either the baseline or evaluation period. Selection of states will be conducted on a measure-by-measure basis depending on the available data.

As result of the unavailability of reliable national data with the necessary level of detail and covered periods of time, the independent evaluator will not be able to use a comparison group from one of these sources for the evaluation.

PQC

The BRFSS, NHIS, and MEPS datasets provide beneficiary-level data and state indicators; however, BRFSS does not contain a Medicaid indicator for all states. The Medicaid indicator in BRFSS is part of an optional module collected by only six states in 2017 and 11 states in 2016, and Arizona is not included in either year. It is possible for future analyses to consider this data source if Arizona participates in the optional module to identify Medicaid beneficiaries. Responses from Medicaid beneficiaries in other states may be used as an out of state comparison group for measures from state beneficiary surveys asking the same questions; specifically, data for AHCCCS beneficiaries for Measure 3-1 (Beneficiary reported rating of overall health for all beneficiaries) and Measure 4-1 (Percentage of beneficiaries who reported medical debt).

Out-of-state members may also come from state eligibility and enrollment data, such as Integrated Public Use Microdata Series (IPUMS) American Community Surveys (ACS).

There are two approaches that may be taken to identify a valid comparison using national datasets, such as IPUMS. They could be used either independently or together, and through the course of conducting analysis, the independent evaluator will determine the best approach. The first approach would be to identify a state with similar Medicaid beneficiaries and eligibility criteria as the intervention state (i.e., Arizona). This could be accomplished through a variety of methods, including background qualitative research in addition to quantitative assessments. Once a similar state or states are identified, national data from that state would be used. Identifying Medicaid beneficiaries during the time period of interest would depend on the data source. Some data sources, including IPUMS ACS, currently provide a field on previous year Medicaid coverage. Alternatively, individuals likely eligible for Medicaid could be identified using additional data fields indicating household/family income, number of dependents, and/or disability status.

The second approach would involve identifying a state with roughly similar Medicaid beneficiaries and coverages, but utilizing propensity score matching to identify a subset of the eligible comparison group that is most similar to the intervention population based on observable characteristics, including demographic factors

and health conditions prior to implementation of the waiver.[3-16] The richness of data on observable characteristics will depend on the data source. Some national data sets may only contain broad information that could be used to balance populations based on general demographic and basic health/disability status, rather than detailed indicators of specific chronic physical and/or mental health conditions. A comparison of possible data sources, their requirements, and anticipated utility is described in Appendix E.

Evaluation Periods

ACC

The current demonstration period was approved from October 1, 2016, through September 30, 2021. AHCCCS Complete Care plans were effective as of October 1, 2018. The baseline period will span three years prior to the effective date of the ACC plans, with the interim evaluation report covering the first year of ACC, and the summative report covering the remaining years. Table 3-4 presents time frames for each of the evaluation periods.

Table 3-4: ACC Evaluation Periods

Evaluation Periods	Time Frame
Baseline	October 1, 2015 – September 30, 2018
Evaluation*	October 1, 2018 – September 30, 2021

*Approval for the waiver ends September 30, 2021.

ALTCS

The ALTCS program has been in effect since 1989, providing health care services to beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD, with the most current demonstration waiver coming into effect beginning October 2016 and approved through September 2021. The baseline period will be October 1, 2015 through September 30, 2016. Table 3-5 presents time frames for each of the evaluation periods.

Table 3-5: ALTCS Evaluation Periods

Evaluation Periods	Time Frame
Pre-Renewal Baseline	October 1, 2014 – September 30, 2016
Waiver Renewal	October 1, 2016 – September 30, 2021
Pre-Integration Baseline	October 1, 2017 – September 30, 2019
Integration Evaluation*	October 1, 2019 – September 30, 2021

*Approval for the waiver ends September 30, 2021.

[3-16] See, e.g., Selecting the Best Comparison Group and Evaluation Design: A Guidance Document for State Section 1115 Demonstration Evaluations" for a detailed discussion of appropriate evaluation designs based on comparison group strategies (https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/comparison-grp-evaldsgn.pdf).

CMDP

The CMDP program has been in effect for many decades now, providing health care services to children in custody of DCS with the most current demonstration waiver coming into effect beginning October 2016 and approved through September 2021. Table 3-6 presents time frames for each of the evaluation periods.

Table 3-6: CMDP Evaluation Periods

Evaluation Periods	Time Frame
Pre-renewal baseline	October 1, 2014 – September 30, 2016
Waiver renewal period	October 1, 2016 – September 30, 2021
Integration Evaluation Baseline[1]	October 1, 2018 – September 30, 2020
Integration Evaluation[1,2]	April 1, 2021 – March 31, 2022

[1]Subject to revision pending final implementation date.
[2]Approval for the waiver ends September 30, 2021.

RBHA

The RBHAs have been providing integrated behavioral and physical care for beneficiaries with an SMI in greater Arizona since 2015 and in Maricopa county since 2014, prior to the current demonstration renewal period. Because evaluation of the integration is a focus of CMS and AHCCCS, the evaluation period will extend prior to the demonstration renewal period, beginning on October 1, 2015, with the expansion of integrated RBHA services statewide. Table 3-7 below defines the baseline and evaluation periods.

Table 3-7: RBHA Evaluation Periods

Evaluation Periods	Time Frame
Baseline	October 1, 2011 – September 30, 2015
Evaluation*	October 1, 2015 – September 30, 2021

*Approval for the waiver ends September 30, 2021.

PQC

The PQC waiver is anticipated to be in effect beginning in July 1, 2019, through September 30, 2021. Due to the timing of the Interim Evaluation Report the time period covered by the interim evaluation will be July 1, 2019 through December 31, 2019, with three months of claims/encounter data run out. Due to this shortened evaluation period, measures using national data released annually may not be reportable in the Interim Evaluation Report. The baseline period will be July 1, 2017, through June 30, 2019. Because the baseline period will end prior to the beginning of the evaluation, baseline data collection will only be possible through administrative data and by asking retrospective questions on beneficiary surveys. The Summative Evaluation Report will cover two full years of the waiver with six months of claims/encounter data run out. Table 3-8 presents time frames for each of the evaluation periods.

Table 3-8: PQC Evaluation Periods

Evaluation Periods	Time Frame
Baseline	July 1, 2017 – June 30, 2019

Evaluation Periods	Time Frame
Interim Evaluation*	July 1, 2019 – December 31, 2019
Summative Evaluation	July 1, 2019 – June 30, 2021

*Approval for the waiver ends September 30, 2021.

TI

The initial demonstration for the TI program was approved from January 18, 2017, through September 30, 2021. The first nine months of the demonstration from January 2017 through September 30, 2017, consisted of recruitment and onboarding of providers. The second year of the demonstration, October 1, 2017, through September 30, 2018, primarily consisted of a ramp-up period as TI participating providers began establishing systems and implementing integration protocols. AHCCCS expects that by September 30, 2019, TI participating providers will meet the associated milestones of care integration. Therefore, the baseline period for the evaluation will be October 1, 2015, through September 30, 2016. The Summative Evaluation Report will cover two full years of the demonstration, beginning on October 1, 2019, when TI providers are expected to have met implementation milestones. This period will allow for six months of claims/encounter data run out. Table 3-9 presents time frames for each of the evaluation periods.

Table 3-9: TI Program Evaluation Periods

Evaluation Periods	Time Frame
Baseline	October 1, 2014 – September 30, 2016
Evaluation	October 1, 2019 – September 30, 2021

Evaluation Measures

Table 3-10 through Table 3-15 details the proposed measure(s), study populations, data sources and proposed analytic methods that will be used to evaluate the ACC, ALTCS, CMDP, PQC, RBHA, and TI program, respectively. Detailed measure specifications can be found in Appendix D.

Table 3-10: ACC Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1—Health plans encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.				
Research Question 1.1: What care coordination strategies did the plans implement as a result of ACC?	1-1: Health plans' reported care coordination activities	N/A	Key informant interviews	Qualitative synthesis
Research Question 1.2: Did the plans encounter barriers to implementing care coordination strategies?	1-2: Health plans' reported barriers to implementing care coordination strategies	N/A	Key informant interviews	Qualitative synthesis

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 1.3: Did the plans encounter barriers not related specifically to implementing care coordination strategies during the transition to ACC?	1-3: Health plans' reported barriers not related specifically to implementing care coordination strategies during the transition to ACC	N/A	Key informant interviews	Qualitative synthesis
Research Question 1.4: Did AHCCCS encounter barriers related to the transition to ACC?	1-4: AHCCCS' reported barriers before, during, and shortly following the transition to ACC	N/A	Key informant interviews	Qualitative synthesis
Research Question 1.5: Did providers encounter barriers related to the transition to ACC?	1-5: Providers' reported barriers before, during, and shortly following the transition to ACC	N/A	Provider Focus Groups	Qualitative synthesis
Research Question 1.6: Do beneficiaries perceive their doctors to have better care coordination as a result of ACC?	1-6: Percentage of beneficiaries who reported their doctor seemed informed about the care they received from other health providers	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Hypothesis 2—Access to care will maintain or improve as a result of the integration of behavioral and physical care.				
Research Question 2.1: Do beneficiaries enrolled in an ACC plan have the same or better access to primary care services compared to prior to integrated care?	2-1: Percentage of adults who accessed preventive/ambulatory health services	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	2-2: Percentage of children and adolescents who accessed PCPs	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	2-3: Percentage of beneficiaries under 21 with an annual dental visit	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	2-4: Percentage of beneficiaries who reported they received care as soon as they needed	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	2-5: Percentage of beneficiaries who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	2-6: Percentage of beneficiaries who reported they were able to schedule an appointment with a specialist as soon as they needed	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Research Question 2.2: Do beneficiaries enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to integrated care?	2-7: Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	2-8: Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Hypothesis 3—Quality of care will maintain or improve as a result of the integration of behavioral and physical care.				
Research Question 3.1: Do beneficiaries enrolled in an ACC plan have the same or higher rates of preventive or wellness services compared to prior to integrated care?	3-1: Percentage of beneficiaries with a well-child visit in the first 15 months of life	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-2: Percentage of beneficiaries with a well-child visits in the third, fourth, fifth, and sixth years of life	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-3: Percentage of beneficiaries with an adolescent well-care visit	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-4: Percentage of children two years of age with appropriate immunization status	National/regional benchmarks	• State eligibility and enrollment data • Arizona State Immunization Information System	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-5: Percentage of adolescents 13 years of age with appropriate immunizations	National/regional benchmarks	• State eligibility and enrollment data • Arizona State Immunization Information System	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	3-6: Percentage of adult beneficiaries who reported having a flu shot or nasal flu spray since July 1	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
Research Question 3.2: Do beneficiaries enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to integrated care?	3-7: Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Research Question 3.3: Do beneficiaries enrolled in an ACC plan have the same or better management of behavioral health conditions compared to prior to integrated care?	3-8: Percentage of adult beneficiaries who remained on an antidepressant medication treatment	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-9: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	3-10: Percentage of beneficiaries with a follow-up visit after emergency department (ED) visit for mental illness	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	3-11: Percentage of beneficiaries with follow-up after ED visit for alcohol and other drug abuse or dependence	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	3-12: Percentage of beneficiaries with a screening for clinical depression and follow-up plan	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	3-13: Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth)	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Research Question 3.4: Do beneficiaries enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to integrated care?	3-14: Percentage of adult beneficiaries who have prescriptions for opioids at a high dosage	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-15: Percentage of adult beneficiaries with concurrent use of opioids and benzodiazepines	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 3.5: Do beneficiaries enrolled in an ACC plan have equal or lower ED or hospital utilization compared to prior to ACC?	3-16: Number of ED visits per 1,000 member months	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	3-17: Number of inpatient stays per 1,000 member months	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	3-18: Percentage of adult inpatient discharges with an unplanned readmission within 30 days	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
Hypothesis 4—Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care.				
Research Question 4.1: Do beneficiaries enrolled in an ACC plan have the same or higher overall health rating compared to prior to integrated care?	4-1: Percentage of beneficiaries who reported a high rating of overall health	• National/regional benchmarks • Out-of-State Comparison	• Beneficiary survey • National/regional benchmarks • BRFSS	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Research Question 4.2: Do beneficiaries enrolled in an ACC plan have the same or higher overall mental or emotional health rating compared to prior to integrated care?	4-2: Percentage of beneficiaries who reported a high rating of overall mental or emotional health	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Hypothesis 5—Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care.				

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 5.1: Are beneficiaries equally or more satisfied with their health care as a result of integrated care?	5-1: Percentage of beneficiaries who reported a high rating of health plan	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	5-2: Percentage of beneficiaries who reported a high rating of overall health care	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Hypothesis 6—The AHCCCS Complete Care program provides cost-effective care.				
Research Question 6.1: What are the costs associated with the integration of care under ACC?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost-effectiveness analysis
Research Question 6.2: What are the benefits/savings associated with the integration of care under ACC?				

Table 3-11: ALTCS Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1: Access to care will maintain or improve over the waiver demonstration period.				
Research Question 1.1: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with DD have the same or higher rates of access to care compared to baseline rates and out-of-state comparisons?	1-1: Percentage of beneficiaries who accessed preventive/ambulatory health services	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 1.2: Do child beneficiaries with DD have the same or higher rates of access to care compared to	1-2: Percentage of children and adolescents who accessed primary care practitioners	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
baseline rates and out-of-state comparisons?	1-3: Percentage of beneficiaries under 21 with an annual dental visit	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 1.3: Do adult beneficiaries with DD have the same or improved rates of access to care as a result of the integration of care for beneficiaries with DD?	1-4: Percentage of beneficiaries who have a primary care doctor or practitioner	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	1-5: Percentage of beneficiaries who had a complete physical exam in the past year	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	1-6: Percentage of beneficiaries who had a dental exam in the past year	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	1-7: Percentage of beneficiaries who had an eye exam in the past year	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	1-8: Percentage of beneficiaries who had an influenza vaccine in the past year	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
Hypothesis 2: Quality of care will maintain or improve over the wavier demonstration period.				
Research Question 2.1: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of preventative care compared to baseline rates and out-of-state comparisons?	2-1: Percentage of adult beneficiaries with a breast cancer screening	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-2: Percentage of adult beneficiaries with a cervical cancer screening	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-3: Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 2.2: Do child beneficiaries with DD have the same or higher rates of preventative care	2-4: Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
compared to baseline rates and out-of-state comparisons?	2-5: Percentage of beneficiaries with an adolescent well-care visit	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-6: Percentage of beneficiaries with an influenza vaccine	N/A	• State eligibility and enrollment data • ASIIS	Pre-test/post-test
Research Question 2.3: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or better management of behavioral health conditions compared to baseline rates and out-of-state comparisons?	2-7: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-8: Percentage of adult beneficiaries who remained on an antidepressant medication treatment	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-9: Percentage of beneficiaries with a screening for depression and follow-up plan	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-10: Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, emergency department [ED], or telehealth)	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 2.4: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with DD have the same or better management of prescriptions compared	2-11: Percentage of adult beneficiaries with monitoring for persistent medications	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-12: Percentage of beneficiaries with opioid use at high dosage	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
to baseline rates and out-of-state comparisons?	2-13: Percentage of beneficiaries with a concurrent use of opioids and benzodiazepines	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 2.5: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of utilization of care compared to baseline rates and out-of-state comparisons?	2-14: Number of ED visits per 1,000 member months	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-15: Number of inpatient stays per 1,000 member months	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-16: Percentage of adult inpatient discharges with an unplanned readmission within 30 days	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Hypothesis 3: Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.				
Research Question 3.1: Do beneficiaries have the same or higher rates of living in their own home as a result of the ALTCS waiver renewal?	3-1: Percentage of beneficiaries residing in their own home	N/A	• PMMIS • ACE	Pre-test/post-test
	3-2: Type of residence for adult beneficiaries with DD	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
Research Question 3.2: Do adult beneficiaries have the same or higher rates of feeling satisfied with their living arrangements as a result of the integration of care for beneficiaries with DD?	3-3: Percentage of beneficiaries who want to live somewhere else	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	3-4: Percentage of beneficiaries who believe services and supports help them live a good life	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
Research Question 3.3: Do adult beneficiaries have the same or higher rates of feeling engaged as a result of the integration of care for beneficiaries with DD?	3-5: Percentage of beneficiaries able to go out and do things s/he likes to do in the community	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	3-6: Percentage of beneficiaries who have friends who are not staff or family members	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	3-7: Percentage of beneficiaries who decide or has input in deciding their daily schedule	Respondents from NCI survey in other states	NCI survey	Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 4: ALTCS encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.				
Research Question 4.1: Did DES/DDD or its contracted plans encounter barriers during the integration of care for beneficiaries with DD?	4-1: DES/DDD and its contracted plans' barriers during transition	N/A	Key informant interview	Qualitative synthesis
Research Question 4.2: What care coordination strategies did DES/DDD and its contracted plans implement as a result of integration of care?	4-2: DES/DDD and its contracted plans' care coordination activities	N/A	Key informant interview	Qualitative synthesis
Research Question 4.3: Did DES/DDD or its contracted plans encounter barriers to implementing care coordination strategies?	4-3: DES/DDD and its contracted plans' barriers to implementing care coordination strategies	N/A	Key informant interview	Qualitative synthesis
Research Question 4.4: Did AHCCCS encounter barriers related to integration of care for beneficiaries with DD?	4-4: AHCCCS' reported barriers before, during, and shortly after the integration of care	N/A	Key informant interview	Qualitative synthesis
Research Question 4.5: Did providers encounter barriers related to integration of care for beneficiaries with DD?	4-5: Providers' reported barriers before, during, and shortly after the integration of care	N/A	Key informant interview	Qualitative synthesis
Hypothesis 5: ALTCS provides cost-effective care.				
Research Question 5.1: What are the costs associated with the integration of care under ALTCS?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost-effectiveness analysis
Research Question 5.2: What are the benefits/savings associated with the integration of care under ALTCS?				

Table 3-12: CMDP Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1: Access to care will be maintained or increase during the demonstration.				
Research Question 1.1: Do CMDP beneficiaries have the same or increased access to primary care practitioners (PCPs) and specialists in the remeasurement period as compared to the baseline?	1-1: Percentage of children and adolescents with access to primary care practitioners	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	1-2: Percentage of beneficiaries with an annual dental visit	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
Hypothesis 2: Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.				
Research Question 2.1: Do CMDP beneficiaries have the same or higher rates of preventive or wellness services in the remeasurement period as compared to the baseline?	2-1: Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-2: Percentage of beneficiaries with an adolescent well-care visit	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-3: Percentage of children two years of age with appropriate immunization status	National/regional benchmarks	• State eligibility and enrollment data • Arizona State Immunization Information System	• Difference-in-differences • Pre-test/post-test
	2-4: Percentage of adolescents 13 years of age with appropriate immunizations	National/regional benchmarks	• State eligibility and enrollment data • Arizona State Immunization Information System	• Difference-in-differences • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 2.2: Do CMDP beneficiaries have the same or better management of chronic conditions in the remeasurement period as compared to the baseline?	2-5: Percentage of beneficiaries ages 5 to 18 who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
Research Question 2.3: Do CMDP beneficiaries have the same or better management of behavioral health conditions in the remeasurement period as compared to the baseline?	2-6: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-7: Percentage of children and adolescents on antipsychotics with metabolic monitoring	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-8: Percentage of beneficiaries with screening for depression and follow-up plan	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-9: Percentage of children and adolescents with use of multiple concurrent antipsychotics	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-10: Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, emergency department [ED], or telehealth)	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 2.4: Do CMDP beneficiaries have the same or lower hospital utilization in the remeasurement period as compared to the baseline?	2-11: Number of ED visits per 1,000 member months	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-12: Number of inpatient stays per 1,000 member months	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmark	• Difference-in-differences • Pre-test/post-test
Hypothesis 3: CMDP encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.				
Research Question 3.1: What barriers did CMDP anticipate/encounter during the integration?	3-1: CMDP's anticipated/reported barriers during transition	N/A	• Key informant interviews • Provider Focus Groups	Qualitative synthesis
Research Question 3.2: What care coordination strategies did CMDP plan/implement during integration?	3-2: CMDP's planned/reported care coordination activities	N/A	• Key informant interviews • Provider focus groups	Qualitative synthesis
Research Question 3.3: What barriers to implementing care coordination strategies did the CMDP anticipate/encounter?	3-3: CMDP's anticipated/reported barriers in implementing care coordination strategies	N/A	• Key informant interviews • Provider focus Groups	Qualitative synthesis
Hypothesis 4: CMDP provides cost-effective care.				
Research Question 4.1: What are the costs associated with the integration of care in the CMDP?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost Effectiveness Analysis
Research Question 4.2: What are the benefits/savings associated with the integration of care in the CMDP?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost Effectiveness Analysis

Table 3-13: PQC Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1—Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.				
Research Question 1.1: Do eligible people without prior quarter coverage enroll in Medicaid at the same rates as other eligible people with prior quarter coverage?	1-1: Percentage of Medicaid enrollees by eligibility group out of estimated eligible Medicaid recipients	Out-of-State Comparison	IPUMS ACS	• Difference-in-differences • Pre-test/post-test
	1-2: Percentage of new Medicaid enrollees by eligibility group, as identified by those without a recent spell of Medicaid coverage out of estimated eligible Medicaid recipients	N/A	• Eligibility and enrollment data • IPUMS ACS	• Interrupted time series • Pre-test/post-test
	1-3: Number of Medicaid enrollees per month by eligibility group and/or per-capita of state	N/A	Eligibility and enrollment data	Rapid-cycle reporting – statistical process control chart
	1-4: Number of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage	N/A	Eligibility and enrollment data	Rapid-cycle reporting – statistical process control chart
Research Question 1.2: What is the likelihood of enrollment continuity for those without prior quarter coverage compared to other Medicaid beneficiaries with prior quarter coverage?	1-5: Percentage of Medicaid beneficiaries due for renewal who complete the renewal process	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test • Interrupted time series
	1-6: Average number of months with Medicaid coverage	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test • Interrupted time series
Research Question 1.3: Do beneficiaries without prior quarter coverage who disenroll from Medicaid have shorter enrollment gaps than other beneficiaries with prior quarter coverage?	1-7: Percentage of Medicaid beneficiaries who re-enroll after a gap of up to six months	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test • Interrupted time-series
	1-8: Average number of months without Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test • Interrupted time series
	1-9: Average number of gaps in Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	1-10: Average number of days per gap in Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test
Hypothesis 2—Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.				
Research Question 2.1: Do newly enrolled beneficiaries without prior quarter coverage have higher self-assessed health status than continuously enrolled beneficiaries?	2-1: Beneficiary reported rating of overall health	N/A	State beneficiary survey	Comparison of means
	2-2: Beneficiary reported rating of overall mental or emotional health	N/A	State beneficiary survey	Comparison of means
	2-3: Percentage of beneficiaries who reported prior year ER visit	N/A	State beneficiary survey	Comparison of means
	2-4: Percentage of beneficiaries who reported prior year hospital admission	N/A	State beneficiary survey	Comparison of means
	2-5: Percentage of beneficiaries who reported getting healthcare three or more times for the same condition or problem	N/A	State beneficiary survey	Comparison of means
Hypothesis 3—Health outcomes will be better for those without prior quarter coverage compared to Medicaid beneficiaries with prior quarter coverage.				
Research Question 3.1: Do beneficiaries without prior quarter coverage have better health outcomes than compared to baseline rates and out-of-state comparisons with prior quarter coverage?	3-1: Beneficiary reported rating of overall health for all beneficiaries	• Aggregate Data for Other State • Out-of-State Comparison	• State beneficiary survey • Other state aggregate data • BRFSS	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-2: Beneficiary reported rating of overall mental or emotional health for all beneficiaries	Aggregate Data for Other State	• State beneficiary survey • Other state aggregate data	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
Hypothesis 4—Eliminating prior quarter coverage will not have adverse financial impacts on consumers.				

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 4.1: Does the prior quarter coverage waiver lead to changes in the incidence of beneficiary medical debt?	4-1: Percentage of beneficiaries who reported medical debt	Out-of-State Comparison	• State beneficiary survey • BRFSS	Comparison to other states
Hypothesis 5—Eliminating prior quarter coverage will not adversely affect access to care.				
Research Question 5.1: Do beneficiaries without prior quarter coverage have the same or higher rates of office visits compared to baseline rates and out-of-state comparisons with prior quarter coverage?	5-1: Beneficiary response to getting needed care right away	Aggregate Data for Other State	• State beneficiary survey • Other state aggregate data	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	5-2: Beneficiary response to getting an appointment for a check-up or routine care at a doctor's office or clinic	Aggregate Data for Other State	• State beneficiary survey • Other state aggregate data	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
Research Question 5.2: Do beneficiaries without prior quarter coverage have the same or higher rates of service and facility utilization compared to baseline rates and out-of-state comparisons with prior quarter coverage?	5-3: Percentage of beneficiaries with a visit to a specialist (e.g., eye doctor, ENT, cardiologist)	Aggregate Data for Other State	• Eligibility and enrollment data • Administrative claims data • Other state aggregate data	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
Hypothesis 6—Eliminating prior quarter coverage will not result in reduced member satisfaction.				
Research Question 6.1: Do beneficiaries without prior quarter coverage have the same or higher satisfaction with their healthcare compared to baseline rates and out-of-state comparisons with prior quarter coverage?	6-1: Beneficiary rating of overall healthcare	N/A	State beneficiary survey	Pre-test/post-test
Hypothesis 7—Eliminating prior quarter coverage will generate cost savings over the term of the waiver.				

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 7.1: What are the costs associated with eliminating PQC?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost-effectiveness analysis
Research Question 7.2: What are the benefits/savings associated with eliminating PQC?				
Research Question 7.3: Do costs to non-AHCCCS entities stay the same or decrease after implementation of the waiver compared to before?	7-1: Reported costs for uninsured and/or likely eligible Medicaid recipients among potentially impacted providers and/or provider networks	Out-of-State Comparison	• HCRIS • HCUP-SID • Provider focus groups	• Difference-in-differences • Interrupted time series • Qualitative synthesis
Hypothesis 8—Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.				
Research Question 8.1: What activities did AHCCCS perform to educate beneficiaries and providers about changes to retroactive eligibility?	8-1: AHCCCS' education activities	N/A	Key informant interviews	Qualitative Synthesis
	8-2: Providers' knowledge on eliminating PQC	N/A	Provider focus groups	Qualitative Synthesis
Research Question 8.2: Did AHCCCS encounter barriers related to informing providers about eliminating PQC?	8-3: AHCCCS' reported barriers to providing education on eliminating PQC	N/A	Key informant interviews	Qualitative Synthesis

Note: IPUMS: Integrated Public Use Microdata Series; ACS: American Community Surveys; BRFSS: Behavioral Risk Factors Surveillance System ER: emergency room; ENT: ears, nose, throat; HCRIS: Healthcare Cost Report Information System; HCUP-SID: Healthcare Cost and Utilization Project, State Inpatient Databases.

Table 3-14: RBHA Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1— Access to care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or increase during the demonstration.				
Research Question 1.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to primary care services compared to prior to the demonstration renewal?	1-1: Percentage of adults who accessed preventive/ambulatory health services	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	1-2: Percentage of beneficiaries who reported they received care as soon as they needed	N/A	Beneficiary survey	Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	1-3: Percentage of beneficiaries who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed	N/A	Beneficiary Survey	Pre-test/post-test
	1-4: Percentage of beneficiaries who reported they were able to schedule an appointment with a specialist as soon as they needed	N/A	Beneficiary survey	Pre-test/post-test
Research Question 1.2: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to substance abuse treatment compared to prior to the demonstration renewal?	1-5: Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	1-6: Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Hypothesis 2—Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.				
Research Question 2.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rates of preventive or wellness services compared to prior to demonstration renewal?	2-1: Percentage of beneficiaries who reported having a flu shot or nasal flu spray since July 1	N/A	Beneficiary Survey	Pre-test/post-test
Research Question 2.2: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of chronic conditions compared to prior to the demonstration renewal?	2-2: Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-3: Percentage of beneficiaries with schizophrenia or bipolar disorder using antipsychotic medications who had a diabetes screening test	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-4: Percentage of beneficiaries with schizophrenia who adhered to antipsychotic medications	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 2.3: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of behavioral health conditions compared to prior to the demonstration renewal?	2-5: Percentage of beneficiaries who remained on antidepressant medication treatment	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-6: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-7: Percentage of beneficiaries with a follow-up visit after emergency department (ED) visit for mental illness	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-8: Percentage of beneficiaries with follow-up after ED visit for alcohol and other drug abuse or dependence	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-9: Percentage of beneficiaries with a screening for clinical depression and follow-up plan	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-10: Percentage of beneficiaries receiving mental health services (total and by inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth)	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 2.4: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of opioid prescriptions compared to prior to the demonstration renewal?	2-11: Percentage of beneficiaries who have prescriptions for opioids at a high dosage	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-12: Percentage of beneficiaries with concurrent use of opioids and benzodiazepines	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 2.5: Do adult beneficiaries with an SMI enrolled in a RBHA have the same lower tobacco usage compared to prior to the demonstration renewal?	2-13: Percentage of beneficiaries who indicated smoking cigarettes or using tobacco	N/A	• Beneficiary Survey	• Pre-test/post-test
Research Question 2.6: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or lower hospital utilization compared to	2-14: Number of ED visits per 1,000 member months	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-15: Number of inpatient stays per 1,000 member months	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
prior to the demonstration renewal?	2-16: Percentage of inpatient discharges with an unplanned readmission within 30 days	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Hypothesis 3—Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.				
Research Question 3.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rating of health compared to prior to the demonstration renewal?	3-1: Percentage of beneficiaries who reported a high rating of overall health	N/A	Beneficiary survey	Pre-test/post-test
	3-2: Percentage of beneficiaries who reported a high rating of overall mental or emotional health	N/A	Beneficiary survey	Pre-test/post-test
Hypothesis 4—Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration period.				
Research Question 4.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher satisfaction in their health care compared to prior to the demonstration renewal?	4-1: Percentage of beneficiaries who reported a high rating of overall healthcare	N/A	Beneficiary survey	Pre-test/post-test
	4-2: Percentage of beneficiaries who reported a high rating of health plan	N/A	Beneficiary survey	Pre-test/post-test
Research Question 4.2: Do adult beneficiaries with an SMI enrolled in a RBHA perceive their doctors to have the same or better care coordination compared to prior to the demonstration renewal?	4-3: Percentage of beneficiaries who reported their doctor seemed informed about the care they received from other health providers	N/A	Beneficiary survey	Pre-test/post-test
Hypothesis 5—RBHAs encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.				
Research Question 5.1: What care coordination strategies are the RBHAs conducting for their beneficiaries with an SMI?	5-1: Health plans' reported care coordination activities for beneficiaries with an SMI	N/A	Key informant interviews	Qualitative synthesis
Research Question 5.2: Have care coordination strategies for beneficiaries with an SMI changed as a result of AHCCCS Complete Care?	5-2: Reported changes in health plans' care coordination strategies for beneficiaries with an SMI	N/A	Key informant interviews	Qualitative synthesis

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 5.3: What care coordination strategies is AHCCCS conducting for its beneficiaries with an SMI?	5-3: AHCCCS's reported care coordination strategies and activities for beneficiaries with an SMI served by the RBHAs	N/A	Key informant interviews	Qualitative synthesis
Research Question 5.4: What care coordination strategies and/or activities are providers conducting for their Medicaid patients with an SMI served by the RBHAs?	5-4: Providers' reported care coordination strategies and activities for their Medicaid patients with an SMI	N/A	Provider focus groups	Qualitative synthesis
Hypothesis 6—RBHAs will provide cost-effective care for beneficiaries with an SMI.				
Research Question 6.1: What are the costs associated with providing care for beneficiaries with an SMI through the RBHAs?	There are no specific measures associated with this hypothesis; see the Cost-Effectiveness Analysis Section for details	N/A	N/A	Cost-effectiveness analysis
Research Question 6.2: What are the benefits/savings associated with providing care for beneficiaries with an SMI through the RBHAs?	There are no specific measures associated with this hypothesis; see the Cost-Effectiveness Analysis Section for details	N/A	N/A	Cost-effectiveness analysis

Table 3-15: TI Program Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1: The TI program will improve physical and behavioral health care integration for children.				
Research Question 1.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	1-1: Percentage of participating pediatric primary care and behavioral health care practices that have an executed agreement with Health Current	Practitioners not participating in TI	Administrative program data	Rapid cycle reporting
	1-2: Percentage of participating pediatric primary care and behavioral health care practices that routinely receive ADT alerts	Practitioners not participating in TI	Administrative program data	Rapid cycle reporting

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 1.2: Do children subject to the TI program have higher rates of screening and well-child visits compared to those who are not subject to the demonstration?	1-3: Percentage of beneficiaries with a well-child visit in the third, fourth, fifth, and sixth years of life	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
	1-4: Percentage of beneficiaries with a depression screening and follow-up plan	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
	1-5: Percentage of beneficiaries with an adolescent well-care visit	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
	1-6: Beneficiary response to getting needed care right away	Beneficiaries not assigned to, nor received care from TI participating providers	Beneficiary survey	Chi-square test
Research Question 1.3: Do children subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration?	1-7: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
Research Question 1.4: Do parents/guardians of children subject to the program perceive their doctors have better care coordination than those not subject to the demonstration?	1-8: Beneficiary response to their child's doctor seeming informed about the care their child received from other health providers	Beneficiaries not assigned to, nor received care from TI participating providers	Beneficiary survey	Chi-square test
Hypothesis 2: The TI program will improve physical and behavioral health care integration for adults.				
Research Question 2.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	2-1: Percentage of participating adult primary care and behavioral health care practices that have an executed agreement with Health Current	Practitioners not participating in TI	Administrative program data	Rapid cycle reporting

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	2-2: Percentage of participating adult primary care and behavioral health care practices that routinely receive ADT alerts	Practitioners not participating in TI	Administrative program data	Rapid cycle reporting
Research Question 2.2: Do adults subject to the TI program have higher rates of screening than those who are not subject to the demonstration?	2-3: Percentage of beneficiaries with a depression screening and follow-up plan if positive	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
	2-4: Beneficiary response to getting needed care right away	Beneficiaries not assigned to, nor received care from TI participating providers	Beneficiary survey	Chi-square test
Research Question 2.3: Do adults subject to the TI program have lower rates of ED utilization than those who are not subject to the demonstration?	2-5: Number of ED visits per 1,000 member months	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
	2-6: Number of ED visits for SUD or OUD per 1,000 member months	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
Research Question 2.4: Do adults subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration?	2-7: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
	2-8: Percentage of beneficiaries with a follow-up visit after an ED visit for mental illness	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
Research Question 2.5: Do adults subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not	2-9: Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
subject to the demonstration?	2-10: Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
	2-11: Percentage of beneficiaries with OUD receiving any Medication Assisted Treatment (MAT)	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
Research Question 2.6: Do adults subject to the TI program perceive their doctors have better care coordination than those not subject to the demonstration?	2-12: Beneficiary response to their doctor seeming informed about the care they received from other health providers	Beneficiaries not assigned to, nor received care from TI participating providers	Beneficiary survey	Chi-square test
Hypothesis 3: The TI program will improve care coordination for AHCCCS enrolled adults released from criminal justice facilities.				
Research Question 3.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	3-1: Percentage of integrated practices participating in the justice transition project that have an executed agreement with Health Current	Practitioners participating in justice transition project not participating in TI	Administrative program data	Rapid cycle reporting
	3-2: Percentage of integrated practices participating in the justice transition project that routinely receives ADT alerts	Practitioners participating in justice transition project not participating in TI	Administrative program data	Rapid cycle reporting
Research Question 3.2: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of access to care than those who were not subject to the demonstration?	3-3: Percentage of recently released beneficiaries who had a preventive/ambulatory health service visit	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	3-4: Recently released beneficiary response to getting needed care right away	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	Beneficiary survey	Chi-square test
	3-5: Recently released beneficiary response to getting routine care right away	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	Beneficiary survey	Chi-square test
Research Question 3.3: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?	3-6: Percentage of recently released beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
	3-7: Percentage of recently released beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	3-8: Percentage of recently released beneficiaries with OUD receiving any MAT	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
Research Question 3.4: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have lower rates of emergency department utilization than those who were not subject to the demonstration?	3-9: Number of ED visits per 1,000 member months for recently released beneficiaries	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
	3-10: Number of ED visits for SUD or OUD per 1,000 member months for recently released beneficiaries	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
Research Question 3.5: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have better management of opioid prescriptions than those who were not subject to the demonstration?	3-11: Percentage of recently released beneficiaries who have prescriptions for opioids at a high dosage	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	3-12: Percentage of recently released beneficiaries who have prescriptions for concurrent use of opioids and benzodiazepines	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series
Hypothesis 4: The TI program will provide cost-effective care.				
Research Question 4.1: What are the costs associated with care coordination provided under TI?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost-effectiveness analysis
Research Question 4.2: What are the benefits/savings associated with care coordination provided under TI?				
Hypothesis 5: Providers will increase the level of care integration over the course of the demonstration.				
Research Question 5.1: Do providers progress across the Substance Abuse and Mental Health Services Administration (SAMHSA) national standard of six levels of integrated health care?	5-1: Percentage of providers transitioning from Level 1 to Level 2(coordinated care) to Level 3 to Level 4 (co-located care)	N/A	Program data from provider attestations	Descriptive impact analysis
	5-2: Percentage of providers transitioning from Level 3 to Level 4 (co-located care) to Level 5 to Level 6 (integrated care)	N/A	Program data from provider attestations	Descriptive impact analysis
Research Question 5.2: Do providers increase level of integration within each broader category (i.e. coordinated, co-located, and integrated care) during the demonstration period?	5-3: Percentage of providers transitioning from Level 1 to Level 2 integration	N/A	Program data from provider attestations	Descriptive impact analysis
	5-4: Percentage of providers transitioning from Level 3 to Level 4 integration	N/A	Program data from provider attestations	Descriptive impact analysis
	5-5: Percentage of providers transitioning from Level 5 to Level 6 integration	N/A	Program data from provider attestations	Descriptive impact analysis
Hypothesis 6: Providers will conduct care coordination activities				

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 6.1: Did AHCCCS encounter barriers related to the pre-implementation and implementation phases of TI?	6-1: AHCCCS' reported barriers before, during, and shortly following the implementation of TI	N/A	Key informant interviews	Qualitative synthesis
Research Question 6.2: Did providers encounter barriers related to the pre-implementation and implementation phases of TI?	6-2: Providers' reported barriers before, during, and shortly following the implementation of TI	N/A	Provider focus groups	Qualitative synthesis

ADT: Admission-Discharge-Transfer; ED: emergency department; SUD: substance use disorder; OUD: opioid use disorder; MAT: Medication Assisted Treatment

Data Sources

Multiple data sources will be utilized to evaluate the program-specific hypotheses. In general, these include administrative data, state beneficiary survey data, aggregate data, national datasets, and provider focus groups and key informant interviews.

ACC

Multiple data sources will be utilized to evaluate the six hypotheses for the ACC evaluation. Data collection will include administrative and survey-based data such as CAHPS questions. Administrative data sources will include information extracted from Prepaid Medical Management Information System (PMMIS). PMMIS will be used to collect, manage and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics), fee-for-service (FFS) claims, and managed care encounter data. Administrative data will also be used from the Arizona State Immunization Information System (ASIIS) to identify child and adolescent vaccination rates. The combination of survey and the administrative data sources will be used to assess the six research hypotheses.

State Beneficiary Survey Data

State beneficiary surveys will be used to assess beneficiaries' ability to obtain timely appointments, experience with health care, and their perception that their personal doctor seemed informed about the care they received from other providers. CAHPS surveys are often used to assess beneficiaries' experiences with provided health care services.

The timing of the ACC and evaluation presents some challenges in constructing pre- and post-implementation comparisons. Although the ACC program has been in effect for a full year before the development of the evaluation design plan, surveys will be administered without the use of retrospective questions which would be particularly susceptible to recall bias. Results will be compared against historical AHCCCS rates from previous state-wide surveys sampled from the Acute Care population (the same population as those who transitioned into the ACC plans) and national benchmarks where available. It is expected that cross-sectional surveys will be conducted annually. The sampling frame for the survey will be identified through eligibility and enrollment data, with specific enrollment requirements being finalized upon inspection of the data. Typically, beneficiaries are

drawn from beneficiaries enrolled continuously during the last six months of the measurement period, with no more than a one-month gap in enrollment.

Stratified random sampling by ACC plan will be used to construct a statistically valid sample at the plan level. The independent evaluator will conduct power calculations to determine the appropriate number of surveys that will be sent out to beneficiaries in each plan. The standard National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®) Specifications for Survey Measures requires a sample size of 1,350 beneficiaries for the CAHPS 5.0 Adult Medicaid Health Plan Survey and 1,650 for the CAHPS 5.0 Child Medicaid Health Plan Survey. [3-17,3-18] An oversample of at least 10 percent for each plan will be applied to ensure an adequate number of respondents to each CAHPS measure. The maximum estimated number of surveys that need to be sent per plan is estimated to be 1,485 for adults and 1,815 for children. Historical response rates in Arizona for the Acute Care population have been approximately 22 percent for adults and 20 percent for children, which would translate to 327 completed adult surveys and 363 completed child surveys per plan. The statewide sample across the seven ACC plans would therefore be 2,289 adult respondents and 2,541 child respondents. An adult sample of 2,289 would have 0.8 power to identify a single percentage estimate of a 50 percent rate with a margin of error of 2.05 percent or be able to identify a difference of rates between 50 percent and 54.1 percent with an alpha level of 0.05 and a two-tailed test. A child sample of 2,541 would have 0.8 power to identify a single percentage estimate of a 50 percent rate with a margin of error of 1.94 percent, or to be able to identify a difference of rates between 50 percent and 54.0 percent with an alpha level of 0.05 and a two-tailed test. Because plan sampling will be disproportionate to overall plan membership statewide, plan-level rates will be reweighted to adjust for proportionality when calculating aggregate rates. Because evaluations for several concurrent waivers are planned, the State and its independent evaluator will seek to streamline survey administration across evaluations to minimize the number of separate survey rounds required, thereby minimizing the burden on beneficiaries and maximizing the response rate. Therefore, the sampling strategy described above may be revised based on enrollment across waivers. Two survey instruments will be used depending on the population:

- Children: CAHPS 5.0 Child Medicaid Health Plan Survey with the HEDIS supplemental item set
- Adults: CAHPS 5.0 Adult Medicaid Health Plan Survey with the HEDIS supplemental item set

To maximize response rates, a mixed-mode methodology (e.g., telephone and mail) for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to beneficiaries, has been shown to increase response rates and will be incorporated into survey administration.

Administrative Data

Administrative data extracted from the PMMIS will be used to calculate most measures proposed in this evaluation design. These data include administrative claims/encounter data, beneficiary eligibility, enrollment, and demographic data. Provider data will also be utilized as necessary to identify provider type and beneficiary attribution where necessary.

Use of FFS claims and managed care encounters will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded from all evaluations because these types of records introduce a

[3-17] HEDIS is a registered trademark of NCQA.
[3-18] National Committee for Quality Assurance. *HEDIS® 2020, Volume 3: Specifications for Survey Measures*. Washington, DC: NCQA Publication, 2019.

level of uncertainty (from matching adjustments and third-party liabilities to the index claims) that can impact reported rates and cost calculations.

The ASIIS will be used to calculate measures pertaining to immunization history. ASIIS is Arizona's immunization registry that collects immunization information and demographic data. Providers are mandated under Arizona Revised Statute (ARS) §36-135 to report all immunizations administered to individuals aged 18 and younger.[3-19]

Aggregate Data

Aggregate data may be used in the form of national or regional benchmarks and/or plan-level rates. National or regional benchmarks would be obtained to support difference-in-differences hypothesis testing. The independent evaluator will obtain rates from a range of national or regional benchmark sources, recognizing and where feasible, minimizing any limitations in the comparability of the AHCCCS target population and the population represented by the national or regional benchmarks. Most aggregate rates for HEDIS performance measures or CAHPS survey responses are provided at the measure level. Plan-level rates may be purchased, which can potentially support more rigorous statistical testing. However, these plan-level rates would not include data pertaining to plan demographics or risk. Although denominator data is not included in plan-level rates, these data sources include overall plan size. As a result, plan-level data would limit the ability to weight individual measures by denominator size (although overall plan size can be controlled for) and to control for differences in demographics or risk.

Out-of-State Comparison Groups

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is T-MSIS maintained and collected by CMS. All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-20] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support individual-level matching to ACC beneficiaries. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

One measure may utilize data from BRFSS as an out-of-state comparison group. BRFSS is a health-focused telephone survey developed by the Centers for Disease Control and Prevention (CDC) that collects data from approximately 400,000 adults annually across all 50 states, Washington D.C., and three territories.[3-21] The questionnaire generally consists of two components: a core component and an optional component. Measure 3-1, general health status, will utilize data from BRFSS core module Health Status in conjunction with Medicaid coverage indicator from optional module Healthcare Access to compare against responses for a similar question among AHCCCS beneficiaries.[3-22] As described in the Comparison Populations—Out-of-State Comparison

[3-19] Arizona State Legislature. https://www.azleg.gov/viewdocument/?docName=http://www.azleg.gov/ars/36/00135.htm. Accessed October 11, 2019.

[3-20] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.

[3-21] "About BRFSS," Centers for Disease Control and Prevention. Available at: https://www.cdc.gov/brfss/about/index.htm. Accessed on: Feb 11, 2020.

[3-22] CAHPS surveys for this evaluation will be administered through both mail and telephone, while BRFSS is administered exclusively through telephone. This difference in survey administration mode may lead to biased comparisons.

Groups section, fewer than a dozen states included the optional Healthcare Access module in a given year, which limits the availability and selection of potential comparison states.

To provide an understanding of the capabilities of the data for performing statistical analyses, the independent evaluator will calculate the statistical power associated with any out-of-state comparison group data and report the results.

Provider Focus Groups and Key Informant Interviews

Provider focus groups and key informant interviews will be conducted through semi-structured interview protocols, transcribed, and imported into MAXQDA where the data will be coded to permit qualitative analysis. The transcripts, coding methodologies, and coded data will be used to answer the appropriate research questions.

ALTCS

Multiple data sources will be utilized to evaluate the five research hypotheses for the ALTCS evaluation. Administrative data sources include information extracted from PMMIS. PMMIS will be used to collect, manage and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics), FFS claims, and managed care encounter data. Historical eligibility data was contained in the AHCCCS Customer Eligibility (ACE) system, which was replaced with Health-e-Arizona Plus in September 2018. The NCI survey results will also be used to identify a comparison group of people with DD.

Administrative Data

Administrative data extracted from the PMMIS will be used to calculate most measures proposed in this evaluation design. These data include administrative claims/encounter data, beneficiary eligibility, enrollment, and demographic data. Provider data will also be utilized as necessary to identify provider type and beneficiary attribution where necessary.

Use of FFS claims and managed care encounters will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded from all evaluations because these types of records introduce a level of uncertainty (from matching adjustments and third-party liabilities to the index claims) that can impact reported rates and cost calculations.

The ASIIS will be used to calculate measures pertaining to immunization history. ASIIS is Arizona's immunization registry that collects immunization information and demographic data. Providers are mandated under Arizona Revised Statute (ARS) §36-135 to report all immunizations administered to individuals aged 18 and younger.[3-23]

Out-of-State Comparison Groups

Aggregate Data

NCI

The NCI surveys national Medicaid beneficiaries with intellectual or developmental disabilities. These surveys are conducted annually in-person, and it is expected that half of states participate on an annual basis. Survey

[3-23] Arizona State Legislature. https://www.azleg.gov/viewdocument/?docName=http://www.azleg.gov/ars/36/00135.htm. Accessed Oct 11, 2019.

periods cycle annually between July 1 to June 30, with states submitting data by June 30. Each state is required to survey at least 400 individuals, allowing for a robust comparison. However, beneficiary-level data is not publicly available, and information is not publicly provided on methodology and survey administration which could vary across states. State participation is voluntary, and states may not participate on an annual basis. Use of this data assumes that Arizona will participate in the NCI survey for the years covered by this evaluation. In addition to state-specific reports, NCI provides aggregate data that may be stratified by demographic factors, such as race/ethnicity, gender, and age, as well as certain diagnoses and living arrangement. As of the writing of this evaluation design plan, rates for Arizona respondents are only available for the 2015-16 time period. This will serve as a baseline; however, it is not known if follow-up rates will be available for Arizona in time to develop the summative evaluation report. If follow-up rates are available a difference-in-difference study design may be employed and rates may be stratified by demographics or diagnoses within the limits of sample size and statistical power.

Other State Aggregate Data

An out-of-state comparison group could also be obtained by using aggregate rates calculated for a population of beneficiaries who are EDP or with DD served by Medicaid services in another state. Ideally, the state chosen to serve as the comparison group would not have physical and behavioral health care services integrated throughout the period of the demonstration. It may be challenging to identify and confirm states that will not make such an integration prior to the end of the AHCCCS ALTCS evaluation period. As an alternative, however, a state that has already integrated physical and behavioral health care prior to the ALTCS baseline for integration could also serve as a viable comparison group. In effect, the evaluation would compare the performance of ALTCS after integration to a group already receiving integrated care and who, all else equal, should not exhibit any significant changes. To obtain data for a comparison group in this way will require the independent evaluator to obtain a DUA with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS ALTCS model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in populations for ALTCS and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their foster care population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the population of beneficiaries who are EPD or with DD when using aggregate rates.

Beneficiary-Level Data

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is T-MSIS maintained and collected by CMS. All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-24] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support beneficiary-level matching to ALTCS beneficiaries. However, as of the submission date of this evaluation design plan, these data

[3-24] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.

are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

To provide an understanding of the capabilities of the data for performing statistical analyses, the independent evaluator will calculate the statistical power associated with any out-of-state comparison group data and report the results.

Focus Groups and Key Informant Interviews

Focus groups and key informant interviews will be conducted through a semi-structured interview protocol, transcribed, and imported into MAXQDA where the data will be coded to permit qualitative analysis. The transcripts, coding methodologies, and coded data will be used to answer the appropriate research questions.

CMDP

Multiple data sources will be utilized to evaluate the three research hypotheses for the CMDP evaluation. Quantitative data collection will include administrative data extracted from PMMIS. PMMIS will be used to collect, manage and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics, income, community engagement compliance), FFS claims, managed care encounter data, income and program compliance data. Registry data about immunizations for children under 18 will be extracted from the ASIIS. Qualitative data pertaining to care coordination among providers will be collected through key informant interviews and/or provider focus groups. The combination of these data sources will be used to assess the four research hypotheses.

Administrative Data

Administrative data extracted from the PMMIS will be used to calculate most measures proposed in this evaluation design. These data include administrative claims/encounter data, beneficiary eligibility, enrollment, and demographic data. Provider data will also be utilized as necessary to identify provider type and beneficiary attribution where necessary.

Use of FFS claims and managed care encounters will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded from all evaluations because these types of records introduce a level of uncertainty (from matching adjustments and third-party liabilities to the index claims) that can impact reported rates and cost calculations.

Aggregate Data

Aggregate data may be used in the form of national or regional benchmarks and/or plan-level rates. National or regional benchmarks can be obtained to support difference-in-differences hypothesis testing. The independent evaluator will obtain rates from a range of national or regional benchmark sources, recognizing and where feasible, minimizing any limitations in the comparability of the AHCCCS target population and the population represented by the national or regional benchmarks. Most aggregate rates for HEDIS performance measures or CAHPS survey responses are provided at the measure level. Plan-level rates may be purchased, which can potentially support more rigorous statistical testing. However, these plan-level rates would not include data pertaining to plan demographics or risk. Although denominator data is not included in plan-level rates, these data sources include overall plan size. As a result, plan-level data would limit the ability to weight individual measures by denominator size (although overall plan size can be controlled for) and to control for differences in demographics or risk. Where possible, aggregate data for other health plans will be limited to those that primarily serve children in foster care.

An out-of-state comparison group could be obtained by using aggregate rates calculated for a population of foster children served by Medicaid services in another state. Ideally, the state chosen to serve as the comparison group would not have physical and behavioral health care services integrated throughout the period of the demonstration. It may be challenging to identify and confirm states that will not make such an integration prior to the end of the AHCCCS CMDP evaluation period. As an alternative, however, a state that has already integrated physical and behavioral health care prior to the CMDP baseline for integration could also serve as a viable comparison group. In effect, the evaluation would compare the performance of CMDP after integration to a group already receiving integrated care and who, all else equal, should not exhibit any significant changes. To obtain data for a comparison group in this way will require the independent evaluator to obtain a Data Use Agreement (DUA) with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS CMDP model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in populations for CMDP and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their foster care population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the CMDP population when using aggregate rates.

Out-of-State Comparison Groups

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is T-MSIS maintained and collected by CMS. All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-25] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support beneficiary-level matching to CMDP beneficiaries. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

To provide an understanding of the capabilities of the data for performing statistical analyses, the independent evaluator will calculate the statistical power associated with any out-of-state comparison group data and report the results.

Provider Focus Groups and Key Informant Interviews

Provider focus groups and key informant interviews will be conducted through semi-structured interview protocols, transcribed, and imported into MAXQDA where the data will be coded to permit qualitative analysis. The transcripts, coding methodologies, and coded data will be used to answer the appropriate research questions.

[3-25] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.

PQC

Multiple data sources will be utilized to evaluate the eight research hypotheses for the PQC waiver evaluation. These include administrative and survey-based data. Administrative data include state eligibility, enrollment, and claims/encounter data. These data will be extracted from the PMMIS. State beneficiary survey data will be used primarily to measure beneficiary health status and satisfaction. National data will be used to capture data elements not otherwise available.

Administrative Data

Administrative data containing information on Medicaid eligibility, enrollment, demographics, claims, and encounters will be used to calculate measures pertaining to enrollment patterns, service utilization, costs, and to identify a valid comparison group.

Use of FFS claims and managed care encounters will be limited to final, paid status claims/ encounters. Interim transaction and voided records will be excluded from all analyses because these types of records introduce a level of uncertainty (from matching adjustments and third-party liabilities to the index claims) that can impact reported rates and costs.

National Datasets

Data from the IPUMS ACS will be utilized to estimate the number of Medicaid-eligible individuals in Arizona, as part of the analysis of *Percentage of Medicaid Enrollees by Eligibility Group* (Measure 1-1) and *Percentage of New Medicaid Enrollees by Eligibility Group* (Measure 1-2). The IPUMS ACS is a "database providing access to over sixty integrated, high-precision samples of the American population drawn from sixteen federal censuses, from the American Community Surveys of 2000-present."[3-26] The independent evaluator will extract data that include demographic information, employment, disability, income data and program participation such as Medicaid enrollment information.

Healthcare Cost Report Information System (HCRIS)

Data reported by Medicare-certified institutions housed in HCRIS will be used to assess non-Medicare uncompensated care costs, including Medicaid shortfalls as part of the measure *Reported costs for uninsured and/or likely eligible Medicaid recipients among potentially impacted providers and/or provider networks* (Measure 7-1). Institutions serving Medicare beneficiaries are required to submit a cost report to CMS annually, which includes data on non-Medicare uncompensated care costs, non-Medicare and non-reimbursable Medicare bad debts, indigent care costs, charity care, and Medicaid shortfalls. Data from HCRIS will be used to assess facility-level uncompensated care costs and will be compared to states similar to Arizona that do not operate a retroactive eligibility waiver. There is approximately a one to two-year lag on reporting into the HCRIS system.

Healthcare Cost and Utilization Project, State Inpatient Databases (HCUP-SID)

The Agency for Healthcare Research and Quality (AHRQ) supports the collection of healthcare databases from State data organizations, hospital associations, private data organizations, and the Federal government. HCUP includes the largest collection of longitudinal encounter-level hospital care data in the United States.[3-27] The HCUP State Inpatient Database encompasses over 95 percent of all U.S. hospital discharges, allows for cross-

[3-26] IPUMS. Available at: https://usa.ipums.org/usa/intro.shtml. Accessed on: Feb 11, 2020.
[3-27] Overview of HCUP; https://www.hcup-us.ahrq.gov/overview.jsp. Accessed on June 25, 2020.

state comparisons, and contains information on the charges and source of payment, including charity care and self-payment.[3-28] There is approximately a one to two year lag on reporting into the HCUP-SID.

Beneficiary-level data

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is T-MSIS maintained and collected by CMS. All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-29] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support individual-level matching to PQC beneficiaries. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

Two measures may utilize data from BRFSS as out-of-state comparison groups. BRFSS is a health-focused telephone survey developed by CDC that collects data from approximately 400,000 adults annually across all 50 states, Washington D.C., and three territories.[3-30] The questionnaire generally consists of two components: a core component and an optional component. Measure 3-1 (*Beneficiary reported rating of overall health for all beneficiaries*) will utilize data from BRFSS core module Health Status in conjunction with Medicaid coverage indicator from optional module Healthcare Access to compare against responses for a similar question among AHCCCS beneficiaries. [3-31] Likewise, Measure 4-1, (*Percentage of beneficiaries who reported medical debt*) will utilize data from optional module Healthcare Access to measure percentage of Medicaid beneficiaries with medical bills. As described in the Comparison Populations—Out-of-State Comparison Groups section, fewer than a dozen states elected to include the optional Healthcare Access module in a given year, which limits the availability and selection of potential comparison states.

To provide an understanding of the capabilities of the data for performing statistical analyses, the independent evaluator will calculate the statistical power associated with any out-of-state comparison group data and report the results.

State Beneficiary Survey Data

Measures pertaining to Hypotheses 3, 4, 5, and 6 will be based on a consumer survey, CAHPS® and will include CAHPS-like questions specific to the PQC evaluation.[3-32] CAHPS surveys are often used to assess satisfaction with provided healthcare services and are adapted to elicit information addressing the research hypotheses related to members' continuity of healthcare coverage, and overall health status and utilization.

Since the program will be in effect prior to the completion of the evaluation design plan, the independent evaluator will conduct two post-implementation surveys to ask recipients about their self-reported health status. The elimination of PQC is not expected to reduce self-reported health. Rather, the elimination of PQC is expected to increase the enrollment of eligible individuals when they are healthy, and reduce the disenrollment of

[3-28] Introduction to the HCUP State Inpatient Databases (SID); https://www.hcup-us.ahrq.gov/db/state/siddist/Introduction_to_SID.pdf. Accessed on June 25, 2020.
[3-29] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.
[3-30] "About BRFSS," Centers for Disease Control and Prevention; https://www.cdc.gov/brfss/about/index.htm; last accessed Feb 11, 2020.
[3-31] CAHPS surveys for this evaluation will be administered through both mail and telephone, while BRFSS is administered exclusively through telephone. This difference in survey administration mode may lead to biased comparisons.
[3-32] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

individuals when they are healthy. As such, the survey data collected by the independent evaluator does not have a traditional baseline period and comparison group for identification of causal effects. Rather, fielding a survey shortly after implementation, and another in the following year will allow a descriptive comparison of the self-reported health for newly-enrolled Medicaid beneficiaries and those that are not newly enrolled. This approached is predicated on the assumption that there will be a ramp-up period during which the knowledge-base of the eligible population will be updated to include the elimination of PQC moving forward. To the extent that this increases the likelihood of enrollment by eligible individual and reduces disenrollment of beneficiaries when they are healthy, the self-reported health status should increase between the survey waves.

Measures pertaining to Hypothesis 2 will also be based on CAHPS-like questions. Unlike a traditional CAHPS survey that is limited to beneficiaries enrolled for at least five of the past six months, the self-reported data needed for Hypothesis 2 must also be collected for a sample of beneficiaries who are newly enrolled. The sampling frame will be adjusted to include a sample of beneficiaries who have been enrolled within the past month to capture the health status of beneficiaries who did not have a recent spell of Medicaid coverage. All beneficiaries will be eligible to be surveyed and beneficiaries who are newly enrolled will be compared to continuously enrolled beneficiaries who have had sustained Medicaid coverage. This will allow for comparison of health status between beneficiaries who are newly enrolled compared to those who have had sustained coverage. A second survey with the same questions will be administered to similar groups later in the demonstration to evaluate how health outcomes between beneficiaries who are newly enrolled and those who are not have changed over time. Because CAHPS surveys are traditionally limited to beneficiaries who have been enrolled for at least five of the past six months, and exclude any newly enrolled beneficiaries, historical data does not exist to serve as a comparison. Additionally, this survey will not allow for causal inferences to be drawn regarding the impact of the PQC waiver. The survey results, however, will provide a descriptive statement about the self-reported health status of beneficiaries over time to determine if the expected improvements manifest.

Simple random sampling will be used to construct a statistically valid sample at the state level. The independent evaluator will perform power calculations to determine the appropriate number of surveys that will be sent out to beneficiaries statewide and to include sufficient power to identify rates for the newly enrolled. The standard NCQA HEDIS® Specifications for Survey Measures requires a sample size of 1,350 beneficiaries for the CAHPS 5.0 Adult Medicaid Health Plan Survey.[3-33,3-34] An oversample of at least 10 percent for each plan will be applied to ensure an adequate number of respondents to each CAHPS measure. The maximum estimated number of surveys that need to be sent is estimated to be 1,485. Historical response rates in Arizona for the Acute Care population are approximately 22 percent, which would translate to 327 completed adult surveys. The statewide sample across the seven plans would therefore be 2,289 respondents. A sample of 2,289 would have 0.8 power to identify a single percentage estimate of a 50 percent rate with a margin of error of 2.05 percent, or to identify a difference of rates between 50 percent and 54.1 percent with an alpha level of 0.05 and a two-tailed test. Because evaluations for several concurrent waivers are planned, the State and its independent evaluator will seek to streamline survey administration across evaluations to minimize the number of separate survey rounds required, thereby minimizing the burden on beneficiaries and maximizing the response rate. Therefore, the sampling strategy described above may be revised based on enrollment across waivers.

[3-33] HEDIS is a registered trademark of NCQA.

[3-34] National Committee for Quality Assurance. *HEDIS® 2020, Volume 3: Specifications for Survey Measures*. Washington, DC: NCQA Publication, 2019.

To maximize response rates, a mixed-mode methodology (e.g., telephone and mail) for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to beneficiaries, has been shown to increase response rates and will be incorporated into survey administration.

Historical Data

Results will be compared against historical AHCCCS rates from previous state-wide surveys and national benchmarks where available. Between October 2015 and March 2016, a CAHPS survey was administered to the Acute Care population, which is similar to the population subject to the waiver of PQC.[3-35] Limitations with using this survey as a comparison group lie in the differences in the population. The Acute Care population includes women who are pregnant or less than 60 days postpartum, as well as individuals who are 18 years of age. The Acute Care population also excludes individuals with severe mental illness, individuals who are elderly and/or physically disabled, and individuals who are developmentally disabled, whereas these individuals would be subjected to the elimination of PQC. However, these population differences are minimal and are not expected to have an impact on the aggregated rates.

Aggregate Data

An out-of-state comparison group for CAHPS survey responses could also be obtained by using aggregate rates from the Adult Medicaid Health Plan Survey with the Healthcare Effectiveness Data and Information Set. The state(s) chosen to serve as the comparison group would not have implemented a demonstration that limits retroactive eligibility or implement other demonstrations during the time period of the demonstration. To obtain data for a comparison group in this way will require the independent evaluator to obtain a DUA with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in the intervention population and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their Medicaid population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the AHCCCS intervention population when using aggregate rates.

Provider Focus Groups and Key Informant Interviews

A possible unintended consequence of the retroactive eligibility waiver is that likely Medicaid-eligible beneficiaries who are uninsured will not have costs covered by Medicaid. This can adversely impact the financial well-being of these individuals, which is addressed through Measure 4-1 (*Percentage of Beneficiaries Who Reported Medical Debt*). Another effect of this, is that it could cause an increase in costs for healthcare providers through providing uncompensated care to the uninsured who are likely Medicaid eligible. To comprehensively evaluate the cost savings of the waiver, costs external to Medicaid should be captured to the extent possible. Measure 7-4, *Reported Costs for Uninsured and/or Likely Eligible Medicaid Recipients*, will be based on data

[3-35] 2016 Acute Care Program Adult Medicaid Member Satisfaction Report. https://www.azahcccs.gov/shared/Downloads/Reporting/CAHPS/2016/AZCAHPS_2016_Acute_Care_Program_Adult_Member_Satisfaction_Report_Final.pdf. Accessed on Oct 24, 2019.

obtained during provider focus groups. Focus groups will be conducted with representatives of some of the healthcare providers who serve the likely Medicaid-eligible population in Arizona. Key informant interviews will gather information from individuals with AHCCCS and health plans who are knowledgeable about their organization's populations served, and associated costs and utilization particularly among Medicaid beneficiaries and likely Medicaid-eligible beneficiaries who are uninsured.

Focus groups and key informant interviews will be conducted through a semi-structured interview protocol, transcribed, and imported into MAXQDA where the data will be coded to permit qualitative analysis. The transcripts, coding methodologies, and coded data will be used to answer the appropriate research questions.

RBHA

Multiple data sources will be utilized to evaluate the six hypotheses for the RBHA evaluation. Data collection will include administrative and survey-based data, such as from CAHPS® questions.[3-36] Administrative data sources include information extracted from PMMIS. PMMIS will be used to collect, manage and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics), FFS claims, and managed care encounter data. The combination of survey and the administrative data sources mentioned earlier will be used to assess the six research hypotheses.

State Beneficiary Survey Data

State beneficiary surveys will be used to assess beneficiaries' ability to obtain timely appointments, satisfaction with healthcare, and their perception that their personal doctor seemed informed about the care they received from other providers, and flu vaccinations. CAHPS surveys are often used to assess satisfaction with provided healthcare services. It is expected that cross-sectional surveys will be conducted once during 2020 and once during 2021. The sampling frame for the survey will be identified through eligibility and enrollment data, with specific enrollment requirements being finalized upon inspection of the data. Typically, beneficiaries are drawn from beneficiaries enrolled continuously during the last six months of the measurement period, with no more than a one-month gap in enrollment. Stratified random sampling by RBHA will be used to construct a statistically valid sample at the plan level. The standard NCQA HEDIS® Specifications for Survey Measures requires a sample size of 1,350 beneficiaries for the CAHPS 5.0 Adult Medicaid Health Plan Survey.[3-37,3-38] An oversample of at least 10 percent for each plan will be applied to ensure an adequate number of respondents to each CAHPS measure. The maximum estimated number of surveys that need to be sent per plan is 1,485. In Arizona, the response rate for beneficiaries determined to have an SMI was approximately 30 percent in 2015. With a 30 percent response rate across three RBHAs, the anticipated number of completed surveys is 1,336. A sample size of 1,336 would have 0.8 power to identify a single percentage estimate of a 50 percent rate with a margin of error of 2.68 percent, or to identify a difference of rates between 50 percent and 55.4 percent with an alpha level of 0.05 and two-tailed tests. Because plan sampling will be disproportionate to overall plan membership statewide, plan-level rates will be reweighted to adjust for proportionality when calculating aggregate rates. Because evaluations for several concurrent waivers are planned, the State and its independent evaluator will seek to streamline survey administration across evaluations to minimize the number of separate survey rounds required, thereby minimizing the burden on beneficiaries and maximizing the response rate. Therefore, the sampling strategy described above

[3-36] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).
[3-37] HEDIS is a registered trademark of the NCQA.
[3-38] National Committee for Quality Assurance. HEDIS® 2020, Volume 3: Specifications for Survey Measures. Washington, DC: NCQA Publication, 2019.

may be revised based on enrollment across waivers. The CAHPS 5.0 Adult Medicaid Health Plan Survey with the HEDIS supplemental item set will be used to field the survey.

To maximize response rates, a mixed-mode (i.e., telephone a mail) methodology for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to beneficiaries, has been shown to increase response rates and will be incorporated into survey administration.

Administrative Data

Administrative data extracted from the PMMIS will be used to calculate most measures proposed in this evaluation design. These data include administrative claims/encounter data, beneficiary eligibility, enrollment, and demographic data. Provider data will also be utilized as necessary to identify provider type and beneficiary attribution where necessary.

Use of FFS claims and managed care encounters will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded from all evaluations because these types of records introduce a level of uncertainty (from matching adjustments and third-party liabilities to the index claims) that can impact reported rates and cost calculations.

National Datasets

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is T-MSIS maintained and collected by CMS. All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-39] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support beneficiary-level matching to RBHA beneficiaries. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

To provide an understanding of the capabilities of the data for performing statistical analyses, the independent evaluator will calculate the statistical power associated with any out-of-state comparison group data and report the results.

Focus Groups and Key Informant Interviews

Focus groups and key informant interviews will be conducted through a semi-structured interview protocol, transcribed, and imported into MAXQDA where the data will be coded to permit qualitative analysis. The transcripts, coding methodologies, and coded data will be used to answer the appropriate research questions.

TI

Multiple data sources will be utilized to evaluate the six research hypotheses for the TI program evaluation. Quantitative data collection will include administrative and survey-based data such as CAHPS® survey questions. Administrative data sources include information extracted from PMMIS.[3-40] PMMIS will be used to collect,

[3-39] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.
[3-40] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

manage and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics), FFS claims, managed care encounter data. Administrative program data from Health Current will be utilized to assess providers who have an executed agreement and receive ADT alerts and self-attestation Integrated Practice Assessment Tool (IPAT) results from participating TI participating providers will serve to monitor the level of care integration. Qualitative data pertaining to AHCCCS' and providers' reported barriers to implementation of the TI program will be collected through key informant interviews and/or provider focus groups. The combination of these data sources will be used to assess the six research hypotheses.

State Beneficiary Survey Data

State beneficiary surveys will be used to assess beneficiaries' health care coverage and satisfaction after TI program implementation. These surveys will be an important data source for the evaluation because the independent evaluator will need to capture information from beneficiaries about their health care experience in order to answer pertinent questions to the demonstration, such as patient perception of care coordination.

The survey questions will be designed to capture elements of the program Special Terms and Conditions (STCs) that cannot be addressed through administrative data. The following concepts and hypotheses will be addressed in the beneficiary surveys:

1. Access and availability of care—research questions 1.2, 2.2, and 3.2 ask whether rates of screening visits, well-care visits, and beneficiaries' access to care are higher for beneficiaries subject to the TI demonstration compared to beneficiaries not subject to the TI demonstration.
2. Patient perception of care coordination—research questions 1.4 and 2.6 ask whether beneficiaries subject to the TI demonstration perceive that their doctors have better care coordination than those not subject to the demonstration.

The independent evaluator will conduct single cross-sectional surveys during the measurement period.

When administering the survey for children, the survey may include language on the cover page allowing for older children to answer directly; otherwise the parent or guardian will answer on their behalf. To maximize response rates, a mixed-mode methodology for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to beneficiaries, has shown to increase response rates and will be incorporated into survey administration. Additionally, to the extent possible, the independent evaluator will align multiple demonstration surveys to be distributed at the same time to increase response rates across all demonstrations with overlapping populations. A range of sampling protocols will be considered including simple random samples, stratified random samples, multistage stratifications (i.e., cluster), and targeted oversamples.

The standard NCQA HEDIS® Specifications for Survey Measures requires a sample size of 1,350 beneficiaries for the CAHPS 5.0 Adult Medicaid Health Plan Survey and 1,650 for the CAHPS 5.0 Child Medicaid Health Plan Survey. [3-41,3-42] An oversample of at least 10 percent for each plan will be applied to ensure an adequate number of respondents to each CAHPS measure. Rather than sampling from plans, the survey for the TI program will sample from the TI and non-TI attributed populations for three distinct populations: adults, children, and adults transitioning from the criminal justice system. The maximum estimated number of surveys that need to be sent is estimated to be 1,485 for adults and 1,815 for children in each of the TI and non-TI attributed populations.

[3-41] HEDIS is a registered trademark of NCQA.
[3-42] National Committee for Quality Assurance. *HEDIS® 2020, Volume 3: Specifications for Survey Measures*. Washington, DC: NCQA Publication, 2019.

Historic response rates in Arizona for the Acute Care population are approximately 22 percent for adults and 20 percent for children, which would translate to a completed sample of 327 adult respondents and 363 child respondents. For the adult samples, a sample size of 327 would have 0.8 power to identify a single percentage of 50 percent with a margin of error of 5.42 percent, or to identify a difference between rates of 50 percent and 60.9 percent with an alpha level of 0.05 and two-tailed tests. For the child sample, a sample size of 363 would have 0.8 power to identify a single percentage of 50 percent with a margin of error of 5.14 percent, or to identify a difference between rates of 50 percent and 60.3 percent with an alpha level of 0.05 and two-tailed tests.

Administrative Data

AHCCCS's demonstration evaluation will allow the opportunity to utilize data from several sources (i.e., PMMIS and Health Current) to determine the impact of TI. The administrative data sources are necessary to address the five research hypotheses primarily relating to health outcomes, and to identify a valid comparison group.

Use of encounters will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded from all evaluations because these types of records introduce a level of uncertainty (from matching adjustments and third-party liabilities to the index claims) that can impact reported rates and cost calculations.

Program administrative data will also be used to identify TI participating practices, member assignment, monitor providers who have an executed agreement with Health Current and routinely receive ADT alerts, as well as each participating providers' self-reported result from the IPAT, which measures the level of care integration.

Focus Groups and Key Informant Interviews

Focus groups and key informant interviews will be conducted through a semi-structured interview protocol, transcribed, and imported into MAXQDA where the data will be coded to permit qualitative analysis. The transcripts, coding methodologies, and coded data will be used to answer the appropriate research questions.

Analytic Methods

The evaluation reporting will meet traditional standards of scientific and academic rigor, as appropriate and feasible for each aspect of the evaluation (e.g., for the evaluation design, data collection and analysis, and the interpretation and reporting of findings). The ACC waiver evaluation will use the best available data, will use controls and adjustments where appropriate and available, and will report the limitations of data and the limitations' effects on interpreting the results. Six general analytic approaches will be considered for this evaluation:

1. Difference-in-differences (DiD)
2. Interrupted time series
3. Hierarchical Linear/Generalized Linear Model
4. Pre-test/post-test
5. Comparison to national benchmarks and/or historical rates
6. Qualitative synthesis

Difference-in-Differences

A DiD analysis will be performed on all measures for which baseline and evaluation period data are available for both the intervention and comparison groups. Because this is the preferred analytic approach, the DiD will be utilized of the evaluation of all six programs where possible. This analysis will compare the changes in the rates or outcomes between the baseline period and the evaluation period. This allows for expected rates for the intervention group to be calculated by considering expected changes in outcomes had the policy not been implemented. This is done by subtracting the average change in the comparison group from the average change in the intervention, thus removing biases from the evaluation period comparisons due to permanent differences between the two groups. In other words, any changes in the outcomes caused by factors external to the policy would apply to both groups equally and the DiD methodology will remove the potential bias. The result is a clearer picture of the actual effect of the program on the evaluated outcomes.

Because beneficiary-level data is unlikely to be publicly available for other states and out-of-state comparisons rates are likely to be aggregated rates, DiD statistical testing will be conducted with aggregated data.

The generic DiD model is:

$$Y_{it} = \beta_0 + \beta_1 X_i + \beta_2 R_t + \beta_3 (R_t * X_i) + \boldsymbol{\gamma} \mathbf{D'}_{\boldsymbol{it}} + u_{it}$$

Where Y is the proportion for group *i* in year *t*, X is a binary indicator for the intervention group (i.e., Arizona), T is a binary indicator for the follow-up period, and ε is an error term. The vector **D'** will include observable covariates, where available, to ensure comparability of the groups for any measure-specific subgrouping (e.g., to address non-response bias) and $\boldsymbol{\gamma}$ is the related coefficient vector. The coefficient, β_1, identifies the average difference between the groups prior to the effective date of the policy. The time period dummy coefficient, β_2, captures the change in outcome between baseline and evaluation time periods. The coefficient of interest, β_3, is the coefficient for the interaction term, $R_t * X$, which is the same as the dummy variable equal to one for those observations in the intervention group in the remeasurement period. This represents the estimated effect of the program on the intervention group, conditional on the included observable covariates. For measures in which the comparison group is comprised of plan-level rates, the above regression will be frequency weighted by the sample size used to calculate the rate. Identifying the number of observations that go into a measure rate in the regression model will allow estimation of the same parameter results that would be obtained by having the underlying beneficiary-level data. It is expected that the aggregated data will include both the necessary rates and variances or for each measure or that variances can be estimated from the rates and total number of responses for each measure.

The generic DiD calculation is:

$$\delta = \left(\bar{y}_{T,R} - \bar{y}_{\mathrm{T,B}}\right) - \left(\bar{y}_{\mathrm{C,R}} - \bar{y}_{\mathrm{C,B}}\right) \mid \mathbf{D'}$$

Assuming trends in the outcome between the comparison and intervention groups are approximately parallel during the baseline period, the estimate will provide the expected costs and rates without intervention. If the β_3 coefficient is significantly different from zero, then it is reasonable to conclude that the outcome differed between the intervention and comparison group after the policy went into effect. In addition to assessing the degree of

statistical significance for the result, as represented by the p-value associated with β_3, the results will be interpreted in a broader context of clinical and practical significance.[3-43]

For analyses that utilize an out-of-state comparison group, the DiD regression model will provide an estimate of the statistical significance of the difference between the results for Arizona beneficiaries and those outside of the state. This estimate, however, is derived from data sources that are likely to have several important caveats that could lead to biased results. For survey-based measures the aggregated data is likely to include measurement error related to the questions asked and respondent recall issues. Similarly, an administrative data could contain measurement error in the form of coding mistakes or omissions. Importantly, any out-of-state comparison group is likely to include some differences in rates from Arizona based on differences in the policies and regulations governing the state Medicaid system such as eligibility rules and programmatic policies. Based on these potential biases, the independent evaluator will also need to characterize the uncertainty in the results of the DiD regression model above.

The measure rates, variances, and sample sizes will be used to simulate draws of the data. For each of the four data points in the regression (i.e., intervention and comparison group in the pre- and post-periods), a random value will be generated within 95 percent confidence interval of the observed rate. The DiD regression will be estimated with the randomly drawn values, and the process will be replicated 10,000 times. The resulting distribution of p-values will provide an estimate of how often a significant result would be found, given the potential error in the data. For example, the results will allow the creation of probabilistic statements such as "In 80 percent of the simulated samples, a significant difference was identified in the DiD." Of note, this simulation will not mitigate against significant differences that are due to true programmatic differences across states that impact the populations. Rather, the simulation acknowledges that the data are drawn from data sources that contain measurement error and other sources of error and will help characterize the extent of uncertainty attached to a given model.

Interrupted Time Series

When a suitable comparison group cannot be found and data can be collected at multiple points in time before and after the implementation of the program, an ITS methodology can be used. This analysis is quasi-experimental in design and will compare a trend in outcomes between the baseline period and the evaluation period for those who were subject to the program. We will utilize an ITS approach for evaluation of the TI demonstration and the PQC waiver.

In ITS, the measurements taken before the TI demonstration was initiated is used to predict the outcome if the demonstration did not occur. The measurements collected after the demonstration are then compared to the predicted outcome to evaluate the impact the demonstration had on the outcome. The ITS model is:

$$Y_t = \beta_0 + \beta_1 time_t + \beta_2 post_t + \beta_3 time \times post_t + \mu_t$$

where Y_t is the outcome of interest for the time period *t, time* represents a linear time trend, *post* is a dummy variable to indicate the time periods post-implementation, and $time \times post$ is the interaction term between *time* and *post.* The coefficient, β_0, identifies the starting level of outcome *Y*, β_1 is the slope of the outcome between the

[3-43] Results from statistical analyses will be presented and interpreted in a manner that is consistent with the spirit of recent guidance put forth in *The American Statistician.* Ronald L. Wasserstein, Allen L. Schirm & Nicole A. Lazar (2019) Moving to a World Beyond "p < 0.05", The American Statistician, 73:sup1, 1-19, DOI: 10.1080/00031305.2019.1583913.

measurements before the program, β_2 is the change in the outcome at a various point in time, and β_3 is the change in the slope for the measurements after the program.

Assuming that the measurements taken after the implementation of the demonstration would have been equal to the expectation predicted from the measurements taken before the demonstration in the absence of the intervention, any changes in the observed rates after implementation can be attributed to the program.

A limitation of interrupted time series is the need for sufficient data points both before and after program implementation.[3-44] To facilitate this methodology, the independent evaluator may consider additional baseline data points using prior year calculations, and/or calculating quarterly rates where feasible, if multiple years both pre-and post-implementation are available to control for seasonality.

Specifically, for the PQC evaluation, the independent evaluator will evaluate two measures in which data on a comparison group will not be available:

- Percentage of Medicaid enrollees by eligibility group out of estimated eligible Medicaid recipients.
- Percentage of Medicaid beneficiaries applying for Medicaid within the month of finding relevant diagnosis, by eligibility category.

These measures are intended to be captured monthly through administrative program data. As such, the higher frequency can be used to construct pre- and post-implementation trends using interrupted time series. An interrupted time series approach can be utilized to draw causal inferences if sufficient data points exist before and after implementation, there are no concurrent shocks in the trend around program implementation, and any seasonal effects are adequately accounted for.

Hierarchical Linear/Generalized Linear Model

This analytic approach may be used in the evaluation of Targeted Investments because outcomes are measured at the beneficiary level while the TI program is implemented at the provider or practice level. Consequently, each provider or practice serves many beneficiaries, the statistical methods for the evaluation of the TI program must account for systematic variation at the level of the provider or practice. This can be accomplished through directly modelling the variation through hierarchical linear modeling techniques. Additional methods may include risk adjustment at the provider level and adjusting standard errors for clustering.

A hierarchical linear model (HLM) or hierarchical generalized linear model (HGLM) may be used to directly model the variation across providers. The HGLM is an extension of the HLM by which the outcome may be represented by data other than a continuous, numeric scale, such as binary or count data. The independent evaluator will determine the most appropriate methodology given the data. To allow for causal inference, the HLM or HGLM should be structured in either a DiD or ITS framework for this evaluation. The below description details the HLM model specification in a DiD framework.[3-45]

[3-44] Baicker, K., and Svoronos, T., (2019) "Testing the Validity of the Single Interrupted Time Series Design," *NBER Working Paper 26080,* https://www.nber.org/papers/w26080.pdf; Bernal, J.L., Cummins, S., Gasparrini, A. (2017) "Interrupted time series regression for the evaluation of public health interventions: a tutorial," *International Journal of Epidemiology,* 46(1): 348-355, https://doi.org/10.1093/ije/dyw098; Penfold, R. B., Zhang, F. (2013) "Use of Interrupted Time Series Analysis in Evaluating Health Care Quality Improvements," *Academic Pediatrics*, 13(6): S38 - S44, https://doi.org/10.1016/j.acap.2013.08.002.

[3-45] This model specification can be modified to follow an ITS framework or comparative ITS framework depending on the availability of a comparison group and number of data points both before and after program implementation.

The nature of the demonstration will yield data that logically adhere to a nested structure, with repeated measurements across time nested within beneficiaries, who are then nested within providers. Through the nested structure of the dataset, the generic HLM will be comprised of three levels, which will be combined in a final, fully nested equation.

The generic HLM will be comprised of three levels:

1. Time
2. Beneficiary
3. Provider

The time-level model is given by:

$$Y_{tij} = \pi_{0ij} + \pi_{1ij}T_{tij} + \varepsilon_{tij} \quad (1)$$

Where $Y_{tij}$is the outcome *Y* at time *t* for beneficiary *i* for provider *j;* the coefficient π_{0ij} is the value of outcome *Y* for beneficiary *i* for provider *j* at *T*=0 (i.e., baseline); the coefficient π_{1ij} is the average change in outcome *Y* for beneficiary *i* for provider *j* for a one unit change in *T*; $T_{tij}$is a whole number time trend coded as 0 for the first data point (i.e., baseline); and ε_{tij} is a normally distributed error term representing the random deviation in the observed outcome Y_{tij}.

The beneficiary-level model is given by:

$$\pi_{0ij} = \beta_{00j} + \beta_{01j}X_{ij} + r_{0ij} \quad (2)$$

$$\pi_{1ij} = \beta_{10j} + \beta_{11j}X_{ij} + r_{1ij}$$

Where β_{00j} is the average outcome *Y* for provider *j* at *T*=0; the coefficient β_{01j} is the average change in *Y* for provider *j* at *T*=0 for a unit change in X_{ij} which represents person-level covariates for beneficiary *i* for provider *j* such as demographics or health conditions; r_{0ij} is a normally distributed person-level error term and represents the deviation in outcome *Y* for person *i* for provider *j*; β_{10j} is the average change in *Y* for provider *j* for a one unit change in *T*; β_{11j} is the average increment or decrement to the change over time in the outcome for provider *j* for a one unit change in *X*; and r_{1ij} is a normally distributed person-level error term and represents the deviation of beneficiary *i* from the average change in *Y* for provider *j* for a one unit change in *T*.

The provider-level model is given by:

$$\beta_{00j} = \gamma_{000} + \gamma_{001}W_j + u_{00j} \quad (3)$$

$$\beta_{10j} = \gamma_{100} + \gamma_{101}W_j + u_{10j}$$

Where γ_{000} is the grand mean average outcome *Y* (i.e. average outcome across all beneficiaries and providers in the comparison group) at *T*=0; γ_{001} is the average change in the grand mean at *T*=0 for a unit change in *W* (e.g. the average difference in rates between intervention and comparison group at baseline); W_j represents an indicator for TI participation and, optionally, other provider-level covariates, such as panel size; u_{00j} is a normally distributed provider-level error term representing the deviation in outcome *Y* from the grand mean for provider *j* at *T*=0; γ_{100} is the grand mean change in *Y* for a one unit change in *T* across providers in the comparison group (e.g. average change in rates between baseline and remeasurement period for non-TI providers); γ_{101} is the increment

or decrement to the change over time in the outcome for a one unit change in W; and u_{10j} is a normally distributed provider-level error term and represents the deviation from γ_{100} for provider j for a unit change in T.

Substituting equations (2) and (3) into equation (1) and rearranging terms yields the following complete equation, which is what the independent evaluator will estimate:

$$Y_{tij} = \underbrace{\gamma_{000} + \beta_{01j}X_{ij} + \gamma_{001}W_j}_{\text{Fixed-Effects Main Effects}} + \underbrace{(\gamma_{100} + \beta_{11j}X_{ij} + \gamma_{101}W_j)T_{tij}}_{\text{Fixed-Effects Cross-Level Interactions}} + \underbrace{(u_{1j} + r_{1ij})T_{tij} + r_{0ij} + u_{0j}}_{\text{Random Effects}} + \underbrace{\varepsilon_{tij}}_{\text{Error Term}} \quad (4)$$

In this equation, the fixed effects represent the average effect of beneficiary and provider characteristics (e.g. the average difference in rates between males and females). Random effects represent differences between beneficiaries and providers on the outcome that are not captured in the fixed effects. The cross-level interaction term, $\gamma_{101}W_j \times T_{tij}$, represents the HLM equivalent of a DiD regression coefficient where the treatment is defined via participation in TI (W_j) and impacts the outcome through an interaction with beneficiary-level changes over time. As briefly mentioned above, the coefficient γ_{101} represents the difference between TI and non-TI providers in the change in outcome between the baseline and remeasurement period(s), controlling for differences across practices. In other words, this coefficient represents the average incremental impact of the TI program across practices and patients.

The model specification above provides a general framework which the independent evaluator may build upon or modify to suit the specific data and evaluation needs, which may include determining the appropriate model specification regarding the inclusion or exclusion of specific elements of random or fixed effects.[3-46] The HLM framework can account for providers and beneficiaries who drop out of the study and allow for the estimation of resulting attrition effects.

Pre-Test/Post-Test

For measures with consistent specifications over time for which national or regional benchmarks are not available, and which have too few observations to support an interrupted time series analysis,[3-47] rates will be calculated and compared both before and after program integration. Statistical testing will be conducted through a chi-square analysis. A chi-square test allows for comparison between two groups that have a categorical outcome, such as survey results or numerator compliance, to determine if the observed counts are different than the expectation.

[3-46] There are many advantages that this flexibility can provide. These advantages include but are not limited to: given only two time periods (e.g., baseline and remeasurement) equation (1) may be modified to remove the error term and the time component substituted into equation (2), effectively reducing the model to a two-level hierarchical model. Second, a non-linear link function may be added to equation (4) to create an HGLM that can evaluate multiple types of outcomes (e.g., binary or count data). Third, for multi-year post-implementation analyses, the independent evaluator may consider including flags indicating practices that dropped out of the TI program as a measure of attrition effects. Fourth, if the intervention and comparison groups have similar rates at baseline after propensity score matching, the independent evaluator can test the need for random intercepts in the model. Fifth, the independent evaluator may begin analysis by running an unconditional model (i.e., no practice- or beneficiary-level) covariates to determine the extent to which the outcome varies across beneficiaries and across practices. Finally, the HLM or HGLM framework is robust to missing data in the level (1) equation and can therefore accommodate a changing population over time; however, higher levels (e.g., beneficiary and practice) cannot have missing data.

[3-47] Because measures are calculated on an annual reporting period, the post-implementation period during the current demonstration approval period of three years is insufficient to support an interrupted time series analysis.

A pre-test/post-test analysis will be conducted for ACC, ALTCS, CMDP, PQC, and RBHA.

Comparison to National Benchmarks and/or Historical Rates

A comparison to national benchmarks and/or historical rates approach will be utilized for the evaluation of ACC and PQC.

To provide additional context of rates and changes in rates after the transition to integrated care under these plans, the independent evaluator may compare rates from ACC or PQC with both historical rates prior to integration and against national benchmarks without necessarily conducting formal statistical testing (e.g., DiD or pre-test/post-test approaches). By combining reference points from historical rates under Acute Care with contemporaneous national benchmarks, rates calculated for ACC/PQC can be reported in the context of historical Arizona-specific performance in addition to performance nationally, thus triangulating an impact of the program on outcomes. Although statistical testing through a DiD or pre-test/post-test approach would be preferable, these comparisons may be necessary if the level of data for the comparison group are not granular enough to support such statistical testing.

Qualitative Synthesis

To evaluate the care coordination strategies implemented by health plans as a result of the program, and to identify and understand barriers encountered by health plans and AHCCCS during and after the transition to each program, a series of semi-structured focus groups and key informant interviews with representatives from the health plans, ACCCHS, and providers will be conducted to obtain results for all plan-specific measures. A qualitative synthesis will be utilized to evaluate ACC, ALTCS, CMDP, RBHA and PQR.

Focus group participants and key informant interviewees will be recruited from nominees identified by the health plans, AHCCCS, and providers. Interviews and focus groups will invite input from representatives of all seven health plans and appropriate individuals identified by AHCCCS as having experience and subject matter expertise regarding the development and implementation of strategies to promote integration of physical and behavioral health service delivery and care integration within the framework of the ACC.

AHCCCS will be asked to provide the names of up to three individuals each from pertinent organizations most familiar with the implementation activities performed by the State and the demonstration, including AHCCCS. Each of these individuals will be requested to participate in a 60 to 90-minute interview session to provide insights into the implementation of the demonstration. A limited number of key informant interviews should be sufficient in this scenario because there will be a limited number of staff at the agency with a working knowledge of the activities associated with the demonstration, and the challenges and successes that accompanied the implementation.

To recruit providers for the focus groups, the independent evaluator will begin by requesting a list of any providers from AHCCCS with whom they have experienced an above average level of engagement and participation. Those providers most engaged in the program may also be those most able and willing to provide feedback on their experiences during implementation. The independent evaluator will attempt to recruit focus group participants from the providers suggested by AHCCCS initially. The independent evaluator will supplement the list provided by AHCCCS with participating providers in the demonstration stratified by geographic region, location within each region (e.g., urban versus rural providers), and by specialty. Because the providers are participating in the demonstrations statewide, the independent evaluator will attempt to recruit focus group participants regionally across the AHCCCS-defined North, Central, and South geographical service areas within the state. Recruiting regionally, will allow for participation by providers operating in large metropolitan areas, as well as smaller rural locations. After stratifying the provider lists, the independent evaluator will sample

to recruit providers representing the broadest spectrum of participating providers. By recruiting to maximize the variation in provider-types and locations, the data obtained are likely to represent perspectives from a wide variety of participating providers. The recruitment goal is to have five to eight providers participate in each focus group. Focus group meetings will last approximately 90 minutes to allow sufficient time for all participants to voice their perspectives and explore each topic in detail. To facilitate provider participation—particularly for rural providers—focus groups will be held via a WebEx teleconference with the option of participant video conferencing. Due to the self-selection of participants and the wide degree of variability across provider types, the focus group participants are not likely to constitute a statistically representative sample of providers within the state. The purpose of the focus group data collection, however, is not to obtain a statistically representative sample of respondents. Rather, the purpose of the focus group data collection is to obtain a rich set of contextualized description that cannot easily be obtained through administrative data or survey data collection efforts

It is not anticipated that financial incentives for participation would be required for current plan or agency employees, however, key informants who are no longer employed by the plan or agency might be offered an incentive such as a $100.00 gift card to encourage participation.

A flexible protocol will be developed for focus groups and semi-structured interviews to be conducted with a sample of subjects with knowledge of the specific strategies developed and implemented as a result of ACC, the barriers encountered during the implementation of care coordination activities, and other barriers encountered during the transition to ACC. Interview questions will be developed to seek information about the plans' strategies to promote physical and behavioral health service delivery and care integration activities as well as any barriers encountered, including:

- Organizational structures and operational systems
- Program design and implementation
- Member engagement and communication
- Provider/network relations and communication

Early focus groups or interviews will inform the development and choice of topics and help inform the selection of additional interview subjects to round out the list of individuals to be interviewed for this project.

In both formats, open-ended questions will be used to maximize the diversity and richness of responses and ensure a more holistic understanding of the subject's experience. Probing follow-up questions will be used as appropriate to elicit additional detail and understanding of critical points, terminology, and perspectives. The sessions will be recorded and transcribed with participant consent.

The information obtained from these focus groups and interviews will be synthesized with the results from other quantitative data analyses providing an in-depth discussion of each of the domains/objectives to be considered. As the key informant interviews are being conducted, the independent evaluator will perform ongoing and iterative review of the interview responses and notes to identify overall themes and common response patterns. Unique responses that are substantively interesting and informative will also be noted and may be used to develop probing questions for future interviews. The results of these preliminary analyses will be used to document the emergent and overarching themes related to each research question. The documentation of emergent themes will be reviewed in an iterative manner to determine if responses to interview questions are continuing to provide new perspectives and answers, or if the responses are converging on a common set of response patterns indicating saturation on a particular interview question. As additional interview data are collected, the categories, themes, and relationships will be adjusted to reflect the broader set of concepts and different types of relationships

identified. The documentation of emergent themes will also be used as an initial starting point for organizing the analysis of the interview data once all interviews are completed.

Following the completion of the focus groups and key informant interviews, the interview notes and transcripts will be reviewed using standard qualitative analysis techniques. The data will first be examined through open coding to identify key concepts and themes that may not have been captured as emergent themes during previous analyses. After identifying key concepts, axial coding techniques will be used to develop a more complete understanding of the relationships among categories identified by respondents in the data. The open and axial coding will be performed with a focus on identifying the dimensionality and breadth of responses to the research questions posed for the overall project. Interviewee responses will be identified through the analysis to illustrate and contextualize the conclusions drawn from the research and will be used to support the development of the final report.

In addition to the six methods listed above, the independent evaluator will use the following additional approaches:

Chi-Square Test

A chi-square test will be utilized for certain measures in the TI demonstration evaluation as it allows for comparison between two groups that have a categorical outcome, such as survey results, to determine if the observed counts are different than the expectation. A test statistic is calculated that compares the observed results to the expected results and a chi-square distribution is used to estimate the probability of the observed difference from the expected results being due to the demonstration.

Rapid Cycle Reporting – Statistical Process Control Chart

Measures in which outcomes can be collected monthly are also conducive to rapid cycle reporting. Rapid cycle reporting provides an early warning of possible unintended consequences. These measures are primarily intended for program impact monitoring prior to the analyses that will be contained in the evaluation reports. Rapid cycle reporting measures will be presented on a regular schedule as determined by the independent evaluator using statistical process control charts. Statistical process control charts will be utilized as the tool to identify changes in time series data—data points or trends that depart from a baseline level of variation. This will be helpful in quickly identifying concerns requiring further investigation. Rapid cycle reporting will be used for the TI demonstration evaluation and the PQC waiver evaluation.

Descriptive Impact Analysis

Measure for the TI demonstration will rely on program data reported at infrequent or irregular intervals but are nevertheless critical to determining the success of the program on changing practice behavior. Specifically, measures evaluating changes in providers' self-reported level of care integration as defined by the Substance Abuse and Mental Health Services Administration (SAMHSA) will likely be available at infrequent intervals throughout the course of the demonstration.[3-48] As such, the evaluation of these measures will center on a descriptive analysis of the changes in care integration as the demonstration program matures, providing valuable insights as to the impact that the TI program may have had on care integration.

[3-48] Heath B, Wise Romero P, and Reynolds K. A Review and Proposed Standard Framework for Levels of Integrated Healthcare. Washington, D.C. SAMHSA-HRSA Center for Integrated Health Solutions. March 2013. https://www.integration.samhsa.gov/integrated-care-models/A_Standard_Framework_for_Levels_of_Integrated_Healthcare.pdf.

Comparison of Means

For PQC measures that do not have a comparison group and where no causal inference can be deducted, means between groups will be compared to show changes in outcomes over time.

Cost-Effectiveness Analysis

To evaluate the sustainability of the demonstration component and its impacts on costs, the independent evaluator will estimate costs and savings associated with the renewal of the waiver for all six programs. Total costs will be comprised of both medical costs and administrative costs.

Costs and savings will be estimated based on an actuarial approach. The actuarial method will create a "hypothetical comparison group" by trending the cost experience of a waiver population during a baseline period prior to renewal of the waiver forward in time to the evaluation period(s) following renewal of the waiver. The trended costs will represent an estimate of the costs for the waiver population during the evaluation period(s) as if the waiver had never been renewed. Thus, the actuarial method will compare the trended actual costs of the waiver population in a baseline period to the actual costs for the waiver population during the evaluation period(s) to estimate savings.

There are two separate definitions of "medical cost" that will be evaluated, resulting in two separate estimates of total costs and savings. "Expenditure costs" represent the direct expenditures by the state for the provision of Medicaid services, identified as the medical cost component of the capitation payments. "Service costs" represent the cost to the plans of providing the included Medicaid services. A different approach will be used for each type of medical cost.

The method to estimate "expenditure cost" savings will compare the trended medical cost component for the waiver population from baseline capitation rates to the average medical cost component paid in the evaluation period(s). The independent evaluator will ensure that the service packages included in the capitation rates are similar in both the baseline and evaluation period(s). If the service packages are different, adjustments will be made to ensure the capitation rates for both the trended baseline and the evaluation period(s) represent the same package of services. Typically, these adjustments will be made based on fee for service claims or specific medical cost components included in the capitation payments during the baseline period.

The medical cost component in both the baseline for the evaluation period(s) will be based on the carriers' filed premium rates or other available documents that identify medical costs. Other adjustments for other medical-cost-related components such as risk corridor payment adjustments, cost sharing reduction payments, deductible funding, changes in medical technology or clinical guidance, changes in reimbursement rates, and the cost of wraparound services, will be included in both the baseline and evaluation period(s) estimates. These adjustments will be done as appropriate based on state and federal Medicaid policies in place for each waiver population during the period for which costs are being calculated. For the comparison group (trended baseline medical cost component), medical cost projections will be developed based on baseline program claims/encounter data that will be trended and adjusted for demographic changes, acuity differences, and programmatic changes as well as the other factors described above, as appropriate for specific periods, state policies, and waiver populations. The data for developing both the trended baseline and evaluation period cost estimates will be based on data provided to AHCCCS as a part of the capitation rate-setting and certification process.

The method for calculating "service cost" savings will involve comparing the trended baseline period medical cost component from the capitation rate to the plans' actual cost of providing Medicaid services to the waiver population in the evaluation period(s).

For both the baseline and evaluation periods, the average medical cost will be calculated based on claims/encounter data, while ensuring identical service packages in both periods. The baseline medical cost estimates will be trended forward from the baseline period and will be adjusted for the items listed above as necessary and appropriate.

Administrative costs will be estimated based on administrative amounts included in specific waiver premium rate filings in the baseline and evaluation period(s). This approach will be used since the allocation of actual administrative costs for waiver populations is typically difficult for plans to more accurately estimate. Adjustments will be made to account for changes in administrative activity requirements between the baseline and evaluation period(s). Adjustments will also be made to the baseline estimate to account for inflationary and state policy changes and waiver population factors as necessary and appropriate.

Total costs for both groups will be calculated as the sum of the medical and administrative cost estimates. This will result in two different total cost estimates, one for each of the approaches used to estimate medical costs described above.

The independent evaluator will work with AHCCCS to ensure that all cost calculations incorporate all appropriate adjustments to adequately account for changes in service packages, administrative cost structures, and/or national/state policy that directly or indirectly impact the costs of providing Medicaid services to the waiver population across the baseline and evaluation period(s).

Costs and benefits will be isolated to each individual AHCCCS program to the extent possible using the strategies described in the Disentangling Confounding Events section below.

Disentangling Confounding Events

During the current demonstration renewal period, AHCCCS has implemented several programs that could confound the estimated impact of the programs on measured outcomes. The TI program was implemented by October 2019. The TI program provides practices with funds specifically to encourage better care coordination and integrated care for their beneficiaries. As such, beneficiaries impacted by the TI program may receive higher levels of integrated care, thereby potentially confounding program effects from the care coordination efforts of ACC, ALTCS, CDMP, PQC, and RBHA. However, because each program was implemented at various times in comparison to TI, the evaluation may leverage the differential implementation of these programs to mitigate the confounding program effects. Additionally, the independent evaluator may identify those impacted by TI and utilize statistical controls to disentangle effects of TI beneficiaries on each program.

Beginning on July 1, 2019, AHCCCS eliminated PQC for most Medicaid adults.[3-49] This program may introduce confounding effects since impacted beneficiaries may alter their future care-seeking or enrollment and disenrollment decisions. The independent evaluator may leverage the differential timing between the introduction of each program and effective date of the elimination of PQC to help reduce the potential confounding effects. This is not expected to completely eliminate confounding effects. Without a valid comparison group, any observed changes (or lack thereof) in the rates cannot be completely separated from the impact of the elimination of PQC.

The coronavirus disease 2019 (COVID-19) widely impacted the healthcare system and socioeconomic conditions more broadly beginning in approximately March 2020 and is ongoing as of the writing of this evaluation design

[3-49] Pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age are excluded.

plan. The scope and scale of the COVID-19 pandemic has already impacted the planned execution of some components of this design plan, and appears that it may continue to do so in the near future. Additionally, the pandemic forces the independent evaluator to consider methods that would allow the disentanglement of the Arizona Health Care Cost Containment System (AHCCCS) program impacts from results driven by COVID-19 or the policy response within Arizona and other states. Please see Appendix F: Methodological Considerations of COVID-19 Pandemic for additional detail.

Additional confounding factors specific to each program are listed below:

ACC

Some ACC beneficiaries may be impacted by the introduction of AHCCCS Works, if implemented. This program may introduce confounding effects as impacted beneficiaries may leave Medicaid because of community engagement noncompliance or because they no longer meet the income eligibility requirements for Medicaid. AHCCCS Works only impacts adult Medicaid expansion beneficiaries up to age 49 and will be rolled out in three annual phases based on urbanicity. Further delays in implementing AHCCCS Works will reduce confounding effects with ACC. Additionally, once AHCCCS Works is implemented, the independent evaluator may leverage the staged rollout, and the differential impact across eligibility and age groups to further disentangle effects of AHCCCS Works and ACC.

PQC

The AHCCCS Works demonstration, if implemented, will include beneficiaries who are also part of the PQC demonstration. While AHCCCS Works could be confounded with the PQC demonstration, the stepped-wedge implementation design provides an opportunity to disentangle the impact of AHCCCS Works from the PQC demonstration by leveraging the differential timing of the demonstration phases. The AHCCCS Works demonstration is approved effective from January 18, 2019, through September 30, 2021.[3-50] However, on October 17, 2019, AHCCCS notified CMS that Arizona will be postponing the implementation of AHCCCS Works until further notice, citing ongoing litigation regarding Medicaid community engagement programs.[3-51]

The ACC demonstration was implemented on October 1, 2018, and integrated physical health care and behavioral health services for beneficiaries who are adults not determined to have an SMI, and beneficiaries determined to have a serious mental illness (SMI). Both of these populations are also targeted populations in the PQC demonstration, potentially confounding the program impacts.

The ALTCS demonstration will target beneficiaries who are elderly and/or physically disabled and beneficiaries with a developmental disability. On October 1, 2019, physical and behavioral health services, as well as certain LTSS (i.e., nursing facilities services, emergency alert system services, and habilitative physical therapy for beneficiaries 21 years of age and older) for beneficiaries with DD were transitioned into ALTCS- DDD health

[3-50] CMS Approval Letter. Centers for Medicare & Medicaid Services. https://www.azahcccs.gov/Resources/Downloads/CMSApprovalLetter.pdf. Accessed on Jun 10, 2019.

[3-51] Snyder, J, (October 17, 2019) *RE: Implementation of AHCCCS Works*, letter to Acting Director Lynch, Center for Medicare and Medicaid Services. Available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-postponement-ltr-ahcccs-works-10172019.pdf. Accessed on Oct 23, 2019.

plans.[3-52] These beneficiaries may also be targeted by the PQC waiver demonstration, thereby confounding the effects of the two demonstrations.

The RBHA waiver demonstration will target adult beneficiaries with an SMI, turning the integration of physical and behavioral health care for several other populations over to their respective programs. Beginning on October 1, 2019, the RBHAs will transition care for the elderly and/or physical disabled and beneficiaries with a developmental disability over to the ALTCS. The transition of this populations from RBHA to ALTCS may confound the effects of those programs with the widespread application of the PQC waiver.

The PQC waiver demonstration went into effect on July 1, 2019, representing a differential timing for implementation from the other waiver demonstrations, AHCCCS is implementing. The independent evaluator may, therefore, leverage the differential implementation of these programs to mitigate the confounding program effects. Additionally, the independent evaluator may identify those impacted by TI, AHCCCS Works, ACC, ALTCS, and RHBA and use statistical controls to disentangle effects of these programs on the beneficiaries in the PQC waiver demonstration.

TI

During the current demonstration renewal period, AHCCCS has implemented several programs that could confound the estimated impact of the Targeted Investments program on measured outcomes. ACC plans begin providing integrated care coverage for most beneficiaries on AHCCCS beginning on October 1, 2018. This could impact rates for TI beneficiaries covered through an ACC plan and potentially bias results since the implementation of ACC happened between the baseline and evaluation periods. To reduce this potential bias, the independent evaluator may leverage the differential timing between the implementation of ACC and TI, and the independent evaluator may leverage the differential enrollment in TI among ACC beneficiaries. That is, outcomes for TI beneficiaries impacted by ACC may be compared against outcomes for TI beneficiaries not impacted by ACC using statistical controls.

Similarly, CMDP provides physical care services for children in the custody of DCS, and it is anticipated that CMDP will begin providing integrated behavioral and physical care beginning on October 1, 2020. This may impact rates for TI beneficiaries covered through CMDP and potentially bias results after the provision of integrated care. To reduce this potential bias, the independent evaluator may leverage the differential timing between the implementation of CMDP and TI, and the independent evaluator may leverage the differential enrollment in TI among CMDP beneficiaries. That is, outcomes for CMDP beneficiaries impacted by TI may be compared against outcomes for CMDP beneficiaries not impacted by TI using statistical controls.

ALTCS provides coverage for EPD and beneficiaries who are DD. ALTCS has been providing integrated behavioral and physical care for its EPD population and physical care for its DD population since its inception in 1989. However, on October 1, 2019, ALTCS began providing integrated behavioral and physical care for its DD population. This could impact rates for TI beneficiaries covered through ALTCS-DD and potentially bias results since the implementation of ALTCS-DD integration happened at the beginning of the TI evaluation period. To reduce this potential bias, the independent evaluator may leverage the differential enrollment in TI among ALTCS beneficiaries.

RBHA provides integrated behavioral and physical care for its adult SMI population. This may impact the TI evaluation to the extent coverages and quality of care differs between the RBHA population and the non-RBHA

[3-52] DDD Health Plans. https://des.az.gov/services/disabilities/developmental-disabilities/new-ddd-health-plans. Accessed on Sep 30, 2019.

population. In order disentangle the impact of the TI program on outcomes, the independent evaluator may utilize enrollment in RBHA as a statistical control in the final analysis.

Beginning on July 1, 2019, AHCCCS eliminated PQC for most Medicaid adults.[3-53] This program may introduce confounding effects since impacted beneficiaries may alter their future care-seeking or enrollment and disenrollment decisions. This may bias comparisons between the baseline and evaluation period as the PQC waiver was implemented just prior to the evaluation period. To disentangle the potential effects of the PQC waiver on TI outcomes, the independent evaluator may leverage differential enrollment in TI.

Some TI beneficiaries may be impacted by the introduction of AHCCCS Works, if implemented. This program may introduce confounding effects as impacted beneficiaries may leave Medicaid because of community engagement noncompliance or because they no longer meet the income eligibility requirements for Medicaid. AHCCCS Works only impacts adult Medicaid expansion beneficiaries up to age 49 and will be rolled out in three annual phases based on urbanicity. Once AHCCCS Works is implemented, the independent evaluator may leverage the staged rollout and the differential impact across eligibility and age groups to further disentangle effects of AHCCCS Works and TI.

[3-53] Pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age are excluded.

4. Methodology Limitations

Despite the planned rigor of the evaluation, there are several limitations that may impact the ability of the evaluation to attribute changes in performance metrics to the demonstration. One of the primary limitations to this evaluation is the lack of a viable in-state or out-of-state comparison group for many demonstration components. Without a suitable contemporaneous comparison group, changes in rates over time may be either fully or partially attributable to secular trends independent of the demonstration. A viable in-state comparison group is unlikely to be found for the following demonstration components:

- Arizona Health Care Cost Containment System (AHCCCS) Complete Care (ACC)—The ACC program enrolls most adults and children on Medicaid.
- Arizona Long Term Care System (ALTCS)—The ALTCS program covers all eligible Medicaid elderly and/or physically disabled (EPD) or developmental disabilities (DD) beneficiaries.
- Comprehensive Medical and Dental Program (CMDP)—All children in the custody of the Arizona Department of Child Safety (DCS) are covered by CMDP.
- Regional Behavioral Health Authority (RBHA)—virtually all adult Medicaid beneficiaries with an SMI are enrolled with a RBHA.
- Prior Quarter Coverage (PQC)—All non-pregnant or postpartum adults are subject to the waiver.

Another broad limitation relates to the complexity and interaction of the demonstration components among each other, impairing the ability to attribute changes to a specific component as described in the Disentangling Confounding Events section. The PQC waiver confounds several other demonstration components to a different extent. The evaluation for each component can leverage differential timing of the program and the elimination of PQC to help isolate the effect of the on measured outcomes; however, without a counterfactual, any changes (or lack thereof) are not necessarily indicative of effects from the elimination of PQC. There are additional program-specific considerations that should be taken into account.

- ACC—Because PQC was implemented within a year of ACC, rates calculated after ACC implementation may still contain effects from the elimination of PQC.
- ALTCS—With the integration of care occurring three months after elimination of PQC, effects of the integration of care for adult beneficiaries with DD could be challenging to disentangle from the elimination of PQC.
- RBHA—The evaluation of RBHA integration in 2014/2015 may be confounded with the introduction of PQC in January 2014. The independent evaluator can leverage trends from 2012 through the end of the demonstration period to examine the changes associated with the introduction of PQC in 2014 and its removal (via the waiver) in July 2019. Additionally, the PQC impacts may be better isolated by evaluating the integration of RBHA using only 2015 as the baseline period and allowing the PQC implementation to take precedence in 2014.

The following sections discuss the planned approach to addressing these limitations for each demonstration component.

ACC

The ACC plans enroll most adults and children on Medicaid, leaving little to no viability of an in-state comparison group to represent a counterfactual. This limitation restricts the ability to link the program's performance to changes in rates and outcomes. By using national benchmarks as a comparison, it is assumed that Arizona Medicaid beneficiaries enrolled in an ACC are similar to Medicaid beneficiaries nationally. A second, related limitation is that any statewide, Arizona-specific changes external to the ACC program that could have impacted rates between the baseline and evaluation periods would not be adequately controlled for in the difference-in-differences (DiD) approach and could therefore bias results. A third limitation pertains to the DiD statistical testing. Beneficiary-level rates would provide the greatest level of statistical power and granularity. However, if beneficiary-level data cannot be obtained or utilized for a comparison group and instead the comparison group consists of national or regional benchmark data, the level of granularity of the benchmark data will dictate the level of granularity of statistical testing possible. For example, if the independent evaluator has benchmark rates at the plan level, then ACC rates must be calculated at the plan level, reducing its statistical power and introducing information loss through aggregating beneficiary level data to the plan level.

ALTCS

The first major limitation of the proposed evaluation design for the ALTCS is the availability of a comparison group. Due to the unique population of ALTCS beneficiaries, finding an in-state comparison group is very challenging since all eligible Medicaid EPD or DD beneficiaries would receive care through ALTCS—removing any possibility for Medicaid beneficiaries who are elderly and/or with a physical disability or beneficiaries with DD to serve as a counterfactual. A related limitation is that because ALTCS serves such a unique population, it is impossible to compare ALTCS rates to national benchmarks since these are designed to represent the entire Medicaid population as opposed to EPD individuals or individuals with DD. Combined, this leaves only trending rates over time for much of the ALTCS population, or, obtaining comparative data from an out-of-state Medicaid authority. The independent evaluator will need to consider variation across performance measure year specifications since these differences could impact the rate calculation. Also, due to the recent introduction of some performance measures (i.e., measures relating to opioid use), rates might not be available for all years of the evaluation design, limiting the years for which rates can be trended. Trending rates also limit comparability between measurement years since the beneficiary population can vary. The independent evaluator will evaluate the eligibility requirements for analyses in order to perform a robust analysis.

Second, where comparative data is available from an out-of-state comparison group, and especially if those data are aggregate rates, the comparison to this counterfactual will be limited by two factors. First, if beneficiary-level data are not available, then the independent evaluator will not be able to perform any statistical matching or include statistical controls in the DiD models to account for differences in the underlying population characteristics. Additionally, the use of an out-of-state comparison will be limited by the inability to control for systematic differences is the underlying eligibility criteria, concept definitions, and programmatic policies and procedures in the Medicaid system of the comparison state.

CMDP

The first limitation to the CMDP design plan is the availability of a comparison group. Due to the unique needs and specialized care provided to CMDP beneficiaries, finding an in-state comparison group is very challenging. Children in the custody of DCS have designated case workers and care coordinators to ensure CMDP

beneficiaries are receiving timely immunizations, screenings, and check-ups. Therefore, when comparing to in-state non-CMDP beneficiaries these children will have higher rates for certain measures which is not necessarily a reflection of CMDP itself, but rather the unique population it serves. For these reasons, the independent evaluator should prioritize finding an out-of-state comparison group that also contains children in the custody of DCS.

A second limitation related to the use of an out-of-state comparison group is the comparability of that population, the design of the program delivering services to them, and the presence or absence of confounding quality improvement programs. While an out-of-state comparison group can provide a counterfactual design, the granularity of the data available may not allow for strong statistical controls over differences across the populations. Additionally, an independent evaluator is not likely to be able to control for additional quality improvement programs that may impact a comparison group population.

A third limitation is the availability of national benchmarks for this population, again due to the specialized care provided to CMDP beneficiaries, certain rates for this population will be higher or lower due to the unique needs of this population, not the care provided by CMDP. There when comparing to national benchmarks, it is important for the independent evaluation to account for such differences.

PQC

The first limitation of the evaluation design for PQC is that the comparison groups represent a unique challenge for this demonstration, particularly because the waiver affects almost all new members except for pregnant women, women who are 60 days or less postpartum, and infants and children less than 19 years of age. This greatly restricts the feasibility of an in-state comparison group. As a result, many measures listed in Table 3-13 above either do not have a viable comparison group or are contingent on the availability of out of state or aggregate data.

Despite the methodology described in the Disentangling Confounding Events section, there are still limitations in fully isolating changes in rates attributable to the PQC waiver from other events, particularly from the transition to ACC health plans on October 1, 2018. Since this transition impacts most adults (and children) on Medicaid, comparisons to historical AHCCCS rates before ACC for the Acute Care population, who are the majority of beneficiaries in PQC, may be confounded with the transition to ACC. The independent evaluator will identify any individuals impacted by PQC but not ACC to reduce this potential confounding; however, because those exposed to PQC but not ACC are likely to be systematically different (e.g., beneficiaries enrolled in ALTCS or adults with a serious mental illness (SMI) and relatively few in number, confounding effects from ACC may still remain.

Additionally, the waiver will be implemented on July 1, 2019, which is prior to the Centers for Medicare & Medicaid Services' (CMS') review of the evaluation design plan. This will impact the survey baseline data collection since there is no opportunity to collect information about the evaluation prior to implementation directly. The survey can ask new members questions regarding the implementation after it has occurred, but these retrospective questions may introduce recall bias.

RBHA

There are three primary limitations to the proposed RBHA evaluation design. First, the RBHAs enroll all adult Medicaid beneficiaries with an SMI, leaving no viable in-state comparison group to estimate counterfactuals. This limitation restricts the ability to link the program's performance to changes in rates and outcomes. The use of national benchmarks for general Medicaid populations as a comparison group would result in inappropriate

comparisons, as beneficiaries with an SMI differ systematically from the general Medicaid population. No national data could be identified that would provide a reliable and accurate comparison group at the national level. For this reason, no national comparison group can be used to estimate counterfactual results, and thereby determine the causal impacts of the program.

Second, the use of an out-of-state comparison group comprised of aggregated rates from the adult Medicaid population designated with an SMI in another state is limited to the extent that the comparison state uses different criteria from Arizona to designate beneficiaries with an SMI. Additionally, this limitation expands to the extent that the policies and procedures of the Medicaid system in the comparison state do not align with those of Arizona.

TI

The first major limitation to the proposed evaluation design for the Targeted Investments (TI) program is that the comparison groups represent a unique challenge. Because non-TI participating providers could also receive Admission-Discharge-Transfer (ADT) alerts through an executed agreement with Health Current, it is possible the comparison group may receive partial treatment. If the non-TI participating providers act on the information received from the ADT alerts, then the comparison group is ultimately receiving a similar treatment to that of the intervention group, reducing the difference between the two. Currently, there are 520 organizations that are connected through Health Current, suggesting that there will be beneficiaries in the comparison group who are receiving care from non-TI participating providers that may receive the effects of the treatment that the ADT alerts may provide.[4-1]

The length of time between the baseline and the evaluation periods may result in bias due to intervening events external to the TI program. For example, the introduction of ACC in October 1, 2018, may lead to changes in rates that would otherwise be attributed to TI if not adequately controlled for. As discussed in the Disentangling Confounding Events section, the independent evaluator may leverage differential enrollment in TI and ACC to help isolate the effects of TI on outcomes; however, to the extent there is limited differential enrollment among TI members not impacted by ACC, this technique may not reduce this limitation. Additionally, to the extent the intervention group is defined by assignment to providers participating in TI, it is possible these beneficiaries may not choose to see their assigned provider and instead see a non-TI provider. This potential for crossover effects—that is, beneficiaries assigned to a TI participating provider may receive care from non-TI participating providers, and vice versa. The described attribution methodology linking beneficiaries to TI and non-TI providers will serve to reduce or eliminate this limitation.

Another limitation is the nature of the intervention and comparison groups for beneficiaries transitioning from the criminal justice system. The intervention group in this population would only receive the treatment from TI-participating providers during their probation period, which is much less time than the comparison group who can be enrolled in AHCCCS for the entirety of the measurement period. This discrepancy may dilute the impact of the demonstration on relative to the other populations due to the intervention group receiving a lower "dosage" of the intervention.

[4-1] Health Current. What is HIE? Available at: https://healthcurrent.org/hie/what-is-hie/. Accessed on: Aug 19, 2019.

5. Reporting

Following its evaluation of Arizona's 1115 waiver demonstration the independent evaluator will prepare two reports of the findings and how the results relate to each of the research hypotheses. Both the interim evaluation report and the final summative evaluation report will be produced in alignment with the Special Terms and Conditions (STCs) and the schedule of deliverables listed in Table 5-1 (See Appendix C for a detailed timeline.).

Table 5-1: Schedule of Deliverables

Deliverable	Date
Evaluation Design (STC #72)	
AHCCCS submits Evaluation Design Plan to Centers for Medicare & Medicaid Services (CMS)	November 13, 2019
AHCCCS to post Evaluation Design Plan on the State's website for public comment	TBD
AHCCCS to post final approved Evaluation Design Plan on the State's website within 30 days of approval by CMS	TBD
Evaluation Report(s)	
Quarterly: AHCCCS to report progress of Demonstration to CMS (STC #83)	30 days after the quarter
If Demonstration Continued, Interim Evaluation Report (STC #76)	TBD
If Demonstration Ended, Final Summative Evaluation Report (STC #77)	TBD
AHCCCS presentation to CMS on Final Summative Evaluation Report (STC #73)	As Requested

Each evaluation report will present results in a clear, accurate, concise, and timely manner. At minimum, all written reports will include the following nine sections:

1. The **Executive Summary** will concisely state the goals for the Demonstration, presenting the key findings, the context of policy-relevant implications, and recommendations.
2. The **General Background Information about the Demonstration** section will succinctly trace the development of the program from the recognition of need to the present degree of implementation. This section will also include a discussion of the State's implementation of the waiver demonstration along with its successes and challenges.
3. The **Evaluation Questions and Hypotheses** section will focus on programmatic goals and strategies with the research hypotheses and associated evaluation questions.
4. The **Methodology** section will include the evaluation design with the research hypotheses and associated measures, along with the type of study design; targeted and comparison populations and stakeholders; data sources that include data collection field, documents, and collection agreements; and analysis techniques with controls for differences in groups or with other State interventions, including sensitivity analyses when conducted.
5. The **Methodological Limitations** section will be a summary of the evaluation design limitations including its strengths and weaknesses.

6. The **Results** section will be a summary of the key findings and outcomes of each hypothesis and research question.
7. The **Conclusions** section will be a description of the effectiveness and impact of the Demonstration.
8. The **Interpretations, Policy Implications, and Interactions with Other State Initiatives** section will contain the policy-relevant and contextually appropriate interpretations of the conclusions, including the existing and expected impact of the Demonstration within the health care delivery system in Arizona in the context of the implications for state and federal health policy, including the potential for successful strategies to be replicated in other state Medicaid programs. In addition, this section will contain the interrelations between the Demonstration and other aspects of Arizona's Medicaid program, including interactions with other Medicaid waivers and other federal awards affecting service delivery, health outcomes, and the cost of care under Medicaid.
9. The **Lessons Learned and Recommendations** section will discuss the opportunities for revisions to future demonstrations, based on the information collected during the evaluation.

Content of Interim Report

The interim report will be made publicly available prior to the waiver renewal application deadline of December 31, 2020. Due to the abbreviated time for analysis, the interim report will consist of a status update regarding the execution of the evaluation design plan, preliminary analyses of key informant interviews conducted early enough for inclusion in the report, and a detailed and complete analytic plan for the waiver evaluation, including survey administration details (e.g., sampling frame, survey instrument, and sampling strategy to align surveys across programs). The independent evaluator will also provide summary results from the rapid-cycle assessment component of the design plan, as part of the evaluation for Prior Quarter Coverage.

Content of Summative Report

The final summative report will be delivered to CMS within 500 days of the Demonstration end and will contain the full results of all measures described in this evaluation design plan and in the final analytic plan contained in the Interim Report.

Based on State protocols, AHCCCS will follow established policies and procedures to acquire an independent entity or entities to conduct the waiver evaluation. In addition, AHCCCS will ensure that the selected independent evaluator does not have any conflicts of interest and will require the independent evaluator to sign a "No Conflict of Interest" statement.

All reports, including the Evaluation Design Plan, will be posted on the State Website within 30 days of the approval of each document to ensure public access to evaluation documentation and to foster transparency. AHCCCS will notify CMS prior to publishing any results based on the Demonstration evaluation for CMS' review and approval. The reports' appendices will present more granular results and supplemental findings. AHCCCS will work with CMS to ensure the transmission of all required reports and documentation occurs within approved communication protocols.

Arizona Health Care Cost Containment System

Arizona's Section 1115 Waiver Independent Evaluation – Design Plan, Appendices

AHCCCS Complete Care (ACC), Arizona Long Term Care System (ALTCS), Comprehensive Medical and Dental Program (CMDP), Regional Behavioral Health Authority (RBHA), Prior Quarter Coverage (PQC), and Targeted Investments (TI)

July 2020

This program is operated under an 1115 Research and Demonstration Waiver initially approved by the Centers for Medicare & Medicaid Services (CMS) on September 30, 2016

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A. Independent Evaluator

Arizona Health Care Cost Containment System (AHCCCS) will select an independent evaluator with experience and expertise to conduct a scientific and rigorous Medicaid Section 1115 waiver evaluation meeting all the requirements specified in the Special Terms and Conditions (STCs).[A-1] The independent evaluator will be required to have the following qualifications:

- Knowledge of public health programs and policy.
- Experience in health care research and evaluation.
- Understanding of AHCCCS programs and populations.
- Expertise with conducting complex program evaluations.
- Relevant work experience.
- Skills in data management and analytic capacity.
- Medicaid experience and technical knowledge.

Based on State protocols, AHCCCS will follow established policies and procedures to acquire an independent entity or entities to conduct the waiver evaluation. In addition, AHCCCS will ensure that the selected independent evaluator does not have any conflicts of interest and will require the independent evaluator to sign a "No Conflict of Interest" statement.

[A-1] Centers for Medicare & Medicaid Services. Arizona Medicaid Section 1115 Demonstration Special Terms and Conditions. Jan 18, 2017. Available at: https://www.azahcccs.gov/shared/Downloads/News/FORSTATEArizonaAHCCCSSTCAndAuthorities_W_TIPFinal.pdf. Accessed on Jun 20, 2019.

B. Evaluation Budget

Due to the complexity and resource requirements of Arizona's 1115 waiver demonstration, Arizona Health Care Cost Containment System (AHCCCS) will need to conduct a competitive procurement to obtain the services of an independent evaluator to perform the services outlined in this evaluation design. Upon selection of an evaluation vendor, a final budget will be prepared in collaboration with the selected independent evaluator. Table B-1 displays the proposed budget shell that will be used for submitting total costs for the waiver programs.

The costs presented in Table B-1 will include the total estimated cost, as well as a breakdown of estimated staff; administrative and other costs for all aspects of the evaluation, such as any survey and measurement development; quantitative and qualitative data collection and cleaning analyses and report generation. A final budget will be submitted once a final independent evaluator has been selected. The total estimated cost for this evaluation is $2,922,895. The estimate assumes that a single independent evaluator will conduct all required AHCCCS waiver evaluations. The independent evaluator will ensure all activities performed under the waiver evaluation take a synergistic approach and combine efforts, where feasible. The independent evaluator will collaborate with the State's external quality review organization (EQRO) to reduce burden and deduplicate efforts on activities such as the administration of surveys and performance measure calculations. Additionally, the independent evaluator will pool together data across various populations and pool programming code to simplify the effort required to calculate the many overlapping measures across the six AHCCCS programs. The detailed budgets by waiver program are presented below.

Table B-1: Proposed Budget

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 40,956	$ 5,809	$ 5,792	$ -	$ -
Administrative Costs	$ 29,754	$ 4,221	$ 4,208	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 70,710**	**$ 10,030**	**$ 10,000**	**$ -**	**$ -**
Administration					
Staff Costs	$ 64,930	$ 10,362	$ 10,345	$ -	$ -
Administrative Costs	$ 47,170	$ 7,528	$ 7,515	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 112,100**	**$ 17,890**	**$ 17,860**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 40,196	$ 6,533	$ 6,516	$ -	$ -
Administrative Costs	$ 29,204	$ 4,747	$ 4,734	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 69,400**	**$ 11,280**	**$ 11,250**	**$ -**	**$ -**
Administration					

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Staff Costs	$ 48,618	$ 8,120	$ 8,103	$ -	$ -
Administrative Costs	$ 35,322	$ 5,900	$ 5,887	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 83,940**	**$ 14,020**	**$ 13,990**	**$ -**	**$ -**
Member/Beneficiary Surveys					
Instrument Design					
Staff Costs	$ 18,120	$ 14,872	$ -	$ -	$ -
Administrative Costs	$ 13,165	$ 10,808	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 31,285**	**$ 25,680**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 25,724	$ 25,174	$ 8,688	$ -	$ -
Administrative Costs	$ 18,688	$ 18,288	$ 6,312	$ -	$ -
Other Costs	$ 74,003	$ 74,003	$ -	$ -	$ -
Total Costs	**$ 118,415**	**$ 117,465**	**$ 15,000**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 18,548	$ 7,468	$ -	$ -
Administrative Costs	$ -	$ 13,472	$ 5,422	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 32,020**	**$ 12,890**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 63,656	$ 34,890	$ -	$ -
Administrative Costs	$ -	$ 46,244	$ 25,350	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 109,900**	**$ 60,240**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 61,118	$ 177,015	$ 237,518	$ 356,190	$ 14,286
Administrative Costs	$ 44,402	$ 128,605	$ 172,562	$ 258,780	$ 10,374
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 105,520**	**$ 305,620**	**$ 410,080**	**$ 614,970**	**$ 24,660**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 98,962	$ 36,891	$ 9,522	$ 107,859	$ 34,443
Administrative Costs	$ 71,898	$ 26,799	$ 6,918	$ 78,361	$ 25,027

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 170,860**	**$ 63,690**	**$ 16,440**	**$ 186,220**	**$ 59,470**
Total	**$ 762,230**	**$ 707,595**	**$ 567,750**	**$ 801,190**	**$ 84,130**

Table B-2 through Table B-7 present the detailed budgets by waiver program.

Table B-2: Proposed Budget for ACC

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 8,520	$ -	$ -	$ -	$ -
Administrative Costs	$ 6,190	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 14,710**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 11,555	$ -	$ -	$ -	$ -
Administrative Costs	$ 8,395	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 19,950**	**$ -**	**$ -**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 6,516	$ -	$ -	$ -	$ -
Administrative Costs	$ 4,734	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 11,250**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 8,103	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,887	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ -**	**$ -**	**$ -**	**$ -**
Member/Beneficiary Surveys					
Instrument Design					
Staff Costs	$ 4,584	$ 3,718	$ -	$ -	$ -
Administrative Costs	$ 3,331	$ 2,702	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 7,915**	**$ 6,420**	**$ -**	**$ -**	**$ -**
Administration					

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Staff Costs	$ 6,550	$ 6,550	$ 2,896	$ -	$ -
Administrative Costs	$ 4,758	$ 4,758	$ 2,104	$ -	$ -
Other Costs	$ 21,450	$ 21,450	$ -	$ -	$ -
Total Costs	**$ 32,758**	**$ 32,758**	**$ 5,000**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,003	$ 29,319	$ 39,623	$ 59,310	$ 2,381
Administrative Costs	$ 7,267	$ 21,301	$ 28,787	$ 43,090	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 17,270**	**$ 50,620**	**$ 68,410**	**$ 102,400**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,310	$ 5,109	$ -	$ 17,793	$ 5,722
Administrative Costs	$ 11,850	$ 3,711	$ -	$ 12,927	$ 4,158
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 28,160**	**$ 8,820**	**$ -**	**$ 30,720**	**$ 9,880**
Total	**$ 146,003**	**$ 121,638**	**$ 85,440**	**$ 133,120**	**$ 13,990**

Table B-3: Proposed Budget for ALTCS

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 5,902	$ -	$ -	$ -	$ -
Administrative Costs	$ 4,288	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 10,190**	**$ -**	**$ -**	**$ -**	**$ -**

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Administration					
Staff Costs	$ 10,455	$ -	$ -	$ -	$ -
Administrative Costs	$ 7,595	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,050**	**$ -**	**$ -**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 6,516	$ -	$ -	$ -	$ -
Administrative Costs	$ 4,734	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 11,250**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 8,103	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,887	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ -**	**$ -**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,003	$ 29,319	$ 39,513	$ 59,310	$ 2,381
Administrative Costs	$ 7,267	$ 21,301	$ 28,707	$ 43,090	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 17,270**	**$ 50,620**	**$ 68,220**	**$ 102,400**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,310	$ 5,109	$ -	$ 17,793	$ 5,722
Administrative Costs	$ 11,850	$ 3,711	$ -	$ 12,927	$ 4,158

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 28,160**	**$ 8,820**	**$ -**	**$ 30,720**	**$ 9,880**
Total	**$ 98,910**	**$ 82,460**	**$ 80,250**	**$ 133,120**	**$ 13,990**

Table B-4: Proposed Budget for CMDP

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 7,727	$ 5,809	$ -	$ -	$ -
Administrative Costs	$ 5,613	$ 4,221	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,340**	**$ 10,030**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 11,555	$ 10,362	$ -	$ -	$ -
Administrative Costs	$ 8,395	$ 7,528	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 19,950**	**$ 17,890**	**$ -**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 6,516	$ 6,533	$ -	$ -	$ -
Administrative Costs	$ 4,734	$ 4,747	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 11,250**	**$ 11,280**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 8,103	$ 8,120	$ -	$ -	$ -
Administrative Costs	$ 5,887	$ 5,900	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ 14,020**	**$ -**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 4,008	$ 1,703	$ -	$ -
Administrative Costs	$ -	$ 2,912	$ 1,237	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 6,920**	**$ 2,940**	**$ -**	**$ -**
Code Development/Execution					

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Staff Costs	$ -	$ 11,526	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 8,374	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 19,900**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,553	$ 30,420	$ 39,513	$ 59,420	$ 2,381
Administrative Costs	$ 7,667	$ 22,100	$ 28,707	$ 43,170	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,220**	**$ 52,520**	**$ 68,220**	**$ 102,590**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,861	$ 4,998	$ -	$ 18,894	$ 5,833
Administrative Costs	$ 12,249	$ 3,632	$ -	$ 13,726	$ 4,237
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 29,110**	**$ 8,630**	**$ -**	**$ 32,620**	**$ 10,070**
Total	**$ 105,860**	**$ 141,190**	**$ 81,200**	**$ 135,210**	**$ 14,180**

Table B-5: Proposed Budget for RBHA

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 7,003	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,087	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 12,090**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 10,455	$ -	$ -	$ -	$ -
Administrative Costs	$ 7,595	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,050**	**$ -**	**$ -**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 7,616	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,534	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,150**	**$ -**	**$ -**	**$ -**	**$ -**

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Administration					
Staff Costs	$ 8,103	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,887	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ -**	**$ -**	**$ -**	**$ -**
Member/Beneficiary Surveys					
Instrument Design					
Staff Costs	$ 4,512	$ 3,718	$ -	$ -	$ -
Administrative Costs	$ 3,278	$ 2,702	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 7,790**	**$ 6,420**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 7,100	$ 6,550	$ 2,896	$ -	$ -
Administrative Costs	$ 5,158	$ 4,758	$ 2,104	$ -	$ -
Other Costs	$ 21,450	$ 21,450	$ -	$ -	$ -
Total Costs	**$ 33,708**	**$ 32,758**	**$ 5,000**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,553	$ 29,319	$ 39,623	$ 59,420	$ 2,381
Administrative Costs	$ 7,667	$ 21,301	$ 28,787	$ 43,170	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,220**	**$ 50,620**	**$ 68,410**	**$ 102,590**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,861	$ 5,109	$ -	$ 17,793	$ 5,722
Administrative Costs	$ 12,249	$ 3,711	$ -	$ 12,927	$ 4,158

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 29,110**	**$ 8,820**	**$ -**	**$ 30,720**	**$ 9,880**
Total	**$ 146,108**	**$ 121,638**	**$ 85,440**	**$ 133,310**	**$ 13,990**

Table B-6: Proposed Budget for PQC

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 5,902	$ -	$ -	$ -	$ -
Administrative Costs	$ 4,288	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 10,190**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 10,455	$ -	$ -	$ -	$ -
Administrative Costs	$ 7,595	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,050**	**$ -**	**$ -**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 6,516	$ -	$ -	$ -	$ -
Administrative Costs	$ 4,734	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 11,250**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 8,103	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,887	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ -**	**$ -**	**$ -**	**$ -**
Member/Beneficiary Surveys					
Instrument Design					
Staff Costs	$ 4,512	$ 3,718	$ -	$ -	$ -
Administrative Costs	$ 3,278	$ 2,702	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 7,790**	**$ 6,420**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 5,524	$ 5,524	$ -	$ -	$ -

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Administrative Costs	$ 4,014	$ 4,014	$ -	$ -	$ -
Other Costs	$ 9,653	$ 9,653	$ -	$ -	$ -
Total Costs	**$ 19,191**	**$ 19,191**	**$ -**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,003	$ 29,319	$ 39,623	$ 59,310	$ 2,381
Administrative Costs	$ 7,267	$ 21,301	$ 28,787	$ 43,090	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 17,270**	**$ 50,620**	**$ 68,410**	**$ 102,400**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,310	$ 11,457	$ 9,522	$ 17,793	$ 5,722
Administrative Costs	$ 11,850	$ 8,323	$ 6,918	$ 12,927	$ 4,158
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 28,160**	**$ 19,780**	**$ 16,440**	**$ 30,720**	**$ 9,880**
Total	**$ 125,891**	**$ 119,031**	**$ 96,880**	**$ 133,120**	**$ 13,990**

Table B-7: Proposed Budget for TI

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 5,902	$ -	$ 5,792	$ -	$ -
Administrative Costs	$ 4,288	$ -	$ 4,208	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 10,190**	**$ -**	**$ 10,000**	**$ -**	**$ -**
Administration					

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Staff Costs	$ 10,455	$ -	$ 10,345	$ -	$ -
Administrative Costs	$ 7,595	$ -	$ 7,515	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,050**	**$ -**	**$ 17,860**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 6,516	$ -	$ 6,516	$ -	$ -
Administrative Costs	$ 4,734	$ -	$ 4,734	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 11,250**	**$ -**	**$ 11,250**	**$ -**	**$ -**
Administration					
Staff Costs	$ 8,103	$ -	$ 8,103	$ -	$ -
Administrative Costs	$ 5,887	$ -	$ 5,887	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ -**	**$ 13,990**	**$ -**	**$ -**
Member/Beneficiary Surveys					
Instrument Design					
Staff Costs	$ 4,512	$ 3,718	$ -	$ -	$ -
Administrative Costs	$ 3,278	$ 2,702	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 7,790**	**$ 6,420**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 6,550	$ 6,550	$ 2,896	$ -	$ -
Administrative Costs	$ 4,758	$ 4,758	$ 2,104	$ -	$ -
Other Costs	$ 21,450	$ 21,450	$ -	$ -	$ -
Total Costs	**$ 32,758**	**$ 32,758**	**$ 5,000**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -

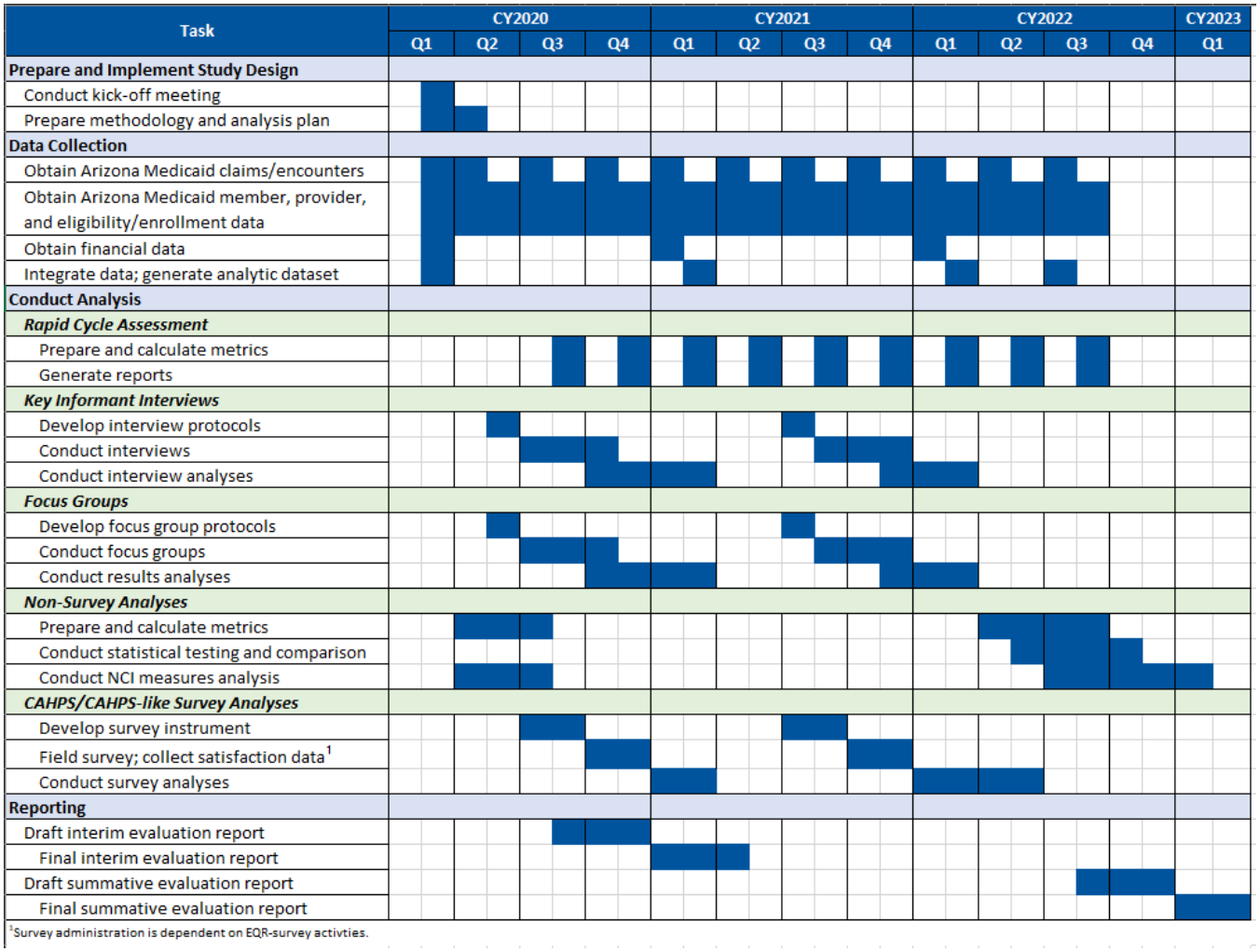
Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,003	$ 29,319	$ 39,623	$ 59,420	$ 2,381
Administrative Costs	$ 7,267	$ 21,301	$ 28,787	$ 43,170	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 17,270**	**$ 50,620**	**$ 68,410**	**$ 102,590**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,310	$ 5,109	$ -	$ 17,793	$ 5,722
Administrative Costs	$ 11,850	$ 3,711	$ -	$ 12,927	$ 4,158
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 28,160**	**$ 8,820**	**$ -**	**$ 30,720**	**$ 9,880**
Total	**$ 139,458**	**$ 121,638**	**$ 138,540**	**$ 133,310**	**$ 13,990**

C. Timeline and Milestones

The following project timeline has been prepared for Arizona's 1115 waiver demonstration evaluation outlined in the preceding sections. This timeline should be considered preliminary and subject to change based upon approval of the Evaluation Design and implementations of the waiver programs. A final detailed timeline will be developed upon selection of the independent evaluator tasked with conducting the evaluation.

Figure C-1 outlines the proposed timeline and tasks for conducting the waiver evaluation.

Figure C-1: Evaluation Project Timeline



Note: Timeline based on approval for the waiver after September 30, 2021.

D. Proposed Measure Specifications

The tables in this section provide the detailed measure specifications for the Arizona Health Care Cost Containment System (AHCCCS) waiver demonstration evaluation.

ACC

Hypothesis 1—Health plans encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.

Research Question 1.1: What care coordination strategies did the plans implement as a result of ACC?

Health Plans' Reported Care Coordination Activities (Measure 1-1)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 1.2: Did the plans encounter barriers to implementing care coordination strategies?

Health Plans' Reported Barriers to Implementing Care Coordination Strategies (Measure 1-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 1.3: Did the plans encounter barriers not related specifically to implementing care coordination strategies during the transition to ACC?

Health Plans' Reported Barriers Not Related Specifically to Implementing Care Coordination Strategies During the Transition to ACC (Measure 1-3)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A

Health Plans' Reported Barriers Not Related Specifically to Implementing Care Coordination Strategies During the Transition to ACC (Measure 1-3)	
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 1.4: Did AHCCCS encounter barriers related to the transition to ACC?

AHCCCS' Reported Barriers Before, During, and Shortly Following the Transition to ACC (Measure 1-4)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 1.5: Did providers encounter barriers related to the transition to ACC?

Providers' Reported Barriers Before, During, and Shortly Following the Transition to ACC (Measure 1-5)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Provider Focus Groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 1.6: Do beneficiaries perceive their doctors to have better care coordination as a result of ACC?

Percentage of Beneficiaries Who Reported Their Doctor Seemed Informed about the Care They Received from Other Health Providers (Measure 1-6)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating their personal doctor seemed informed about the care they received from other health providers Denominator: Number of respondents to survey question regarding whether their doctor seemed informed about the care they received from other health providers
Comparison Population	National/regional benchmarks
Measure Steward	National Committee for Quality Assurance (NCQA)
CAHPS Question	Child: In the last 6 months, how often did your child's personal doctor seem informed and up-to-date about the care your child got from these doctors or other health providers?

Percentage of Beneficiaries Who Reported Their Doctor Seemed Informed about the Care They Received from Other Health Providers (Measure 1-6)	
	Adult: In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?
Data Source	• Beneficiary survey • National/regional benchmarks
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Hypothesis 2—Access to care will maintain or improve as a result of the integration of behavioral and physical care.

Research Question 2.1: Do beneficiaries enrolled in an ACC plan have the same or better access to primary care services compared to prior to integrated care?

Percentage of Adults Who Accessed Preventive/Ambulatory Health Services (Measure 2-1)	
Numerator/Denominator	Numerator: Number of beneficiaries with an ambulatory or preventive care visit Denominator: Number of beneficiaries 20 years and older
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Adults' Access to Preventive/Ambulatory Health Services (AAP)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Children and Adolescents Who Accessed PCPs (Measure 2-2)	
Numerator/Denominator	Numerator: One or more visits with a PCP during the measurement year for beneficiaries 1-6 years of age. One or more visits with a PCP during the measurement year or the year prior for beneficiaries 7-19 years of age Denominator: beneficiaries 1-19 years of age with continuous enrollment of: • The measurement year for beneficiaries 1-6 years of age with no more than one gap in enrollment of up to 45 days • The measurement year and the year prior for beneficiaries 7-19 years of age with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	National/regional benchmarks

Percentage of Children and Adolescents Who Accessed PCPs (Measure 2-2)	
Measure Steward	CMS Child Core Set
Measure Name	Children and Adolescents' Access to Primary Care Practitioners
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Beneficiaries under 21 with an Annual Dental Visit (Measure 2-3)	
Numerator/Denominator	Numerator: One or more dental visits with a dental practitioner during the measurement year. Any visit with a dental practitioner during the measurement year meets criteria Denominator: beneficiaries 2–20 years of age continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Annual Dental Visit (ADV)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Who Reported They Received Care as Soon as They Needed (Measure 2-4)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: In the last 6 months, when your child needed care right away, how often did your child get care as soon as he or she needed? Adult: In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?
Data Source	• Beneficiary survey • National/regional benchmarks

Percentage of Beneficiaries Who Reported They Received Care as Soon as They Needed (Measure 2-4)	
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment for a Checkup or Routine Care at a Doctor's Office or Clinic as Soon as They Needed (Measure 2-5)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get an appointment for routine care as soon as they needed Denominator: Number of respondents to getting appointment for routine care survey question
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: In the last 6 months, when you made an appointment for a check-up or routine care for your child at a doctor's office or clinic, how often did you get an appointment as soon as your child needed? Adult: In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
Data Source	• Beneficiary survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment with a Specialist as Soon as They Needed (Measure 2-6)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get an appointment with a specialist as soon as they needed Denominator: Number of respondents to getting appointment with a specialist survey question
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: In the last six months, how often did you get an appointment for your child to see a specialist as soon as you needed? Adult: In the last six months, how often did you get an appointment to see a specialist as soon as you needed?
Data Source	• Beneficiary survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment with a Specialist as Soon as They Needed (Measure 2-6)	
	• Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Research Question 2.2: Do beneficiaries enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to integrated care?

Percentage of Beneficiaries Who Had Initiation of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-7)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis and 60 days continuous enrollment prior to the episode and 48 days after the index episode.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment: Initiation of AOD Treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Who Had Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-8)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis and 60 days continuous enrollment prior to the episode and 48 days after the index episode.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment: Engagement of AOD Treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks

Percentage of Beneficiaries Who Had Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-8)	
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Hypothesis 3—Quality of care will maintain or improve as a result of the integration of behavioral and physical care.

Research Question 3.1: Do beneficiaries enrolled in an ACC plan have the same or higher rates of preventive or wellness services compared to prior to integrated care?

Percentage of Beneficiaries with a Well-Child Visit in the First 15 Months of Life (Measure 3-1)	
Numerator/Denominator	Numerator: Number of beneficiaries who turned 15 months old during the measurement year and had at least one well-child visit Denominator: Number of beneficiaries who turned 15 months old during the measurement year and continuous enrollment from 31 days to 15 months and continuously enrolled with no more than one gap in enrollment of up to 45 days during the continuous enrollment period
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child Core Set
Measure Name	Well-Child Visits in the First 15 Months of Life (W15)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Beneficiaries with a Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 3-2)	
Numerator/Denominator	Numerator: Number of beneficiaries with at least one well-child visit with a PCP during the measurement year Denominator: Number of beneficiaries 3-6 years of age and continuously enrolled with no more than one gap in enrollment of up to 45 days during the measurement year
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child Core Set
Measure Name	Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life (W34)
Data Source	• State eligibility and enrollment data • Claims/encounter data

Percentage of Beneficiaries with a Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 3-2)	
	• National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Beneficiaries with an Adolescent Well-Care Visit (Measure 3-3)	
Numerator/Denominator	Numerator: Number of beneficiaries with at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year Denominator: Number of beneficiaries aged 12-21 and continuously enrolled with no more than one gap of up to 45 days during the measurement year
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child Core Set
Measure Name	Adolescent Well-Care Visits (AWC)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Children Two Years of Age with Appropriate Immunization Status (Measure 3-4)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had: four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); three haemophilus influenza type B (HiB); three hepatitis B (HepB), one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The measure calculates a rate for each vaccine and nine separate combination rates. Denominator: Number of children who turn 2 years of age during the measurement year.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child Core Set
Measure Name	Childhood Immunization Status
Data Source	• State eligibility and enrollment data • Arizona State Immunization Information System
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Adolescents 13 Years of Age with Appropriate Immunizations (Measure 3-5)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had: one dose of meningococcal vaccine, one tetanus, diphtheria toxoids and acellular pertussis (Tdap) vaccine, and have completed the human papillomavirus (HPV) vaccine series by their 13th birthday. The measure calculates a rate for each vaccine and two combination rates. Denominator: Number of adolescents 13 years of age.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child Core Set
Measure Name	Immunizations for Adolescents
Data Source	• State eligibility and enrollment data • Arizona State Immunization Information System
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Adult Beneficiaries Who Reported Having a Flu Shot or Nasal Flu Spray Since July 1 (Measure 3-6)	
Numerator/Denominator	Numerator: Number of beneficiaries stating they had a flu shot or nasal flu spray since July 1 Denominator: Number of respondents to survey question about flu shot or spray
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: N/A Adult: Have you had either a flu shot or flu spray in the nose since July 1, <year>?
Data Source	• Beneficiary survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Research Question 3.2: Do beneficiaries enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to integrated care?

Percentage of Beneficiaries with Persistent Asthma Who Had a Ratio of Controller Medications to Total Asthma Medications of at least 50 Percent (Measure 3-7)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a ratio of controller medications to total asthma medications of 0.50 or greater Denominator: Number of beneficiaries aged 5-64 who were identified as having persistent asthma who were continuously enrolled during the measurement year and the year prior to the measurement year with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment

Percentage of Beneficiaries with Persistent Asthma Who Had a Ratio of Controller Medications to Total Asthma Medications of at least 50 Percent (Measure 3-7)	
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child and Adult Core Set
Measure Name	Asthma Medication Ratio (AMR)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Research Question 3.3: Do beneficiaries enrolled in an ACC plan have the same or better management of behavioral health conditions compared to prior to integrated care?

Percentage of Adult Beneficiaries Who Remained on an Antidepressant Medication Treatment (Measure 3-8)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who remained on an antidepressant medication treatment for: 1) at least 84 days, and 2) at least 180 days Denominator: Number of beneficiaries aged 18 and older who were treated with antidepressant medication and had a diagnosis of major depression who were continuously enrolled from 105 days prior to the index prescription start date (IPSD) through 231 days after the IPSD with no more than one gap in enrollment of up to 45 days during the continuous enrollment period
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set
Measure Name	Antidepressant Medication Management (AMM)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Beneficiaries with a Follow-up Visit After Hospitalization for Mental Illness (Measure 3-9)	
Numerator/Denominator	Numerator: Number of beneficiaries with a discharge for mental illness and a follow-up visit with a mental health practitioner within 7 days after discharge Denominator: Number of beneficiaries 6 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge
Comparison Population	National/regional benchmarks

Percentage of Beneficiaries with a Follow-up Visit After Hospitalization for Mental Illness (Measure 3-9)	
Measure Steward	CMS Child & Adult Core Set
Measure Name	Follow-Up After Hospitalization for Mental Illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries with a Follow-up Visit After Emergency Department (ED) Visit for Mental Illness (Measure 3-10)	
Numerator/Denominator	Numerator: Number of ED visits in the denominator with a follow-up visit for mental illness within 7 days of the ED visit. Denominator: Number of ED visits for beneficiaries 6 years of age and older with a principal diagnosis of mental illness or intentional self-harm with continuous enrollment from the date of the ED visit through 30 days after the ED visit
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Follow-Up After Emergency Department Visit for Mental Illness (FUM)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries with a Follow-up Visit After ED Visit for Alcohol and Other Drug Abuse or Dependence (Measure 3-11)	
Numerator/Denominator	Numerator: Number of ED visits in the denominator with a follow-up visit for alcohol or other drug (AOD) abuse within 7 days of the ED visit. Denominator: Number of ED visits for beneficiaries 13 years of age and older with a principal diagnosis of AOD abuse or dependence and continuously enrolled from the date of the ED visit through 30 days after the ED visit
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence (FUH)
Data Source	• State eligibility and enrollment data

Percentage of Beneficiaries with a Follow-up Visit After ED Visit for Alcohol and Other Drug Abuse or Dependence (Measure 3-11)	
	• Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries with a Screening for Clinical Depression and Follow-up Plan (Measure 3-12)	
Numerator/Denominator	Numerator: Number of beneficiaries age 12 and older with a positive screen and follow-up plan documented. Denominator: Number of beneficiaries age 12 and older screened for depression
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child & Adult Core Set
Measure Name	Screening for Depression and Follow-Up Plan (CDF)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Receiving Mental Health Services (inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth) (Measure 3-13)	
Numerator/Denominator	Numerator: Number of beneficiaries utilizing mental health services Denominator: Number of member months, divided by 12
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Mental Health Utilization (MPT)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks

Percentage of Beneficiaries Receiving Mental Health Services (inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth) (Measure 3-13)	
	• Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Research Question 3.4: Do beneficiaries enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to integrated care?

Percentage of Adult Beneficiaries Who Have a Prescription for Opioids at High Dosage (Measure 3-14)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who received prescriptions for opioids with an average daily dosage greater than or equal to 90 morphine milligram equivalents (MME) over a period of 90 days or more. Denominator: Number of beneficiaries age 18 and older with two or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set
Measure Name	Use of Opioids at High Dosage in Persons Without Cancer (OHD)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Adult Beneficiaries with a Concurrent Use of Opioids and Benzodiazepines (Measure 3-15)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator with concurrent use of prescription opioids and benzodiazepines. Denominator: Number of beneficiaries age 18 and older with 2 or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set
Measure Name	Concurrent Use of Opioids and Benzodiazepines (COB)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Research Question 3.5: Do beneficiaries enrolled in an ACC plan have equal or lower ED or hospital utilization compared to prior to ACC?

Number of ED Visits per 1,000 Member Months (Measure 3-16)	
Numerator/Denominator	Numerator: Number of ED Visits. Denominator: Number of member months, divided by 1,000.
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Ambulatory Care (AMB): ED Visits
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Number of Inpatient Stays per 1,000 Member Months (Measure 3-17)	
Numerator/Denominator	Numerator: Number of total inpatient stays. Denominator: Number of member months, divided by 1,000.
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Inpatient Utilization—General Hospital/Acute Care (IPU)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Adult Inpatient Discharges with an Unplanned Readmission within 30 Days (Measure 3-18)	
Numerator/Denominator	Numerator: Number of acute inpatient stays in the denominator followed by an unplanned acute readmission within 30 days. Denominator: Number of acute inpatient stays for beneficiaries aged 18 to 64.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set

Percentage of Adult Inpatient Discharges with an Unplanned Readmission within 30 Days (Measure 3-18)	
Measure Name	Plan All-Cause Readmissions (PCR)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Hypothesis 4—Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care.

Research Question 4.1: Do beneficiaries enrolled in an ACC plan have the same or higher overall health rating compared to prior to integrated care?

Percentage of Beneficiaries Who Reported a High Rating of Overall Health (Measure 4-1)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of overall health Denominator: Number of respondents to survey question regarding overall health
Comparison Population	National/regional benchmarks; Out-of-state comparison
Measure Steward	NCQA
CAHPS Question	Child: In general, how would you rate your child's overall health? Adult: In general, how would you rate your overall health?
Data Source	• Beneficiary Survey • National/regional benchmarks • BRFSS
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Research Question 4.2: Do beneficiaries enrolled in an ACC plan have the same or higher overall mental or emotional health rating compared to prior to integrated care?

Percentage of Beneficiaries Who Reported a High Rating of Overall Mental or Emotional Health (Measure 4-2)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of mental or emotional health Denominator: Number of respondents to survey question regarding mental or emotional health
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: In general, how would you rate your child's overall mental or emotional health?

Percentage of Beneficiaries Who Reported a High Rating of Overall Mental or Emotional Health (Measure 4-2)	
	Adult: In general, how would you rate your overall mental or emotional health?
Data Source	• Beneficiary Survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Hypothesis 5—Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care.

Research Question 5.1: Are beneficiaries equally or more satisfied with their health care as a result of integrated care?

Percentage of Beneficiaries Who Reported a High Rating of Health Plan (Measure 5-1)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of their health plan Denominator: Number of respondents to survey question regarding satisfaction of health plan
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your child's health plan? Adult: Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?
Data Source	• Beneficiary Survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Who Reported a High Rating of Overall Health care (Measure 5-2)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of their overall health care Denominator: Number of respondents to survey question regarding satisfaction of overall health care
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your child's health care in the last 6 months?

Percentage of Beneficiaries Who Reported a High Rating of Overall Health care (Measure 5-2)	
	Adult: Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 6 months?
Data Source	• Beneficiary Survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

ALTCS

Hypothesis 1—Access to care will maintain or improve over the waiver demonstration period.

Research Question 1.1: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with developmental disabilities (DD) have the same or higher rates of access to care compared to compared to baseline rates and out-of-state comparisons?

Percentage of Beneficiaries Who Accessed Preventive/Ambulatory Health Services (Measure 1-1)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries with an ambulatory or preventive care visit Denominator: Number of beneficiaries 20 years and older continuously enrolled throughout the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State Comparison
Measure Steward	National Committee for Quality Assurance (NCQA)
Measure Name	Adults' Access to Preventive/Ambulatory Health Services (AAP)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 1.2: Do child beneficiaries with DD have the same or higher rates of access to care compared to baseline rates and out-of-state comparisons?

Percentage of Children and Adolescents Who Accessed Primary Care Practitioners (Measure 1-2)	
Evaluation Population	Beneficiaries with DD
Age Group	Children
Numerator/Denominator	Numerator: One or more visits with a primary care practitioner (PCP) during the measurement year for beneficiaries 1-6 years of age. One or more visits with a PCP during the measurement year or the year prior for beneficiaries 7-19 years of age Denominator: Beneficiaries 1-19 years of age with continuous enrollment of: • The measurement year for beneficiaries 1-6 years of age with no more than one gap in enrollment of up to 45 days • The measurement year and the year prior for beneficiaries 7-19 years of age with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	Out-of-State Comparisons
Measure Steward	Centers for Medicare & Medicaid Services (CMS) Child Core Set
Measure Name	Children and Adolescents' Access to Primary Care Practitioners (CAP)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries Under 21 with an Annual Dental Visit (Measure 1-3)	
Evaluation Population	Beneficiaries with DD
Age Group	Children
Numerator/Denominator	Numerator: One or more dental visits with a dental practitioner during the measurement year. Any visit with a dental practitioner during the measurement year meets criteria Denominator: Beneficiaries 2–20 years of age continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Annual Dental Visit (ADV)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 1.3: Do adult beneficiaries with DD have the same or improved rates of access to care as a result of the integration of care for beneficiaries with DD?

Percentage of Beneficiaries Who Have a Primary Care Doctor or Practitioner (Measure 1-4)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they do have a primary care doctor or practitioner Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from National Core Indicator (NCI) survey in other states
Measure Steward	NCI
Measure Name	Has a primary care doctor or practitioner
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences

Percentage of Beneficiaries Who Had a Complete Physical Exam in the Past Year (Measure 1-5)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they had a physical exam in the past year Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Had a complete physical exam in the past year
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Had a Dental Exam in the Past Year (Measure 1-6)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they had a dental exam in the past year Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Had a dental exam in the past year

Percentage of Beneficiaries Who Had a Dental Exam in the Past Year (Measure 1-6)	
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Had an Eye Exam in the Past Year (Measure 1-7)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they had an eye exam in the past year Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Had an eye exam in the past year
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Had an Influenza Vaccine in the Past Year (Measure 1-8)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they had a flu vaccine in the past year Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Had a flu vaccine in the past year
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Hypothesis 2—Quality of care will maintain or improve over the wavier demonstration period.

Research Question 2.1: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of preventative care compared to baseline rates and out-of-state comparisons?

Percentage of Adult Beneficiaries with a Breast Cancer Screening (Measure 2-1)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had one or more mammograms in the measurement period Denominator: Number of women aged 52 to 74 continuously enrolled from October 1 two years prior to the measurement year through December 31 of the measurement year with no more than one gap in enrollment of up to 45 days for each full calendar year of continuous enrollment
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Breast Cancer Screening (BCS)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Adult Beneficiaries with a Cervical Cancer Screening (Measure 2-2)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had cervical cytology in the measurement period Denominator: Number of women aged 21 to 64
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Cervical Cancer Screening (CCS)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Persistent Asthma Who had a Ratio of Controller Medications to Total Asthma Medications of at least 50 Percent (Measure 2-3)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a ratio of controller medications to total asthma medications of 0.50 or greater

Percentage of Beneficiaries with Persistent Asthma Who had a Ratio of Controller Medications to Total Asthma Medications of at least 50 Percent (Measure 2-3)	
	Denominator: Number of beneficiaries aged 5-64 who were identified as having persistent asthma who were continuously enrolled during the measurement year and the year prior to the measurement year with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child and Adult Core Sets
Measure Name	Asthma Medication Ratio (AMR)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 2.2: Do child beneficiaries with DD have the same or higher rates of preventative care compared to baseline rates and out-of-state comparisons?

Percentage of Beneficiaries with Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 2-4)	
Evaluation Population	Beneficiaries with DD
Age Group	Children
Numerator/Denominator	Numerator: Number of beneficiaries with at least one well-child visit with a PCP during the measurement year Denominator: Number of beneficiaries 3-6 years of age and continuously enrolled with no more than one gap in enrollment of up to 45 days during the measurement year
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child Core Set
Measure Name	Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life (W34)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with an Adolescent Well-Care Visit (Measure 2-5)	
Evaluation Population	Beneficiaries with DD
Age Group	Children
Numerator/Denominator	Numerator: Number of beneficiaries with at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year

Percentage of Beneficiaries with an Adolescent Well-Care Visit (Measure 2-5)	
	Denominator: Number of beneficiaries aged 12-21 and continuously enrolled during the measurement year with no more than one gap of up to 45 days
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child Core Set
Measure Name	Adolescent Well-Care Visits (AWC)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with an Influenza Vaccine (Measure 2-6)	
Evaluation Population	Beneficiaries with DD
Age Group	Children
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had an influenza vaccine during the measurement year Denominator: Number of beneficiaries aged 18 and younger
Comparison Population	N/A
Measure Steward	N/A
Data Source	• State eligibility and enrollment data • Arizona State Immunization Information System
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Research Question 2.3: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or better management of behavioral health conditions compared to baseline rates and out-of-state comparisons?

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 2-7)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator and a follow-up visit with a mental health practitioner within 7 days after discharge Denominator: Number of beneficiaries 6 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child and Adult Core Sets

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 2-7)	
Measure Name	Follow-Up After Hospitalization for Mental Illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Adult Beneficiaries Who Remained on an Antidepressant Medication Treatment (Measure 2-8)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who remained on an antidepressant medication treatment for: 1) at least 84 days, and 2) at least 180 days Denominator: Number of beneficiaries aged 18 and older who were treated with antidepressant medication and had a diagnosis of major depression who were continuously enrolled from 105 days prior to the index prescription start date (IPSD) through 231 days after the IPSD with no more than one gap in enrollment of up to 45 days during the continuous enrollment period
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Antidepressant Medication Management (AMM)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with a Screening for Depression and Follow-Up Plan (Measure 2-9)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of beneficiaries age 12 and older with a positive screen and follow-up plan documented Denominator: Number of beneficiaries age 12 and older screened for depression using and agree appropriate standardized depression tool
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child and Adult Core Sets
Measure Name	Screening for Depression and Follow-Up Plan (CDF)
Data Source	• State eligibility and enrollment data • Claims/encounter data

Percentage of Beneficiaries with a Screening for Depression and Follow-Up Plan (Measure 2-9)	
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries Receiving Mental Health Services (Inpatient, Intensive Outpatient or Partial Hospitalization, Outpatient, Emergency Department [ED], or Telehealth) (Measure 2-10)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of beneficiaries utilizing mental health services Denominator: Number of member months, divided by 12
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Mental Health Utilization (MPT)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 2.4: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with DD have the same or better management of prescriptions compared to baseline rates and out-of-state comparisons?

Percentage of Adult Beneficiaries with Monitoring for Persistent Medications (Measure 2-11)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had at least one therapeutic monitoring test in the measurement period Denominator: Number of beneficiaries aged 18 and older who received at least 180 treatment days of ambulatory medication in the measurement period continuously enrolled in the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Annual Monitoring for Patients on Persistent Medications (MPM)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis

Percentage of Adult Beneficiaries with Monitoring for Persistent Medications (Measure 2-11)	
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Opioid Use at High Dosage (Measure 2-12)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who received prescriptions for opioids with an average daily dosage greater than or equal to 90 morphine milligram equivalents (MME) over a period of 90 days or more Denominator: Number of beneficiaries age 18 and older with two or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more with continuous enrollment during the measurement year with no more than one gap of up to 31 days
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Use of Opioids at High Dosage in Persons Without Cancer (OHD)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or a decrease in the rate supports the hypothesis Integration evaluation: no change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-Differences

Percentage of Beneficiaries with a Concurrent Use of Opioids and Benzodiazepines (Measure 2-13)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator with concurrent use of prescription opioids and benzodiazepines Denominator: Number of beneficiaries age 18 and older with 2 or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more with continuous enrollment during the measurement year with no more than one gap of up to 31 days
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Concurrent Use of Opioids and Benzodiazepines (COB)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or a decrease in the rate supports the hypothesis Integration evaluation: no change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 2.5: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of utilization of care compared to baseline rates and out-of-state comparisons?

Number of ED Visits Per 1,000 Member Months (Measure 2-14)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of ED visits Denominator: Number of member months, divided by 1,000
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child Code Set and NCQA
Measure Name	Ambulatory Care (AMB): ED Visits
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Number of Inpatient Stays Per 1,000 Member Months (Measure 2-15)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of total inpatient stays Denominator: Number of member months, divided by 1,000
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Inpatient Utilization—General Hospital/Acute Care (IPU)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Adult Inpatient Discharges with an Unplanned Readmission within 30 Days (Measure 2-16)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of acute inpatient stays in the denominator followed by an unplanned acute readmission within 30 days Denominator: Number of acute inpatient stays for beneficiaries aged 18 to 64

Percentage of Adult Inpatient Discharges with an Unplanned Readmission within 30 Days (Measure 2-16)	
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Plan All-Cause Readmissions (PCR)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or a decrease in the rate supports the hypothesis Integration evaluation: no change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-Differences

Hypothesis 3—Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.

Research Question 3.1: Do beneficiaries have the same or higher rates of living in their own home as a result of the ALTCS waiver renewal?

Percentage of Beneficiaries Residing in Their Own Home (Measure 3-1)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of AHCCCS beneficiaries who live in their own home Denominator: AHCCCS beneficiaries
Comparison Population	N/A
Measure Steward	Arizona Health Care Cost Containment System (AHCCCS)
Data Source	• Prepaid Medical Management Information System (PMMIS) • AHCCCS Customer Eligibility (ACE)
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Type of Residence for Adult Beneficiaries with DD (Measure 3-2)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they reside in their own home Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Type of Residence
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis

Type of Residence for Adult Beneficiaries with DD (Measure 3-2)	
	Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Research Question 3.2: Do adult beneficiaries have the same or higher rates of feeling satisfied with their living arrangements as a result of the integration of care for beneficiaries with DD?

Percentage of Beneficiaries Who Want to Live Somewhere Else (Measure 3-3)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they want to live somewhere else Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Wants to live somewhere else
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Believe Services and Supports Help Them Live a Good Life (Measure 3-4)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated services and supports help them live a good life Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Services and supports help the person live a good life
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Research Question 3.3: Do adult beneficiaries have the same or higher rates of feeling engaged as a result of the integration of care for beneficiaries with DD?

Percentage of Beneficiaries Able to Go Out and Do Things S/He Likes to Do in the Community (Measure 3-5)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they are able to go out and do things in the community Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Able to go out and do the things s/he like to do in the community
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Have Friends Who are Not Staff or Family Members (Measure 3-6)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they have friends who are not staff or family members Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Has friends who are not staff or family members
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Decide or Has Input in Deciding Their Daily Schedule (Measure 3-7)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they have input in deciding their daily schedule Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Decides or has input in deciding daily schedule

Percentage of Beneficiaries Who Decide or Has Input in Deciding Their Daily Schedule (Measure 3-7)	
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Hypothesis 4—ALTCS encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.

Research Question 4.1: Did Department of Economic Security/Division of Developmental Disabilities (DES/DDD) or its contracted plans encounter barriers during the integration of care for beneficiaries with DD?

DES/DDD and Its Contracted Plans' Barriers During Transition (Measure 4-1)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews with AHCCCS, DES/DDD, and plans
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 4.2: What care coordination strategies did DES/DDD and its contracted plans implement as a result of integration of care?

DES/DDD and Its Contracted Plans' Care Coordination Activities (Measure 4-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews with AHCCCS, DES/DDD, and plans
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 4.3: Did DES/DDD or its contracted plans encounter barriers to implementing care coordination strategies?

DES/DDD and Its Contracted Plans' Barriers to Implementing Care Coordination Strategies (Measure 4-3)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A

DES/DDD and Its Contracted Plans' Barriers to Implementing Care Coordination Strategies (Measure 4-3)	
Measure Steward	N/A
Data Source	Key informant interviews with AHCCCS, DES/DDD, and plans
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 4.4: Did AHCCCS encounter barriers related to integration of care for beneficiaries with DD?

AHCCCS' Reported Barriers Before, During, and Shortly After the Integration of Care (Measure 4-4)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews with AHCCCS
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 4.5: Did providers encounter barriers related to integration of care for beneficiaries with DD?

Providers' Reported Barriers Before, During, and Shortly After the Integration of Care (Measure 4-5)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

CMDP

Hypothesis 1—Access to care will be maintained or increase during the demonstration.

Research Question 1.1: Do CMDP beneficiaries have the same or increased access to primary care practitioners (PCPs) and specialists in the remeasurement period compared to the baseline?

Percentage of Children and Adolescents with Access to Primary Care Practitioners (Measure 1-1)	
Numerator/Denominator	Numerator: One or more visits with a PCP during the measurement year for beneficiaries 1-6 years of age. One or more visits with a PCP during the measurement year or the year prior for beneficiaries 7-19 years of age Denominator: Beneficiaries 1-19 years of age with continuous enrollment of: • The measurement year for beneficiaries 1-6 years of age with no more than one gap in enrollment of up to 45 days • The measurement year and the year prior for beneficiaries 7-19 years of age with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	Similar beneficiaries in another state
Measure Steward	Centers for Medicare & Medicaid Services (CMS) Child Core Set
Measure Name	Children and Adolescents' Access to Primary Care Practitioners (CAP-CH)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Beneficiaries with an Annual Dental Visit (Measure 1-2)	
Numerator/Denominator	Numerator: One or more dental visits with a dental practitioner during the measurement year. Any visit with a dental practitioner during the measurement year meets criteria Denominator: Beneficiaries 2–20 years of age continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Annual Dental Visit (ADV)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Hypothesis 2—Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.

Research Question 2.1: Do CMDP beneficiaries have the same or higher rates of preventive or wellness services in the remeasurement period compared to the baseline?

Percentage of Beneficiaries with Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 2-1)	
Numerator/Denominator	Numerator: Number of beneficiaries with at least one well-child visit with a PCP during the measurement year

Percentage of Beneficiaries with Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 2-1)	
	Denominator: Number of beneficiaries 3-6 years of age with continuous enrollment during the measurement year and with no more than one gap in enrollment of up to 45 days
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life (W34)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Beneficiaries with an Adolescent Well-Care Visit (Measure 2-2)	
Numerator/Denominator	Numerator: Number of beneficiaries with at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year Denominator: Number of beneficiaries aged 12-21 and continuously enrolled with no more than one gap of up to 45 days during the measurement year
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Adolescent Well-Care Visits
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Children Two Years of Age with Appropriate Immunization Status (Measure 2-3)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had: four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); three Hemophilus influenza type B (HiB); three hepatitis B (HepB), one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The measure calculates a rate for each vaccine and nine separate combination rates. Denominator: Number of children who turn 2 years of age during the measurement year.
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Data Source	• State eligibility and enrollment data • Arizona State Immunization Information System
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences

Percentage of Children Two Years of Age with Appropriate Immunization Status (Measure 2-3)	
	• Pre-test/post-test

Percentage of Adolescents 13 Years of Age with Appropriate Immunizations (Measure 2-4)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had: one dose of meningococcal vaccine, one tetanus, diphtheria toxoids and acellular pertussis (Tdap) vaccine, and have completed the human papillomavirus (HPV) vaccine series by their 13th birthday. The measure calculates a rate for each vaccine and two combination rates. Denominator: Number of adolescents 13 years of age.
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Data Source	• State eligibility and enrollment data • Arizona State Immunization Information System
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Research Question 2.2: Do CMDP beneficiaries have the same or better management of chronic conditions in the remeasurement period compared to the baseline?

Percentage of Beneficiaries Ages 5 to 18 Who Were Identified as Having Persistent Asthma and Had a Ratio of Controller Medications of 0.50 or Greater During the Measurement Year (Measure 2-5)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who were identified as having persistent asthma and had a ratio of controller medications to total asthma medication of 0.50 or greater during the measurement year Denominator: Number of beneficiaries aged 5-18 who were identified as having persistent asthma and continuously enrolled during the measurement year and year prior to the measurement year, with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	Similar beneficiaries in another state
Measure Steward	National Committee for Quality Assurance (NCQA)
Measure Name	Asthma Medication Ratio (AMR)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Research Question 2.3: Do CMDP beneficiaries have the same or better management of behavioral health conditions in the remeasurement period compared to the baseline?

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 2-6)	
Numerator/Denominator	Numerator: Number of beneficiaries with a discharge for mental illness and a follow-up visit with a mental health practitioner within 7 days after discharge Denominator: Number of beneficiaries 6 to 17 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Follow-Up After Hospitalization for Mental Illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Children and Adolescents on Antipsychotics with Metabolic Monitoring (Measure 2-7)	
Numerator/Denominator	Numerator: Number of children and adolescents 1 – 17 years of age who had two or more antipsychotic prescriptions and had metabolic testing Denominator: Number of beneficiaries aged 1 to 17 with at least two antipsychotic medication dispensing events of the same or different mediations, on different dates of service during the measurement year, and continuous enrollment during the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Similar beneficiaries in another state
Measure Steward	NCQA
Measure Name	Metabolic Monitoring for Children and Adolescents on Antipsychotics (APM)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Beneficiaries with Screening for Depression and Follow-Up Plan (Measure 2-8)	
Numerator/Denominator	Numerator: Number of beneficiaries screened for depression using a standardized tool and, if positive, a follow-up plan is documented on the date of the positive screen Denominator: Number of beneficiaries age 12 to 17 with an outpatient visit during the measurement year
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Screening for Depression and Follow-Up Plan: Ages 12 – 17 (CDF-CH)
Data Source	• State eligibility and enrollment data • Claims/encounter data

Percentage of Beneficiaries with Screening for Depression and Follow-Up Plan (Measure 2-8)	
	• Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Children and Adolescents with Use of Multiple Concurrent Antipsychotics (Measure 2-9)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator on two or more concurrent antipsychotic medications for at least 90 consecutive days during the measurement period Denominator: Number of beneficiaries aged 1 to 17 with 90 days of continuous antipsychotic mediation treatment during the measurement period and with no more than one gap in enrollment of up to 45 days during the measurement year
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Use of Multiple Concurrent Antipsychotics in Children and Adolescents (APC-CH)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or a decrease in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Number of Beneficiaries Receiving Mental Health Services (inpatient, intensive outpatient or partial hospitalization, outpatient, emergency department [ED], or telehealth) (Measure 2-10)	
Numerator/Denominator	Numerator: Number of inpatient mental health services Denominator: Number of member months, divided by 1,000
Comparison Population	Similar beneficiaries in another state
Measure Steward	NCQA
Measure Name	Mental Health Utilization—Inpatient (MPT)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Research Question 2.4: Do CMDP beneficiaries have the same or lower hospital utilization in the remeasurement period compared to the baseline?

Number of ED Visits Per 1,000 Member Months (Measure 2-11)	
Numerator/Denominator	Numerator: Number of ED visits Denominator: Number of member months, divided by 1,000
Comparison Population	Similar beneficiaries in another state
Measure Steward	NCQA
Measure Name	Ambulatory Care—ED Visits (AMB)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Number of Inpatient Stays Per 1,000 Member Months (Measure 2-12)	
Numerator/Denominator	Numerator: Number of total inpatient stays Denominator: Number of member months, divided by 1,000
Comparison Population	Similar beneficiaries in another state
Measure Steward	NCQA
Measure Name	Inpatient Utilization—General Hospital/Acute Care (IPU)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Hypothesis 3—CMDP encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.

Research Question 3.1: What barriers did CMDP anticipate/encounter during the integration?

CMDP's Anticipated/Reported Barriers During Transition (Measure 3-1)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	• Key informant interviews • Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 3.2: What care coordination strategies did CMDP plan/implement during integration?

CMDP's Planned/Reported Care Coordination Activities (Measure 3-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	• Key informant interviews • Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 3.3: What barriers to implementing care coordination strategies did the CMDP anticipate/encounter?

CMDP's Anticipated/Reported Barriers in Implementing Care Coordination Strategies (Measure 3-3)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	• Key informant interviews • Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

RBHA

Hypothesis 1—Access to care for adult beneficiaries with a serious mental illness (SMI) enrolled in a RBHA will be maintained or increase during the demonstration

Research Question 1.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to primary care services compared to prior to the demonstration renewal?

Percentage of Adults Who Accessed Preventive/Ambulatory Health Services (Measure 1-1)	
Numerator/Denominator	Numerator: Number of beneficiaries with an ambulatory or preventive care visit Denominator: Number of beneficiaries 20 years and older continuously enrolled for the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State comparison group
Measure Steward	National Committee for Quality Assurance (NCQA)
Measure Name	Adults' Access to Preventive/Ambulatory Health Services (AAP)
Data Source	• State eligibility and enrollment data

Percentage of Adults Who Accessed Preventive/Ambulatory Health Services (Measure 1-1)	
	• Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries Who Reported They Received Care as Soon as They Needed (Measure 1-2)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?
Data Source	Beneficiary survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment for a Checkup or Routine Care at a Doctor's Office or Clinic as Soon as They Needed (Measure 1-3)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get an appointment for routine care as soon as they needed Denominator: Number of respondents to getting appointment for routine care survey question
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
Data Source	Beneficiary survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment with a Specialist as Soon as They Needed (Measure 1-4)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get an appointment with a specialist as soon as they needed Denominator: Number of respondents to getting appointment with a specialist survey question
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In the last 6 months, how often did you get an appointment to see a specialist as soon as you needed?
Data Source	Beneficiary survey

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment with a Specialist as Soon as They Needed (Measure 1-4)	
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Research Question 1.2: Do adult beneficiaries with an SMI enrolled in RBHA have the same or increased access to substance abuse treatment compared to prior to the demonstration renewal?

Percentage of Beneficiaries Who Had Initiation of Alcohol and Other Drug (AOD) Abuse or Dependence Treatment (Measure 1-5)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis and 60 days continuous enrollment prior to the episode and 48 days after the index episode
Comparison Population	Out-of-State Comparison
Measure Steward	Centers for Medicare & Medicaid Services (CMS) Adult Core Set
Measure Name	Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment: Initiation of AOD Treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries Who Had Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 1-6)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis and 60 days continuous enrollment prior to the episode and 48 days after the index episode
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment: Engagement of AOD Treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Hypothesis 2—Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration

Research Question 2.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rates of preventive or wellness services compared to prior to demonstration renewal?

Percentage of Beneficiaries Who Reported Having a Flu Shot or Nasal Flu Spray (Measure 2-1)	
Numerator/Denominator	Numerator: Number of beneficiaries stating they had a flu shot or nasal flu spray since July 1 Denominator: Number of respondents to survey question about flu shot or spray
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	Have you had either a flu shot or flu spray in the nose since July 1, <year>?
Data Source	Beneficiary survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Research Question 2.2: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of chronic conditions compared to prior to the demonstration renewal?

Percentage of Beneficiaries with Persistent Asthma Who Had a Ratio of Controller Medications to Total Asthma Medications of at Least 50 Percent? (Measure 2-2)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a ratio of controller medications to total asthma medications of 0.50 or greater Denominator: Number of beneficiaries aged 19-64 who were identified as having persistent asthma who were continuously enrolled during the measurement year and the year prior to the measurement year with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Asthma Medication Ratio (AMR)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Schizophrenia or Bipolar Disorder Using Antipsychotic Medications Who Had a Diabetes Screening Test (Measure 2-3)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator with a diabetes screening test Denominator: Number of beneficiaries age 18-64 with schizophrenia, schizoaffective disorder or bipolar disorder, who were dispensed an antipsychotic medication and who were continuously enrolled for the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State Comparison

Percentage of Beneficiaries with Schizophrenia or Bipolar Disorder Using Antipsychotic Medications Who Had a Diabetes Screening Test (Measure 2-3)	
Measure Steward	CMS Adult Core Set
Measure Name	Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications (SSD)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Schizophrenia Who Adhered to Antipsychotic Medications (Measure 2-4)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who remained on an antipsychotic medication for at least 80 percent of their treatment period Denominator: Number of beneficiaries aged 19 to 64 with schizophrenia or schizoaffective disorder and were dispensed antipsychotic medication and who were continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 2.3: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of behavioral health conditions compared to prior to the demonstration renewal?

Percentage of Beneficiaries Who Remained on Antidepressant Medication Treatment (Measure 2-5)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who remained on an antidepressant medication treatment for: 1) at least 84 days, and 2) at least 180 days Denominator: Number of beneficiaries aged 18 and older who were treated with antidepressant medication and had a diagnosis of major depression who were continuously enrolled from 105 days prior to the index prescription start date (IPSD) through 231 days after the IPSD with no more than one gap in enrollment of up to 45 days during the continuous enrollment period
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Antidepressant Medication Management (AMM)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis

Percentage of Beneficiaries Who Remained on Antidepressant Medication Treatment (Measure 2-5)	
Analytic Approach	• Pre-test/post-test • Difference-in-difference

Percentage of Beneficiaries with a Follow-up Visit After Hospitalization for Mental Illness (Measure 2-6)	
Numerator/Denominator	Numerator: Number of beneficiaries with a discharge for mental illness and a follow-up visit with a mental health practitioner within 7 days after discharge. Denominator: Number of beneficiaries 18 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge.
Comparison Population	NCQA
Measure Steward	CMS Adult Core Set
Measure Name	Follow-Up After Hospitalization for Mental Illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with a Follow-up Visit After Emergency Department (ED) Visit for Mental Illness (Measure 2-7)	
Numerator/Denominator	Numerator: Number of ED visits in the denominator with a follow-up visit for mental illness within 7 days of an ED visit for mental illness. Denominator: Number of ED visits for beneficiaries 18 years of age and older with a principal diagnosis of mental illness or intentional self-harm with continuous enrollment from the date of the ED visit through 30 days after the ED visit
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Follow-Up After Emergency Department Visit for Mental Illness (FUM)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Follow-up After ED Visit for Alcohol and Other Drug Abuse or Dependence (Measure 2-8)	
Numerator/Denominator	Numerator: Number of ED visits in the denominator with a follow-up visit for alcohol or other drug (AOD) abuse within 7 days of the ED visit. Denominator: Number of ED visits for beneficiaries 18 years of age and older with a principal diagnosis of AOD abuse or dependence and continuously enrolled from the date of the ED visit through 30 days after the ED visit
Comparison Population	Out-of-State Comparison

Percentage of Beneficiaries with Follow-up After ED Visit for Alcohol and Other Drug Abuse or Dependence (Measure 2-8)	
Measure Steward	NCQA
Measure Name	Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with a Screening for Clinical Depression and Follow-up Plan (Measure 2-9)	
Numerator/Denominator	Numerator: Number of beneficiaries age 18 and older with a positive screen and follow-up plan documented. Denominator: Number of beneficiaries age 18 and older screened for depression
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Screening for Depression and Follow-Up Plan (CDF)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries Receiving Mental Health Services (Total and by Inpatient, Intensive Outpatient or Partial Hospitalization, Outpatient, ED, or Telehealth) (Measure 2-10)	
Numerator/Denominator	Numerator: Number of beneficiaries utilizing mental health services. Stratified by the following services: • Inpatient. • Intensive outpatient or partial hospitalization. • Outpatient. • ED. • Telehealth. • Any service. Denominator: Number of member months, divided by 12
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Mental Health Utilization (MPT)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A

Percentage of Beneficiaries Receiving Mental Health Services (Total and by Inpatient, Intensive Outpatient or Partial Hospitalization, Outpatient, ED, or Telehealth) (Measure 2-10)	
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 2.4: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of opioid prescriptions compared to prior to the demonstration renewal?

Percentage of Beneficiaries Who Have Prescriptions for Opioids at a High Dosage (Measure 2-11)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who received prescriptions for opioids with an average daily dosage greater than or equal to 90 morphine milligram equivalents (MME) over a period of 90 days or more. Denominator: Number of beneficiaries age 18 and older with two or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more.
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Use of Opioids at High Dosage in Persons Without Cancer (OHD)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Concurrent Use of Opioids and Benzodiazepines (Measure 2-12)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator with concurrent use of prescription opioids and benzodiazepines. Denominator: Number of beneficiaries age 18 and older with 2 or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more.
Comparison Population	Out-of-State Comparisons
Measure Steward	CMS Adult Core Set
Measure Name	Concurrent Use of Opioids and Benzodiazepines (COB)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 2.5: Do adult beneficiaries with an SMI enrolled in a RBHA have the same lower tobacco usage compared to prior to the demonstration renewal?

Percentage of beneficiaries who indicated smoking cigarettes or using tobacco (Measure 2-13)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they smoked every day or some days Denominator: Number of respondents to smoking and tobacco use survey question
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	Do you now smoke cigarettes or use tobacco every day, some days, or not at all?
Data Source	Beneficiary survey
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Research Question 2.6: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or lower hospital utilization compared to prior to the demonstration renewal?

Number of ED Visits per 1,000 Member Months (Measure 2-14)	
Numerator/Denominator	Numerator: Number of ED Visits Denominator: Number of member months, divided by 1,000
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Ambulatory Care (AMB): ED Visits
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Number of Inpatient Stays per 1,000 Member Months (Measure 2-15)	
Numerator/Denominator	Numerator: Number of total inpatient stays. Denominator: Number of member months, divided by 1,000.
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Inpatient Utilization—General Hospital/Acute Care (IPU)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Inpatient Discharges with An Unplanned Readmission Within 30 days (Measure 2-16)	
Numerator/Denominator	Numerator: Number of acute inpatient stays in the denominator followed by an unplanned acute readmission within 30 days. Denominator: Number of acute inpatient stays for beneficiaries aged 18 to 64.
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Plan All-Cause Readmissions (PCR)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Hypothesis 3—Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.

Research Question 3.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rating of health compared to prior to the demonstration renewal?

Percentage of Beneficiaries Who Reported a High Rating of Overall Health (Measure 3-1)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of overall health Denominator: Number of respondents to survey question regarding overall health
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In general, how would you rate your overall health?
Data Source	Beneficiary Survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Percentage of Beneficiaries Who Reported a High Rating of Overall Mental or Emotional Health (Measure 3-2)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of mental or emotional health Denominator: Number of respondents to survey question regarding mental or emotional health
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In general, how would you rate your overall mental or emotional health?
Data Source	Beneficiary Survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Hypothesis 4—Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration period.

Research Question 4.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher satisfaction in their health care compared to prior to the demonstration renewal?

Percentage of Beneficiaries Who Reported a High Rating of Overall Healthcare (Measure 4-1)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of their healthcare Denominator: Number of respondents to survey question regarding satisfaction of healthcare
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 6 months?
Data Source	Beneficiary Survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Percentage of Beneficiaries Who Reported a High Rating of Health Plan (Measure 4-2)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of their overall health plan Denominator: Number of respondents to survey question regarding satisfaction of overall health plan
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?
Data Source	Beneficiary Survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Research Question 4.2: Do adult beneficiaries with an SMI enrolled in a RBHA perceive their doctors to have the same or better care coordination compared to prior to the demonstration renewal?

Percentage of Beneficiaries Who Reported Their Doctor Seemed Informed About the Care They Received from Other Health Providers (Measure 4-3)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating their personal doctor seemed informed about the care they received from other health providers Denominator: Number of respondents to survey question regarding whether their doctor seemed informed about the care they received from other health providers
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?

Percentage of Beneficiaries Who Reported Their Doctor Seemed Informed About the Care They Received from Other Health Providers (Measure 4-3)	
Data Source	Beneficiary survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Hypothesis 5—RBHAs encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.

Research Question 5.1: What care coordination strategies are the RBHAs conducting for their beneficiaries with an SMI?

Health Plans' Reported Care Coordination Activities for Beneficiaries with an SMI (Measure 5-1)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 5.2: Have care coordination strategies for beneficiaries with an SMI changed as a result of AHCCCS Complete Care?

Reported Changes in Health Plans' Care Coordination Strategies for Beneficiaries with an SMI (Measure 5-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 5.3: What care coordination strategies is AHCCCS conducting for its beneficiaries with an SMI?

AHCCCS's Reported Care Coordination Strategies and Activities for the SMI Population Served by the RBHAs (Measure 5-3)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A

AHCCCS's Reported Care Coordination Strategies and Activities for the SMI Population Served by the RBHAs (Measure 5-3)	
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 5.4: What care coordination strategies and/or activities are providers conducting for their Medicaid patients with an SMI served by the RBHAs?

Providers' Reported Care Coordination Strategies and Activities for Their Medicaid Patients with an SMI (Measure 5-4)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

PQC

Hypothesis 1—Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.

Research Question 1.1: Do eligible people without prior quarter coverage enroll in Medicaid at the same rates as other eligible people with prior quarter coverage?

Percentage of Medicaid Enrollees by Eligibility Group Out of Estimated Eligible Medicaid Recipients (Measure 1-1)	
Numerator/Denominator	Numerator: Number of beneficiaries covered by Medicaid (HINSCAID). Denominator: Number of individuals likely eligible for Medicaid last year based on IPUMS survey data on family income (FTOTINC), number of own children in household (NCHILD) and disability (DIFFREM, DIFFCARE, DIFFPHYS, DIFFMOB, DIFFSENS,).
Comparison Population	Out-of-State Comparison
Measure Steward	N/A
Data Source	Integrated Public Use Microdata Series (IPUMS) American Community Surveys (ACS)
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of New Medicaid Enrollees by Eligibility Group, As Identified by Those Without a Recent Spell of Medicaid Coverage Out of Estimated Eligible Medicaid Recipients (Measure 1-2)	
Numerator/Denominator	Numerator: Number of beneficiaries beginning enrollment in Medicaid.

Percentage of New Medicaid Enrollees by Eligibility Group, As Identified by Those Without a Recent Spell of Medicaid Coverage Out of Estimated Eligible Medicaid Recipients (Measure 1-2)	
	Denominator: Number of individuals likely eligible for Medicaid based on IPUMS survey data on family income (FTOTINC), number of own children in household (NCHILD) and disability (DIFFREM, DIFFCARE, DIFFPHYS, DIFFMOB, DIFFSENS). Re-weighted to represent full Arizona population.
Comparison Population	N/A
Measure Steward	N/A
Data Source	State enrollment and eligibility data; IPUMS ACS
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test

Number of Medicaid Enrollees Per Month by Eligibility Group and/or Per-Capita of State (Measure 1-3)	
Numerator/Denominator	Numerator: Number of beneficiaries beginning enrollment in Medicaid Denominator: Estimated current year population of Arizona
Comparison Population	N/A
Measure Steward	N/A
Data Source	State enrollment and eligibility data; State of Arizona Office of Economic Opportunity
Desired Direction	N/A
Analytic Approach	Rapid-cycle reporting—Statistical process control chart

Number of New Medicaid Enrollees Per Month by Eligibility Group, as Identified by Those Without a Recent Spell of Medicaid Coverage (Measure 1-4)	
Numerator/Denominator	Numerator: Number of beneficiaries beginning enrollment in Medicaid who did not have Medicaid coverage for at least six months prior Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	State enrollment and eligibility data
Desired Direction	N/A
Analytic Approach	Rapid-cycle reporting—Statistical process control chart

Research Question 1.2: What is the likelihood of enrollment continuity for those without prior quarter coverage compared to other Medicaid beneficiaries with prior quarter coverage?

Percentage of Medicaid Beneficiaries Due for Renewal Who Complete the Renewal Process (Measure 1-5)	
Numerator/Denominator	Numerator: Beneficiaries completing the renewal process Denominator: Beneficiaries enrolled in Medicaid who were due for renewal during previous 12 months
Comparison Population	Aggregate Data for Other State

Percentage of Medicaid Beneficiaries Due for Renewal Who Complete the Renewal Process (Measure 1-5)	
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test • Interrupted time series

Average Number of Months with Medicaid Coverage (Measure 1-6)	
Numerator/Denominator	Numerator: Number of full months with Medicaid coverage Denominator: Number of Medicaid beneficiaries
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	An increase in the number of months supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test • Interrupted time series

Research Question 1.3: Do beneficiaries without prior quarter coverage who disenroll from Medicaid have shorter enrollment gaps than other beneficiaries with prior quarter coverage?

Percentage of Medicaid Beneficiaries Who Re-enroll After A Gap of Up to Six Months (Measure 1-7)	
Numerator/Denominator	Numerator: Number of beneficiaries who re-enrolled in Medicaid during evaluation period after a gap of up to 6 months Denominator: Number of beneficiaries who disenrolled from Medicaid during the first six months of evaluation period
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test • Interrupted time series

Average Number of Months Without Medicaid Coverage for Beneficiaries Who Re-Enroll After a Gap of Up to Six Months (Measure 1-8)	
Numerator/Denominator	Numerator: Number of months without Medicaid coverage after disenrolling Denominator: Number of beneficiaries who disenrolled from Medicaid during the first six months of evaluation period and subsequently re-enrolled

Average Number of Months Without Medicaid Coverage for Beneficiaries Who Re-Enroll After a Gap of Up to Six Months (Measure 1-8)	
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	A decrease in the number of months without coverage supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test • Interrupted time series

Average Number of Gaps in Medicaid Coverage for Beneficiaries Who Re-Enroll After a Gap of Up to Six Months (Measure 1-9)	
Numerator/Denominator	Numerator: Number of gaps in Medicaid coverage. A gap is defined as one day or more without Medicaid enrollment Denominator: Number of beneficiaries who disenrolled from Medicaid during the first six months of evaluation period and subsequently re-enrolled
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	A decrease in the number of gaps supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Average Number of Days Per Gap in Medicaid Coverage for Beneficiaries Who Re-Enroll After a Gap of Up to Six Months (Measure 1-10)	
Numerator/Denominator	Numerator: Number of gap days in Medicaid coverage Denominator: Number of gaps in coverage for beneficiaries who disenrolled from Medicaid during the first six months of evaluation period and subsequently re-enrolled. A gap is defined as one day or more without Medicaid enrollment
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	A decrease in the number of days per gap supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Hypothesis 2—Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.

Research Question 2.1: Do newly enrolled beneficiaries without prior quarter coverage have higher self-assessed health status than continuously enrolled beneficiaries?

Beneficiary Reported Rating of Overall Health (Measure 2-1)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall health survey question among beneficiaries who have not had Medicaid coverage for the first six months of evaluation period
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rating of overall health supports the hypothesis
Analytic Approach	Comparison of means

Beneficiary Reported Rating of Overall Mental or Emotional Health (Measure 2-2)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall mental or emotional health rating in response to Consumer Assessment of Healthcare Providers and Systems (CAHPS®) question regarding overall mental or emotional health[D-1] Denominator: Number of respondents to overall mental or emotional health survey question among beneficiaries who have not had Medicaid coverage for the first six months of evaluation period
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rating of overall mental or emotional health supports the hypothesis
Analytic Approach	Comparison of means

Percentage of Beneficiaries Who Reported Prior Year Emergency Room (ER) Visit (Measure 2-3)	
Numerator/Denominator	Numerator: Number of beneficiaries who reported any ER visits during previous 12 months Denominator: Number of respondents to ER visit survey question among beneficiaries who have not had Medicaid coverage for the first six months of evaluation period
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Comparison of means

Percentage of Beneficiaries Who Reported Prior Year Hospital Admission (Measure 2-4)	
Numerator/Denominator	Numerator: Number of beneficiaries who reported any overnight hospital stays during previous 12 months Denominator: Number of respondents to overnight hospital stay survey question among beneficiaries who have not had Medicaid coverage for the first six months of evaluation period

D-1 CAHPS is a registered trademark of the Agency for Healthcare Quality and Research.

Percentage of Beneficiaries Who Reported Prior Year Hospital Admission (Measure 2-4)	
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Comparison of means

Percentage of Beneficiaries Who Reported Getting Healthcare Three or More Times for The Same Condition or Problem (Measure 2-5)	
Numerator/Denominator	Numerator: Number of beneficiaries who received healthcare services three or more times for the same condition Denominator: Number of respondents to multiple services for same condition survey question among beneficiaries who have not had Medicaid coverage for the first six months of evaluation period
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Comparison of means

Hypothesis 3—Health outcomes will be better for those without prior quarter coverage compared to other Medicaid beneficiaries with prior quarter coverage.

Research Question 3.1: Do beneficiaries without prior quarter coverage have better health outcomes than compared to baseline rates and out-of-state comparisons with prior quarter coverage?

Beneficiary Reported Rating of Overall Health for All Beneficiaries (Measure 3-1)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall health survey question
Comparison Population	Aggregate Data for Other State; Out-of-State Comparison
Measure Steward	N/A
Data Source	State beneficiary survey; other state aggregate data; BRFSS
Desired Direction	An increase in the rating of overall health supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Beneficiary Reported Rating of Overall Mental or Emotional Health for All Beneficiaries (Measure 3-2)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall mental or emotional health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall mental or emotional health survey question
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State beneficiary survey; other state aggregate data
Desired Direction	An increase in the rating of overall mental or emotional health supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Hypothesis 4—Eliminating prior quarter coverage will not have adverse financial impacts on consumers.

Research Question 4.1: Does the prior quarter coverage waiver lead to changes in the incidence of beneficiary medical debt?

Percentage of Beneficiaries Who Reported Medical Debt (Measure 4-1)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating outstanding medical debt or difficulty paying medical bills Denominator: Number of respondents to outstanding medical debt or difficulty paying medical bills survey question
Comparison Population	Out-of-State Comparison
Measure Steward	N/A
Data Source	State beneficiary survey; Behavioral Risk Factors Surveillance System (BRFSS)
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Comparison to other states

Hypothesis 5—Eliminating prior quarter coverage will not adversely affect access to care.

Research Question 5.1: Do beneficiaries without prior quarter coverage have the same or higher rates of office visits compared to baseline rates and out-of-state comparisons with prior quarter coverage?

Beneficiary Response to Getting Needed Care Right Away (Measure 5-1)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question
Comparison Population	Aggregate Data for Other State
Measure Steward	National Committee for Quality Assurance (NCQA)
Data Source	State beneficiary survey; other state aggregate data
Desired Direction	An increase in the rate supports the hypothesis

Beneficiary Response to Getting Needed Care Right Away (Measure 5-1)	
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Beneficiary Response to Getting an Appointment for a Check-Up or Routine Care at a Doctor's Office or Clinic (Measure 5-2)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get an appointment for a check-up or routine care at a doctor's office or clinic Denominator: Number of respondents to get an appointment for a check-up or routine care at a doctor's office or clinic survey question
Comparison Population	Aggregate Data for Other State
Measure Steward	NCQA
Data Source	State beneficiary survey; other state aggregate data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Research Question 5.2: Do beneficiaries without prior quarter coverage have the same or higher rates of service and facility utilization compared to baseline rates and out-of-state comparisons with prior quarter coverage?

Percentage of Beneficiaries with A Visit to A Specialist (e.g., Eye Doctor, ENT, Cardiologist) (Measure 5-3)	
Numerator/Denominator	Numerator: Number of beneficiaries with a visit to a specialist during previous 12 months Denominator: Number of beneficiaries enrolled in Medicaid during previous 12 months
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; claims/encounter data; other state aggregate data
Desired Direction	No difference/an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Hypothesis 6—Eliminating prior quarter coverage will not result in reduced member satisfaction.

Research Question 6.1: Do beneficiaries without prior quarter coverage have the same or higher satisfaction with their healthcare compared to baseline rates and out-of-state comparisons with prior quarter coverage?

Beneficiary Rating of Overall Healthcare (Measure 6-1)	
Numerator/Denominator	Numerator: Number of beneficiaries reporting a high-level of satisfaction with overall healthcare Denominator: Number of respondents to overall healthcare satisfaction survey question
Comparison Population	N/A
Measure Steward	NCQA
Data Source	State beneficiary survey
Desired Direction	No difference/an increase in the rating of overall healthcare supports the hypothesis
Analytic Approach	Pre-test/post-test

Hypothesis 7—Eliminating prior quarter coverage will generate cost savings over the term of the waiver.

Research Question 7.3: Do costs to non-AHCCCS entities stay the same or decrease after implementation of the waiver compared to before?

Reported Costs for Uninsured and/or Likely Eligible Medicaid Recipients Among Potentially Impacted Providers and/or Provider Networks (Measure 7-1)	
Numerator/Denominator	Numerator: Total reported uncompensated care costs among likely Medicaid population, including Medicaid shortfalls. Denominator: Total number of facilities reporting uncompensated care costs.
Comparison Population	Out-of-State Comparison
Measure Steward	N/A
Data Source	• HCRIS • HCUP-SID • Provider Focus Groups
Desired Direction	Lower is better
Analytic Approach	• Difference-in-differences • Interrupted time series • Qualitative synthesis

Hypothesis 8—Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.

Research Question 8.1: What activities did AHCCCS perform to educate beneficiaries and providers about changes to retroactive eligibility?

AHCCCS' Education Activities (Measure 8-1)	
Numerator/Denominator	N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key Informant Interviews
Desired Direction	N/A

AHCCCS' Education Activities (Measure 8-1)	
Analytic Approach	Qualitative synthesis

Providers' Knowledge on Eliminating Prior Quarter Coverage (Measure 8-2)	
Numerator/Denominator	N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Provider Focus Groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

AHCCCS' Reported Barriers to Providing Education on Eliminating Prior Quarter Coverage (Measure 8-3)	
Numerator/Denominator	N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key Informant Interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

TI

Hypothesis 1—The TI program will improve physical and behavioral health care integration for children.

Research Question 1.1: What is the percentage of providers that have an executed agreement with Health Current and receive Admission-Discharge-Transfer (ADT) alerts?

Percentage of Participating Pediatric Primary Care and Behavioral Health care Practices That Have an Executed Agreement with Health Current (Measure 1-1)	
Numerator/Denominator	Numerator: Number of pediatric primary care and behavioral health care practices with an executed agreement with Health Current Denominator: Number of pediatric primary care and behavioral health care practices
Comparison Population	Practitioners not participating in TI
Measure Steward	Not Applicable (N/A)
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Percentage of Participating Pediatric Primary Care and Behavioral Health care Practices That Routinely Receives ADT Alerts (Measure 1-2)	
Numerator/Denominator	Numerator: Number of pediatric primary care and behavioral health care practices with an executed agreement with Health Current and Health Current confirmation of routine receipt of ADT alerts Denominator: Number of pediatric primary care and behavioral health care practices
Comparison Population	Practitioners not participating in TI
Measure Steward	N/A
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Research Question 1.2: Do children subject to the TI program have higher rates of screening and well-child visits compared to those who are not subject to the demonstration?

Percentage of Beneficiaries with a Well-Child Visit in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 1-3)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who have at least one well-child visit with any primary care provider during the measurement year Denominator: Number of beneficiaries with a behavioral health diagnosis who are age 3–6 years as of the last calendar day of the measurement year
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	Centers for Medicare & Medicaid Services (CMS) Child Core Set
Measure Name	Well-child visits in the third, fourth, fifth and sixth years of life (W34)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Beneficiaries with a Depression Screening and Follow-Up Plan (Measure 1-4)	
Numerator/Denominator	Numerator: Number of beneficiaries who were screened for depression using a standardized tool and, if positive, a follow-up plan is documented on the date of the positive screen Denominator: Number of beneficiaries aged 12-17 during the measurement year who had an outpatient visit
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Child Core Set
Measure Name	Screening for depression and follow-up plan (CDF)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model

Percentage of Beneficiaries with a Depression Screening and Follow-Up Plan (Measure 1-4)	
	• Difference-in-differences • Interrupted time series

Percentage of Beneficiaries with an Adolescent Well-Care Visit (Measure 1-5)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had at least one well-care visit during the measurement year Denominator: Number of beneficiaries aged 12 to 21 during the measurement year who had no more than 1 gap of up to 45 days and were enrolled on the anchor date
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Child Core Set
Measure Name	Adolescent well-care visits (AWC)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Beneficiary Response to Getting Needed Care Right Away (Measure 1-6)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get needed car right away Denominator: Number of respondents to getting needed care survey question
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	National Committee for Quality Assurance (NCQA)
CAHPS Question	In the last 6 months, when your child needed care right away, how often did your child get care as soon as he or she needed?
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Research Question 1.3: Do children subject to the TI program have higher rates of follow-up after hospitalization or an emergency department (ED) visit for mental illness than those who are not subject to the demonstration?

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 1-7)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a follow-up visit with a mental health provider within seven days of discharge Denominator: Number of beneficiaries aged 6 to 17 during the measurement year who had continuous enrollment for 30 days after a discharge for mental illness
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Child Core Set

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 1-7)	
Measure Name	Follow-up after hospitalization for mental illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question 1.4: Do parents/guardians of children subject to the program perceive their doctors have better care coordination than those not subject to the demonstration?

Beneficiary Response to Their Child's Doctor Seeming Informed About the Care Their Child Received from Other Health Providers (Measure 1-8)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating that their child's doctor seemed informed about the care their child received from other health providers Denominator: Number of respondents to survey questions regarding whether their child's doctor seemed informed about the care their child received from other health providers
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	NCQA
CAHPS Question	In the last 6 months, how often did your child's personal doctor seem informed and up-to-date about the care your child got from these doctors or other health providers?
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Hypothesis 2—The TI program will improve physical and behavioral health care integration for adults.

Research Question 2.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?

Percentage of Participating Adult Primary Care and Behavioral Health care Practices That Have an Executed Agreement with Health Current (Measure 2-1)	
Numerator/Denominator	Numerator: Number of adult primary care and behavioral health care practices with an executed agreement with Health Current Denominator: Number of adult primary care and behavioral health care practices
Comparison Population	Practitioners not participating in TI
Measure Steward	N/A
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Percentage of Participating Adult Primary Care and Behavioral Health care Practices that Routinely Receives ADT Alerts (Measure 2-2)	
Numerator/Denominator	Numerator: Number of adult primary care and behavioral health care practices with an executed agreement with Health Current Denominator: Number of adult primary care and behavioral health care practices
Comparison Population	Practitioners not participating in TI
Measure Steward	N/A
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Research Question 2.2: Do adults subject to the TI program have higher rates of screening than those who are not subject to the demonstration?

Percentage of Beneficiaries with a Depression Screening and Follow-Up Plan if Positive (Measure 2-3)	
Numerator/Denominator	Numerator: Number of beneficiaries who were screened for depression using a standardized tool and, if positive, a follow-up plan is documented on the date of the positive screen Denominator: Number of beneficiaries aged 18 and over during the measurement year who had an outpatient visit
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Adult Core Set
Measure Name	Screening for depression and follow-up plan (CDF)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Beneficiary Response to Getting Needed Care Right Away (Measure 2-4)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	NCQA
CAHPS Question	In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Research Question 2.3: Do adults subject to the TI program have lower rates of ED utilization than those who are not subject to the demonstration?

Number of ED Visits per 1,000 Member Months (Measure 2-5)	
Numerator/Denominator	Numerator: Number of ED visits Denominator: Number of beneficiary months in intervention/comparison group aged 18 and older, divided by 1,000
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	NCQA
Measure Name	Ambulatory care (AMB): emergency department visits
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Chi-square test

Number of ED Visits for Substance Use Disorder (SUD) or Opioid Use Disorder (OUD) per 1,000 Member Months (Measure 2-6)	
Numerator/Denominator	Numerator: Number of ED visits with a SUD or OUD-related diagnosis Denominator: Number of beneficiary months in intervention/comparison group aged 18 and older, divided by 1,000
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Adult Core Set
Measure Name	Follow-up after emergency department visit for alcohol and other drug abuse or dependence (FUA)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Chi-square test

Research Question 2.4: Do adults subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration?

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 2-7)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a follow-up visit with a mental health provider within seven days of discharge Denominator: Number of beneficiaries aged 18 and over during the measurement year who had continuous enrollment for 30 days after a discharge for mental illness
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 2-7)	
Measure Steward	CMS Adult Core Set
Measure Name	Follow-up after hospitalization for mental illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Beneficiaries with a Follow-Up Visit After an ED Visit for Mental Illness (Measure 2-8)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a follow-up visit with any provider within seven days of discharge Denominator: Number of beneficiaries aged 18 and older who had continuous enrollment for 30 days after an ED visit for mental illness
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Adult Core Set
Measure Name	Follow-up after emergency department visit for mental illness (FUM)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question 2.5: Do adults subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?

Percentage of Beneficiaries Who Had Initiation of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-9)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode. Rates will be reported separately for alcohol, opioid, other drug, and total. Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis, 60 days continuous enrollment prior to the episode and 48 days after the index episode, with no gaps during the enrollment period
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and engagement of alcohol and other drug abuse or dependence treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model

Percentage of Beneficiaries Who Had Initiation of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-9)	
	• Difference-in-differences • Interrupted time series

Percentage of Beneficiaries Who Had Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-10)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode. Rates will be reported separately for alcohol, opioid, other drug, and total. Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis, 60 days continuous enrollment prior to the episode and 48 days after the index episode, with no gaps during the enrollment period
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and engagement of alcohol and other drug abuse or dependence treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Beneficiaries with OUD Receiving Any Medication Assisted Treatment (MAT) (Measure 2-11)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator receiving any kind of MAT Denominator: Number of beneficiaries aged 18 and over during the measurement year diagnosed with OUD
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	N/A
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question 2.6: Do adults subject to the TI program perceive their doctors have better care coordination than those not subject to the demonstration?

Beneficiary Response to Their Doctor Seeming Informed About the Care They Received from Other Health Providers (Measure 2-12)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating their doctor seemed informed about the care they received from other health care providers Denominator: Number of respondents to the survey question of whether their doctor seemed informed about the care they received from other health care providers
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers

Beneficiary Response to Their Doctor Seeming Informed About the Care They Received from Other Health Providers (Measure 2-12)	
CAHPS Question	In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?
Measure Steward	NCQA
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Hypothesis 3—The TI program will improve care coordination for Arizona Health Care Cost Containment System (AHCCCS) enrolled adults released from criminal justice facilities.

Research Question 3.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?

Percentage of Integrated Practices Participating in the Justice Transition Project That Have an Executed Agreement with Health Current (Measure 3-1)	
Numerator/Denominator	Numerator: Number of practices participating in the justice transition project with an executed agreement with Health Current Denominator: Number of practices participating in the justice transition project
Comparison Population	Practitioners participating in justice transition project not participating in TI
Measure Steward	N/A
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Percentage of Integrated Practices Participating in the Justice Transition Project That Routinely Receives ADT Alerts (Measure 3-2)	
Numerator/Denominator	Numerator: Number of practices participating in the justice transition project with an executed agreement with Health Current and Health Current confirmation of routine receipt of ADT alerts Denominator: Number of practices participating in the justice transition project
Comparison Population	Practitioners participating in justice transition project not participating in TI
Measure Steward	N/A
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Research Question 3.2: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of access to care than those who were not subject to the demonstration?

Percentage of Recently Released Beneficiaries Who Had a Preventive/Ambulatory Health Service Visit (Measure 3-3)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator who had one or more ambulatory or preventive care visits during the measurement year Denominator: Number of recently released beneficiaries age 20-44 years during the measurement period recently released from a criminal justice facility and assigned to a probation or parole office
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	NCQA
Measure Name	Adults' access to preventative/ambulatory health services (AAP)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Recently Released Beneficiary Response to Getting Needed Care Right Away (Measure 3-4)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries indicating getting needed care right away Denominator: Number of recently released respondents to the survey question regarding getting needed care right away
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	NCQA
CAHPS Question	In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Recently Released Beneficiary Response to Getting Routine Care Right Away (Measure 3-5)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries indicating getting routine care right away Denominator: Number of recently released respondents to the survey question regarding getting routine care right away
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	NCQA
CAHPS Question	In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Research Question 3.3: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence to treatment than those who were not subject to the demonstration?

Percentage of Recently Released Beneficiaries Who Had Initiation of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 3-6)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode Denominator: Number of recently released beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis, 60 days continuous enrollment prior to the episode and 48 days after the index episode, with no gaps during the enrollment period
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and engagement of alcohol and other drug abuse or dependence treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Recently Released Beneficiaries Who Had Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 3-7)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode Denominator: Number of recently released beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis, 60 days continuous enrollment prior to the episode and 48 days after the index episode, with no gaps during the enrollment period
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and engagement of alcohol and other drug abuse or dependence treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Recently Released Beneficiaries with OUD Receiving Any Medication Assisted Treatment (MAT) (Measure 3-8)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator receiving any kind of MAT Denominator: Number of recently released beneficiaries aged 18 and over during the measurement year diagnosed with OUD

Percentage of Recently Released Beneficiaries with OUD Receiving Any Medication Assisted Treatment (MAT) (Measure 3-8)	
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	N/A
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question 3.4: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have lower rates of ED utilization than those who were not subject to the demonstration?

Number ED Visits per 1,000 Member Months for Recently Released Beneficiaries (Measure 3-9)	
Numerator/Denominator	Numerator: Number of ED visits for recently released beneficiaries Denominator: Number of beneficiary months for recently released beneficiaries aged 18 and older, divided by 1,000
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	NCQA
Measure Name	Ambulatory care (AMB): emergency department visits
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Number of ED Visits for SUD or OUD per 1,000 Member Months for Recently Released Beneficiaries (Measure 3-10)	
Numerator/Denominator	Numerator: Number of ED visits with a SUD or OUD-related diagnosis for recently released beneficiaries Denominator: Number of beneficiary months for recently released beneficiaries aged 18 and older, divided by 1,000
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	CMS Adult Core Set
Measure Name	Follow-up after emergency department visit for alcohol and other drug abuse or dependence (FUA)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A

Number of ED Visits for SUD or OUD per 1,000 Member Months for Recently Released Beneficiaries (Measure 3-10)	
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question 3.5: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have better management of opioid prescriptions than those who were not subject to the demonstration?

Percentage of Recently Released Beneficiaries Who Have a Prescription for Opioids at a High Dosage (Measure 3-11)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator with an average daily dosage ≥ 90 Morphine Milligram Equivalent during the opioid episode Denominator: Number of recently released beneficiaries aged 18 and older who had no more than a 1-month gap in enrollment and had 2 or more prescription claims for opiates on different dates of service with a cumulative supply of 15 or more days during the measurement year
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	CMS Adult Core Set
Measure Name	Use of opioids at high dosage in persons without cancer (OHD)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Recently Released Beneficiaries Who Have Prescriptions for Concurrent use of Opioids and Benzodiazepines (Measure 3-12)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator with two or more claims for benzodiazepines with different dates of service and concurrent use of opioids and benzodiazepines for 30 or more cumulative days Denominator: Number of recently released beneficiaries aged 18 and older during the measurement year with no more than one gap of up to 31 days and had 2 or more prescription claims for opiates on different dates of service with a cumulative days' supply of 15 or more days
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	CMS Adult Core Set
Measure Name	Concurrent use of opioids and benzodiazepines (COB)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Hypothesis 5—Providers will increase the level of care integration over the course of the demonstration.

Research Question 5.1: Do providers progress across the Substance Abuse and Mental Health Services Administration (SAMHSA) national standard of six levels of integrated health care?

Percentage of Providers Transitioning from Level 1 or Level 2 (Coordinated Care) to Level 3 or Level 4 (Co-Located Care) (Measure 5-1)	
Numerator/Denominator	Numerator: Number of providers who indicated their integration level is Level 3 or Level 4 (co-located care) at the end of the measurement year Denominator: Number of providers who indicated their integration level is Level 1 or Level 2 (coordinated care) in the previous measurement year
Comparison Population	N/A
Measure Steward	N/A
Data Source	Program data from provider attestations
Desired Direction	An increase in rate supports the hypothesis
Analytic Approach	Descriptive impact analysis

Percentage of Providers Transitioning from Level 3 or Level 4 (Co-Located Care) to Level 5 or Level 6 (Integrated Care) (Measure 5-2)	
Numerator/Denominator	Numerator: Number of providers who indicated their integration level is Level 5 or Level 6 (integrated care) at the end of the measurement year Denominator: Number of providers who indicated their integration level is Level 3 or Level 4 (co-located care) in the previous measurement year
Comparison Population	N/A
Measure Steward	N/A
Data Source	Program data from provider attestations
Desired Direction	An increase in rate supports the hypothesis
Analytic Approach	Descriptive impact analysis

Research Question 5.2: Do providers increase level of integration within each broader category (i.e., coordinated, co-located, and integrated care) during the demonstration period?

Percentage of Providers Transitioning from Level 1 to Level 2 Integration (Measure 5-3)	
Numerator/Denominator	Numerator: Number of providers who indicated their integration level is level 2 at the end of the measurement year Denominator: Number of providers who indicated their integration level is level 1 in the previous measurement year
Comparison Population	N/A
Measure Steward	N/A
Data Source	Program data from provider attestations
Desired Direction	An increase in rate supports the hypothesis
Analytic Approach	Descriptive impact analysis

Percentage of Providers Transitioning from Level 3 to Level 4 Integration (Measure 5-4)	
Numerator/Denominator	Numerator: Number of providers who indicated their integration level is level 4 at the end of the measurement year Denominator: Number of providers who indicated their integration level is level 3 in the previous measurement year
Comparison Population	N/A
Measure Steward	N/A
Data Source	Program data from provider attestations
Desired Direction	An increase in rate supports the hypothesis
Analytic Approach	Descriptive impact analysis

Percentage of Providers Transitioning from Level 5 to Level 6 Integration (Measure 5-5)	
Numerator/Denominator	Numerator: Number of providers who indicated their integration level is level 6 at the end of the measurement year Denominator: Number of providers who indicated their integration level is level 5 in the previous measurement year
Comparison Population	N/A
Measure Steward	N/A
Data Source	Program data from provider attestations
Desired Direction	An increase in rate supports the hypothesis
Analytic Approach	Descriptive impact analysis

Hypothesis 6—Providers will conduct care coordination activities.

Research Question 6.1: Did AHCCCS encounter barriers related to the pre-implementation and implementation phases of TI?

AHCCCS' Reported Barriers Before, During, and Shortly Following the Implementation of TI (Measure 6-1)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interview
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 6.2: Did providers encounter barriers related to the pre-implementation and implementation phases of TI?

Providers' Reported Barriers Before, During, and Shortly Following the Implementation of TI (Measure 6-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

E. Beneficiary-Level Data Sources Reviewed

Numerous out-of-state sources of beneficiary-level data were considered for each evaluation design plan. Most data sources do not contain key data elements necessary for inclusion in the design plans. A description of these data sources and rationale for inclusion or exclusion is provided in the Comparison Populations—Out-of-State Comparison Groups section. There are two primary uses for each data source: (1) including the same survey questions in an Arizona member beneficiary survey conducted for this evaluation and utilizing the out-of-state data as a comparison group, or (2) utilizing the out-of-state data for both the intervention and comparison groups. There are significant limitations to either approach. Under the first approach, since the survey was not fielded during the baseline period, only a single, post-implementation data point would be included in the summative evaluation. This would not provide the basis from which to draw any causal inferences. Under the second approach, many of these data sources are limited by the absence of a state identifier (on public use data) and by a sufficient number of Arizona Medicaid respondents to generate sufficient statistical power for meaningful analysis without pooling multiple years together. Additionally, some data sources are limited in relevant health-related outcomes pertinent to the demonstration. Table E-1 provides a summary of each data source considered, its applicability, and its limitations.

Legend for Table E-1

	Subpopulation Identification	Outcomes Measures/Matching Factors
○	Not available	None
◔	Low approximation	Few weak variables
◑	Partial identification or approximation	Many weak variables
◕	Good approximation	Few strong variables
●	Highly accurate identification	Many strong variables

Table E-1: Summary of Data Sources Considered

Requirement	BRFSS	NHIS (National Health Interview Survey)	NHANES (National Health and Nutrition Examination Survey)	NSCH (National Survey of Children's Health)	MEPS (Medical Expenditure Panel Survey)	IPUMS-ACS	NSDUH (National Survey on Drug Use and Health)
Beneficiary Level	✓	✓	✓	✓	✓	✓	✓
Medicaid Indicator	✗	✓	✓	✗	✓	✓	✓
State	✓	✗	✗	✓	✗	✓	✗
Subpopulations							
Medicaid expansion (AW)	◑	◔	◑	○	◑	◑	○
Foster children (CMDP)	○	●	○	●	○	○	○
SMI adults (RBHA)	○	○	○	○	○	○	◑
DD/EPD (ALTCS)	○	◕	○	◕	◑	◔	○
High-risk BH (TI)	○	○	○	○	○	○	○
Relevant Outcomes/Measures	◕	●	◑	◕	●	◕	◑
Adjustment/Matching Factors	◑	◑	◑	●	●	◔	◔
Survey Administration Period	Annual	Annual	Annual	Annual	Annual	Annual	Annual
Survey Lag/Latest Year	2018	2018	2015-2016	2017	2017	2018	2018
Anticipated Medicaid sample sizes from most recent year	3,954 (Nationally)[1]	11,666 (Nationally)	2,474 (Nationally)	90 (Arizona)[2] 4,202 (Nationally)[2]	~8,400 (Nationally)	28,773 (Arizona)[2] 1,204,557 (Nationally)[2]	7,831 (Nationally)
Notes on Limitations for Use	Medicaid indicator is collected as part of an optional module. State participation varies year to year, and Arizona has not collected this information during relevant time period.	The state indicator is not provided as part of public use files.	During a single survey year, about 15 counties are selected out of approximately 3,100 counties in the United States. NHANES was not designed to produce regional or sub-regional estimates and no geographic data are released on the publicly available data files.	No indicator specifically for Medicaid.	The state indicator is not provided as part of public use files.		The state indicator is not provided as part of public use files.
Program Application	PQC, ACC	None	None	None	None	AW, PQC	None

[1]Anticipated Medicaid sample sizes are derived from responses from states which contained the optional Healthcare Access module.
[2]Anticipated Medicaid sample sizes are derived from responses to a question pertaining to public health insurance coverage.

F. Methodological Considerations of COVID-19 Pandemic

Pandemic Methodology Adjustments

The coronavirus disease 2019 (COVID-19) pandemic in the United States began in approximately March 2020 and is ongoing at the time of drafting the evaluation design plan. The extent of the COVID-19 infection rate is geographically variable, both within Arizona, as well as across the United States. The rate of positive cases throughout Arizona according to the Arizona Department of Health Services is 759.3 per 100,000, with county-level rates varying from 125 per 100,000 in Greenlee County to 2,954 per 100,000 in Apache County.[F-1] According to the Centers for Disease Control and Prevention (CDC), within the Southwest region of the United States, Arizona has a demonstrably higher rate of COVID infection per 100,000 population, at 730.5, with comparisons rates per 100,000 of 439.4 (California), 442.7 (Nevada), 563.9 (Utah), 536.2 (Colorado) and 504.2 (New Mexico).[F-2] Additionally, social distancing and stay at home orders to curb the severity and intensity of the pandemic across state and local jurisdictions were enacted with variable timing across the United States and the Southwest region. Arizona's stay at home order took effect on March 31, 2020, while surrounding states enacted their order as early as March 19 (California), March 24 (New Mexico), March 26 (Colorado), March 27 (Utah), and April 1 (Nevada).[F-3]

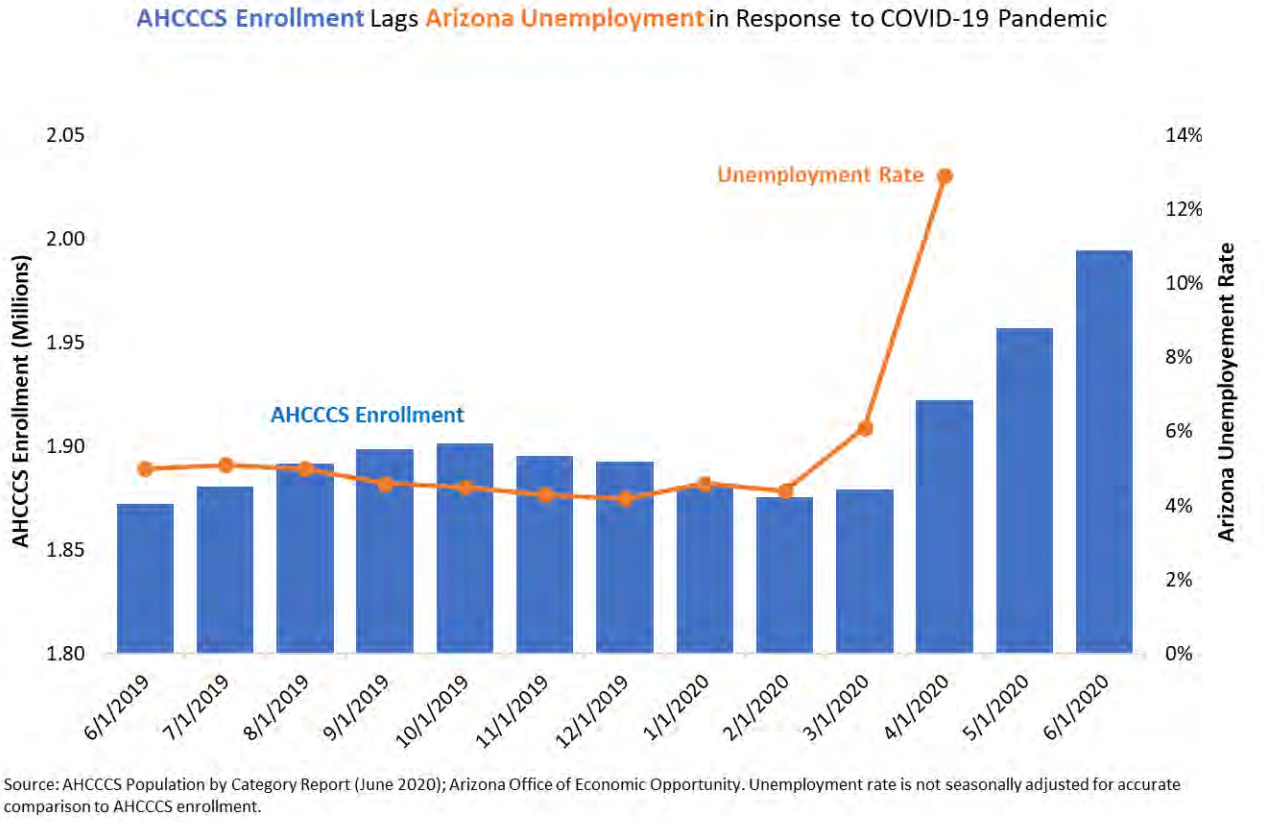
The scope and scale of the COVID-19 pandemic has already impacted the planned execution of some components of this design plan, and appears that it may continue to do so in the near future. Additionally, the pandemic forces the independent evaluator to consider methods that would allow the disentanglement of the Arizona Health Care Cost Containment System (AHCCCS) program impacts from results driven by COVID-19 or the policy response within Arizona and other states. The next section details the aspects of the COVID-19 pandemic that are most likely to impact the execution of data collection efforts. The subsequent section describes the methodological considerations would ideally be addressed in any study to disentangle program impacts from COVID impacts.

Impacts on Data Collection Efforts

The unprecedented loss of jobs and subsequent instability in the economy have resulted in a substantial increase in Medicaid enrollment. Figure F-1 shows the initial spike in unemployment followed by an increase in AHCCCS enrollment in the wake of COVID-19, as expected.

[F-1] Data obtained on June 22, 2020 from https://www.azdhs.gov/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/covid-19/dashboards/index.php.
[F-2] Data obtained on June 22, 2020 from https://www.cdc.gov/covid-data-tracker/index.html#cases.
[F-3] Data obtained on June 22, 2020 from https://www.nytimes.com/interactive/2020/us/coronavirus-stay-at-home-order.html.

Figure F-1: AHCCCS Enrollment and Unemployment



Source: AHCCCS Population by Category Report (June 2020); Arizona Office of Economic Opportunity. Unemployment rate is not seasonally adjusted for accurate comparison to AHCCCS enrollment.

The influx of members is consistent with a shift in demographics toward a more commercial base of members. This is not dissimilar to the increase in Medicaid enrollment following the 2008/2009 Great Recession, albeit on a substantially more compressed time frame. Furthermore, the increase in unemployment directly and indirectly results in lower state revenue through reduced state income tax and reduced sales tax due, in part to loss of jobs and economic hardship among consumers but also due to social distancing efforts and statewide stay-at-home orders. Therefore, the financial impact of COVID-19, while not directly tied to the evaluation of Arizona's demonstration, is important to factor into the evaluation particularly as it relates to the cost-effectiveness component.[F-4, F-5] Increased enrollments are likely to be tied to substantial shifts in the disease conditions and comorbidities of the Medicaid population during the pandemic, and to increase the demand on aggregate spending by AHCCCS. Additionally, to the extent that increases in enrollments are not met with concomitant increases in network capacity, there may be increased expenditures for care and barriers to the access and delivery of care that should be accounted for in the cost effectiveness analysis. To the extent that the increased spending is experienced

[F-4] For example, in order to assist providers in responding to the pandemic, AHCCCS advanced $41 million of provider incentive payments as part of the Targeted Investments program for disbursement in May 2020, ahead of the planned distribution in Fall 2020.

[F-5] "Arizona Medicaid Program Advances $41 Million in Provider Payments to Address COVID-19 Emergency." April 27, 2020. AHCCCS News Release, Available at: https://azahcccs.gov/shared/News/GeneralNews/AHCCCSAdvancesFortyOneMilProviderPayments.html. Accessed on: Jun 23, 2020.

by specific programs such as AHCCCS Complete Care (ACC), cost sustainability calculations will need to be adjusted to account for a denominator consistent with the non-pandemic population.

Beyond increasing Medicaid enrollments and expenditures, the COVID-19 pandemic is likely to impact the delivery of care in many direct ways. For example, social distancing efforts and stay at home orders have created a period during which the demand for many services were effectively reduced to near zero through interruptions in routine care. Second, managed care plans are likely to have experienced greater demand in handling increased enrollments and ensuring timely payment to contracted providers. Third, many program-specific strategies to assist with the integration of care may have been curtailed due to COVID-19. The combinations of the sustained increase in enrollment and delays or gaps in routine care may increase rate denominators while simultaneously decreasing numerators, leading to reduced performance measure rates.

Beneficiary surveys will also be impacted by the pandemic, both in terms of timing, and in potential responses. If, the beneficiary composition has changed or is not representative of a non-COVID Medicaid population then responses may not be generalizable. Additionally, beneficiaries may be impacted by disruptions in health care and their experience of care may be different than had they been surveyed either before COVID, or sufficiently after the impacts of COVID had dissipated. AHCCCS is planning on conducting a large-scale survey as part of its external quality review (EQR) contract in mid-2020, which will provide the independent evaluator an opportunity to leverage large sample sizes across many of the populations planned for surveys. The delay in fielding the survey; however, means that the data collected will be less proximate to the implementation of the AHCCCS programs being evaluated, and could result in rates that are less reflective of the experience of care associated with the AHCCCS programs, and more reflective of the experience of care during the COVID-19 pandemic.

While the COVID-19 pandemic will also impact provider focus groups and key informant interviews, the independent evaluator will follow the State's guidance on whether the State is comfortable proceeding with such data collection. The potential disruption among providers and key informants must be balanced alongside expedient data collection to minimize recall bias on several important programs. For example, one important aspect of the evaluation is to assess stakeholders' perspectives regarding the integration of care that took place under ACC, which, as of the drafting of this evaluation design plan, occurred approximately 21 months ago. Additional significant delays in qualitative data collection will worsen not only the recollection of key informants but also the reliability of contact information for individuals who may have left the organization(s).

The COVID-19 pandemic has already exerted an arguably substantial force on the State of Arizona, its health care system, and its Medicaid population. In an ideal evaluation, the independent evaluator would be able to control for many of these issues during the analysis. The ability to do so in the current context of AHCCCS' Section 1115 Waiver evaluation will be dependent on the availability of data, and how long the pandemic may be extended by multiple waves of infections throughout the United States. The next section provides details on potential methodological tools that could be used to disentangle program impacts from COVID-19 impacts.

Impacts on Methodology

Lacking random assignment to treatments, the evaluation approached outlined in this evaluation design plan represents a number of strong quasi-experimental designs, including propensity score matching (PSM) with difference-in-differences (DiD) regression, interrupted time series (ITS) analysis, and regression discontinuity (RD) models. One of the strongest quasi-experimental designs, PSM with DiD, makes use of a matched comparison group of Medicaid members that are similar to those receiving treatment under the various AHCCCS programs in terms of demographics, disease conditions, and comorbidities. For programs that were implemented

across their respective populations of eligible members in Arizona (e.g., ACC, Regional Behavioral Health Authority [RBHA], Comprehensive Medical and Dental Program [CMDP], Arizona Long Term Care System [ALTCS], and Prior Quarter Coverage [PQC]), no eligible comparison group realistically exists within the State. An eligible population could therefore be drawn from another state, provided specific criteria were met. Ideally, the comparison state would have Medicaid members demographically similar to Arizona; a Medicaid system that was similar to Arizona in terms of eligibility, enrollment, and pre-integration policies and programs; a COVID-19 infection rate or likely infection rate (accounting for differentials in testing) comparable to Arizona; and have had a state policy response to COVID-19 that was similar to Arizona. This combination of factors represents a particularly difficult challenge to surmount in identifying an eligible comparison group. The independent evaluator continues to work toward identifying states that could be suitable candidates, either individually or combined and weighted to better reflect Arizona's unique characteristics for inclusion in the evaluation, under the assumption that data will be available if such a comparator state or states are identified.

In addition to identifying eligible populations of members from other states that can suitably serve as counterfactuals to the AHCCCS treatment populations, several analytic tools can be used to attempt to disentangle the impact of COVID-19 from the impacts of the AHCCCS programs.

For measures that utilize monthly data points, months in which COVID-19 was expected to impact outcomes may be removed from the analysis. This analysis can serve as a robustness test, identifying how sensitive the conclusions are to the inclusion or exclusion of the COVID-19 months. If such a difference is identified, the independent evaluator will need to explore the data further to understand the detailed nature of the results, and ascertain the mechanisms by which the removal of the COVID-19 months makes a difference in results.

As an alternative to removing COVID-19 months, controls may be used to assess the severity and/or duration of effects from the pandemic. Measures such as monthly case counts, intensive care unit (ICU) utilization, or monthly unemployment rates could serve as potential instrumental variables to control for the impact of COVID-19. To the extent that eligible comparison group members are drawn from different states, this approach could be confounded by the differential preparedness of states to respond to the COVID-19 pandemic, as well as their differential policy responses.

For measures that do not utilize monthly data points, results for calendar year ending (CYE) 2020 and possibly CYE 2021 may be excluded or evaluated separately. Ideally, a comparison group would be used to support an analytic approach such as DiD. The choice of time frames to exclude, and ultimate impact on the statistical power of the data and model used will depend, in large part, on how long the impacts of the COVID-19 pandemic continue into the future.

Finally, results may be stratified by geography, age, race/ethnicity and other demographic factors to assess the external validity of differential responses to demonstration policies that may be influenced by the pandemic. To the extent that COVID-19 impacts were differentially experienced by subgroups of the Medicaid populations being evaluated, the independent evaluator could assess the impact of AHCCCS programs on stratified subgroups, controlling for COVID-19. All results will be interpreted in context of the pandemic and its likely impact on outcomes using both theory and similar outcomes from other states and/or national benchmarks where possible.

While each of the approaches outlined is seated in standard quasi-experimental design methods, many rely on the strong assumption of having valid and reliable data available for the populations and measures of interest. Furthermore, as the COVID-19 pandemic continues, and Arizona continues to worsen as of June 22, 2020, it is unclear how long the pandemic will impact outcomes for beneficiaries receiving services through AHCCCS and its managed care plans and providers. To the extent that data is available, and the COVID-19 pandemic is limited

in time, the independent evaluator will have an increased chance to isolate program effects from pandemic effects. The longer that the pandemic impacts are drawn out over time, the more difficult it will be to disentangle program impacts from pandemic impacts.

G. AHCCCS Works Evaluation Design Plan

Appendix G contains the Arizona Health Care Cost Containment System (AHCCCS) Works evaluation design plan.

Arizona Health Care Cost Containment System

AHCCCS Works

Evaluation Design Plan

July 2020

This program is operated under an 1115 Research and Demonstration Waiver initially approved by the Centers for Medicare & Medicaid Services (CMS) on January 18, 2019.

HSAG HEALTH SERVICES ADVISORY GROUP

Table of Contents

1. Background

On January 18, 2019, Centers for Medicare & Medicaid Services (CMS) approved Arizona's request to amend its Section 1115 Demonstration project, entitled "Arizona Health Care Cost Containment System (AHCCCS)," in accordance with Section 1115(a) of the Social Security Act. The federal approval authorized Arizona's Medicaid Program to implement community engagement requirements for able bodied adult beneficiaries who are 19 to 49 years old and fall within the Group VIII population (individuals with incomes between 0 and 138 percent of the Federal Poverty Level who are not otherwise eligible for Medicaid in any other category).

Arizona's community engagement program, known as "AHCCCS Works," is designed to encourage qualifying beneficiaries to use existing community services and resources in order to gain and maintain meaningful employment, job training, education, or volunteer service experience. Beneficiaries who are required to comply with AHCCCS Works will participate in at least 80 hours of community engagement activities per month. Beneficiaries may satisfy community engagement requirements through a variety of qualifying activities including:

- Employment (including self-employment)
- Education (less than full-time education)
- Job or life skills training
- Job search activities
- Community service

Upon becoming subject to the community engagement requirements, beneficiaries will receive an initial three - month orientation period in which to become familiar with the AHCCCS Works program. During this period, the beneficiary will receive information about the community engagement requirements, how to comply, and how to access available community engagement resources. After the three-month orientation period, beneficiaries who do not complete at least 80 hours of community engagement per month will be suspended from AHCCCS coverage for two months, and then be automatically reinstated. The AHCCCS Works requirements will not apply to individuals who meet any of the following conditions:

- Pregnant women and women up to the end of the month in which the 60th day of post-pregnancy occurs
- Former foster care youth up to age 26
- Beneficiaries who are members of federally recognized tribe
- Beneficiaries determined to have a serious mental illness (SMI)
- Beneficiaries currently receiving temporary or permanent long-term disability benefits from a private insurer or from the state or federal government, including workers compensation benefits
- Beneficiaries who are medically frail
- Beneficiaries who are in active treatment with respect to a substance use disorder (SUD)
- Full time high school, trade school, college or graduate students
- Victims of domestic violence
- Beneficiaries who are homeless
- Designated caretakers of a child under age 18
- Caregivers who are responsible for the care of an individual with a disability

- Beneficiaries who have an acute medical condition
- Beneficiaries who are receiving Supplemental Nutrition Assistance Program (SNAP), Cash Assistance, or Unemployment Insurance income benefits
- Beneficiaries participating in other AHCCCS approved work programs
- Beneficiaries not mentioned above who have a disability as defined by federal disabilities rights laws (ADA, Section 504, and Section 1557) who are unable to participate in AW Requirements for disability-related reasons

The AHCCCS Works demonstration is approved effective from January 18, 2019, through September 30, 2021.[1-1] However, on October 17, 2019, AHCCCS notified CMS that Arizona will be postponing the implementation of AHCCCS Works until further notice, citing ongoing litigation regarding Medicaid community engagement programs.[1-2] If and when implemented, the evaluation of this demonstration will test, in part, whether the demonstration increases the employment rates, income, and health status for those beneficiaries. As of October 2017, there were 398,519 individuals in the Group VIII eligibility category, including members eligible for exemption.[1-3] AHCCCS had originally requested to implement AHCCCS Works through a three staged phase-in approach, beginning with the most urbanized counties in Spring/Summer 2020, semi-urbanized counties in Spring/Summer 2021, and ending with least urbanized counties in Spring/Summer 2022. When the program is implemented, these dates will be revised accordingly.

AHCCCS' goal is to increase employment, employment opportunities, and activities to enhance employability, increase financial independence, and improve health outcomes of beneficiaries.[1-4] The objectives include increasing the number of beneficiaries with earned income and/or the capacity to earn income, reducing enrollment, and reducing the amount of "churn" (individuals moving on and off Medicaid repeatedly) by encouraging of greater access to employment and employer sponsored health insurance or health insurance through the Federally-Facilitated Marketplace.[1-5]

[1-1] CMS Approval Letter. Centers for Medicare & Medicaid Services. https://www.azahcccs.gov/Resources/Downloads/CMSApprovalLetter.pdf. Accessed on Jun 10, 2019.

[1-2] Snyder, J, (October 17, 2019) *RE: Implementation of AHCCCS Works*, letter to Acting Director Lynch, Center for Medicare and Medicaid Services. Available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-postponement-ltr-ahcccs-works-10172019.pdf. Accessed on Oct 23, 2019.

[1-3] Arizona Section 1115 Waiver Amendment Request: AHCCCS Works Waiver. Arizona Health Care Cost Containment System. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/az-hccc-pa6.pdf, Page 6 of 683. Accessed on Jun 10, 2019.

[1-4] CMS Approval Letter. Centers for Medicare & Medicaid Services. https://www.azahcccs.gov/Resources/Downloads/CMSApprovalLetter.pdf, Page 4 of 19. Accessed on Jun 10, 2019.

[1-5] Arizona Section 1115 Waiver Amendment Request: AHCCCS Works Waiver. Arizona Health Care Cost Containment System. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/az-hccc-pa6.pdf, Page 11 of 683. Accessed on Jun 10, 2019.

2. Evaluation Questions and Hypotheses

The overarching goals of the Arizona Health Care Cost Containment System (AHCCCS) Works demonstration are to encourage beneficiaries to obtain employment and undertake additional community engagement activities to reduce beneficiaries' reliance on public assistance programs and promote health and wellness.

The primary purpose of this evaluation is to determine whether the AHCCCS Works demonstration waiver is achieving these goals. To develop hypotheses and research questions associated with these goals, AHCCCS developed a logic model which relates the inputs and activities of the program (i.e., requiring 80 hours of community engagement activities per month) to anticipated initial, intermediate, and long-term outcomes, which are associated with hypotheses.

Logic Model

As the Centers for Medicare & Medicaid Services (CMS) notes in its letter to State Medicaid Directors dated January 11, 2018, engaging in the activities required by AHCCCS Works has been shown to improve health and well-being.[2-1] For instance, education "can lead to improved health by increasing health knowledge and healthy behaviors."[2-2] A growing body of literature relates broader social determinants of health, including specific factors that AHCCCS Works targets such as employment, income, and education.[2-3] Therefore, increased employment, income, and education resulting from the community engagement requirements should lead to improved health outcomes and reduced reliance on Medicaid, thereby promoting sustainability of the program.

Figure 2-1 illustrates that, given resources to allow AHCCCS beneficiaries subject to the demonstration requirements to log qualifying hours, the intended outcome is for these recipients to engage in and report 80 or more hours of community engagement activities per month.[2-4] Since these activities include employment, job-seeking activities, job training or education, AHCCCS anticipates that initial outcomes of the demonstration will raise rates of beneficiaries engaging in these activities. With increased rates of beneficiaries gaining employment or engaging in educational activities, beneficiaries' income and educational attainment will increase in the intermediate term. In the long term, this will reduce reliance on public assistance and improve beneficiaries' health and well-being. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-1).

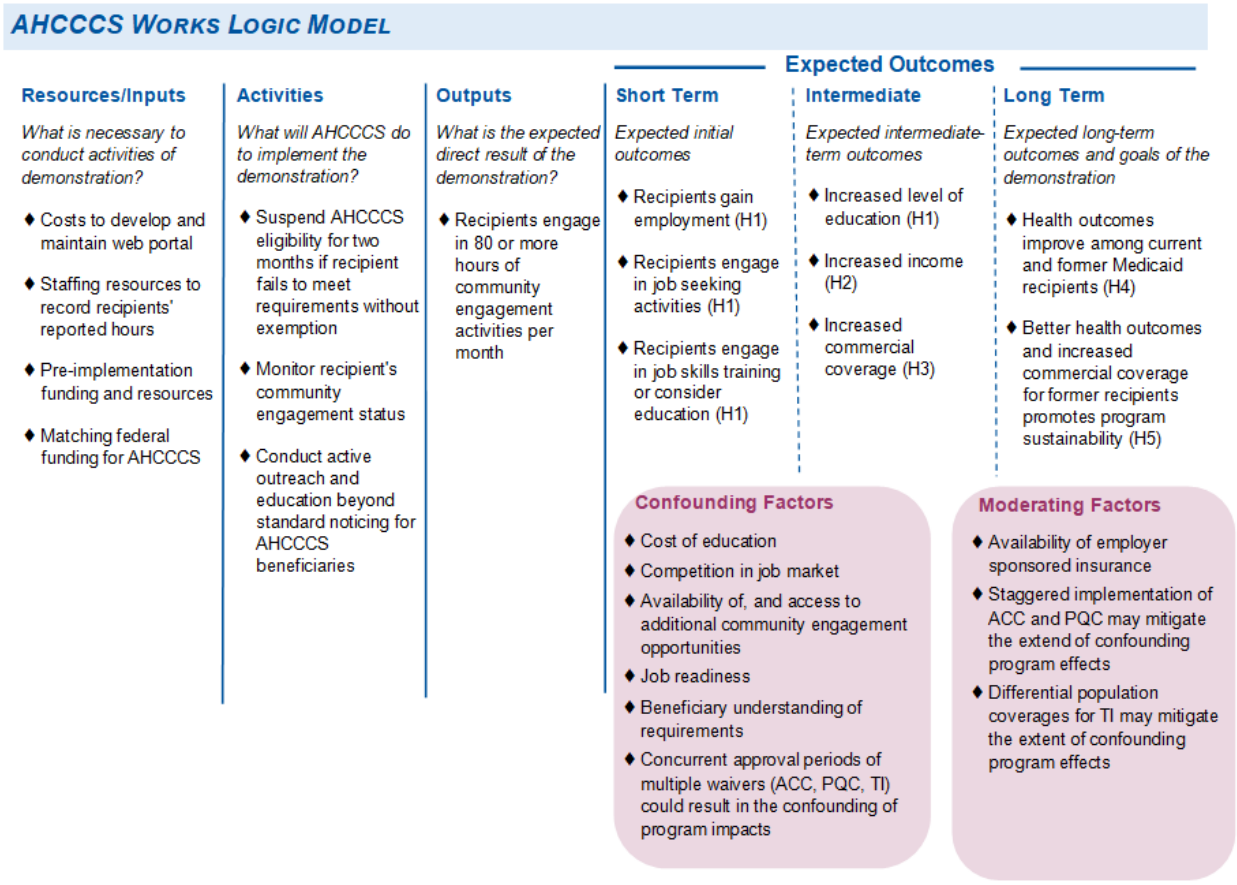
[2-1] Centers for Medicare & Medicaid Services. Opportunities to Promote Work and Community Engagement Among Medicaid Directors. Jan 11, 2018. Available at: https://www.medicaid.gov/federal-policy-guidance/downloads/smd18002.pdf. Accessed on Jun 14, 2019.

[2-2] Ibid.

[2-3] Braveman, P., & Gottlieb, L. (2014). The social determinants of health: it's time to consider the causes of the causes. Public health reports (Washington, D.C.: 1974), 129 Suppl 2(Suppl 2), 19–31. doi:10.1177/00333549141291S206.

[2-4] Beneficiaries can log hours either through a web-based portal, through telephone, or in-person.

Figure 2-1: AHCCCS Works Logic Model



Note: PQC: Prior Quarter Coverage, TI: Targeted Investments, ACC: AHCCCS Complete Care

As shown in the logic model above under "Confounding Factors" and "Moderating Factors", there are several concurrent programs and components to the demonstration that may affect certain groups of beneficiaries. The figure below depicts the relationship between demonstration components, AHCCCS programs and policy changes, and populations covered by AHCCCS.

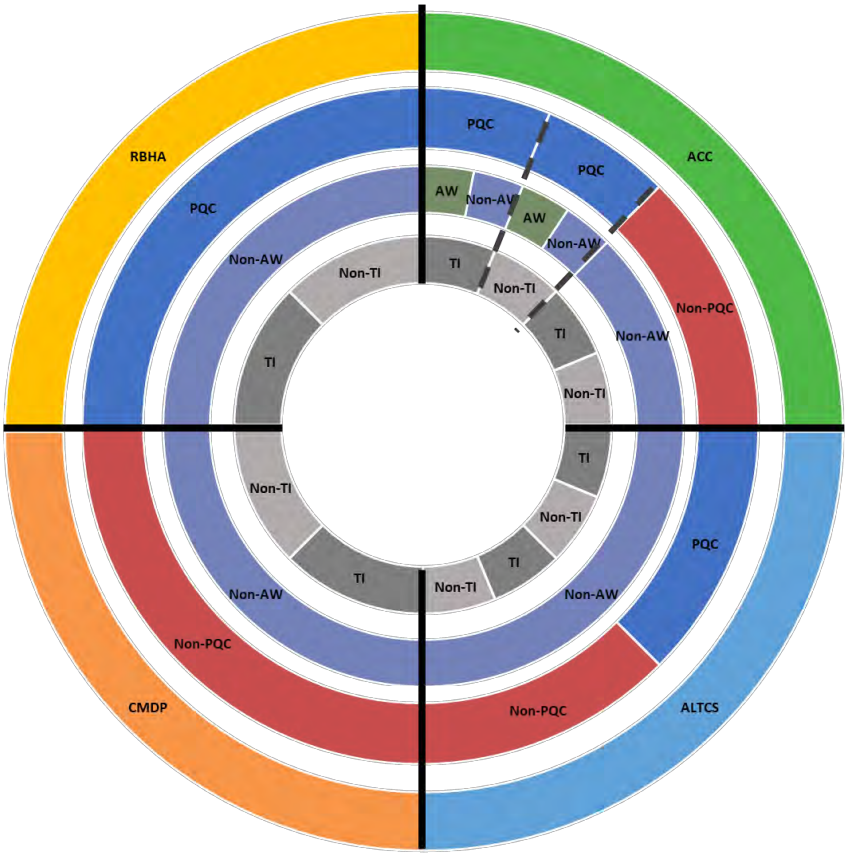
Most AHCCCS beneficiaries in the managed care system have coverage through one of four different programs:

1. **AHCCCS Complete Care (ACC)**—Covers the following populations:
   a. Adults who are not determined to have an SMI (excluding beneficiaries enrolled with Department of Economic Security/Division of Developmental Disabilities [DES/DDD]);
   b. Children, including those with special health care needs (excluding beneficiaries enrolled with DES/DDD and Department of Child Safety/CMDP); and
   c. Beneficiaries determined to have an SMI who opt out of a Regional Behavioral Health Authority (RBHA) and transfer to an ACC for the provision of physical health services.
2. **Arizona Long Term Care System (ALTCS)**—Covers beneficiaries with an intellectual or developmental disability (ALTCS-DD) and beneficiaries who are elderly or physically disabled (ALTCS-EPD).

3. **Comprehensive Medical and Dental Program (CMDP)**—Covers beneficiaries in custody of the Department of Child Safety (DCS).
4. **Regional Behavioral Health Authority (RBHA)**—Covers adult beneficiaries with a serious mental illness (SMI).

AHCCCS Works will impact all Group VIII adults with the exception of those meeting certain exemption criteria. All Group VIII beneficiaries receive their behavioral and medical health care through an ACC plan. The Prior Quarter Coverage (PQC) waiver impacts all adults on AHCCCS.[2-5] Therefore, evaluations that only cover children (i.e., CMDP) will not be affected by PQC, and evaluations that only cover adults (i.e., AHCCCS Works, RBHA) will be impacted entirely by PQC (with few exceptions). The Targeted Investments (TI) program is designed to encourage participating practitioners to provide integrated care for their beneficiaries. This impacts all children and adult beneficiaries attributed or assigned to TI-participating practitioners; however, it does not impact beneficiaries who are not attributed or assigned to practitioners who are not participating in TI. Therefore, the TI program is expected to impact every eligibility category. Figure 2-2 illustrates that the populations covered by ACC, CMDP, ALTCS, and RBHA are mutually exclusive and that each of these may have a subset impacted by AHCCCS Works, PQC, and/or TI.

Figure 2-2: Population Relationships Across Waivers



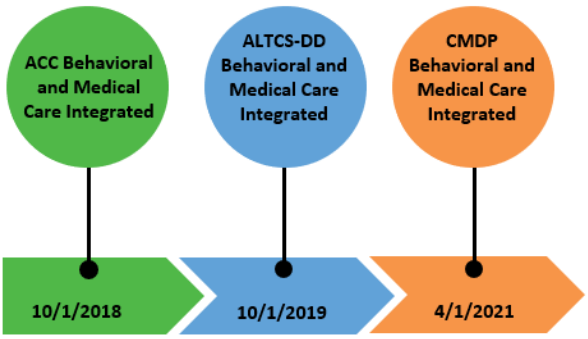
Note: The size of each segment does not represent population size. AW: AHCCCS Works.

2-5 Exceptions include children under the age of 19 and women who are pregnant or 60 days post-partum.

The four broad populations for each evaluation, with few exceptions, are distinct and mutually exclusive. For example, beneficiaries with an SMI may opt-out of RBHA coverage and instead choose an ACC plan that is available in their region. Children in the custody of DCS with an intellectual or developmental disability are covered through ALTCS-DD.

Historically, RBHA provided behavioral health coverage for much of the AHCCCS population, while medical care was provided through other plans. Prior to and during the demonstration renewal period, AHCCCS has made several structural changes to care delivery by integrating behavioral and medical care at the payer level. This integration process began with the award of the Mercy Maricopa Integrated Care (MMIC) contract in 2013, effective April 2014. MMIC was a RBHA that, in addition to providing behavioral health coverage for most AHCCCS beneficiaries in central Arizona, provided integrated physical and behavioral healthcare coverage for adult beneficiaries with an SMI in Maricopa county. In October 2015, RBHA contractors statewide began providing integrated care for their beneficiaries with an SMI. On October 1, 2018, AHCCCS conducted its largest care integration initiative by transitioning all acute care beneficiaries who do not have an SMI to seven AHCCCS Complete Care (ACC) integrated health plans, which provided coverage for physical and behavioral care. Beginning October 1, 2019, AHCCCS integrated behavioral and physical healthcare for the DES/DDD population covered through ALTCS (ALTCS-DD). Beneficiaries enrolled in CMDP will transition to integrated behavioral and physical health care services care under the CMDP waiver beginning April 1, 2021. The diagram below depicts a timeline of the payer-level integration of behavioral health and medical health care for the ACC, ALTCS-DD, and CMDP populations.

Figure 2-3: Timeline of Payer-Level Integration of Behavioral Health and Medical Health Care



Hypotheses and Research Questions

To comprehensively evaluate the AHCCCS Works demonstration waiver, six hypotheses will be tested using 22 research questions. Table 2-1 lists the six hypotheses and Table 2-2 through Table 2-6 lists research questions and measures for each hypothesis.

Table 2-1: AHCCCS Works Hypotheses

	Hypotheses
1	Medicaid beneficiaries subject to the community engagement requirement will have higher employment and education levels than Medicaid beneficiaries not subject to the requirement.
2	Medicaid beneficiaries subject to the community engagement requirement will have higher average income than Medicaid beneficiaries not subject to the requirement.

Hypotheses	
3	Medicaid beneficiaries subject to the community engagement requirement will have a higher likelihood of transitioning to commercial health insurance after separating from Medicaid than Medicaid beneficiaries not subject to the requirement.
4	Current and former Medicaid beneficiaries subject to the community engagement requirement will have better health outcomes than Medicaid beneficiaries not subject to the requirement.
5	The community engagement requirement will promote Medicaid program sustainability through cost-effective care.
6	Assessment of AHCCCS Works Implementation.

Where possible, outcomes among beneficiaries subject to the demonstration will be compared against outcomes among beneficiaries not subject to the demonstration—either those meeting exemption criteria, or those in traditional, Non-group VIII eligibility groups.

Hypothesis 1 will test whether the demonstration ultimately results in higher employment and education levels for beneficiaries subject to the requirements. The measures to test this hypothesis and answer associated research questions are listed below in Table 2-2. Improvements in these outcomes would support the demonstration's goal of increasing employment and education opportunities among its targeted beneficiaries.

Table 2-2: Hypothesis 1 Research Questions and Measures

Hypothesis 1—Medicaid beneficiaries subject to the community engagement requirement will have higher employment and education levels than Medicaid beneficiaries not subject to the requirement.	
Research Question 1.1: Does the community engagement requirement lead to increased job seeking activities for those subject to the requirements compared to those who are not?	
1-1	Percentage of beneficiaries who did not work during the previous week who actively sought a job during the past four weeks
1-2	Percentage of beneficiaries who met community engagement criteria through job search activities
Research Question 1.2: Does the community engagement requirement lead to increased rates of education enrollment or employment training programs?	
1-3	Percentage of beneficiaries attending school or an Employment Support and Development program
1-4	Percentage of beneficiaries who met community engagement criteria through attending school or an Employment Support and Development program
Research Question 1.3: Are beneficiaries subject to the community engagement requirement more likely to be employed (including new and sustained employment) compared to those who are not?	
1-5	Percentage of beneficiaries who usually worked at least 20 hours per week during previous year
1-6	Percentage of beneficiaries employed during each month of measurement year
1-7	Number of weeks worked last year (including as unpaid family worker, and paid vacation/sick leave)
Research Question 1.4: Do beneficiaries who initially comply through activities other than employment gain employment within certain time periods?	
1-8	Percentage of beneficiaries initially compliant through activities other than employment employed at 6 months, 1 year, and 2 years after enrollment or implementation.

Hypothesis 1—Medicaid beneficiaries subject to the community engagement requirement will have higher employment and education levels than Medicaid beneficiaries not subject to the requirement.	
Research Question 1.5: Is employment among individuals subject to community engagement requirements sustained over time, including after separating from Medicaid?	
1-9	Percentage of beneficiaries employed continuously for a year or more since enrollment or implementation.
Research Question 1.6: Does the community engagement requirement lead to better education outcomes?	
1-10	Beneficiaries' reported highest grade or level of education completed

Through increased rates of employment and/or hours worked, Hypothesis 2 will test whether the income among beneficiaries subject to the demonstration increases as a result. The measure and associated research question are presented in Table 2-3.

Table 2-3: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Medicaid beneficiaries subject to the community engagement requirement will have higher average income than Medicaid beneficiaries not subject to the requirement.	
Research Question 2.1: Does the community engagement requirement increase income?	
2-1	Average monthly earnings
2-2	Average beneficiary reported personal income

A core theoretical underpinning of the AHCCCS Works demonstration program is that increased rates of employment and income should lead to decreased reliance on the Medicaid program, a stated goal of the program. Hypothesis 3 seeks to determine the impact of the demonstration on uptake of commercial insurance. The measures and associated research questions are presented in Table 2-4. Increases in commercial coverage among former Medicaid beneficiaries who were subject to the community engagement requirements could suggest that the demonstration had its intended impact to successfully reduce their reliance on Medicaid while maintaining healthcare coverage. A possible unintended consequence, however, is for these beneficiaries to separate from Medicaid but not maintain healthcare coverage. To measure this, the independent evaluator will survey former Medicaid beneficiaries who recently separated to determine whether they had periods where they were not covered by any health insurance.

Table 2-4: Hypothesis 3 Research Questions and Measures

Hypothesis 3—Medicaid beneficiaries subject to the community engagement requirement will have a higher likelihood of transitioning to commercial health insurance after separating from Medicaid than Medicaid beneficiaries not subject to the requirement.	
Research Question 3.1: Does the community engagement requirement lead to increased take-up of commercial insurance, including employer-sponsored insurance (ESI) and Marketplace plans?	
3-1	Enrollment in commercial coverage within one year after Medicaid disenrollment
3-2	Percentage of beneficiaries with a job that offers ESI
3-3	Percentage of beneficiaries with a job that offers ESI and who enroll in ESI
Research Question 3.2: Is new ESI coverage sustained over time after implementation of community engagement requirements?	

Hypothesis 3—Medicaid beneficiaries subject to the community engagement requirement will have a higher likelihood of transitioning to commercial health insurance after separating from Medicaid than Medicaid beneficiaries not subject to the requirement.	
3-4	Percentage of beneficiaries who still have ESI coverage 1 and 2 years after initial take-up of ESI
3-5	Percentage of beneficiaries with Medicaid coverage 1 and 2 years after initial take-up of ESI
3-6	Percentage of beneficiaries uninsured 1 and 2 years after initial take-up of ESI
Research Question 3.3: Are beneficiaries with ESI able to pay premiums and meet other cost-sharing responsibilities, such as deductibles and copayments?	
3-7	Percentage of beneficiaries with ESI who reported problems paying insurance or medical bills
3-8	Reported out-of-pocket medical spending among beneficiaries with ESI
Research Question 3.4: Is the community engagement requirement associated with coverage losses (if people transition off Medicaid and do not enroll in commercial health insurance?)	
3-9	Average number of months beneficiaries reported being uninsured
3-10	Average number of months uninsured
Research Question 3.5: Are beneficiaries subject to the community engagement requirement more likely to lose eligibility due to increased income than beneficiaries not subject to the requirement?	
3-11	Percentage of beneficiaries disenrolling from Medicaid due to income exceeding limit
3-12	Percentage of non-exempt AHCCCS Works beneficiaries losing Medicaid eligibility per month, by discontinuance category
Research Question 3.6: At what rates are beneficiaries subject to the community engagement requirement suspended due to noncompliance?	
3-13	Percentage of non-exempt AHCCCS Works beneficiaries suspended due to noncompliance per month

Hypothesis 4 seeks to determine the impact of the demonstration on health outcomes among both current and former beneficiaries who recently separated from Medicaid. One of the overarching goals of the demonstration waiver is to increase the health outcomes of those subject to the community engagement requirements through increased rates of employment, education, and other community engagement activities. Table 2-5 presents the measures and survey questions that will be used to measure health outcomes.

Table 2-5: Hypothesis 4 Research Questions and Measures

Hypothesis 4—Current and former Medicaid beneficiaries subject to the community engagement requirement will have better health outcomes than Medicaid beneficiaries not subject to the requirement.	
Research Question 4.1: Does the community engagement requirement lead to improved health outcomes?	
4-1	Beneficiary reported rating of overall health
4-2	Beneficiary reported rating of overall mental or emotional health
4-3	Percentage of beneficiaries who reported prior year emergency room (ER) visit

Hypothesis 4—Current and former Medicaid beneficiaries subject to the community engagement requirement will have better health outcomes than Medicaid beneficiaries not subject to the requirement.	
4-4	Percentage of beneficiaries who reported prior year hospital admission

A key requirement of a section 1115 waiver evaluation is to assess the impact of the demonstration on a state Medicaid program's financial sustainability.[2-6, 2-7] To that end, the independent evaluator will assess cost effectiveness of the demonstration with Hypothesis 5. Because cost effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 5. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not been implemented. Program savings will be identified as reductions in administrative and/or service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures for which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of the program is described in detail in the Cost-Effectiveness Analysis section. The measures and associated research questions are presented in Table 2-6.

Table 2-6: Hypothesis 5 Research Questions and Measures

Hypothesis 5—The community engagement requirement will promote Medicaid program sustainability through cost-effective care.
Research Question 5.1: What are the costs associated with implementation and maintenance of AHCCCS Works?
Research Question 5.2: What are the benefits/savings associated with the AHCCCS Works program?

Part of the evaluation of the AHCCCS Works demonstration will consist of an implementation assessment. The following research questions will be answered through a range of data sources, including administrative program data, beneficiary surveys and/or focus groups, and key informant interviews with subject matter experts at AHCCCS. The measures and associated research questions are presented in Table 2-7.

Table 2-7: Hypothesis 6 Research Questions and Measures

Hypothesis 6—Assessment of AHCCCS Works Implementation	
Research Question 6.1: What is the distribution of activities beneficiaries engage in to meet community engagement requirements? How have these changed over time?	
6-1	Breakdown of community engagement compliance by category, over time (e.g. monthly)
Research Question 6.2: What are common barriers to compliance with community engagement requirements?	
6-2	Beneficiaries' reported barriers to community engagement compliance

[2-6] Centers for Medicare & Medicaid Services. Evaluation Design Guidance for Section 1115 Eligibility and Coverage Demonstrations. Available at: https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/ce-evaluation-design-guidance.pdf. Accessed on: Jun 14, 2019.

[2-7] Centers for Medicare & Medicaid Services. Arizona Medicaid Section 1115 Demonstration Special Terms and Conditions. Jan 18, 2017. Available at: https://www.azahcccs.gov/shared/Downloads/News/FORSTATEArizonaAHCCCSSTCAndAuthorities_W_TIPFinal.pdf. Accessed on Jun 20, 2019.

Hypothesis 6—Assessment of AHCCCS Works Implementation	
Research Question 6.3: Do beneficiaries report that they have the necessary support services to meet community engagement requirements?	
6-3	Beneficiaries' reported support services for meeting community engagement requirements
Research Question 6.4: Do beneficiaries understand the requirements, including how to satisfy them and the consequences of noncompliance?	
6-4	Beneficiaries' reported awareness of community engagement requirements, how to report hours, and consequences of noncompliance
Research Question 6.5: How many beneficiaries are required to actively report their status, including exemptions, good cause circumstances, and qualifying activities?	
6-5	Number and percentage of beneficiaries required to actively report exemptions
6-6	Number and percentage of beneficiaries required to actively report good cause circumstances
6-7	Number and percentage of beneficiaries required to report qualifying activities
Research Question 6.6: Are beneficiaries who are disenrolled for noncompliance with community engagement requirements more or less likely to re-enroll than beneficiaries who disenroll for other reasons?	
6-8	Percentage of beneficiaries re-enrolling in Medicaid after a gap in coverage of at least 1 month and 3 months

3. Methodology

The primary goal of an impact assessment in policy and program evaluation is to identify the impact of the policy or program. To accomplish this, a comparison of outcomes between the intervention group and a valid counterfactual—the intervention group had they not been exposed to the intervention—must be made. The gold standard for experimental design is a randomized controlled trial which would be implemented by first identifying an intervention population, and then randomly assigning individuals to the intervention and the rest to a comparison group, which would serve as the counterfactual. However, random assignment is rarely feasible or desirable in practice, particularly as it relates to healthcare policies.

As such, a variety of quasi-experimental or observational methodologies have been developed for evaluating the effect of policies on outcomes. The research questions presented in the previous section will be addressed through at least one of these methodologies. The selected methodology largely depends on data availability factors relating to: (1) data to measure the outcomes; (2) data for a valid comparison group; and (3) data collection during the time periods of interest—typically defined as the year prior to implementation and annually thereafter. Table 3-1 illustrates a sampling of analytic approaches that could be used as part of the evaluation and whether the approach requires data gathered at the baseline (i.e., pre-implementation), requires a comparison group, or allows for causal inference to be drawn. It also notes key requirements unique to a particular approach.

Table 3-1: Sampling of Analytic Approaches

Analytic Approach	Baseline Data	Comparison Group	Allows Causal Inference	Notes
Randomized Controlled Trial		✓	✓	Requires full randomization of intervention and comparison group.
Difference-in-Differences	✓	✓	✓	Trends in outcomes should be similar between comparison and intervention groups at baseline.
Panel Data Analysis	✓		✓	Requires sufficient data points both prior to and after implementation.
Regression Discontinuity		✓	✓	Program eligibility must be determined by a threshold
Interrupted Time Series	✓		✓	Requires sufficient data points prior to implementation.
Cohort Analysis	✓			
Cross-Sectional Analysis		✓		

Given that Arizona Health Care Cost Containment System (AHCCCS) Works only impacts the Group VIII Medicaid expansion population between ages 19 and 49, Group VIII beneficiaries aged 50 and over may serve as a counterfactual in a regression discontinuity design. To account for differences between the two groups, propensity score matching, or weighting may be used to identify comparison group beneficiaries who share similar characteristics to those in the intervention (i.e., Group VIII beneficiaries between the ages of 19 and 49 subject to the waiver requirements).

Evaluation Design Summary

For measures in which a valid comparison group and baseline data are available, a difference-in-differences (DiD) study design will be used as the foundation for the analysis. The DiD study design will leverage two additional aspects of the demonstration that can help establish causality. The DiD study design will incorporate a regression discontinuity (RD) analysis by utilizing beneficiaries above the cutoff age of 49 as a comparison group. In addition, the stepped wedge implementation of the program will allow for the use of AHCCCS Works beneficiaries aged 19 to 49 in regions yet to implement the program as a comparison group. By leveraging pre-implementation baseline data, the independent evaluator can effectively conduct an RD analysis in the baseline to identify any "jumps" in the outcome at the age cutoff prior to implementation. This will serve as an expected change in rates during the evaluation period.

Outcomes that rely on state administrative data pertaining to employment and income have the potential to have repeated intra-year (e.g., monthly) measurements taken both prior to and after implementation. This can serve to build pre- and post-implementation trends in outcomes. With this frequency of data, a comparative interrupted time series or repeated measures DiD analysis can be utilized. A comparative interrupted time series design is similar to the DID approach, but with the benefit of being able to assess changes in *trends* in the outcome in addition to changes in the *level* of the outcome (averaged across pre- and post- implementation time periods), as given by a two-time period DiD approach.

Intervention and Comparison Populations

For purposes of the evaluation, some measures rely on capturing outcomes among former Medicaid beneficiaries in addition to current Medicaid beneficiaries. Former Medicaid beneficiaries from both groups will be included in the evaluation of these measures.

Intervention Population

As described in the Background, the intervention group will consist of "able-bodied" Group VIII beneficiaries. Specifically, beneficiaries aged 19 to 49 eligible through Medicaid expansion will be the intervention population. In Arizona, the adult expansion population is defined by the following eligibility categories:

- Childless adults, 0-100 percent Federal Poverty Level (FPL) (Prop 204 Restoration)
- Adult expansion, 100-133 percent FPL

However, not all beneficiaries in these eligibility categories will be subject to the demonstration requirements. Specifically, those meeting the following criteria will be exempt:[3-1]

- Pregnant women and women up to the end of the month in which the 60th day of post-pregnancy occurs
- Former foster care youth up to age 26
- Beneficiaries who are members of a federally recognized tribe
- Beneficiaries determined to have a serious mental illness (SMI)

[3-1] Note, some exemptions are listed explicitly for full transparency as to certain groups that will not be impacted, such as those aged 50 or above.

- Beneficiaries currently receiving temporary or permanent long-term disability benefits from a private insurer or from the state or federal government, including workers compensation benefits
- Beneficiaries who are medically frail
- Beneficiaries who are in active treatment with respect to a substance use disorder (SUD)
- Full time high school, trade school, college or graduate students
- Victims of domestic violence
- Beneficiaries who are homeless
- Designated caretakers of a child under age 18
- Caregivers who are responsible for the care of an individual with a disability
- Beneficiaries who have an acute medical condition
- Beneficiaries who are receiving Supplemental Nutrition Assistance Program (SNAP), Cash Assistance, or Unemployment Insurance income benefits
- Beneficiaries participating in other AHCCCS approved work programs
- Beneficiaries not mentioned above who have a disability as defined by federal disabilities rights laws (ADA, Section 504, and Section 1557) who are unable to participate in AW Requirements for disability-related reasons

Comparison Populations

AHCCCS does not maintain or have access to an all-payer claims database from which to feasibly pull commercial insurance claims and enrollment information to identify low income commercial insurance enrollees. As a result, the evaluation design will rely on:

- AHCCCS beneficiaries above the eligibility threshold of age 49
- Prospective AHCCCS Works beneficiaries in other regions resulting from staged rollout of implementation

Identification of AHCCCS beneficiaries above the eligibility threshold of age 49

Adult Medicaid expansion beneficiaries aged 50 or above who would otherwise be eligible for AHCCCS Works will be used as a comparison group in a regression discontinuity (RD) design. Medicaid eligibility categories will be used to identify beneficiaries in the Group VIII population and beneficiary date of birth will be used to identify those who are aged 50 or above. Although the RD design can allow for causal inferences when the age threshold is not associated with any other changes, the results are typically not generalizable to beneficiaries far from the age cutoff. The independent evaluator will determine the appropriate bandwidth around the age threshold for both the comparison and target groups for inclusion in the final analysis.

Propensity score matching may be used to identify a subset of the eligible comparison group that is most similar to the intervention population based on observable characteristics, including demographic factors and health conditions prior to implementation of the waiver.[3-2] Propensity score matching has been used extensively to match

[3-2] See, e.g., Selecting the Best Comparison Group and Evaluation Design: A Guidance Document for State Section 1115 Demonstration Evaluations" for a detailed discussion of appropriate evaluation designs based on comparison group strategies (https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/comparison-grp-evaldsgn.pdf).

individuals from an eligible comparison group to individuals in the intervention group.[3-3] However, there are several risks to the use of propensity scores and subsequent matching on the propensity score (Table 3-2).

Table 3-2: Propensity Score Risks

Risk	Description
Insufficient coverage	Not enough individuals in the eligible comparison group similar enough to intervention population for 1:1 matching.
Unbalanced groups	Observable characteristics of the intervention and comparison groups after matching are not balanced.

When confronted with insufficient coverage, the independent evaluator should first explore alternative specifications in either the propensity score model and/or the matching algorithm before moving to alternative approaches. For example, instead of a typical 1:1 greedy matching algorithm, the independent evaluator could explore matching with replacement or optimal matching algorithms.[3-4] If alternative matching algorithms do not yield a matched comparison group with sufficient coverage and balance, then propensity score weighting can be explored as the next step. Propensity score weighting utilizes the full eligible comparison group and assigns a higher statistical weight to beneficiaries who are predicted to be part of the intervention but were not. A risk of this methodology is that the analysis may be dominated by a handful of beneficiaries with extremely high weights.

Balance between the matched comparison and intervention groups will be assessed using a three-pronged approach to evaluate the similarity between the intervention group and comparison groups across observable characteristics, or covariates. Table 3-3 summarizes each of the three prongs.

Table 3-3: Assessment Approaches

Assessment Approach	Advantage	Cautionary Note
Covariate-level statistical testing	Provides quantitative evidence, or lack thereof, of significant differences between matched groups	Susceptible to false positives for large sample sizes and false negatives for small sample sizes
Standardized differences	Does not rely on sample size	No universal threshold to indicate balance or unbalance
Omnibus test	Provides a single quantitative assessment of balance across all covariates as a whole	Susceptible to false positives for large sample sizes and false negatives for small sample sizes

Each of these approaches ultimately assesses the similarity of the *mean* of the distribution for each covariate. Additional metrics pertaining to the distribution should also be considered as part of the balance assessment, such as reporting the standard deviations.[3-5]

[3-3] Guo, S., and Fraser, M.W., (2010) *Propensity Score Analysis: Statistical Methods and Applications,* SAGE Publications, Inc., Thousand Oaks, CA; or Austin, P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/

[3-4] See, e.g., Austin P. C. (2014). A comparison of 12 algorithms for matching on the propensity score. *Statistics in medicine*, 33(6), 1057–1069. doi:10.1002/sim.6004; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4285163/

[3-5] Austin P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/

Prospective AHCCCS Works Beneficiaries in Other Regions Resulting from Staged Rollout of Implementation

AHCCCS anticipates implementing AHCCCS Works through a three-stage phase-in approach, beginning with the most urbanized counties, semi-urbanized counties a year later, and ending with least urbanized counties one year after that. This provides an opportunity to leverage beneficiaries not yet subject to the waiver requirements as a comparison group for beneficiaries who are subject to the requirements for early phase-in stages. However, since the geographical phase-in is based on urbanicity there may be systematic differences between the groups. The independent evaluator will assess the viability of utilizing beneficiaries not yet subject to the requirements from the staged rollout as a potential comparison group. The independent evaluator may also leverage the regression discontinuity design and the stepped wedge design as a comparative regression discontinuity using beneficiaries in regions that have yet to implement the program as a comparison group across all age ranges.

Out-of-State Comparison Groups

The independent evaluator will consider utilizing an out-of-state comparison group if data are available and complete enough to support rigorous statistical testing of outcomes. One possible data source for beneficiary-level data is through national surveys, such as the Behavioral Risk Factors Surveillance System (BRFSS), the National Health Interview Survey (NHIS), or Integrated Public Use Microdata Series American Community Survey (IPUMS ACS). When considering such data sources, there are several pieces that need to align in order to leverage the data source in the evaluation. First, ideally beneficiary-level data should be available, which will allow for identification of additional key features to control for in statistical testing. Second, the data source must include a method to identify Medicaid beneficiaries. Third, the data source must include state indicators to separate Medicaid beneficiaries in Arizona from other states. Fourth, the data source should include a method to identify specific subpopulations of interest, specifically Medicaid expansion beneficiaries. Fifth, the data source must contain relevant outcomes to measure that are pertinent to the waiver evaluation. Finally, the timing of survey administration and lag time in data availability should be taken into consideration as it relates to the implementation of AHCCCS Works and the demonstration renewal period.

Each of the above datasets provide beneficiary level data and state indicators, BRFSS, however, does not contain a Medicaid indicator for all states. The Medicaid indicator in BRFSS is part of an optional module collected by only six states in 2017 and 11 states in 2016, and Arizona is not included in either year. It is possible for future analyses to consider this data source if Arizona participates in the optional module to identify Medicaid beneficiaries. Responses from Medicaid beneficiaries in other states may be used as an out of state comparison group for measures from state beneficiary surveys asking the same questions; specifically, data for AHCCCS Works beneficiaries for Measure 4-1 (*Beneficiary reported rating of overall health for all beneficiaries*).

IPUMS ACS contains Medicaid and state indicators, and data on family income and number of children, which could be used to proxy Medicaid expansion beneficiaries. The independent evaluator will consider utilizing this data source for a selection of measures, as indicated in Table 3-5. A comparison of possible data sources, their requirements, limitations, and anticipated utility is described in Appendix E. A difference-in-differences study design will be used to compare changes in rates for comparison states against changes in rates for Arizona respondents before and after implementation of the demonstration. Due to the staged rollout of the demonstration in Arizona, the independent evaluator may leverage county codes in the IPUMS ACS data to further refine the estimated eligible population in Arizona based on county urbanicity and additional county characteristics to support a triple differences-in-differences study design.

Another potential source for beneficiary-level data is the Transformed Medicaid Statistical Information System (T-MSIS) maintained and collected by the Centers for Medicare & Medicaid Services (CMS). It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support individual-level matching to AHCCCS Works beneficiaries. However, as

of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group. If these data become available in time for the summative evaluation report, the independent evaluator will examine the completeness and viability of using these data in the analyses. With robust beneficiary-level data covering the baseline period and multiple years during the demonstration period (if not the entire demonstration period), then more robust methods can be employed to estimate the effect of the demonstration on outcomes. Measures that utilize administrative claims/encounter data or enrollment and eligibility data may use methods such as propensity score matching or reweighting to construct a valid out-of-state comparison group from similar states with a Medicaid expansion population that have not implemented a work requirement waiver.

Identifying Comparison States

For measures in which individual level data are not available, the selection of states used for an out-of-state comparison group will be based on similarity to Arizona in terms of overall demographics and Medicaid programs and policies. In addition to sharing demographic factors and similar Medicaid policies, comparison state(s) should not have a major change in Medicaid policies during either the baseline or evaluation period. Selection of states will be conducted on a measure-by-measure basis depending on the available data and state willingness to share data.

Evaluation Periods

AHCCCS Works is anticipated to be in effect beginning Spring/Summer 2020 with the initial demonstration approved through September 2021. Due to the timing of the Interim Evaluation Report the time period to be covered by the interim evaluation has yet to be determined at the time of writing this Evaluation Design Plan. The baseline period will be the year prior to implementation. The Summative Evaluation Report will cover one full year of the waiver with six months of claims/encounter data run out. Table 3-4 presents time frames for each of the evaluation periods.

Table 3-4: AHCCCS Works Evaluation Periods

Evaluation Periods	Time Frame
Baseline	Year prior to implementation
Interim Evaluation*	To Be Determined
Summative Evaluation	First two years of demonstration

*Approval for the waiver ends September 30, 2021.

Propensity score matching will be used to identify a valid comparison group, which will rely on administrative claims data collected during the baseline period. Claims data for AHCCCS typically have a six- to nine-month lag, which would allow adequate time to identify the comparison group prior to the end of the first demonstration year.

Evaluation Measures

Table 3-5 details the proposed measure(s), study populations, data sources and proposed analytic methods that will be used to evaluate the AHCCCS Works program. Detailed measure specifications can be found in Appendix D.

Table 3-5: AHCCCS Works Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1—Medicaid beneficiaries subject to the community engagement requirement will have higher employment and education levels than Medicaid beneficiaries not subject to the requirement.				
Research Question 1.1: Does the community engagement requirement lead to increased job seeking activities for those subject to the requirements compared to those who are not?	1-1: Percentage of beneficiaries who did not work during the previous week who actively sought a job during the past four weeks	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
	1-2: Percentage of beneficiaries who met community engagement criteria through job search activities	N/A	Eligibility and program monitoring data	• Compare outcomes during first three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart
Research Question 1.2: Does the community engagement requirement lead to increased rates of education enrollment or employment training programs?	1-3: Percentage of beneficiaries attending school or an Employment Support and Development program	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
	1-4: Percentage of beneficiaries who met community engagement criteria through attending school or an Employment Support and Development program	N/A	Eligibility and program monitoring data	• Compare outcomes during first three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart
Research Question 1.3: Are beneficiaries subject to the community engagement requirement more likely to be employed (including new and sustained employment) compared to those who are not?	1-5: Percentage of beneficiaries who usually worked at least 20 hours per week during previous year	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
	1-6: Percentage of beneficiaries employed during each month of measurement year	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	Eligibility and income data	• Regression discontinuity • Comparative interrupted time series • Difference-in-differences • Rapid cycle reporting – statistical process control chart

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	1-7: Number of weeks worked last year (including as unpaid family worker, and paid vacation/sick leave)	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
Research Question 1.4: Do beneficiaries who initially comply through activities other than employment gain employment within certain time periods?	1-8: Percentage of beneficiaries initially compliant through activities other than employment employed at 6 months, 1 year, and 2 years after enrollment or implementation	N/A	Eligibility and program monitoring data	Descriptive analysis of employment status at 6 months, 1 year, and 2 years post-enrollment among those who initially met requirement through non-employment activities
Research Question 1.5: Is employment among individuals subject to community engagement requirements sustained over time, including after separating from Medicaid?	1-9: Percentage of beneficiaries employed continuously for a year or more since enrollment or implementation	N/A	State beneficiary survey	Comparison of regression-adjusted means in employment 1- and 2-years post-enrollment among: 1. Those who were already employed at enrollment or implementation 2. Those who gained employment in the first six months of enrollment 3. Those who did not gain employment in the first six months of enrollment
Research Question 1.6: Does the community engagement requirement lead to better education outcomes?	1-10: Beneficiaries' reported highest grade or level of education completed	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
Hypothesis 2—Medicaid beneficiaries subject to the community engagement requirement will have higher average income than Medicaid beneficiaries not subject to the requirement.				
Research Question 2.1: Does the community engagement requirement increase income?	2-1: Average monthly earnings	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	• Eligibility and income data • HEAplus	• Regression discontinuity • Comparative interrupted time series • Difference-in-differences • Rapid cycle reporting – statistical process control chart

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	2-2: Average beneficiary reported personal income	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
Hypothesis 3—Medicaid beneficiaries subject to the community engagement requirement will have a higher likelihood of transitioning to commercial health insurance after separating from Medicaid than Medicaid beneficiaries not subject to the requirement.				
Research Question 3.1: Does the community engagement requirement lead to increased take-up of commercial insurance, including employer-sponsored insurance (ESI) and Marketplace plans?	3-1: Enrollment in commercial coverage within one year after Medicaid disenrollment	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences
	3-2: Percentage of beneficiaries with a job that offers ESI	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences
	3-3: Percentage of beneficiaries with a job that offers ESI and who enroll in ESI	N/A	State beneficiary survey	Descriptive analysis of ESI take-up among those offered and eligible for ESI
Research Question 3.2: Is new ESI coverage sustained over time after implementation of community engagement requirements?	3-4: Percentage of beneficiaries who still have ESI coverage 1 and 2 years after initial take-up of ESI	N/A	State beneficiary survey	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up
	3-5: Percentage of beneficiaries with Medicaid coverage 1 and 2 years after initial take-up of ESI	N/A	State beneficiary survey	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up
	3-6: Percentage of beneficiaries uninsured 1 and 2 years after initial take-up of ESI	N/A	State beneficiary survey	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up
Research Question 3.3: Are beneficiaries with ESI able to pay premiums and meet other cost-sharing responsibilities,	3-7: Percentage of beneficiaries with ESI who reported problems paying insurance or medical bills	N/A	State beneficiary survey	Descriptive analysis of reported beneficiary cost sharing for former demonstration beneficiaries who transitioned to ESI

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
such as deductibles and copayments?	3-8: Reported out-of-pocket medical spending among beneficiaries with ESI	N/A	State beneficiary survey	Descriptive analysis of reported beneficiary cost sharing for former demonstration beneficiaries who transitioned to ESI
Research Question 3.4: Is the community engagement requirement associated with coverage losses (if people transition off Medicaid and do not enroll in commercial health insurance?)	3-9: Average number of months beneficiaries reported being uninsured	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences
	3-10: Average number of months uninsured	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State tax data (1095B)	• Regression discontinuity • Difference-in-differences
Research Question 3.5: Are beneficiaries subject to the community engagement requirement more likely to lose eligibility due to increased income than beneficiaries not subject to the requirement?	3-11: Percentage of beneficiaries disenrolling from Medicaid due to income exceeding limit	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	Eligibility and enrollment data	• Comparative interrupted time series • Regression discontinuity • Difference-in-differences
	3-12: Percentage of non-exempt AHCCCS Works beneficiaries losing Medicaid eligibility per month, by discontinuance category	N/A	Eligibility and enrollment data	Rapid cycle reporting – statistical process control chart
Research Question 3.6: At what rates are beneficiaries subject to the community engagement requirement suspended due to noncompliance?	3-13: Percentage of non-exempt AHCCCS Works beneficiaries suspended due to noncompliance per month	N/A	Eligibility and program monitoring data	Rapid cycle reporting – statistical process control chart
Hypothesis 4—Current and former Medicaid beneficiaries subject to the community engagement requirement will have better health outcomes than Medicaid beneficiaries not subject to the requirement.				
Research Question 4.1: Does the community engagement requirement lead to improved health outcomes?	4-1: Beneficiary reported rating of overall health	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	• State beneficiary survey • BRFSS	• Regression discontinuity • Difference-in-differences
	4-2: Beneficiary reported rating of overall mental or emotional health	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	4-3: Percentage of beneficiaries who reported prior year emergency room (ER) visit	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences
	4-4: Percentage of beneficiaries who reported prior year hospital admission	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences
Hypothesis 5—The community engagement requirement will promote Medicaid program sustainability through cost-effective care.				
Research Question 5.1: What are the costs associated with implementation and maintenance of AHCCCS Works?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost-effectiveness analysis
Research Question 5.2: What are the benefits/savings associated with the AHCCCS Works program?				
Hypothesis 6—Assessment of AHCCCS Works Implementation.				
Research Question 6.1: What is the distribution of activities beneficiaries engage in to meet community engagement requirements? How have these changed over time?	6-1: Breakdown of community engagement compliance by category, over time (e.g. monthly)	N/A	Compliance and monitoring data	• Compare outcomes during first three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart
Research Question 6.2: What are common barriers to compliance with community engagement requirements?	6-2: Beneficiaries' reported barriers to CE compliance	N/A	Beneficiary focus groups	Qualitative synthesis

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 6.3: Do beneficiaries report that they have the necessary support services to meet community engagement requirements?	6-3: Beneficiaries' reported support services for meeting CE requirements	N/A	• Beneficiary focus groups • State beneficiary survey	• Qualitative synthesis • Post-implementation trend analysis
Research Question 6.4: Do beneficiaries understand the requirements, including how to satisfy them and the consequences of noncompliance?	6-4: Beneficiaries' reported awareness of CE requirements, how to report hours, and consequences of noncompliance	N/A	Beneficiary focus groups	Qualitative synthesis
Research Question 6.5: How many beneficiaries are required to actively report their status, including exemptions, good cause circumstances, and qualifying activities?	6-5: Number and percentage of beneficiaries required to actively report exemptions	N/A	Compliance and monitoring data	Post-implementation trend analysis
	6-6: Number and percentage of beneficiaries required to actively report good cause circumstances	N/A	Compliance and monitoring data	Post-implementation trend analysis
	6-7: Number and percentage of beneficiaries required to report qualifying activities	N/A	Compliance and monitoring data	Post-implementation trend analysis
Research Question 6.6: Are beneficiaries who are disenrolled for noncompliance with community engagement requirements more or less likely to re-enroll than beneficiaries who disenroll for other reasons?	6-8: Percentage of beneficiaries re-enrolling in Medicaid after a gap in coverage of at least 1 month and 3 months	N/A	• Eligibility and enrollment data • Compliance and monitoring data	Comparison of regression-adjusted probability of re-enrollment among AHCCCS Works beneficiaries who were: 1) Disenrolled for noncompliance 2) Disenrolled for reasons other than noncompliance

Data Sources

Multiple data sources will be utilized to evaluate the six research hypotheses for the AHCCCS Works evaluation. Data collection will include administrative and survey-based data such as Consumer Assessment of Healthcare Providers and Systems (CAHPS®), CAHPS-like survey questions. Administrative data sources include information extracted from Prepaid Medical Management Information System (PMMIS) and Health-e-Arizona Plus (HEAplus).[3-6] PMMIS and HEAplus will be used to collect, manage and maintain Medicaid recipient files

[3-6] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

(i.e., eligibility, enrollment, demographics, income, community engagement compliance), fee-for-service (FFS) claims, managed care encounter data, income and program compliance data. The combination of survey and the administrative data sources mentioned earlier will be used to assess the six research hypotheses.

State Beneficiary Survey Data

State beneficiary surveys will be used to assess beneficiaries' healthcare coverage and employment status before and during the AHCCCS Works program implementation. These surveys will be an important data source for community engagement demonstration evaluations because the independent evaluator will need to capture information from beneficiaries after they separate from Medicaid in order to answer pertinent questions to the demonstration. Therefore, these instruments will include specific survey items designed to elicit information that addresses research hypotheses regarding member employment, income, health status and coverage transitions.

The survey questions will be designed to capture elements of the waiver Special Terms and Conditions (STCs) that cannot be addressed through administrative data. These surveys will be particularly crucial for former Medicaid beneficiaries as there will be limited administrative data for those individuals. The following concepts and hypotheses will be addressed in the beneficiary surveys:

1. **Employment status**—Hypothesis 1 states that Medicaid beneficiaries subject to community engagement requirements will have higher employment levels, including work in subsidized, unsubsidized, or self-employed settings, than Medicaid beneficiaries not subject to the requirements.
2. **Income**—Hypothesis 2 states that community engagement requirements will increase the average income of Medicaid beneficiaries subject to the requirements, compared to Medicaid beneficiaries not subject to the requirements.
3. **Transition to commercial health**—Hypothesis 3 states that community engagement requirements will increase the likelihood that Medicaid beneficiaries' transition to commercial health insurance after separating from Medicaid, compared to Medicaid beneficiaries not subject to the requirements.
4. **Health outcomes**—Hypothesis 4 states that community engagement requirements will improve the health outcomes of current and former Medicaid beneficiaries subject to the requirements, compared to Medicaid beneficiaries not subject to the requirements.

The independent evaluator will conduct longitudinal surveys during the baseline and measurement periods. Ideally, the independent evaluator will survey beneficiaries at the baseline before demonstration implementation; however, if the independent evaluator is unable to do so, they will conduct a baseline survey after implementation with retrospective survey questions clearly indicating time periods before demonstration policies are expected to affect beneficiaries' behavior or other outcomes. AHCCCS and its independent evaluator will aim to collect baseline data before the effective date of AHCCCS Works. The sampling frame for the survey will be identified through eligibility and enrollment data, with specific enrollment requirements being finalized upon inspection of the data. Typically, beneficiaries are drawn from beneficiaries continuously enrolled during the last six months of the measurement period, with no more than a one-month gap in enrollment. However, due to the special nature of this demonstration, surveys will also be sent to eligible beneficiaries who recently disenrolled from Medicaid. The independent evaluator will leverage several strategies to identify current contact information for beneficiaries who disenroll from Medicaid. These strategies include cross-referencing addresses with the National Change of Address database or requesting email and phone information. This contact information would serve to build follow-up surveys in longitudinal data collection.

Stratified random sampling by managed care organization (MCO) will be used to construct a statistically valid sample at the plan level. The typical sample size, as recommended by the National Committee for Quality

Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®) Specifications for Survey Measures requires a sample size of 1,350 beneficiaries for the CAHPS 5.0 Adult Medicaid Health Plan Survey, which will serve as a template for the survey instrument used in this evaluation. An oversample of at least 10 percent for each plan will be applied to ensure an adequate number of respondents to each CAHPS measure. The maximum number of surveys that need to be sent per plan is estimated to be 1,485. Historical response rates for the Arizona Acute Care Adult population are approximately 22 percent, which would correspond to 327 completed adult surveys per plan. Across seven plans, the total number of completed surveys is anticipated to be approximately 2,289. An adult sample of 2,289 would have 0.8 power to identify a single percentage estimate of a 50 percent rate with a margin of error of 2.05 percent, or be able to identify a difference of rates between 50 percent and 54.1 percent with an alpha level of 0.05 and a two-tailed test. Because plan sampling will be disproportionate to overall plan membership statewide, plan-level weights will be reweighted to adjust for proportionality when calculating aggregate rates. Because evaluations for several concurrent waivers are planned, the State and its independent evaluator will seek to streamline survey administration across evaluations to minimize the number of separate survey rounds required, thereby minimizing the burden on beneficiaries and maximizing the response rate. Therefore, the sampling strategy described above may be revised based on enrollment across waivers. The instrument content will be derived from a number of sources. The format will be similar to the CAHPS Adult Medicaid Health Plan Survey, including elements as necessary from national surveys (e.g., IPUMS ACS) as suggested in CMS evaluation and monitoring guidance and detailed in Appendix D.[3-7]

To maximize response rates, a mixed-mode methodology for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to beneficiaries, has shown to increase response rates and will be incorporated into survey administration. Additionally, to the extent possible, the independent evaluator will align multiple demonstration surveys to minimize the number of surveys members receive and to increase response rates across all demonstrations with overlapping populations. A range of sampling protocols will be considered including simple random samples, stratified random samples, multistage stratifications (i.e., cluster), and targeted oversamples.

One of the anticipated challenges is contacting the hard-to-reach and disenrolled populations. Collection of data for beneficiaries who have left Medicaid will be critical to understanding the impact of the community engagement requirements associated with AHCCCS Works. The independent evaluator's approach will rely on identifying those who recently disenrolled and developing a robust set of survey questions targeted at this group. This method of primary data collection will allow the independent evaluator to measure outcomes for beneficiaries for whom AHCCCS no longer has administrative data.

One limitation to sending surveys for those who have left Medicaid is that these methods are subject to data reliability concerns. Only the recently disenrolled can be considered for survey sampling in the event an individual moves in the intervening time between disenrollment and survey administration. To the extent data are available in the HEAplus system and can be linked to former Medicaid beneficiaries, contact information from this system can be used for these individuals. Additionally, data in the HEAplus system can be leveraged to gather information on the employment status and financial well-being of beneficiaries who leave the Medicaid program.

Administrative Data

AHCCCS's demonstration evaluation will allow the opportunity to utilize data from several sources (i.e., PMMIS and HEAplus) to determine the impact of AHCCCS Works. The administrative data sources are necessary to

[3-7] Matulewicz. H., Bradley, K., Wagner, S., "Beneficiary Survey Design and Administration for Eligibility and Coverage Demonstration Evaluations," *Mathematica*, June 2018. Available at: https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/1115-beneficiary-survey-guide.pdf. Accessed Oct 22, 2019.

address the six research hypotheses primarily relating to income, insurance coverage, search for employment, educational activities, Medicaid enrollment, Medicaid eligibility, and cost savings, and to identify a valid comparison group.

Managed care encounters will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded from all evaluations because these types of records introduce a level of uncertainty (from matching adjustments and third-party liabilities to the index claims) that can impact reported rates and cost calculations.

Beneficiary Focus Groups and Key Informant Interviews

Beneficiary focus groups and key informant interviews will be conducted through semi-structured interview protocols, transcribed, and imported into MAXQDA where the data will be coded to permit qualitative analysis. The transcripts, coding methodologies, and coded data will be used to answer the appropriate research questions.

National Datasets

Data from the Integrated Public Use Microdata Series American Community Survey (IPUMS ACS) may be utilized for certain measures pertaining to health insurance coverage, income, education, and labor force to provide an out of state comparison group. The IPUMS ACS is a "database providing access to over sixty integrated, high-precision samples of the American population drawn from sixteen federal censuses, from the American Community Surveys of 2000-present."[3-8] The independent evaluator will extract data that include demographic information, employment, disability, income data and program participation such as Medicaid enrollment information in order to identify a suitable comparison group.

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is the Transformed Medicaid Statistical Information System (T-MSIS) maintained and collected by the Centers for Medicare & Medicaid Services (CMS). All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-9] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support individual-level matching to AHCCCS Works beneficiaries. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

One measure may utilize data from BRFSS as out-of-state comparison groups. BRFSS is a health-focused telephone survey developed by the Centers for Disease Control and Prevention (CDC) that collects data from approximately 400,000 adults annually across all 50 states, Washington D.C., and three territories.[3-10] The questionnaire generally consists of two components: a core component and an optional component. Measure 4-1 (Beneficiary reported rating of overall health) will utilize data from BRFSS core module Health Status in conjunction with Medicaid coverage indicator from optional module Healthcare Access to compare against responses for a similar question among AHCCCS Works beneficiaries [3-11], with the recognition that the target

[3-8] IPUMS. Available at: https://usa.ipums.org/usa/intro.shtml. Accessed on: Feb 11, 2020.
[3-9] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.
[3-10] "About BRFSS," Centers for Disease Control and Prevention; https://www.cdc.gov/brfss/about/index.htm; last accessed Feb 11, 2020.
[3-11] CAHPS surveys for this evaluation will be administered through both mail and telephone, while BRFSS is administered exclusively through telephone. This difference in survey administration mode may lead to biased comparisons.

population of AHCCCS Works – adult Medicaid expansion beneficiaries – may be systematically different from Medicaid respondents identified in BRFSS.

To provide an understanding of the capabilities of the data for performing statistical analyses, the independent evaluator will calculate the statistical power associated with any out-of-state comparison group data using national datasets and report the results.

Analytic Methods

The evaluation reporting will meet traditional standards of scientific and academic rigor, as appropriate and feasible for each aspect of the evaluation (e.g., for the evaluation design, data collection and analysis, and the interpretation and reporting of findings). The Demonstration evaluation will use the best available data, will use controls and adjustments where appropriate and available, and will report the limitations of data and the limitations' effects on interpreting the results. Several analytic approaches will be considered for this evaluation, including:

1. Regression discontinuity (RD)
2. Difference-in-differences (DiD)
3. Comparative interrupted time series (CITS)
4. Post-implementation trend analysis
5. Rapid cycle reporting – statistical process control chart
6. Qualitative Synthesis

Regression Discontinuity

RD design can be used in situations where selection for the intervention is determined by a cutoff value. Because the demonstration will only impact Group VIII adults between the ages of 19 and 49, it is possible to use a regression discontinuity design consisting of beneficiaries aged 50 or older as a comparison group. There are two primary approaches that can be taken when using an RD design, which are not necessarily mutually exclusive. Indeed, the independent evaluator is encouraged to follow both to assess the robustness of findings and sensitivity in results to alternative specifications.

The first approach is a parametric estimation of the outcome; that is, all individuals in the eligible population are included in the analysis, such that those over 49 years of age will serve as a comparison group to those aged between 19 and 49 years. Under this approach, the relationship between the assignment variable, age, and the outcome will need to be carefully inspected to assess for nonlinearity. The advantage of this approach is that all, or most, individuals can be included in the analysis, which results in greater statistical power and external validity if the functional form between the assignment variable and outcome is accurately specified.

The second approach restricts the sample pool to those only just below or just above the threshold, sometimes referred to as a nonparametric approach or local linear regression. Because the sample pool is restricted to those within some bandwidth around the threshold, any bias resulting from the potentially unknown relationship between the assignment variable and the outcome are mitigated. To support survey-based measures under this approach, individuals on either side of the threshold age (49) will be oversampled to ensure adequate survey responses and sample size. The cost of restricting the sample population is reduced external validityas the resulting estimates often will not apply to those far from the threshold. In other words, findings from an analysis using only those between, for example, 45 and 55 years of age are not expected to apply for younger or older individuals far from the threshold.

The basic estimation of the parametric model is:

$$Y = \beta_0 + \beta_1 D + \beta_2(f(X - c)) + \varepsilon$$

Where D is a dummy indicator for intervention group, X is the individual's age, and c is the cutoff value, which in this application is 50, and $f(\cdot)$ is a functional form specification. The parameter β_0 is the average outcome at the cutoff point, and β_1 represents the difference in outcomes between the two groups at the cutoff point, or more simply, the effect of the demonstration on the outcome Y.[3-12]

The basic nonparametric model estimation is:

$$Y = \alpha + \tau D + \beta_l(X - c) + (\beta_r - \beta_l)D(X - c) + \varepsilon$$

where $c - h \leq X \leq c + h$ and β_l represents the slope coefficient on the left-hand side of the cutoff (i.e., those younger than 50) and β_r represents the slope coefficient on the right-hand side of the cutoff (i.e., those age 50 or older).

In this specification, h is a given bandwidth or window around the cutoff point. The independent evaluator will ultimately determine this value and test alternative specifications with wider or narrower windows.

Additional covariates can be incorporated into the parametric and nonparametric models to control for observable differences across individuals.

There are three primary assumptions and threats to the RD design:[3-13]

- The relationship between the assignment variable (i.e., age) and outcome must be identifiable and accurately modeled.
- All other factors that affect the outcome should not also jump at the threshold value.
- The effect of the demonstration is constant across all values of the assignment variable (i.e., age).

Difference-in-Differences

A DiD analysis will be performed on all measures for which baseline and evaluation period data are available for both the intervention and comparison groups. This analysis will compare the changes in the rates or outcomes between the baseline period and the evaluation period for the two populations. This allows for expected costs and rates for the matched intervention group to be calculated by considering expected changes in outcomes had the policy not been implemented. This is done by subtracting the average change in the comparison group from the average change in the intervention group, thus removing biases from the evaluation period comparisons due to permanent differences between the two groups. In other words, any changes in the outcomes caused by factors external to the policy would apply to both groups equally, and the DiD methodology will remove the potential bias. The result is a clearer picture of the actual effect of the program on the evaluated outcomes. The generic DiD model is:

$$Y_{it} = \beta_0 + \beta_1 X_i + \beta_2 R_t + \beta_3(R_t * X_i) + \boldsymbol{\gamma}\mathbf{D'}_{\boldsymbol{it}} + u_{it}$$

[3-12] Lee, D.S., and Lemieux, T., (2010) "Regression Discontinuity Designs in Economics," *Journal of Economic Literature,* 48(2): 281-355.
[3-13] Ibid.

where Y_{it} is the outcome of interest for individual i in time period t. R_t is a dummy variable for the remeasurement time period (i.e., evaluation period). The dummy variable X_i identifies the intervention group with a 1 and the comparison group with a 0. The vector **D'** will include all covariates used in the propensity score matching to ensure comparability of the groups for any measure-specific subgrouping (e.g., to address non-response bias) and **γ** is the related coefficient vector. The coefficient, β_1, identifies the average difference between the groups prior to the effective date of the policy. The time period dummy coefficient, β_2, captures the change in outcome between baseline and evaluation time periods. The coefficient of interest, β_3, is the coefficient for the interaction term, R_t * X, which is the same as the dummy variable equal to one for those observations in the intervention group in the remeasurement period. This represents the estimated effect of the waiver on the intervention group, conditional on the included observable covariates. The final DiD estimate is:

$$\hat{\beta}_3 = \left(\bar{y}_{T,R} - \bar{y}_{\mathrm{T,B}}\right) - \left(\bar{y}_{\mathrm{C,R}} - \bar{y}_{\mathrm{C,B}}\right) \mid \mathbf{D}'$$

Assuming trends in the outcome between the comparison and intervention groups are approximately parallel during the baseline period, the estimate will provide the expected costs and rates without intervention. If the β_3 coefficient is significantly different from zero, then it is reasonable to conclude that the outcome differed between the intervention and comparison group after the policy went into effect. In addition to assessing the degree of statistical significance for the result, as represented by the p-value associated with β_3, the results will be interpreted in a broader context of clinical and practical significance.[3-14]

Triple Difference-in-Differences

For measures that use an out-of-state comparison group, comparisons can be made through a triple difference-in-differences (DDD) approach, which is a more robust analysis than the conventional DiD approach described above.[3-15] The conventional DiD approach will use an in-state comparison group consisting of counties that have yet to implement AHCCCS Works based on urbanicity. If changes in the measured outcomes are caused by differences in urbanicity rather than the policy change, then the DiD results will be biased. A DDD design would introduce an additional comparison group consisting of individuals residing in counties out-of-state with similar urbanicity and other characteristics to counties implementing AHCCCS Works. Let U denote out-of-state counties with similar characteristics as AHCCCS Works counties, the DDD regression model is given by:

$$Y_{it} = \beta_0 + \beta_1 X_i + \beta_2 U_i + \beta_3 (X_i * U_i) + \beta_4 R_t + \beta_5 (X_i * R_t) + \beta_6 (U_i * R_t) + \beta_7 (X_i * R_t * U_i) + \boldsymbol{\gamma} \mathbf{D'}_{\boldsymbol{it}} + u_{it}$$

The coefficient of interest in this equation is the triple-differences estimator β_7 which represents the incremental difference between AHCCCS Works counties and non-AHCCCS Works counties, while netting out the changes among out of state counties with similar urbanicity. This approach is designed to control for changes in outcomes between counties of similar urbanicity across states and changes in outcomes within the state.

[3-14] Results from statistical analyses will be presented and interpreted in a manner that is consistent with the spirit of recent guidance put forth in *The American Statistician.* Ronald L. Wasserstein, Allen L. Schirm & Nicole A. Lazar (2019) Moving to a World Beyond "p < 0.05", The American Statistician, 73:sup1, 1-19, DOI: 10.1080/00031305.2019.1583913.

[3-15] Wing, C., Simon, K., and Bello-Gomez, R.A., "Designing Difference in Difference Studies: Best Practices for Public Health Policy Research," *Annu. Rev. Public Health* 2018. 39:453–69.

Comparative Interrupted Time Series

Measures for which data are collected with sufficient frequency prior to and after policy implementation, can use a CITS approach.[3-16] The CITS approach yields several advantages over a two-time period DiD. First, it controls for differences in baseline trends between the intervention and comparison groups. Second, the CITS approach can estimate changes in both the level of the outcome at the point of intervention and trends in the outcome, whereas the typical DiD approach evaluates changes in the outcomes averaged across the pre- and post-implementation periods. Finally, by virtue of additional data points, the statistical power of the analysis is increased. However, this may not necessarily translate into improved precision of the estimates due to the potential for increased variability in the outcome as the time between measurement decreases. The generic CITS regression model is:

$$Y_{it} = \beta_0 + \beta_1 X_i + \beta_2 R_t + \beta_3 (R_t X_i) + \beta_4 T_t + \beta_5 (T_t X_i) + \beta_6 (T_t R_t) + \beta_7 (X_i R_t T_t) + \boldsymbol{\gamma} \mathbf{D'}_{\boldsymbol{it}} + u_{it}$$

Where Y_{it} is the outcome of interest for individual i in time period t and X_i, R_t and $\mathbf{D'}_{\boldsymbol{it}}$ are as previously defined in the DiD section. The addition of the variable T_t represents a liner time trend since the start of the baseline period, where the first time period is coded as 0. The coefficient β_3 indicates the difference between intervention and comparison groups in the level of the outcome immediately after the intervention. The coefficient β_4 is the pre-intervention trend for the comparison group, β_5 represents the difference in the trend of the outcome between intervention and comparison groups prior to intervention, β_6 represents the change in the trend for the comparison group after intervention, and β_7 represents the difference between comparison and intervention groups in the trend of the outcome after implementation compared to the pre-implementation trends (similar to a DiD estimate in the slopes).[3-17] Importantly, both the CITS and DiD models can be extended to include multiple comparison groups, allowing for the possibility to use both potential comparison groups simultaneously in the evaluation.

Post-Implementation Trend Analysis

Beneficiary survey data will be utilized to evaluate measures pertaining to job seeking activities and education or job skills using a DiD framework. While survey data allows for the collection of data among former Medicaid beneficiaries and comparison groups, these outcomes may also be collected more frequently through administrative program data for the post-implementation intervention group. As such, the higher frequency and alternative data source can be used to supplement the findings from these measures. Although these data will only be collected after implementation of the program, the fact that beneficiaries will have a three-month orientation period before they are liable to lose Medicaid coverage due to noncompliance, does allow in effect a brief quasi-pre-implementation period. Three data points is not enough to reliably determine a trend, but these data can be leveraged to compare against future data points through trending analysis; such analysis may include:

- Statistical test of three-month "baseline" against time period after the three-month orientation period.
- Statistical test of three-month "baseline" against last three months in the data series.
- Linear or non-linear regression of outcomes over time.

[3-16] The independent evaluator will determine the viability of using monthly data in the analysis by evaluating the number of data points and variability in the outcome. It is possible for data collected at a relatively high-frequency to yield a large degree of variation, rendering this approach less viable.

[3-17] See, e.g., Linden, A., (2015) "Conducting interrupted time-series analysis for single- and multiple-group comparisons," *The Stata Journal*, 15(2), pp. 480-500. https://journals.sagepub.com/doi/pdf/10.1177/1536867X1501500208.

This analysis is designed to leverage additional data to supplement the primary findings for these measures to provide additional context and detail pertaining to trends in the intervention population's compliance with community engagement requirements. This analysis is not meant to determine the impact of the demonstration on employment, education, or job readiness training.

Rapid Cycle Reporting – Statistical Process Control Chart

Measures in which outcomes can be collected monthly are also conducive to rapid cycle reporting. Rapid cycle reporting provides an early warning of possible unintended consequences. These measures are primarily intended for waiver impact monitoring prior to the analyses that will be contained in the evaluation reports. Rapid cycle reporting measures will be presented on a regular schedule as determined by the independent evaluator using statistical process control charts. Statistical process control charts will be utilized as the tool to identify changes in time series data—data points or trends that depart from a baseline level of variation. This will be helpful in quickly identifying concerns requiring further investigation.

Qualitative Synthesis

To answer important questions related to implementation of AHCCCS Works, and to identify and understand barriers encountered by beneficiaries and AHCCCS, a series of semi-structured focus groups with beneficiaries and key informant interviews with representatives from ACCCHS will be conducted to obtain results for three measures. Focus group participants will be randomly selected from each implementation county.

Focus Group Methodology

The independent evaluator will work with AHCCCS to identify potential locations and demographic characteristics desired for focus group attendees and may attempt to identify community partners willing to aid in focus group facilitation and recruitment. Two to three locations will be selected to correspond with the populations targeted in the three successive waves of implementation planned for the AHCCCS Works program, beginning with intensely urbanized and ending with rural communities. In addition, members will be recruited who represent appropriate race/ethnicity and socioeconomic status, as well as current enrollment in AHCCCS or recent disenrollment from AHCCCS. Candidates will be between the ages of 19 and 49, and not be members of any of the groups specifically excused from compliance with AHCCCS Works, (those categories listed on p. 3-3 above.)

To increase the probability of having adequate attendance for each focus group discussion, the independent evaluator will attempt to work with community-based organizations who have an established history of working with the AHCCCS population in each geographic area to identify a convenience sample of up to 10 possible focus group participants for each discussion. If there are not at least 10 willing participants identified through the CBO recruitment process, other sources of data such as AHCCCS enrollment data may be used to pull a random sample of potential participants who meet the focus group participant criteria. During the focus group participant scheduling process, schedulers will collect demographic information to confirm participant criteria are met. Each focus group participant will be asked to complete, sign, and submit a standard consent form for participation in the voluntary focus group, which will be reviewed in person with each participant to confirm their understanding prior to collecting the signed form. Copies of each participant's signed form will be mailed upon request.

The independent evaluator recommends providing all focus group participants with a $25 gift card to a specific grocery store or Walmart. Participants should also be offered transportation to and from the focus group location, either by select vendors or ride share services, or otherwise according to a plan developed with AHCCCS. The independent evaluator will confirm transportation appointments, including all special needs, with the

transportation vendor prior to focus group dates/times, and will provide a phone number to focus group participants to call or text if they experienced any issues with the scheduled transportation.

Focus groups will last approximately 90 minutes. The selected facilitator should have prior experience in quality improvement, conducting focus group discussions with AHCCCS or Medicaid recipients, performing barrier analyses, and providing innovative program improvement recommendations. Focus group questions will be semi-structured allowing for open-ended responses and drilled down using relevant prompts following the Six Sigma "5 Whys" technique for root cause analysis. The questions will focus on beneficiaries' own descriptions of the barriers they encountered, the support services they needed to meet CE requirements, and their understanding of the CE requirements, including how to satisfy them and the consequences of noncompliance. The question protocol will be reviewed and approved by AHCCCS. The focus group discussions will be audio recorded and transcribed.

Key Informant Interviews

Key informant interviewees will be recruited from nominees identified by AHCCCS, with a goal of recruiting up to five interviewees. A limited number of key informant interviews should be sufficient in this scenario because there will be a limited number of staff at the agency with a working knowledge of the activities associated with the demonstration, and the challenges and successes that accompanied the implementation. Interviews will invite input from appropriate individuals identified by AHCCCS as having experience and subject matter expertise regarding the barriers and support services necessary to meet CE requirements and their perception of AHCCCS beneficiaries' understanding of the requirements for compliance and the consequences of noncompliance. Key informant interviews will be used efficiently to help frame appropriate questions for focus groups and to help identify potential community partners for recruiting focus group attendees, in addition to their primary goal of gaining their subject matter expertise regarding the beneficiary barriers to compliance with the AHCCCS Works program.

A flexible protocol will be developed for the semi-structured interviews. Early focus groups or interviews will inform the development and choice of topics and help inform the selection of additional interview subjects to round out the list of individuals to be interviewed for this project. It is not anticipated that financial incentives for participation would be required for current agency employees, however, key informants who are no longer employed might be offered an incentive such as a $100.00 gift card to encourage participation. Open-ended questions will be used to maximize the diversity and richness of responses and ensure a more holistic understanding of the subject's experience. Probing follow-up questions will be used as appropriate to elicit additional detail and understanding of critical points, terminology, and perspectives. The sessions will be recorded and transcribed with participant consent.

Synthesis

The information obtained from these focus groups and interviews will be synthesized with the results from other quantitative data analyses to provide an in-depth discussion of each of the domains/objectives to be considered. As the key informant interviews are being conducted, the independent evaluator will perform ongoing and iterative review of the interview responses and notes to identify overall themes and common response patterns. Unique responses that are substantively interesting and informative will also be noted and may be used to develop probing questions for future interviews. The results of these preliminary analyses will be used to document the emergent and overarching themes related to each research question. The documentation of emergent themes will be reviewed in an iterative manner to determine if responses to interview questions are continuing to provide new perspectives and answers, or if the responses are converging on a common set of response patterns indicating saturation on a particular interview question. As additional interview data are collected, the categories, themes, and relationships will be adjusted to reflect the broader set of concepts and different types of relationships

identified. The documentation of emergent themes will also be used as an initial starting point for organizing the analysis of the interview data once all interviews are completed.

Following the completion of the focus groups and key informant interviews, the interview notes and transcripts will be reviewed using standard qualitative analysis techniques. The data will first be examined through open-coding to identify key concepts and themes that may not have been captured as emergent themes during previous analyses. After identifying key concepts, axial coding techniques will be used to develop a more complete understanding of the relationships among categories identified by respondents in the data. The open and axial coding will be performed with a focus on identifying the dimensionality and breadth of responses to the research questions posed for the overall project. Interviewee responses will be identified through the analysis to illustrate and contextualize the conclusions drawn from the research and will be used to support the development of the final report.

Cost-Effectiveness Analysis

To evaluate the sustainability of the demonstration component and its impacts on costs, the independent evaluator will estimate costs and savings associated with the renewal of the waiver. Total costs will be comprised of both medical costs and administrative costs.

Costs and savings will be estimated based on an actuarial approach. The actuarial method will create a "hypothetical comparison group" by trending the cost experience of a waiver population during a baseline period prior to renewal of the waiver forward in time to the evaluation period(s) following renewal of the waiver. The trended costs will represent an estimate of the costs for the waiver population during the evaluation period(s) as if the waiver had never been renewed. Thus, the actuarial method will compare the trended actual costs of the waiver population in a baseline period to the actual costs for the waiver population during the evaluation period(s) to estimate savings.

There are two separate definitions of "medical cost" that will be evaluated, resulting in two separate estimates of total costs and savings. "Expenditure costs" represent the direct expenditures by the state for the provision of Medicaid services, identified as the medical cost component of the capitation payments. "Service costs" represent the cost to the plans of providing the included Medicaid services. A different approach will be used for each type of medical cost.

The method to estimate "expenditure cost" savings will compare the trended medical cost component for the waiver population from baseline capitation rates to the average medical cost component paid in the evaluation period(s). The independent contractor will ensure that the service packages included in the capitation rates are similar in both the baseline and evaluation period(s). If the service packages are different, adjustments will be made to ensure the capitation rates for both the trended baseline and the evaluation period(s) represent the same package of services. Typically, these adjustments will be made based on fee for service claims or specific medical cost components included in the capitation payments during the baseline period.

The medical cost component in both the baseline for the evaluation period(s) will be based on the carriers' filed premium rates or other available documents that identify medical costs. Other adjustments for other medical-cost-related components such as risk corridor payment adjustments, cost sharing reduction payments, deductible funding, changes in medical technology or clinical guidance, changes in reimbursement rates, and the cost of wraparound services, will be included in both the baseline and evaluation period(s) estimates. These adjustments will be done as appropriate based on state and federal Medicaid policies in place for each waiver population during the period for which costs are being calculated. For the comparison group (trended baseline medical cost component), medical cost projections will be developed based on baseline program claims/encounter data that

will be trended and adjusted for demographic changes, acuity differences, and programmatic changes as well as the other factors described above, as appropriate for specific periods, state policies, and waiver populations. The data for developing both the trended baseline and evaluation period cost estimates will be based on data provided to AHCCCS as a part of the capitation rate-setting and certification process.

The method for calculating "service cost" savings will involve comparing the trended baseline period medical cost component from the capitation rate to the plans' actual cost of providing Medicaid services to the waiver population in the evaluation period(s).

For both the baseline and evaluation periods, the average medical cost will be calculated based on claims/encounter data, while ensuring identical service packages in both periods. The baseline medical cost estimates will be trended forward from the baseline period and will be adjusted for the items listed above as necessary and appropriate.

Administrative costs will be estimated based on administrative amounts included in specific waiver premium rate filings in the baseline and evaluation period(s). This approach will be used since the allocation of actual administrative costs for waiver populations is typically difficult for plans to more accurately estimate. Adjustments will be made to account for changes in administrative activity requirements between the baseline and evaluation period(s). Adjustments will also be made to the baseline estimate to account for inflationary and state policy changes and waiver population factors as necessary and appropriate.

Total costs for both groups will be calculated as the sum of the medical and administrative cost estimates. This will result in two different total cost estimates, one for each of the approaches used to estimate medical costs described above.

The independent evaluator will work with AHCCCS to ensure that all cost calculations incorporate all appropriate adjustments to adequately account for changes in service packages, administrative cost structures, and/or national/state policy that directly or indirectly impact the costs of providing Medicaid services to the waiver population across the baseline and evaluation period(s).

Costs and benefits will be isolated to the AHCCCS Works demonstration component to the extent possible using the strategies described in the Disentangling Confounding Events section below.

Disentangling Confounding Events

During the current demonstration renewal period, AHCCCS has implemented several programs that could confound the estimated impact of AHCCCS Works on measured outcomes. The Targeted Investments (TI) program was implemented by October 2019. The TI program provides practices with funds specifically to encourage better care coordination and integrated care for their beneficiaries. As such, beneficiaries impacted by the TI program may receive higher levels of integrated care, thereby introducing potentially confounding program effects if the target and comparison groups are differentially impacted by TI. The independent evaluator may identify those impacted by TI and utilize statistical controls to disentangle effects of TI beneficiaries on the AHCCCS Works program.

Beginning on July 1, 2019, AHCCCS eliminated prior quarter coverage (PQC) for most Medicaid adults.[3-18] This program may introduce confounding effects since impacted beneficiaries may alter their future care-seeking or enrollment and disenrollment decisions. The independent evaluator may leverage the differential timing between

[3-18] Pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age are excluded.

the introduction of AHCCCS Works and effective date of the elimination of PQC to help reduce the potential confounding effects.

4. Methodology Limitations

There are several limitations to the proposed evaluation design. First, many hypotheses and research questions pertain to measuring outcomes for former Medicaid beneficiaries. Arizona Health Care Cost Containment System (AHCCCS) does not maintain an all-payor claims database (APCD) in which data from commercial insurance may be available. Instead of utilizing Medicaid and APCD administrative data, the primary data source for much of the evaluation will rely on surveys. This should not preclude causal inferences about the effects of the demonstration but could introduce biases during the execution phase of the evaluation. For example, if response rates are materially and structurally different between intervention and comparison groups, and more importantly, between current and former Medicaid beneficiaries, these differences can bias the final evaluation if inadequately accounted for in the evaluation.

Another limitation or risk to the analysis is the availability of a comparison group. Because AHCCCS Works impacts virtually all able-bodied adults in Medicaid expansion eligibility groups, those who are exempt or eligible for non-expansion Medicaid may be systematically different. Propensity score matching will be the primary tool used to identify members from the exempt and/or non-expansion population who share similar characteristics to those in the intervention. While this is a proven technique and has been used in the past to conduct evaluations on a Medicaid expansion population, there are analytical risks to this technique that may ultimately hinder the ability to draw causal inferences. These risks and mitigation strategies are discussed above in the Intervention and Comparison Populations section.

5. Reporting

Following its annual evaluation of the Arizona Health Care Cost Containment System (AHCCCS) Works and subsequent synthesis of the results, AHCCCS and its independent evaluator will prepare two reports of the findings and how the results compare to the research hypotheses. Both the interim evaluation report and the final summative evaluation report will be produced in alignment with Special Terms and Conditions (STCs) and the schedule of deliverables listed in Table 5-1 (See Appendix C for a detailed timeline.).

Table 5-1: Schedule of Deliverables for the AHCCCS Works Evaluation

Deliverable	Date
AHCCCS Works Evaluation Design (STC #72)	
AHCCCS submits AHCCCS Works Waiver Evaluation Design Plan to Centers for Medicare & Medicaid Services (CMS)	07/17/2019
AHCCCS submits a revised draft Evaluation Design within sixty (60) calendar days after receipt of CMS' comments.	TBD
AHCCCS to post final approved AHCCCS Works Waiver Evaluation Design Plan on the State's website within 30 days of approval by CMS	TBD
AHCCCS presentation to CMS on approved Evaluation Design	As Requested
Evaluation Report(s)	
Quarterly: AHCCCS to report progress of Demonstration to CMS (STC #52)	60 days after the quarter
AHCCCS to post AHCCCS Works Interim Evaluation Report on the State's website for public comment	TBD
Interim Evaluation Report (STC #76)	TBD
AHCCCS submits a Final Interim Evaluation Report within sixty (60) calendar days after receipt of CMS' comments.	TBD
Final Summative Evaluation Report (STC #77)	March 30, 2023
AHCCCS submits a Final Summative Evaluation Report within sixty (60) calendar days after receipt of CMS' comments.	TBD
AHCCCS presentation to CMS on Final Summative Evaluation Report (STC #73)	As Requested

Each evaluation report will present results in a clear, accurate, concise, and timely manner. At minimum, all written reports will include the following nine sections:

1. The **Executive Summary** concisely states the goals for the Demonstration, presenting the key findings, the context of policy-relevant implications, and recommendations.
2. The **General Background Information about the Demonstration** section succinctly traces the development of the program from the recognition of need to the present degree of implementation. This section will also include a discussion of the State's implementation of the AHCCCS Works program along with its successes and challenges.
3. The **Evaluation Questions and Hypotheses** section focuses on programmatic goals and strategies with the research hypotheses and associated evaluation questions.

4. The **Methodology** section will include the evaluation design with the research hypotheses and associated measures, along with the type of study design; targeted and comparison populations and stakeholders; data sources that include data collection field, documents, and collection agreements; and analysis techniques with controls for differences in groups or with other State interventions, including sensitivity analyses when conducted.
5. The **Methodological Limitations** section is a summary of the evaluation designs limitations including its strengths and weaknesses.
6. The **Results** section is a summary of the key findings and outcomes of each hypothesis and research question.
7. The **Conclusions** section is a description of the effectiveness and impact of the Demonstration.
8. The **Interpretations, Policy Implications, and Interactions with Other State Initiatives** section contains the policy-relevant and contextually appropriate interpretations of the conclusions, including the existing and expected impact of the Demonstration within the health delivery system in Arizona in the context of the implications for state and federal health policy, including the potential for successful strategies to be replicated in other state Medicaid programs. In addition, this section contains the interrelations between the Demonstration and other aspects of Arizona's Medicaid program, including interactions with other Medicaid waivers and other federal awards affecting service delivery, health outcomes, and the cost of care under Medicaid.
9. The **Lessons Learned and Recommendations** section discusses the opportunities for revisions to future demonstrations, based on the information collected during the evaluation.

All reports, including the Evaluation Design, will be posted on the State Website within 30 days of the approval of each document to ensure public access to evaluation documentation and to foster transparency. AHCCCS will notify the Centers for Medicare & Medicaid Services (CMS) prior to publishing any results based on the Demonstration evaluation for CMS' review and approval. The reports' appendices will present more granular results and supplemental findings. AHCCCS will work with CMS to ensure the transmission of all required reports and documentation occurs within approved communication protocols.

Content of Interim Report

The interim report will be made publicly available prior to the waiver renewal application deadline of December 31, 2020. Due to the abbreviated time for analysis, the interim report will consist of a status update regarding the execution of the evaluation design plan, preliminary analyses of key informant interviews conducted early enough for inclusion in the report, and a detailed and complete analytic plan for the waiver evaluation, including survey administration details (e.g., sampling frame, survey instrument, and sampling strategy to align surveys across programs).

Content of Summative Report

The final summative report will be delivered to CMS within 500 days of the demonstration end and will contain the full results of all measures described in this evaluation design plan and in the final analytic plan contained in the Interim Report.

A. Independent Evaluator

Arizona Health Care Cost Containment System (AHCCCS) will select an independent evaluator with experience and expertise to conduct a scientific and rigorous Medicaid Section 1115 waiver evaluation meeting all of the requirements specified in the Special Terms and Conditions (STCs).[A-1] The independent evaluator will be required to have the following qualifications:

- Knowledge of public health programs and policy.
- Experience in healthcare research and evaluation.
- Understanding of AHCCCS programs and populations.
- Expertise with conducting complex program evaluations.
- Relevant work experience.
- Skills in data management and analytic capacity.
- Medicaid experience and technical knowledge.

Based on State protocols, AHCCCS will follow established policies and procedures to acquire an independent entity or entities to conduct the AHCCCS Works program evaluation. In addition, AHCCCS will ensure that the selected independent evaluator does not have any conflicts of interest and will require the independent evaluator to sign a "No Conflict of Interest" statement.

[A-1] Centers for Medicare & Medicaid Services. Arizona Medicaid Section 1115 Demonstration Special Terms and Conditions. Jan 18, 2017. Available at: https://www.azahcccs.gov/shared/Downloads/News/FORSTATEArizonaAHCCCSSTCAndAuthorities_W_TIPFinal.pdf. Accessed on Jun 20, 2019.

B. Evaluation Budget

Due to the complexity and resource requirements of the Arizona Health Care Cost Containment System (AHCCCS) Works, AHCCCS will need to conduct a competitive procurement to obtain the services of an independent evaluator to perform the services outlined in this evaluation design. Upon selection of an evaluation vendor, a final budget will be prepared in collaboration with the selected independent evaluator. Table B-1 displays the proposed budget shell that will be used for submitting total costs for AHCCCS Works.

The costs presented in Table B-1 will include the total estimated cost, as well as a breakdown of estimated staff, administrative and other costs for all aspects of the evaluation such as any survey and measurement development, quantitative and qualitative data collection and cleaning analyses and report generation. A final budget will be submitted once a final independent evaluator has been selected. The total estimated cost for this evaluation is $513,573, the estimate assumes that a single independent evaluator will conduct all required AHCCCS waiver evaluations.

Table B-1: Proposed Budget AHCCCS Works

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ -	$ -	$ 5,792	$ -	$ -
Administrative Costs	$ -	$ -	$ 4,208	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ -**	**$ 10,000**	**$ -**	**$ -**
Administration					
Staff Costs	$ -	$ -	$ 10,345	$ -	$ -
Administrative Costs	$ -	$ -	$ 7,515	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ -**	**$ 17,860**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ -	$ -	$ 6,516	$ -	$ -
Administrative Costs	$ -	$ -	$ 4,734	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ -**	**$ 11,250**	**$ -**	**$ -**
Administration					
Staff Costs	$ -	$ -	$ 8,103	$ -	$ -
Administrative Costs	$ -	$ -	$ 5,887	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ -**	**$ 13,990**	**$ -**	**$ -**
Member/Beneficiary Surveys					

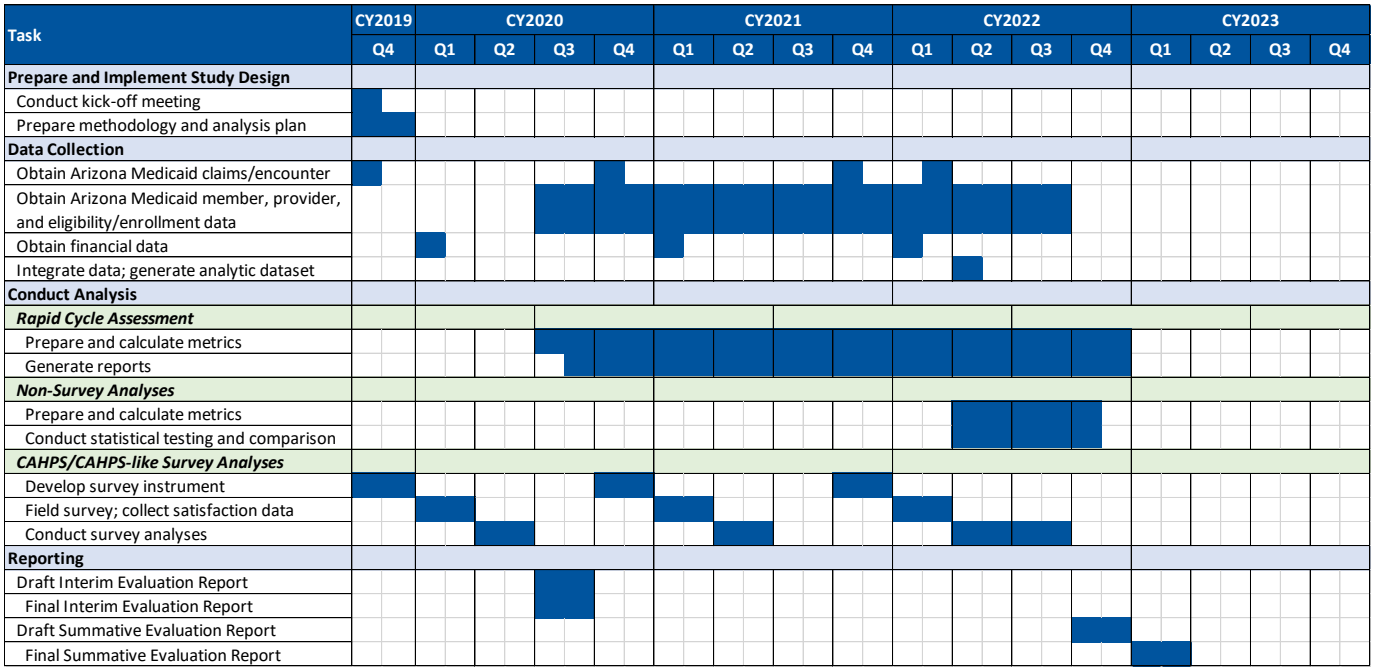
Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Instrument Design					
Staff Costs	$ 4,512	$ 3,718	$ 3,718	$ -	$ -
Administrative Costs	$ 3,278	$ 2,702	$ 2,702	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 7,790**	**$ 6,420**	**$ 6,420**	**$ -**	**$ -**
Administration					
Staff Costs	$ 5,524	$ 5,524	$ 5,524	$ -	$ -
Administrative Costs	$ 4,014	$ 4,014	$ 4,014	$ -	$ -
Other Costs	$ 9,653	$ 9,653	$ 9,653		
Total Costs	**$ 19,191**	**$ 19,191**	**$ 19,191**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,003	$ 29,209	$ 39,513	$ 59,310	$ 2,381
Administrative Costs	$ 7,267	$ 21,221	$ 28,707	$ 43,090	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 17,270**	**$ 50,430**	**$ 68,220**	**$ 102,400**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,310	$ 11,347	$ 9,522	$ 17,793	$ 5,722
Administrative Costs	$ 11,850	$ 8,243	$ 6,918	$ 12,927	$ 4,158
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 28,160**	**$ 19,590**	**$ 16,440**	**$ 30,720**	**$ 9,880**
Total	**$ 72,411**	**$ 118,651**	**$ 175,401**	**$ 133,120**	**$ 13,990**

C. Timeline and Milestones

The following project timeline has been prepared for the Arizona Health Care Cost Containment System (AHCCCS) Works program evaluation outlined in the preceding sections. This timeline should be considered preliminary and subject to change based upon approval of the Evaluation Design and implementations of the AHCCCS Works program. A final detailed timeline will be developed upon selection of the independent evaluator tasked with conducting the evaluation.

Figure C-1 outlines the proposed timeline and tasks for conducting the AHCCCS Works program evaluation.

Figure C-1: AHCCCS Works Evaluation Project Timeline



Note: Timeline based on approval for the waiver after September 30, 2021.

D. Proposed Measure Specifications

The tables in this section provide the detailed measure specifications for the Arizona Health Care Cost Containment System (AHCCCS) Works program evaluation.

Hypothesis 1—Medicaid beneficiaries subject to the community engagement requirement will have higher employment and education levels than Medicaid beneficiaries not subject to the requirement.

Research Question 1.1: Does the community engagement requirement lead to increased job seeking activities for those subject to the requirements compared to those who are not?

Percentage of Beneficiaries Who Did Not Work During the Previous Week Who Actively Sought a Job During the Past Four Weeks (Measure 1-1)	
Numerator/Denominator	Numerator: Number of beneficiaries responding they actively sought a job within the past four weeks (and did not work during the previous week) Denominator: Number of respondents to survey question who did not work during the previous week
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group
Measure Steward	N/A
Data Source	• State beneficiary survey • Integrated Public Use Microdata Series American Community Survey (IPUMS ACS)
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries Who Met Community Engagement Criteria Through Job Search Activities (Measure 1-2)	
Numerator/Denominator	Numerator: Number of beneficiaries who met the community engagement criteria through job search activities Denominator: Number of non-exempt AHCCCS Works beneficiaries
Comparison Population	N/A
Measure Steward	N/A
Data Source	Eligibility and program monitoring data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Compare outcomes during first month or three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart

Research Question 1.2: Does the community engagement requirement lead to increased rates of education enrollment or employment training programs?

Percentage of Beneficiaries Attending School or an Employment Support and Development Program (Measure 1-3)	
Numerator/Denominator	Numerator: Number of beneficiaries reported attendance of school or an Employment Support and Development program, or both, full time Denominator: Number of respondents to attendance of school or an Employment Support and Development program survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out of state comparison group
Measure Steward	N/A
Data Source	• State beneficiary survey • IPUMS ACS
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries Who Met Community Engagement Criteria Through Attending School or an Employment Support and Development Program (Measure 1-4)	
Numerator/Denominator	Numerator: Number of beneficiaries who met community engagement criteria through less than full-time education and job or life skills training Denominator: Number of non-exempt AHCCCS Works beneficiaries
Comparison Population	N/A
Measure Steward	N/A
Data Source	Eligibility and program monitoring data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Compare outcomes during first month or three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart

Research Question 1.3: Are beneficiaries subject to the community engagement requirement more likely to be employed (including new and sustained employment) compared to those who are not?

Percentage of Beneficiaries Who Usually Worked at Least 20 Hours per Week During Previous Year (Measure 1-5)	
Numerator/Denominator	Numerator: Number of beneficiaries who reported usually working at least 20 hours per week during the time they were working, including paid vacation and sick leave Denominator: Number of respondents to hours usually worked per week survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group

Percentage of Beneficiaries Who Usually Worked at Least 20 Hours per Week During Previous Year (Measure 1-5)	
Measure Steward	N/A
Data Source	• State beneficiary survey • IPUMS ACS
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries Employed During Each Month of the Measurement Year (Measure 1-6)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating employment, including part-time, full-time, or self-employed Denominator: Number of beneficiaries in intervention/comparison group
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	Eligibility and income data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Comparative interrupted time series • Difference-in-differences • Rapid cycle reporting – statistical process control chart

Number of Weeks Worked Last Year (Including as Unpaid Family Worker, and Paid Vacation/Sick Leave) (Measure 1-7)	
Numerator/Denominator	Numerator: Beneficiaries reported number of weeks worked last year (including as unpaid family worker, and paid vacation/sick leave) Denominator: Number of respondents to weeks worked survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group
Measure Steward	N/A
Data Source	• State beneficiary survey • IPUMS ACS
Desired Direction	An increase in the number of weeks worked supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Research Question 1.4: Do beneficiaries who initially comply through activities other than employment gain employment within certain time periods?

Percentage of Beneficiaries Initially Compliant Through Activities Other Than Employment Employed at 6 Months, 1 Year, and 2 Years After Enrollment or Implementation (Measure 1-8)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who are compliant through employment 6 months, 1 year, or 2 years after enrollment or implementation Denominator: Number of beneficiaries compliant through activities other than employment during the first three months of enrollment or implementation
Comparison Population	N/A
Measure Steward	N/A
Data Source	Eligibility and program monitoring data
Desired Direction	An increase supports the hypothesis
Analytic Approach	Descriptive analysis of employment status at 6 months, 1 year, and 2 years post-enrollment among those who initially met requirement through non-employment activities

Research Question 1.5: Is employment among individuals subject to community engagement requirements sustained over time, including after separating from Medicaid?

Percentage of Beneficiaries Employed Continuously for a Year or More Since Enrollment or Implementation (Measure 1-9)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who are employed, 1 year or 2 years after enrollment or implementation. Denominator: Three denominators will be calculated. Number of beneficiaries who: (1) were already employed at enrollment or implementation, (2) gained employment in the first six months of enrollment or implementation, and (3) did not gain employment in the first six months of enrollment or implementation.
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase supports the hypothesis
Analytic Approach	Comparison of regression-adjusted means in employment 1- and 2-years post-enrollment among: 1) Those who were already employed at enrollment or implementation 2) Those who gained employment in the first six months of enrollment 3) Those who did not gain employment in the first six months of enrollment

Research Question 1.6: Does the community engagement requirement lead to better education outcomes?

Beneficiaries Reported Highest Grade or Level of Education Completed (Measure 1-10)	
Numerator/Denominator	Numerator: Beneficiaries reported highest grade or level of education completed Denominator: Number of respondents to highest grade or level of education completed survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group
Measure Steward	N/A
Data Source	• State beneficiary survey

Beneficiaries Reported Highest Grade or Level of Education Completed (Measure 1-10)	
	• IPUMS ACS
Desired Direction	An increase in the level of education supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Hypothesis 2—Medicaid beneficiaries subject to the community engagement requirement will have higher average income than Medicaid beneficiaries not subject to the requirement.

Research Question 2.1: Does the community engagement requirement increase income?

Average Monthly Earnings (Measure 2-1)	
Numerator/Denominator	Numerator: Beneficiaries monthly earnings as reported in Health-e-Arizona Plus (HEAplus) Denominator: Number of beneficiaries in intervention/comparison group
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	• Eligibility and income data • HEAplus
Desired Direction	An increase in earnings supports the hypothesis
Analytic Approach	• Regression discontinuity • Comparative interrupted time series • Difference-in-differences • Rapid cycle reporting – statistical process control chart

Average Beneficiary Reported Personal Income (Measure 2-2)	
Numerator/Denominator	Numerator: Beneficiaries reported personal income Denominator: Number of respondents to personal income survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group
Measure Steward	N/A
Data Source	• State beneficiary survey • IPUMS ACS, variable INCTOT
Desired Direction	An increase in income supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Hypothesis 3—Medicaid beneficiaries subject to the community engagement requirement will have a higher likelihood of transitioning to commercial health insurance after separating from Medicaid than Medicaid beneficiaries not subject to the requirement.

Research Question 3.1: Does the community engagement requirement lead to increased take-up of commercial insurance, including employer-sponsored insurance (ESI) and Marketplace plans?

Enrollment in Commercial Coverage Within One Year After Medicaid Disenrollment (Measure 3-1)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated gaining commercial coverage within one year after Medicaid disenrollment Denominator: Number of respondents to commercial coverage survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries with a Job That Offers ESI (Measure 3-2)	
Numerator/Denominator	Numerator: Number of respondents who indicated their job offers ESI Denominator: Number of respondents who are employed
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries with a Job That Offers ESI and Who Enroll in ESI (Measure 3-3)	
Numerator/Denominator	Numerator: Number of respondents who enroll in ESI Denominator: Number of respondents who are employed at a job that offers ESI (Measure 3-2 numerator)
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of ESI take-up among those offered and eligible for ESI

Research Question 3.2: Is new ESI coverage sustained over time after implementation of community engagement requirements?

Percentage of Beneficiaries who Still Have ESI Coverage 1 and 2 Years After Initial Take-up of ESI (Measure 3-4)	
Numerator/Denominator	Numerator: Number of respondents who remained in ESI coverage 1 and 2 years after initial take-up of ESI Denominator: Number of respondents who enrolled in ESI
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up

Percentage of Beneficiaries with Medicaid Coverage 1 and 2 Years After Initial Take-up of ESI (Measure 3-5)	
Numerator/Denominator	Numerator: Number of respondents who are enrolled in Medicaid 1 and 2 years after initial take-up of ESI Denominator: Number of respondents who enrolled in ESI
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up

Percentage of Beneficiaries Uninsured 1 and 2 Years After Initial Take-up of ESI (Measure 3-6)	
Numerator/Denominator	Numerator: Number of respondents who are uninsured 1 and 2 years after initial take-up of ESI Denominator: Number of respondents who enrolled in ESI
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up

Research Question 3.3: Are beneficiaries with ESI able to pay premiums and meet other cost-sharing responsibilities such as deductibles and copayments?

Percentage of Beneficiaries with ESI Who Reported Problems Paying Insurance or Medical Bills (Measure 3-7)	
Numerator/Denominator	Numerator: Number of respondents who indicated problems paying premiums for insurance or medical bills Denominator: Number of respondents who enrolled in ESI
Comparison Population	N/A

Percentage of Beneficiaries with ESI Who Reported Problems Paying Insurance or Medical Bills (Measure 3-7)	
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of reported beneficiary cost sharing for former demonstration beneficiaries who transitioned to ESI

Reported Out-of-Pocket Medical Spending Among Beneficiaries with ESI (Measure 3-8)	
Numerator/Denominator	Numerator: Reported out-of-pocket medical spending among respondents to survey question Denominator: Number of respondents who enrolled in ESI
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of reported beneficiary cost sharing for former demonstration beneficiaries who transitioned to ESI

Research Question 3.4: Is the community engagement requirement associated with coverage losses (if people transition off Medicaid and do not enroll in commercial health insurance)?

Average Number of Months Beneficiaries Reported Being Uninsured (Measure 3-9)	
Numerator/Denominator	Numerator: Beneficiaries response to number of full months without insurance coverage Denominator: Number of respondents to full months without insurance survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in months uninsured supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Average Number of Months Uninsured (Measure 3-10)	
Numerator/Denominator	Numerator: Number of full months without insurance coverage Denominator: Number of beneficiaries in intervention/comparison group
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A

Average Number of Months Uninsured (Measure 3-10)	
Data Source	State tax data (1095B)
Desired Direction	A decrease in months uninsured supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Research Question 3.5: Are beneficiaries subject to the community engagement requirement more likely to lose eligibility due to increased income than beneficiaries not subject to the requirement?

Percentage of Beneficiaries Disenrolling from Medicaid Due to Income Exceeding Limit (Measure 3-11)	
Numerator/Denominator	Numerator: Number of full months without insurance coverage Denominator: Number of beneficiaries in intervention/comparison group
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	Eligibility and enrollment data
Desired Direction	N/A
Analytic Approach	• Comparative interrupted time series • Regression discontinuity • Difference-in-differences

Percentage of Non-Exempt AHCCCS Works Beneficiaries Losing Medicaid Eligibility per Month, by Discontinuance Category (Measure 3-12)	
Numerator/Denominator	Numerator: Number of beneficiaries who have a Medicaid eligibility end date within the month Denominator: Number of non-exempt AHCCCS Works beneficiaries
Comparison Population	N/A
Measure Steward	N/A
Data Source	Eligibility and enrollment data
Desired Direction	N/A
Analytic Approach	Rapid cycle reporting – statistical process control chart

Research Question 3.6: At what rates are beneficiaries subject to the community engagement requirement suspended due to noncompliance?

Percentage of Non-exempt AHCCCS Works Beneficiaries Suspended Due to Noncompliance Per Month (Measure 3-13)	
Numerator/Denominator	Numerator: Number of beneficiaries who were suspended from Medicaid during the month due to noncompliance Denominator: Number of non-exempt AHCCCS Works beneficiaries
Comparison Population	N/A

Percentage of Non-exempt AHCCCS Works Beneficiaries Suspended Due to Noncompliance Per Month (Measure 3-13)	
Measure Steward	N/A
Data Source	Eligibility and program monitoring data
Desired Direction	N/A
Analytic Approach	Rapid cycle reporting – statistical process control chart

Hypothesis 4—Current and former Medicaid beneficiaries subject to the community engagement requirement will have better health outcomes than Medicaid beneficiaries not subject to the requirement.

Research Question 4.1: Does the community engagement requirement lead to improved health outcomes?

Beneficiary Reported Rating of Overall Health (Measure 4-1)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall health rating in response to Consumer Assessment of Healthcare Providers and Systems (CAHPS®) question regarding overall health[D-1] Denominator: Number of respondents to overall health survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	NCQA
Data Source	State beneficiary survey; Behavioral Risk Factors Surveillance System (BRFSS)
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Beneficiary Reported Rating of Overall Mental or Emotional Health (Measure 4-2)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall mental or emotional health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall mental or emotional health survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	NCQA
Data Source	State beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

[D-1] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality.

Percentage of Beneficiaries Who Reported Prior Year Emergency Room (ER) Visit (Measure 4-3)	
Numerator/Denominator	Numerator: Number of beneficiaries who reported ER visits during previous 12 months Denominator: Number of respondents to ER visit survey questions
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries Who Reported Prior Year Hospital Admission (Measure 4-4)	
Numerator/Denominator	Numerator: Number of beneficiaries who reported overnight hospital stays during previous 12 months Denominator: Number of respondents to overnight hospital stay survey questions
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Hypothesis 6—Assessment of AHCCCS Works Implementation.

Research Question 6.1: What is the distribution of activities beneficiaries engage in to meet community engagement requirements? How have these changed over time?

Breakdown of Community Engagement Compliance by Category, Over Time (e.g., Monthly) (Measure 6-1)	
Numerator/Denominator	Numerator: Number of beneficiaries meeting community engagement criteria by category Denominator: Number of beneficiaries meeting community engagement criteria
Comparison Population	N/A
Measure Steward	N/A
Data Source	Compliance and monitoring data
Desired Direction	N/A
Analytic Approach	• Compare outcomes during first three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart

Research Question 6.2: What are common barriers to compliance with community engagement requirements?

Beneficiaries' Reported Barriers to Community Engagement Compliance (Measure 6-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Beneficiary focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 6.3: Do beneficiaries report that they have the necessary support services to meet community engagement requirements?

Beneficiaries' Reported Support Services for Meeting Community Engagement Requirements (Measure 6-3)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	• Beneficiary focus groups • State beneficiary survey
Desired Direction	N/A
Analytic Approach	• Qualitative synthesis • Post-implementation trend analysis

Research Question 6.4: Do beneficiaries understand the requirements, including how to satisfy them and the consequences of noncompliance?

Beneficiaries' Reported Awareness of Community Engagement Requirements, How to Report Hours, and Consequences of Noncompliance (Measure 6-4)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Beneficiary focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 6.5: How many beneficiaries are required to actively report their status, including exemptions, good cause circumstances, and qualifying activities (i.e. what is the reporting burden on beneficiaries)?

Number and Percentage of Beneficiaries Required to Actively Report Exemptions (Measure 6-5)	
Numerator/Denominator	Numerator: Number of beneficiaries who are actively reporting exemptions to AHCCCS Denominator: Number of exempt beneficiaries
Comparison Population	N/A
Measure Steward	N/A
Data Source	Compliance and monitoring data
Desired Direction	N/A
Analytic Approach	Post-implementation trend analysis

Number and Percentage of Beneficiaries Required to Actively Report Good Cause Circumstances (Measure 6-6)	
Numerator/Denominator	Numerator: Number of beneficiaries who are actively reporting good cause circumstances to waive suspension Denominator: Number of nonexempt beneficiaries
Comparison Population	N/A
Measure Steward	N/A
Data Source	Compliance and monitoring data
Desired Direction	N/A
Analytic Approach	Post-implementation trend analysis

Number and Percentage of Beneficiaries Required to Report Qualifying Activities (Measure 6-7)	
Numerator/Denominator	Numerator: Number of beneficiaries who are actively reporting qualifying activities Denominator: Number of beneficiaries in compliance
Comparison Population	N/A
Measure Steward	N/A
Data Source	Compliance and monitoring data
Desired Direction	N/A
Analytic Approach	Post-implementation trend analysis

Research Question 6.6: Are beneficiaries who are disenrolled for noncompliance with community engagement requirements more or less likely to re-enroll than beneficiaries who disenroll for other reasons?

Percentage of Beneficiaries Re-Enrolling in Medicaid After a Gap in Coverage of At Least 1 Month and 3 Months (Measure 6-8)	
Numerator/Denominator	Numerator: Number of beneficiaries who re-enroll in Medicaid Denominator: Number of beneficiaries with a gap in Medicaid coverage of at least 1 or 3 months.
Comparison Population	N/A
Measure Steward	N/A
Data Source	• Eligibility and enrollment data • Compliance and monitoring data

Percentage of Beneficiaries Re-Enrolling in Medicaid After a Gap in Coverage of At Least 1 Month and 3 Months (Measure 6-8)	
Desired Direction	N/A
Analytic Approach	Comparison of regression-adjusted probability of re-enrollment among AHCCCS Works beneficiaries who were: 1) Disenrolled for noncompliance 2) Disenrolled for reasons other than noncompliance

E. Beneficiary-Level Data Sources Reviewed

Numerous out-of-state sources of beneficiary-level data were considered for each evaluation design plan. Most data sources do not contain key data elements necessary for inclusion in the design plans. A description of these data sources and rationale for inclusion or exclusion is provided in the Comparison Populations—Out-of-State Comparison Groups section. There are two primary uses for each data source: (1) including the same survey questions in an Arizona member beneficiary survey conducted for this evaluation and utilizing the out-of-state data as a comparison group, or (2) utilizing the out-of-state data for both the intervention and comparison groups. There are significant limitations to either approach. Under the first approach, since the survey was not fielded during the baseline period, only a single, post-implementation data point would be included in the summative evaluation. This would not provide the basis from which to draw any causal inferences. Under the second approach, many of these data sources are limited by the absence of a state identifier (on public use data) and by a sufficient number of Arizona Medicaid respondents to generate sufficient statistical power for meaningful analysis without pooling multiple years together. Additionally, some data sources are limited in relevant health-related outcomes pertinent to the demonstration. Table E-1 provides a summary of each data source considered, its applicability, and its limitations.

Legend for Table E-1

	Subpopulation Identification	Outcomes Measures/Matching Factors
○	Not available	None
◔	Low approximation	Few weak variables
◑	Partial identification or approximation	Many weak variables
◕	Good approximation	Few strong variables
●	Highly accurate identification	Many strong variables

Table E-1: Summary of Data Sources Considered

Requirement	BRFSS	NHIS (National Health Interview Survey)	NHANES (National Health and Nutrition Examination Survey)	NSCH (National Survey of Children's Health)	MEPS (Medical Expenditure Panel Survey)	IPUMS-ACS	NSDUH (National Survey on Drug Use and Health)
Beneficiary Level	✓	✓	✓	✓	✓	✓	✓
Medicaid Indicator	✗	✓	✓	✗	✓	✓	✓
State	✓	✗	✗	✓	✗	✓	✗
Subpopulations							
Medicaid expansion (AW)	◑	◔	◑	○	◑	◑	○
Foster children (CMDP)	○	●	○	●	○	○	○
SMI adults (RBHA)	○	○	○	○	○	○	◑
DD/EPD (ALTCS)	○	◕	○	◕	◑	◔	○
High-risk BH (TI)	○	○	○	○	○	○	○
Relevant Outcomes/Measures	◕	●	◑	◕	●	◕	◑
Adjustment/Matching Factors	◑	◑	◑	●	●	◔	◔
Survey Administration Period	Annual	Annual	Annual	Annual	Annual	Annual	Annual
Survey Lag/Latest Year	2018	2018	2015-2016	2017	2017	2018	2018
Anticipated Medicaid sample sizes from most recent year	3,954 (Nationally)[1]	11,666 (Nationally)	2,474 (Nationally)	90 (Arizona)[2] 4,202 (Nationally)[2]	~8,400 (Nationally)	28,773 (Arizona)[2] 1,204,557 (Nationally)[2]	7,831 (Nationally)
Notes on Limitations for Use	Medicaid indicator is collected as part of an optional module. State participation varies year to year, and Arizona has not collected this information during relevant time period.	The state indicator is not provided as part of public use files.	During a single survey year, about 15 counties are selected out of approximately 3,100 counties in the United States. NHANES was not designed to produce regional or sub-regional estimates and no geographic data are released on the publicly available data files.	No indicator specifically for Medicaid.	The state indicator is not provided as part of public use files.		The state indicator is not provided as part of public use files.
Program Application	PQC, ACC	None	None	None	None	AW, PQC	None

[1]Anticipated Medicaid sample sizes are derived from responses from states which contained the optional Healthcare Access module

[2]Anticipated Medicaid sample sizes are derived from responses to a question pertaining to public health insurance coverage.

F. Methodological Considerations of COVID-19 Pandemic

Pandemic Methodology Adjustments

The coronavirus disease 2019 (COVID-19) pandemic in the United States began in approximately March 2020 and is ongoing at the time of drafting the evaluation design plan. The extent of the COVID-19 infection rate is geographically variable, both within Arizona, as well as across the United States. The rate of positive cases throughout Arizona according to the Arizona Department of Health Services is 759.3 per 100,000, with county-level rates varying from 125 per 100,000 in Greenlee County to 2,954 per 100,000 in Apache County.[F-1] According to the Centers for Disease Control and Prevention (CDC), within the Southwest region of the United States, Arizona has a demonstrably higher rate of COVID infection per 100,000 population, at 730.5, with comparisons rates per 100,000 of 439.4 (California), 442.7 (Nevada), 563.9 (Utah), 536.2 (Colorado) and 504.2 (New Mexico).[F-2] Additionally, social distancing and stay at home orders to curb the severity and intensity of the pandemic across state and local jurisdictions were enacted with variable timing across the United States and the Southwest region. Arizona's stay at home order took effect on March 31, 2020, while surrounding states enacted their order as early as March 19 (California), March 24 (New Mexico), March 26 (Colorado), March 27 (Utah), and April 1 (Nevada).[F-3]

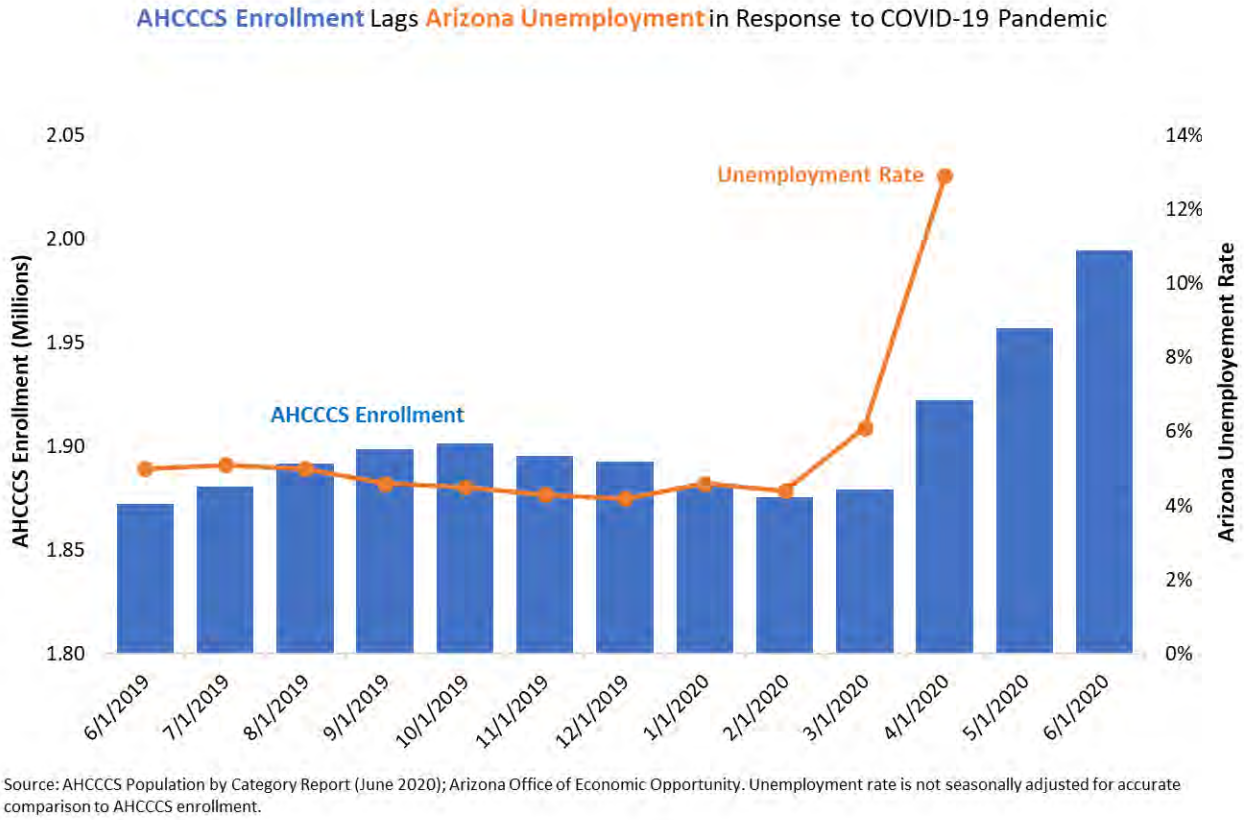
The scope and scale of the COVID-19 pandemic has already impacted the planned execution of some components of this design plan, and appears that it may continue to do so in the near future. Additionally, the pandemic forces the independent evaluator to consider methods that would allow the disentanglement of the Arizona Health Care Cost Containment System (AHCCCS) program impacts from results driven by COVID-19 or the policy response within Arizona and other states. The next section details the aspects of the COVID-19 pandemic that are most likely to impact the execution of data collection efforts. The subsequent section describes the methodological considerations would ideally be addressed in any study to disentangle program impacts from COVID impacts.

Impacts on Data Collection Efforts

The unprecedented loss of jobs and subsequent instability in the economy have resulted in a substantial increase in Medicaid enrollment. Figure F-1 shows the initial spike in unemployment followed by an increase in AHCCCS enrollment in the wake of COVID-19, as expected.

[F-1] Data obtained on June 22, 2020 from https://www.azdhs.gov/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/covid-19/dashboards/index.php.
[F-2] Data obtained on June 22, 2020 from https://www.cdc.gov/covid-data-tracker/index.html#cases.
[F-3] Data obtained on June 22, 2020 from https://www.nytimes.com/interactive/2020/us/coronavirus-stay-at-home-order.html.

Figure F-1: AHCCCS Enrollment and Unemployment



Source: AHCCCS Population by Category Report (June 2020); Arizona Office of Economic Opportunity. Unemployment rate is not seasonally adjusted for accurate comparison to AHCCCS enrollment.

The influx of members is consistent with a shift in demographics toward a more commercial base of members. This is not dissimilar to the increase in Medicaid enrollment following the 2008/2009 Great Recession, albeit on a substantially more compressed time frame. Furthermore, the increase in unemployment directly and indirectly results in lower state revenue through reduced state income tax and reduced sales tax due, in part to loss of jobs and economic hardship among consumers but also due to social distancing efforts and statewide stay-at-home orders. Therefore, the financial impact of COVID-19, while not directly tied to the evaluation of Arizona's demonstration, is important to factor into the evaluation particularly as it relates to the cost-effectiveness component.[F-4, F-5] Increased enrollments are likely to be tied to substantial shifts in the disease conditions and comorbidities of the Medicaid population during the pandemic, and to increase the demand on aggregate spending by AHCCCS. Additionally, to the extent that increases in enrollments are not met with concomitant increases in network capacity, there may be increased expenditures for care and barriers to the access and delivery of care that should be accounted for in the cost effectiveness analysis. To the extent that the increased spending is experienced

[F-4] For example, in order to assist providers in responding to the pandemic, AHCCCS advanced $41 million of provider incentive payments as part of the Targeted Investments program for disbursement in May 2020, ahead of the planned distribution in Fall 2020.

[F-5] "Arizona Medicaid Program Advances $41 Million in Provider Payments to Address COVID-19 Emergency." April 27, 2020. AHCCCS News Release, Available at: https://azahcccs.gov/shared/News/GeneralNews/AHCCCSAdvancesFortyOneMilProviderPayments.html. Accessed on: Jun 23, 2020.

by specific programs such as AHCCCS Complete Care (ACC), cost sustainability calculations will need to be adjusted to account for a denominator consistent with the non-pandemic population.

Beyond increasing Medicaid enrollments and expenditures, the COVID-19 pandemic is likely to impact the delivery of care in many direct ways. For example, social distancing efforts and stay at home orders have created a period during which the demand for many services were effectively reduced to near zero through interruptions in routine care. Second, managed care plans are likely to have experienced greater demand in handling increased enrollments and ensuring timely payment to contracted providers. Third, many program-specific strategies to assist with the integration of care may have been curtailed due to COVID-19. The combinations of the sustained increase in enrollment and delays or gaps in routine care may increase rate denominators while simultaneously decreasing numerators, leading to reduced performance measure rates.

Beneficiary surveys will also be impacted by the pandemic, both in terms of timing, and in potential responses. If, the beneficiary composition has changed or is not representative of a non-COVID Medicaid population then responses may not be generalizable. Additionally, beneficiaries may be impacted by disruptions in health care and their experience of care may be different than had they been surveyed either before COVID, or sufficiently after the impacts of COVID had dissipated. AHCCCS is planning on conducting a large-scale survey as part of its external quality review (EQR) contract in mid-2020, which will provide the independent evaluator an opportunity to leverage large sample sizes across many of the populations planned for surveys. The delay in fielding the survey; however, means that the data collected will be less proximate to the implementation of the AHCCCS programs being evaluated, and could result in rates that are less reflective of the experience of care associated with the AHCCCS programs, and more reflective of the experience of care during the COVID-19 pandemic.

While the COVID-19 pandemic will also impact provider focus groups and key informant interviews, the independent evaluator will follow the State's guidance on whether the State is comfortable proceeding with such data collection. The potential disruption among providers and key informants must be balanced alongside expedient data collection to minimize recall bias on several important programs. For example, one important aspect of the evaluation is to assess stakeholders' perspectives regarding the integration of care that took place under ACC, which, as of the drafting of this evaluation design plan, occurred approximately 21 months ago. Additional significant delays in qualitative data collection will worsen not only the recollection of key informants but also the reliability of contact information for individuals who may have left the organization(s).

The COVID-19 pandemic has already exerted an arguably substantial force on the State of Arizona, its health care system, and its Medicaid population. In an ideal evaluation, the independent evaluator would be able to control for many of these issues during the analysis. The ability to do so in the current context of AHCCCS' Section 1115 Waiver evaluation will be dependent on the availability of data, and how long the pandemic may be extended by multiple waves of infections throughout the United States. The next section provides details on potential methodological tools that could be used to disentangle program impacts from COVID-19 impacts.

Impacts on Methodology

Lacking random assignment to treatments, the evaluation approached outlined in this evaluation design plan represents a number of strong quasi-experimental designs, including propensity score matching (PSM) with difference-in-differences (DiD) regression, interrupted time series (ITS) analysis, and regression discontinuity (RD) models. One of the strongest quasi-experimental designs, PSM with DiD, makes use of a matched comparison group of Medicaid members that are similar to those receiving treatment under the various AHCCCS programs in terms of demographics, disease conditions, and comorbidities. For programs that were implemented across their respective populations of eligible members in Arizona (e.g., ACC, Regional Behavioral Health Authority [RBHA], Comprehensive Medical and Dental Program [CMDP], Arizona Long Term Care System

[ALTCS], and Prior Quarter Coverage [PQC]), no eligible comparison group realistically exists within the State. An eligible population could therefore be drawn from another state, provided specific criteria were met. Ideally, the comparison state would have Medicaid members demographically similar to Arizona; a Medicaid system that was similar to Arizona in terms of eligibility, enrollment, and pre-integration policies and programs; a COVID-19 infection rate or likely infection rate (accounting for differentials in testing) comparable to Arizona; and have had a state policy response to COVID-19 that was similar to Arizona. This combination of factors represents a particularly difficult challenge to surmount in identifying an eligible comparison group. The independent evaluator continues to work toward identifying states that could be suitable candidates, either individually or combined and weighted to better reflect Arizona's unique characteristics for inclusion in the evaluation, under the assumption that data will be available if such a comparator state or states are identified.

In addition to identifying eligible populations of members from other states that can suitably serve as counterfactuals to the AHCCCS treatment populations, several analytic tools can be used to attempt to disentangle the impact of COVID-19 from the impacts of the AHCCCS programs.

For measures that utilize monthly data points, months in which COVID-19 was expected to impact outcomes may be removed from the analysis. This analysis can serve as a robustness test, identifying how sensitive the conclusions are to the inclusion or exclusion of the COVID-19 months. If such a difference is identified, the independent evaluator will need to explore the data further to understand the detailed nature of the results, and ascertain the mechanisms by which the removal of the COVID-19 months makes a difference in results.

As an alternative to removing COVID-19 months, controls may be used to assess the severity and/or duration of effects from the pandemic. Measures such as monthly case counts, intensive care unit (ICU) utilization, or monthly unemployment rates could serve as potential instrumental variables to control for the impact of COVID-19. To the extent that eligible comparison group members are drawn from different states, this approach could be confounded by the differential preparedness of states to respond to the COVID-19 pandemic, as well as their differential policy responses.

For measures that do not utilize monthly data points, results for calendar year ending (CYE) 2020 and possibly CYE 2021 may be excluded or evaluated separately. Ideally, a comparison group would be used to support an analytic approach such as DiD. The choice of time frames to exclude, and ultimate impact on the statistical power of the data and model used will depend, in large part, on how long the impacts of the COVID-19 pandemic continue into the future.

Finally, results may be stratified by geography, age, race/ethnicity and other demographic factors to assess the external validity of differential responses to demonstration policies that may be influenced by the pandemic. To the extent that COVID-19 impacts were differentially experienced by subgroups of the Medicaid populations being evaluated, the independent evaluator could assess the impact of AHCCCS programs on stratified subgroups, controlling for COVID-19. All results will be interpreted in context of the pandemic and its likely impact on outcomes using both theory and similar outcomes from other states and/or national benchmarks where possible.

While each of the approaches outlined is seated in standard quasi-experimental design methods, many rely on the strong assumption of having valid and reliable data available for the populations and measures of interest. Furthermore, as the COVID-19 pandemic continues, and Arizona continues to worsen as of June 22, 2020, it is unclear how long the pandemic will impact outcomes for beneficiaries receiving services through AHCCCS and its managed care plans and providers. To the extent that data is available, and the COVID-19 pandemic is limited in time, the independent evaluator will have an increased chance to isolate program effects from pandemic effects. The longer that the pandemic impacts are drawn out over time, the more difficult it will be to disentangle program impacts from pandemic impacts.

Appendix B. Full Measure Calculation Results

Table B-1–Table B-7 provide full measure calculation results for the six Arizona waiver programs.

AHCCCS Complete Care (ACC)

Table B-1: ACC Full Measure Calculations

RQ	Measure Number	Measure Description	2016		2017		2018	
			Denom[1]	Rate[1]	Denom[1]	Rate[1]	Denom[1]	Rate[1]
2-1	2-1	Percentage of adults who accessed preventive/ambulatory health services	590,706	77.3%	613,992	76.2%	589,389	76.9%
2-1	2-2	Percentage of children and adolescents who accessed PCPs	518,565	88.4%	543,487	86.8%	517,811	86.9%
2-1	2-3	Percentage of beneficiaries under 21 with an annual dental visit	577,044	59.8%	591,204	60.6%	555,904	61.0%
2-2	2-7	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	37,937	41.7%	38,239	42.4%	38,232	44.2%
2-2	2-8	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	37,937	12.6%	38,239	12.8%	38,232	14.3%
3-1	3-1	Percentage of beneficiaries with a well-child visit in the first 15 months of life						
3-1	3-1	0 Visits (lower is better)	34,714	4.6%	30,893	5.1%	29,465	2.9%
3-1	3-1	1 Visit	34,714	3.8%	30,893	3.9%	29,465	3.0%
3-1	3-1	2 Visits	34,714	4.6%	30,893	4.3%	29,465	3.9%
3-1	3-1	3 Visits	34,714	6.6%	30,893	5.9%	29,465	5.5%
3-1	3-1	4 Visits	34,714	9.7%	30,893	8.9%	29,465	8.7%
3-1	3-1	5 Visits	34,714	14.7%	30,893	13.8%	29,465	13.7%
3-1	3-1	6+ Visits (higher is better)	34,714	56.0%	30,893	58.1%	29,465	62.4%
3-1	3-2	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life	131,733	60.9%	133,510	60.8%	127,285	61.3%
3-1	3-3	Percentage of beneficiaries with an adolescent well-care visit	252,192	38.8%	265,082	39.0%	251,193	40.3%
3-1	3-4	Percentage of children two years of age with appropriate immunization status[2]	--	--	--	--	--	--
3-1	3-5	Percentage of adolescents 13 years of age with appropriate immunizations[2]	--	--	--	--	--	--

RQ	Measure Number	Measure Description	2016		2017		2018	
			Denom[1]	Rate[1]	Denom[1]	Rate[1]	Denom[1]	Rate[1]
3-2	3-7	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	15,734	58.9%	16,647	59.4%	15,819	58.5%
3-3	3-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (84 days)	18,382	45.1%	18,761	44.1%	18,094	41.8%
3-3	3-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (180 days)	18,382	26.2%	18,761	24.2%	18,094	22.9%
3-3	3-9	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	9,668	48.8%	11,459	48.4%	12,758	49.6%
3-3	3-10	Percentage of beneficiaries with a follow-up visit within 7-days after emergency department (ED) visit for mental illness	4,619	47.9%	4,354	47.5%	4,133	49.3%
3-3	3-11	Percentage of beneficiaries with a follow-up visit within 7-days after ED visit for alcohol and other drug abuse or dependence	9,318	23.0%	8,971	21.7%	8,323	20.9%
3-3	3-12	Percentage of beneficiaries with a screening for clinical depression and follow-up plan[2]	--	--	--	--	--	--
3-3	3-13	Percentage of beneficiaries receiving mental health services (no desired direction)						
3-3	3-13	Any	16,571,259	9.2%	17,029,301	9.7%	16,378,371	10.5%
3-3	3-13	ED	16,571,259	0.1%	17,029,301	0.1%	16,378,371	0.1%
3-3	3-13	Intensive outpatient or partial hospitalization	16,571,259	0.5%	17,029,301	0.5%	16,378,371	0.5%
3-3	3-13	Inpatient	16,571,259	0.7%	17,029,301	0.8%	16,378,371	0.9%
3-3	3-13	Outpatient	16,571,259	9.0%	17,029,301	9.4%	16,378,371	10.2%
3-3	3-13	Telehealth	16,571,259	0.4%	17,029,301	0.5%	16,378,371	0.7%
3-4	3-14	Percentage of adult beneficiaries who have prescriptions for opioids at a high dosage (lower is better)	62,751	13.3%	52,473	13.5%	36,604	12.4%
3-4	3-15	Percentage of adult beneficiaries with concurrent use of opioids and benzodiazepines (lower is better)	75,698	17.0%	62,718	15.3%	43,551	12.1%
3-5	3-16	Number of ED visits per 1,000 member months (no desired direction)	17,946,506	58.0	18,409,801	55.6	17,890,950	54.6
3-5	3-17	Number of inpatient stays per 1,000 member months (no desired direction)	17,946,506	7.9	18,409,801	7.7	17,890,950	7.9
3-5	3-18	Percentage of adult inpatient discharges with an unplanned readmission within 30 days (lower is better)	51,081	15.7%	54,404	16.6%	54,323	16.8%

[1]Reported denominator and rate have been weighted by beneficiaries' duration of enrollment in ACC.
[2]Results for Measures 3-4, 3-5, and 3-12 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.
RQ: research questions; Demon: denominator; PCP: primary care practitioners; ED: emergency department

Arizona Long Term Care System (ALTCS)

Table B-2: ALTCS Full Measure Calculations

RQ	Measure Number	Measure Description	ALTCS-DD[1]				ALTCS-EPD[1]			
			2015		2016		2015		2016	
			Denom	Rate	Denom	Rate	Denom	Rate	Denom	Rate
1-1	1-1	Percentage of beneficiaries who accessed preventive/ambulatory health services	12,011	87.1%	12,528	87.8%	23,177	88.6%	22,686	91.0%
1-2	1-2	Percentage of children and adolescents who accessed primary care practitioners	14,890	91.1%	15,448	91.2%	N/A	N/A	N/A	N/A
1-2	1-3	Percentage of beneficiaries under 21 with an annual dental visit	15,840	55.5%	16,433	53.4%	N/A	N/A	N/A	N/A
2-1	2-1	Percentage of adult beneficiaries with a breast cancer screening	937	43.9%	922	45.7%	4,220	28.0%	3,480	31.1%
2-1	2-2	Percentage of adult beneficiaries with a cervical cancer screening	3,863	17.8%	3,995	17.4%	3,052	21.4%	2,916	23.3%
2-1	2-3	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	575	77.1%	594	79.0%	79	65.9%	62	67.7%
2-2	2-4	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life	3,082	52.2%	3,059	51.2%	N/A	N/A	N/A	N/A
2-2	2-5	Percentage of beneficiaries with an adolescent well-care visit	8,023	39.8%	8,540	43.1%	N/A	N/A	N/A	N/A
2-3	2-7	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	366	68.3%	368	69.2%	142	21.4%	169	29.9%
2-3	2-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (84 days)	67	52.3%	69	45.9%	230	61.3%	206	63.2%
2-3	2-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (180 days)	67	38.8%	69	33.1%	230	44.2%	206	45.7%
2-3	2-9	Percentage of beneficiaries with a screening for depression and follow-up plan[2]	--	--	--	--	--	--	--	--
2-3	2-10	Percentage of beneficiaries receiving mental health services (no desired direction)								
2-3	2-10	Any	332,095	31.2%	346,227	31.5%	306,284	19.8%	304,424	19.7%
2-3	2-10	ED	332,095	0.2%	346,227	0.3%	306,284	0.1%	304,424	0.1%
2-3	2-10	Intensive outpatient or partial hospitalization	332,095	0.9%	346,227	0.9%	306,284	0.2%	304,424	0.3%

RQ	Measure Number	Measure Description	ALTCS-DD[1]				ALTCS-EPD[1]			
			2015		2016		2015		2016	
			Denom	Rate	Denom	Rate	Denom	Rate	Denom	Rate
2-3	2-10	Inpatient	332,095	1.2%	346,227	1.2%	306,284	7.4%	304,424	6.9%
2-3	2-10	Outpatient	332,095	31.1%	346,227	31.4%	306,284	13.7%	304,424	14.2%
2-3	2-10	Telehealth	332,095	0.4%	346,227	0.7%	306,284	0.1%	304,424	0.1%
2-4	2-11	Percentage of adult beneficiaries with monitoring for persistent medications	398	72.6%	413	79.3%	1,742	95.9%	1,913	92.5%
2-4	2-12	Percentage of beneficiaries with opioid use at high dosage (lower is better)	24	8.5%	119	10.0%	410	23.5%	1,427	25.8%
2-4	2-13	Percentage of beneficiaries with a concurrent use of opioids and benzodiazepines (lower is better)	179	16.7%	173	18.6%	1,848	36.3%	1,571	36.3%
2-5	2-14	Number of ED visits per 1,000 member months (no desired direction)	335,340	44.5	349,528	46.0	324,395	63.6	322,702	68.0
2-5	2-15	Number of inpatient stays per 1,000 member months (no desired direction)	335,340	10.8	349,528	9.8	324,395	37.1	322,702	39.2
2-5	2-16	Percentage of adult inpatient discharges with an unplanned readmission within 30 days (lower is better)	1,591	14.7%	1,458	13.3%	3,839	19.2%	3,863	18.9%

[1]Reported denominator and rates are weighted by beneficiaries' duration of enrollment in ALTCS-DD and ALTCS-EPD.
[2]Results for Measure 2-9 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.
RQ: research question; Denom: denominator

Comprehensive Medical and Dental Program (CMDP)

Table B-3: CMDP Full Measure Calculations

RQ	Measure Number	Measure Description	FFY 2015		FFY 2016	
			Denom[1]	Rate[1]	Denom[1]	Rate[1]
1-1	1-1	Percentage of children and adolescents with access to PCPs	12,293	95.4%	14,350	95.3%
1-1	1-2	Percentage of beneficiaries with an annual dental visit	12,412	67.6%	14,404	66.3%
2-1	2-1	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life	3,581	68.9%	4,152	69.4%
2-1	2-2	Percentage of beneficiaries with an adolescent well-care visit	3,925	60.6%	4,619	61.3%
2-1	2-3	Percentage of children two years of age with appropriate immunization status[2]	--	--	--	--
2-1	2-4	Percentage of adolescents 13 years of age with appropriate immunizations[2]	--	--	--	--
2-2	2-5	Percentage of beneficiaries ages 5 to 18 who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year	168	68.3%	172	74.4%
2-3	2-6	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	354	55.2%	468	62.0%
2-3	2-7	Percentage of children and adolescents on antipsychotics with metabolic monitoring	929	50.5%	1,072	50.2%
2-3	2-8	Percentage of beneficiaries with screening for depression and follow-up plan	--	--	--	--
2-3	2-9	Percentage of children and adolescents with use of multiple concurrent antipsychotics	756	2.3%	875	1.8%
2-3	2-10	Percentage of beneficiaries receiving mental health services (no desired direction)				
2-3	2-10	Any	183,591	36.5%	203,589	36.9%
2-3	2-10	ED	183,591	0.1%	203,589	0.0%
2-3	2-10	Intensive outpatient or partial hospitalization	183,591	1.6%	203,589	1.6%
2-3	2-10	Inpatient	183,591	2.6%	203,589	2.9%
2-3	2-10	Outpatient	183,591	36.3%	203,589	36.6%
2-3	2-10	Telehealth	183,591	0.6%	203,589	1.1%
2-4	2-11	Number of ED visits per 1,000 member months (no desired direction)	195,897	44.3	212,284	41.8
2-4	2-12	Number of inpatient stays per 1,000 member months (no desired direction)	195,897	3.2	212,284	3.1

[1]Reported denominator and rate have been weighted by beneficiaries' duration of enrollment in CMDP.
[2]Results for Measures 2-3 and 2-4 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.
RQ: research question; FFY: federal fiscal year; Demon: denominator; PCP: primary care practitioners; ED: emergency department

Regional Behavioral Health Authority (RBHA)

Table B-4: RBHA Full Measure Calculations, 2012–2015

RQ	Measure Number	Measure Description	2012		2013		2014		2015	
			Denom[1]	Rate[1]	Denom[1]	Rate[1]	Denom[1]	Rate[1]	Denom[1]	Rate[1]
1-1	1-1	Percentage of adults who accessed preventive/ambulatory health services	27,915	84.1%	29,165	92.8%	31,210	93.5%	36,972	92.0%
1-2	1-5	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	4,027	46.6%	4,361	47.0%	4,543	50.1%	5,987	42.6%
1-2	1-6	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	4,027	3.1%	4,361	1.6%	4,543	1.9%	5,987	6.9%
2-2	2-2	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	42	60.9%	399	59.5%	585	44.7%	593	50.1%
2-2	2-3	Percentage of beneficiaries with schizophrenia or bipolar disorder using antipsychotic medications who had a diabetes screening test	6,173	80.1%	7,466	79.4%	9,292	79.1%	9,937	81.2%
2-2	2-4	Percentage of beneficiaries with schizophrenia who adhered to antipsychotic medications	4,300	57.5%	5,387	58.5%	6,263	53.3%	6,879	52.7%
2-3	2-5	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (84 days)	1,112	39.3%	1,504	46.3%	1,740	44.2%	2,545	42.5%
2-3	2-5	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (180 days)	1,112	23.3%	1,504	27.5%	1,740	26.9%	2,545	26.4%
2-3	2-6	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	4,275	N/A	4,928	40.1%	5,357	47.2%	6,665	65.1%
2-3	2-7	Percentage of beneficiaries with a follow-up visit within 7-days after emergency department (ED) visit for mental illness	1,645	56.1%	1,543	59.3%	1,815	61.0%	2,000	62.0%
2-3	2-8	Percentage of beneficiaries with a follow-up visit within 7-days after ED visit for alcohol and other drug abuse or dependence	855	18.8%	875	18.4%	1,014	17.5%	1,408	21.6%

RQ	Measure Number	Measure Description	2012		2013		2014		2015	
			Denom[1]	Rate[1]	Denom[1]	Rate[1]	Denom[1]	Rate[1]	Denom[1]	Rate[1]
2-3	2-9	Percentage of beneficiaries with a screening for depression and follow-up plan[2]	--	--	--	--	--	--	--	--
2-3	2-10	Percentage of beneficiaries receiving mental health services (no desired direction)								
2-3	2-10	Any	351,223	73.6%	373,922	83.4%	416,155	85.5%	472,501	82.5%
2-3	2-10	ED	351,223	0.0%	373,922	0.1%	416,155	0.4%	472,501	0.9%
2-3	2-10	Intensive outpatient or partial hospitalization	351,223	12.3%	373,922	13.2%	416,155	12.8%	472,501	12.1%
2-3	2-10	Inpatient	351,223	12.2%	373,922	13.1%	416,155	13.2%	472,501	14.2%
2-3	2-10	Outpatient	351,223	72.8%	373,922	82.9%	416,155	85.0%	472,501	81.9%
2-3	2-10	Telehealth	351,223	0.1%	373,922	0.8%	416,155	1.6%	472,501	2.1%
2-4	2-11	Percentage of beneficiaries who have prescriptions for opioids at a high dosage (lower is better)	1,582	20.2%	1,660	20.9%	1,868	19.0%	2,041	18.8%
2-4	2-12	Percentage of beneficiaries with concurrent use of opioids and benzodiazepines (lower is better)	5,300	43.7%	5,459	41.9%	6,097	39.2%	6,695	34.7%
2-5	2-14	Number of ED visits per 1,000 member months (no desired direction)	359,731	145.9	386,711	140.8	437,450	141.9	487,965	142.1
2-5	2-15	Number of inpatient stays per 1,000 member months (no desired direction)	359,731	22.7	386,711	21.4	437,450	20.5	487,965	18.6
2-5	2-16	Percentage of inpatient discharges with an unplanned readmission within 30 days (lower is better)	10,241	22.1%	11,621	22.5%	11,594	21.6%	13,556	22.8%

[1]Reported denominator and rate have been weighted by beneficiaries' duration of enrollment in RBHA.
[2]Results for Measure 2-9 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.
RQ: research question; Denom: denominator; ED: emergency department;

Table B-5: RBHA Full Measure Calculations, 2016–2018

RQ	Measure Number	Measure Description	2016		2017		2018	
			Denom[1]	Rate[1]	Denom[1]	Rate[1]	Denom[1]	Rate[1]
1-1	1-1	Percentage of adults who accessed preventive/ambulatory health services	34,326	93.0%	35,123	92.4%	35,420	91.8%
1-2	1-5	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	5,252	42.9%	5,147	44.5%	5,119	44.9%
1-2	1-6	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	5,252	8.7%	5,147	9.8%	5,119	11.0%
2-2	2-2	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	564	54.8%	620	50.1%	695	51.7%
2-2	2-3	Percentage of beneficiaries with schizophrenia or bipolar disorder using antipsychotic medications who had a diabetes screening test	10,373	77.8%	10,495	77.4%	10,594	75.8%
2-2	2-4	Percentage of beneficiaries with schizophrenia who adhered to antipsychotic medications	7,354	57.8%	7,569	60.4%	7,703	55.4%
2-3	2-5	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (84 days)	2,167	45.7%	2,054	46.2%	2,057	43.5%
2-3	2-5	Percentage of adult beneficiaries who remained on an antidepressant medication treatment (180 days)	2,167	28.9%	2,054	27.7%	2,057	24.8%
2-3	2-6	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	6,756	70.7%	7,497	70.6%	7,897	70.0%
2-3	2-7	Percentage of beneficiaries with a follow-up visit within 7-days after emergency department (ED) visit for mental illness	1,755	62.7%	1,674	63.8%	1,467	61.5%
2-3	2-8	Percentage of beneficiaries with a follow-up visit within 7-days after ED visit for alcohol and other drug abuse or dependence	1,364	21.1%	1,369	19.7%	1,160	21.0%
2-3	2-9	Percentage of beneficiaries with a screening for depression and follow-up plan[2]	--	--	--	--	--	--
2-3	2-10	Percentage of beneficiaries receiving mental health services (no desired direction)						
2-3	2-10	Any	460,510	85.9%	473,111	86.4%	480,365	85.9%
2-3	2-10	ED	460,510	1.5%	473,111	1.5%	480,365	1.2%
2-3	2-10	Intensive outpatient or partial hospitalization	460,510	14.3%	473,111	14.8%	480,365	14.9%
2-3	2-10	Inpatient	460,510	14.9%	473,111	16.0%	480,365	16.3%
2-3	2-10	Outpatient	460,510	85.4%	473,111	85.9%	480,365	85.3%
2-3	2-10	Telehealth	460,510	2.8%	473,111	4.2%	480,365	6.7%
2-4	2-11	Percentage of beneficiaries who have prescriptions for opioids at a high dosage (lower is better)	4,884	17.2%	4,255	16.2%	3,272	12.8%

RQ	Measure Number	Measure Description	2016		2017		2018	
			Denom[1]	Rate[1]	Denom[1]	Rate[1]	Denom[1]	Rate[1]
2-4	2-12	Percentage of beneficiaries with concurrent use of opioids and benzodiazepines (lower is better)	5,570	31.8%	4,899	27.6%	3,722	20.7%
2-5	2-14	Number of ED visits per 1,000 member months (no desired direction)	472,144	140.3	484,549	136.8	496,832	123.5
2-5	2-15	Number of inpatient stays per 1,000 member months (no desired direction)	472,144	16.8	484,549	16.6	496,832	15.4
2-5	2-16	Percentage of inpatient discharges with an unplanned readmission within 30 days (lower is better)	12,197	22.3%	13,165	24.5%	13,100	23.5%

[1]Reported denominator and rate have been weighted by beneficiaries' duration of enrollment in RBHA.
[2]Results for Measure 2-9 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.
RQ: research questions; Demon: denominator; ED: emergency department

Prior Quarter Coverage (PQC)

Table B-6: PQC Full Measure Calculations

RQ	Measure Number	Measure Description	Year 1		Year 2	
			Denom	Rate	Denom	Rate
1-1	1-1	Percentage of estimated eligible Medicaid recipients enrolled, by eligibility group	1,459,810	38.9%	1,435,146	39.1%
1-1	1-1	Eligible - adult	961,150	36.3%	928,879	36.3%
1-1	1-1	Eligible - disabled (FTW)	93,825	25.5%	100,584	30.2%
1-1	1-1	Eligible - parent	244,852	57.6%	244,616	55.1%
1-1	1-1	Eligible - senior (DIS)	72,468	43.2%	76,979	43.9%
1-1	1-1	Eligible - SSI aged	87,515	25.1%	84,088	28.9%
1-1	1-2	Percentage of estimated eligible Medicaid recipients newly enrolled, by eligibility group	1,459,810	3.3%	1,435,146	3.5%
1-1	1-2	Eligible - adult	961,150	4.1%	928,879	4.3%
1-1	1-2	Eligible - disabled (FTW)	93,825	0.1%	100,584	0.0%
1-1	1-2	Eligible - parent	244,852	1.9%	244,616	3.0%
1-1	1-2	Eligible - senior (DIS)	72,468	0.2%	76,979	0.3%
1-1	1-2	Eligible - SSI aged	87,515	3.9%	84,088	3.8%
1-2	1-6	Average number of months with Medicaid coverage	1,240,461	10.0	1,244,099	10.2
1-3	1-7	Percentage of Medicaid beneficiaries who re-enroll after a gap of up to six months	84,960	22.2%	136,037	19.3%
1-3	1-8	Average number of months without Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	18,842	2.5	26,241	2.6
1-3	1-9	Average number of gaps in Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	18,842	1.3	26,241	1.2
1-3	1-10	Average number of days per gap in Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	25,089	73.4	32,098	74.9
5-2	5-3	Percentage of beneficiaries with a visit to a specialist	1,240,461	56.5%	1,244,099	50.1%

Note: Year 1 of PQC baseline period extends from July 1, 2017, through June 30, 2018. Year 2 extends from July 1, 2018, through June 30, 2019. Data from the Integrated Public Use Microdata Series (IPUMS) used in measures 1-1, and 1-2 utilize 2017 and 2018 data, for years 1 and 2, respectively.
RQ: research questions; Demon: denominator; FTW: freedom to work; DIS: discharge; SSI: supplemental security income

Targeted Investments (TI)

Table B-7: TI Full Measure Calculations

RQ	Measure Number	Measure Description	2015		2016	
			Denom	Rate	Denom	Rate
1-2	1-3	Percentage of beneficiaries with a well-child visit in the third, fourth, fifth, and sixth years of life	39,584	69.0%	42,730	66.9%
1-2	1-4	Percentage of beneficiaries with a depression screening and follow-up plan	45,763	0.6%	47,960	0.2%
1-2	1-5	Percentage of beneficiaries with an adolescent well-care visit	53,038	53.0%	59,889	54.0%
1-3	1-7	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	1,462	66.4%	1,819	71.1%
2-2	2-3	Percentage of beneficiaries with a depression screening and follow-up plan	--	--	--	--
2-3	2-5	Number of ED visits per 1,000 member months (no desired direction)	2,775,129	113.4	3,227,750	110.9
2-3	2-6	Number of ED visits for substance use disorder (SUD) or opioid use disorder (OUD) per 1,000 member months (no desired direction)	2,775,129	1.7	3,227,750	1.9
2-4	2-7	Percentage of beneficiaries with a follow-up visit within 7-days after hospitalization for mental illness	8,777	57.8%	10,562	60.3%
2-4	2-8	Percentage of beneficiaries with a follow-up visit within 7-days after emergency department (ED) visit for mental illness	3,572	54.3%	3,685	54.1%
2-5	2-9	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment				
2-5	2-9	Total	19,630	40.6%	21,435	42.5%
2-5	2-9	Alcohol	5,934	42.9%	6,546	44.2%
2-5	2-9	Opioid	4,364	43.7%	6,005	48.2%
2-5	2-9	Other Drug	10,754	40.0%	10,426	40.1%
2-5	2-10	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment				
2-5	2-10	Total	19,630	9.3%	21,435	11.1%
2-5	2-10	Alcohol	5,934	8.9%	6,546	9.7%
2-5	2-10	Opioid	4,364	13.5%	6,005	13.5%
2-5	2-10	Other Drug	10,754	7.0%	10,426	9.8%
2-5	2-11	Percentage of beneficiaries with OUD receiving any medication assisted treatment	N/A[1]	N/A[1]	22,104	30.5%
3-2	3-3	Percentage of recently released beneficiaries who had a preventive/ambulatory health service visit	3,919	66.6%	3,500	67.1%
3-3	3-6	Percentage of recently released beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment				
3-3	3-6	Total	1,377	43.2%	1,341	49.1%
3-3	3-6	Alcohol	385	40.0%	329	48.9%
3-3	3-6	Opioid	238	57.6%	327	57.5%
3-3	3-6	Other Drug	871	41.2%	797	46.9%

RQ	Measure Number	Measure Description	2015		2016	
			Denom	Rate	Denom	Rate
3-3	3-7	Percentage of recently released beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment				
3-3	3-7	Total	1,377	14.7%	1,341	17.9%
3-3	3-7	Alcohol	385	10.9%	329	14.3%
3-3	3-7	Opioid	238	24.8%	327	22.3%
3-3	3-7	Other Drug	871	12.2%	797	16.1%
3-3	3-8	Percentage of beneficiaries with OUD receiving any medication assisted treatment	N/A[1]	N/A[1]	2,315	21.1%
3-4	3-9	Number of ED visits per 1,000 member months for recently released beneficiaries (no desired direction)	108,882	148.7	114,591	159.4
3-4	3-10	Number of ED visits for SUD or OUD per 1, 000 member months for recently released beneficiaries (no desired direction)	108,882	6.3	114,591	7.6
3-5	3-11	Percentage of recently released beneficiaries who have prescriptions for opioids at a high dosage (lower is better)	243	17.3%	455	14.9%
3-5	3-12	Percentage of recently released beneficiaries who have prescriptions for concurrent use of opioids and benzodiazepines (lower is better)	650	21.8%	547	23.6%

[1]The rate was not presented due to large rate variation attributable to changes in specifications.
[2]Results for Measure 2-3 are not presented due to insufficient data and calculated rates that are artificially low from using administrative data.
RQ: research question; Denom: denominator; ED: emergency department; SUD: substance use disorder; OUD: opioid use disorder

Appendix C. ALTCS NCI Supplemental Tables

Table C-1–Table C-4 provide further details on Research Questions 1.3, 3.1, 3.2, and 3.3 regarding the Arizona Long Term Care System intellectual or developmental disability (ALTCS–DD) population. The data source is the 2015–2016 Adult Consumer Survey (ACS) administered for the National Core Indicators (NCI) project. Using a tool provided by NCI, it was possible to stratify each measure by six beneficiary characteristics that may be related to outcomes:

- **Age** (18–22, 23–34, 35–54, 55–74, *75 and above*)
- **Sex** (Male, Female)
- **Race/Ethnicity** (American Indian/Alaska Native, *Asian,* Black or African American, *Pacific Islander,* White, Hispanic/Latino, *Other Race Not Listed, Two or More Races, Don't Know*)
- **Type of Residence** (*Intermediate Care Facility for Individuals with Intellectual Disability [ICF/ID], nursing home or other institutional setting;* Group residential setting [group home]; Own home or apartment; Parent or relative's home; Foster care/host home)
- **Level of ID** (Mild ID, Moderate ID, Severe ID, Profound ID, diagnosed but unspecified level, *ID diagnosis status unknown,* No ID diagnosis)
- **Preferred Means of Communication** (Spoken, Gestures/body language, *Sign language/finger spelling, Communication aid/device, Other*)

Rates for italicized categories did not meet minimum data quality standards and are not shown in the tables below.

Research Question 1.3: Do adult beneficiaries with DD have the same or improved rates of access to care as a result of the integration of care for beneficiaries with DD?

Table C-1 presents rate stratifications for Measures 1-4 through 1-8 from Research Question 1.3; notable findings include:

- Beneficiaries in the oldest age group for which data are available (55–74) are the most likely to have had a physical, dental, or eye exam or received a flu vaccination in the past year.
- Black beneficiaries are substantially less likely than White beneficiaries to have had a physical or dental exam in the past year. Hispanic beneficiaries were also substantially less likely than Whites to have had a dental exam.
- Those living with their parents or in another relative's home were less likely to have had a physical, dental, or eye exam or a flu vaccination in the past year relative to those in other living arrangements. Those living in foster care or a host home were substantially more likely than others to have had a dental exam.
- Beneficiaries with Severe ID were much less likely than those at other levels of ID to have had a dental exam.
- Beneficiaries whose preferred means of communication is spoken were more likely than others to have had a dental exam.

Table C-1: Research Question 1.3

Respondent Characteristics	Measure 1-4: Has a primary care doctor or practitioner	Measure 1-5: Had a complete physical exam in the past year	Measure 1-6: Had a dental exam in the past year	Measure 1-7: Had an eye exam in the past year	Measure 1-8: Had a flu vaccine in the past year
Age					
18–22	98%	68%	79%	63%	71%
23–34	99%	83%	73%	58%	80%
35–54	95%	81%	74%	58%	77%
55–74	95%	90%	77%	72%	93%
Sex					
Male	98%	81%	76%	63%	78%
Female	97%	81%	74%	57%	83%
Race/Ethnicity					
American Indian/Alaska Native	100%	–	–	–	–
Black or African American	100%	57%	68%	–	–
White	97%	84%	82%	64%	77%
Hispanic/Latino	96%	75%	51%	57%	80%
Type of Residence					
Group residential setting	98%	89%	74%	72%	85%
Own home or apartment	93%	85%	75%	73%	–
Parent or relative's home	98%	76%	72%	52%	73%
Foster care/host home	97%	85%	90%	67%	–
Level of ID					
Mild ID	98%	79%	75%	65%	80%
Moderate ID	96%	82%	82%	64%	86%
Severe ID	98%	79%	48%	–	–
Diagnosed but unspecified level	100%	–	–	–	–
No ID diagnosis	96%	77%	79%	60%	70%
Preferred Means of Communication					
Spoken	97%	80%	76%	62%	82%
Gestures/body language	97%	79%	64%	52%	71%

"–" indicates the cell did not meet minimum data quality requirements for reporting.
Source: National Core Indicators (NCI), 2015–2016 Adult Consumer Survey.
Notes: N = 476. Sample size varies across measures and between different types of respondent characteristics. Categories with no cells meeting minimum data quality requirements were omitted from the table. For further information see the NCI website at https://www.nationalcoreindicators.org/survey–reports/2017/.

Research Question 3.1: Do beneficiaries have the same or higher rates of living in their own home as a result of the ALTCS waiver renewal?

Table C-2 presents rate stratifications for Measure 3-2 from Research Question 3.1. For this measure, the proportion of beneficiaries living in their own home is disaggregated into those living in their own home or apartment and those living in the home of a parent or other relative. Notable findings include:

- The proportion of beneficiaries living in their own home or apartment increased with age, with those in the highest age group (55–74) more than three times as likely to live in their own homes or apartments compared to the 18–22 age group. However, the opposite pattern held for living in the home of a parent or other relative, which results in the same pattern overall.
- Overall, female beneficiaries were less likely to live in their own home or the home of a parent/relative than males.
- Overall, American Indian/Alaska Natives were less likely to live in their own home or the home of a parent/relative compared to other groups.
- Beneficiaries with moderate or severe ID were much less likely to live in their own home or the home of a parent/relative Beneficiaries whose preferred means of communication was spoken were more likely than others to live in their own home or the home of a parent/relative than whose preferred means was gestures/body language.

Table C-2: Research Question 3.1

Respondent Characteristics	Measure 3-2: Type of Residence (Own home or apartment)	Measure 3-2: Type of Residence (Parent or relative's home)	Measure 3-2: Type of Residence (Combined)
Age			
18–22	6%	82%	88%
23–34	8%	68%	76%
35–54	10%	53%	63%
55–74	19%	24%	43%
Sex			
Male	9%	66%	75%
Female	12%	53%	65%
Race/Ethnicity			
American Indian/Alaska Native	4%	43%	47%
Black or African American	7%	57%	64%
White	11%	57%	68%
Hispanic/Latino	10%	75%	85%
Level of ID			
Mild ID	14%	58%	72%
Moderate ID	4%	63%	67%
Severe ID	0%	64%	64%
Diagnosed but unspecified level	17%	61%	78%
No ID diagnosis	15%	63%	78%
Preferred Means of Communication			
Spoken	11%	59%	70%
Gestures/body language	3%	62%	65%

Source: National Core Indicators (NCI), 2015–2016 Adult Consumer Survey.
Notes: N = 476. Sample size varies across measures and between different types of respondent characteristics. Categories with no cells meeting minimum data quality requirements were omitted from the table. For further information see the NCI website at https://www.nationalcoreindicators.org/survey–reports/2017/.

Research Question 3.2: Do adult beneficiaries have the same or higher rates of feeling satisfied with their living arrangements as a result of the integration of care for beneficiaries with DD?

Table C-3 presents rate stratifications for Measures 3-3 and 3-4 from Research Question 3.2; notable findings include:

- The oldest beneficiaries for which data were available (55–74) were substantially more likely than others to want to live somewhere else.
- Black beneficiaries were less likely than others to want to live somewhere else.
- Those in foster care or a host home or in a parent or relative's home were less likely than others to want to live somewhere else.

Table C-3: Research Question 3.2

Respondent Characteristics	Measure 3-3: Wants to live somewhere else	Measure 3-4: Services and supports help the person live a good life
Age		
18–22	12%	98%
23–34	13%	96%
35–54	11%	97%
55–74	23%	98%
Sex		
Male	13%	96%
Female	14%	98%
Race/Ethnicity		
Black or African American	4%	100%
White	15%	97%
Hispanic/Latino	12%	99%
Type of Residence		
Group residential setting	21%	95%
Own home or apartment	20%	93%
Parent or relative's home	10%	98%
Foster care/host home	6%	100%
Level of ID		
Mild ID	13%	96%
Moderate ID	12%	98%
Severe ID	11%	97%
No ID diagnosis	14%	97%
Preferred Means of Communication		
Spoken	14%	97%
Gestures/body language	12%	98%

Source: National Core Indicators (NCI), 2015–2016 Adult Consumer Survey.
Notes: N = 476. Sample size varies across measures and between different types of respondent characteristics. Categories with no cells meeting minimum data quality requirements were omitted from the table. For further information see the NCI website at https://www.nationalcoreindicators.org/survey–reports/2017/.

Research Question 3.3: Do adult beneficiaries have the same or higher rates of feeling engaged as a result of the integration of care for beneficiaries with DD?

Table C-4 presents rate stratifications for Measures 3-5 to 3-7 from Research Question 3.3; notable findings include:

- The youngest age group (18–22) is the most likely to have friends who are not staff or family members and are also most likely to decide or have input into their daily schedules.
- Black beneficiaries were somewhat more likely to have friends who are not staff or family members compared to Whites and Hispanics. American Indian/Alaska Natives were less likely than others to be able to decide or have input into daily schedules.
- Beneficiaries living in their own home or apartment had more control over or say in their schedules than those in other living arrangements.
- Beneficiaries with severe ID were less likely than others to report that they decide on or have input on their daily schedule.
- Beneficiaries whose preferred means of communication was gestures or body language were less likely than others to have friends who are not staff or family members or to decide on or have input into daily schedules.

Table C-4: Research Question 3.3

Respondent Characteristics	Measure 3-5: Able to go out and do the things s/he like to do in the community	Measure 3-6: Has friends who are not staff or family members	Measure 3-7: Decides or has input in deciding daily schedule
Age			
18–22	97%	77%	97%
23–34	93%	63%	89%
35–54	91%	66%	88%
55–74	92%	60%	80%
Sex			
Male	92%	64%	89%
Female	95%	70%	88%
Race/Ethnicity			
American Indian/Alaska Native	–	–	73%
Black or African American	100%	75%	97%
White	92%	66%	90%
Hispanic/Latino	94%	64%	87%
Type of Residence			
Group residential setting	87%	67%	80%
Own home or apartment	93%	67%	96%
Parent or relative's home	96%	68%	91%
Foster care/host home	90%	61%	86%
Level of ID			
Mild ID	93%	67%	92%
Moderate ID	95%	69%	89%

Respondent Characteristics	Measure 3-5: Able to go out and do the things s/he like to do in the community	Measure 3-6: Has friends who are not staff or family members	Measure 3-7: Decides or has input in deciding daily schedule
Severe ID	100%	65%	79%
Diagnosed but unspecified level	–	–	87%
No ID diagnosis	88%	68%	90%
Preferred Means of Communication			
Spoken	93%	68%	92%
Gestures/body language	98%	57%	77%

"–" indicates the cell did not meet minimum data quality requirements for reporting.
Source: National Core Indicators (NCI), 2015–2016 Adult Consumer Survey.
Notes: N = 476. Sample size varies across measures and between different types of respondent characteristics. Categories with no cells meeting minimum data quality requirements were omitted from the table. For further information see the NCI website at https://www.nationalcoreindicators.org/survey–reports/2017/.

APPENDIX B:
CYE 2019 EQRO REPORT EXECUTIVE SUMMARY

Arizona Health Care Cost Containment System

Contract Year Ending 2019 External Quality Review Annual Report

for

AHCCCS Complete Care and Comprehensive Medical and Dental Program

July 2020

HSAG HEALTH SERVICES ADVISORY GROUP

1. Executive Summary

Overview of the Contract Year Ending (CYE) 2019 External Review

The Code of Federal Regulations (CFR) at 42 CFR §438.3641 [1-1] requires that states use an external quality review organization (EQRO) to prepare an annual technical report that describes how data from activities conducted for Medicaid managed care organizations (MCOs), in accordance with the CFR, were aggregated and analyzed. The annual technical report draws conclusions about the quality of, timeliness of, and access to healthcare services that MCOs provide.

According to 42 CFR, Part 438 Subpart E, External Quality Review, §438.358(b) and (c), the three mandatory activities for each MCO, prepaid inpatient health plan (PIHP), and prepaid ambulatory health plan (PAHP) are:

- Validation of performance improvement projects (PIPs).
- Validation of performance measures (PMs) required in accordance with §438.330(b)(2).
- A review conducted within the previous three-year period to determine the MCO's, PIHP's, or PAHP's compliance with the standards set forth in Subpart D of §438.

For contracts starting on or after July 1, 2018, and no later than one year from the issuance of the revised external quality review (EQR) protocol, according to requirements set forth in §438.68, the Centers for Medicare & Medicaid Services (CMS) has established validation of MCO, PIHP, or PAHP network adequacy as a mandatory activity.

In accordance with the 42 CFR §438.358(a), the state; its agent that is not an MCO, PIHP, PAHP, or primary care case management (PCCM) entity (described in §438.310[c][2]); or an EQRO may perform the mandatory and optional EQR-related activities.

As permitted by CMS and incorporated under federal regulation at 42 CFR Part 438, Arizona Health Care Cost Containment System (AHCCCS) elected to retain responsibility for performing the four EQR mandatory activities described in 42 CFR §438.358 (b). AHCCCS prepared Contractor-specific reports of findings related to each of the activities, and, as applicable, required Contractors to prepare and submit their proposed corrective action plans (CAPs) to AHCCCS for review and approval.

AHCCCS contracted with Health Services Advisory Group, Inc. (HSAG) as its CMS-required EQRO to prepare this annual EQR technical report. This report presents AHCCCS' findings from conducting each activity as well as HSAG's analysis and assessment of the reported results for each Contractor's performance and, as applicable, recommendations to improve Contractors' performance.

[1-1] Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Federal Register* Vol. 81, No. 88/Friday, May 6, 2016, Rules and Regulations, p. 27886. 42 CFR §438.364 Medicaid Program; External Quality Review, Final Rule.

HSAG is an EQRO that meets the competence and independence requirements set forth in 42 CFR §438.354. HSAG has extensive experience and expertise in both conducting the mandatory activities and in analyzing information obtained from AHCCCS' reviews of the activities. Accordingly, HSAG uses the information and data to draw conclusions and make recommendations about the quality and timeliness of, and access to care and services that AHCCCS' Contractors provide.

To meet the requirements set forth in 42 CFR §438.364, as the EQRO, HSAG used information obtained from AHCCCS to prepare and provide a detailed annual technical report. The report summarizes findings on the quality of, timeliness of, and access to healthcare services, and includes the following:

- A description of the manner in which the data from all activities conducted were aggregated and analyzed.
- For each EQR-related activity conducted:
  - Objectives.
  - Technical method of data collection and analysis.
  - Description of the data obtained.
  - Conclusions drawn from the data.
- An assessment of each Contractor's strengths and weaknesses.
- Recommendations for improving the quality of care furnished by each Contractor including how the State can target goals and objectives in the quality strategy, under 42 CFR §438.340, to better support improvement in the quality, timeliness, and access to healthcare services furnished to Medicaid members.
- Methodologically appropriate comparative information about all Contractors (described in §438.310[c][2]), consistent with guidance included in the EQR protocols.
- An assessment of the degree to which each Contractor has addressed effectively the recommendations for quality improvement made by the EQRO during the previous year's EQR.

HSAG has prepared the annual technical report for AHCCCS for 15 consecutive years. The report complies with all requirements set forth at 42 CFR §438.364.

This executive summary includes an overview of AHCCCS' EQR activities as provided to HSAG and a high-level summary of the results. The results include a description of HSAG's findings with respect to performance by the AHCCCS Contractors in complying with the AHCCCS contract requirements and the applicable federal 42 CFR §438 requirements for each activity. In addition, this executive summary includes an assessment of each Contractor's strengths and weaknesses related to the quality and timeliness of, and access to, healthcare services and HSAG's recommendations for improving the quality of services.

Additional sections of this annual EQR technical report include the following:

- Introduction to the Annual Technical Report: An introduction to the annual technical report, including a description of the EQR mandatory activities.

- Overview of the Arizona Health Care Cost Containment System: An overview of AHCCCS' background including the Medicaid managed care history, AHCCCS' strategic plan with key accomplishments for CYE 2019, AHCCCS' quality strategy, and waivers and legislative changes impacting AHCCCS' Medicaid programs.
- Quality Initiatives: An overview of AHCCCS' statewide quality initiatives across its Medicaid managed care program and those that are specific to the AHCCCS Complete Care (ACC) program for CYE 2019.
- Contractor Best and Emerging Practices: An overview of the Contractors' best and emerging practices for CYE 2019.
- Network Adequacy Update: A presentation of results for the network adequacy validation (NAV) and analysis conducted in CYE 2019 and HSAG's associated findings.
- Organizational Assessment and Structure Performance: A presentation of results for the Contractor-specific operational review (OR) conducted in CYE 2019 and HSAG's associated findings and recommendations.

Please see Appendix A for an overview of the AHCCCS methodology for the operational review activities, including objectives, descriptions of data obtained, technical methods of data collection and analysis, scoring methodology, and corrective action statements.

Appendix B includes the network adequacy validation study methodology and ACC Contractor results by quarter and county. Appendix C includes the complete text of AHCCCS' CYE 2019 Network Adequacy Report.

Contractors Reviewed

During the CYE 2019 review cycle, AHCCCS contracted with the Contractors[1-2] listed below to provide services to members enrolled in the AHCCCS Complete Care (ACC) and Comprehensive Medical and Dental Program Medicaid managed care programs. Associated abbreviations are included.

- Arizona Complete Health – AHCCCS Complete Care (AzCH-ACC)
- Banner University Family Care – AHCCCS Complete Care (BUFC-ACC)
- Care1st of Arizona – AHCCCS Complete Care (Care1st-ACC)
- Magellan Complete Care – AHCCCS Complete Care (MCC-ACC)
- Mercy Care – AHCCCS Complete Care (MC-ACC)
- Steward Health Choice Arizona – AHCCCS Complete Care (SHCA-ACC)
- UnitedHealthcare Community Plan – AHCCCS Complete Care (UHCCP-ACC)
- Comprehensive Medical and Dental Program (CMDP)

[1-2] Note: Title 42 CFR §438.2 defines "managed care organization (MCO)," in part, as "an entity that has or is seeking to qualify for a comprehensive risk contract." CMS designates all AHCCCS Contractors as MCOs. Unless citing Title 42 CFR, this report will refer to AHCCCS' MCOs as Contractors.

Findings, Conclusions, and Recommendations About the Quality of, Timeliness of, and Access to Care

The following section provides a high-level summary of HSAG's findings and conclusions about the quality of, timeliness of, and access to care provided to AHCCCS members.

Network Adequacy Validation

Each quarter, each ACC Contractor submits its contracted network and its internal assessment of compliance with the applicable standards to AHCCCS. HSAG's analysis of network adequacy considered compliance with 11 AHCCCS-established time/distance standards for specific provider types and populations applicable to the ACC Contractors. Quarterly analytic results were assembled for the October 1, 2018, through June 30, 2019, measurement period for all beneficiary coverage areas for each ACC Contractor.

HSAG's quarterly network adequacy validation (NAV) determined that the ACC Contractors' provider networks generally met AHCCCS' minimum time/distance network requirements. Each ACC Contractor met the minimum network standards in all counties during all quarters for the following provider types: Cardiologist, Pediatric; Obstetrics/Gynecology (OB/GYN); and PCP, Adult. Additionally, one ACC Contractor, MC-ACC, met all applicable minimum network standards in its three covered counties during each quarter. Refer to Appendix B for the complete study methodology and ACC Contractor results by quarter and county. Refer to Appendix C for the complete text of AHCCCS' CYE 2019 Network Adequacy Report.

Organizational Assessment and Structure Standards

An OR was conducted in CYE 2019 for one Contractor (CMDP). The strongest performance was in the Reinsurance (RI) standard areas, wherein CMDP received 100 percent standard area scores and no CAPs. Additionally, CMDP met the 95 percent threshold for the Delivery Systems (DS) standard area. Standard areas requiring the fewest CAPs were Corporate Compliance (CC), General Administration (GA), and Third-Party Liability (TPL) with one CAP required for each. Standard areas with greatest opportunity for improvement based on the number of CAPs required were Quality Management (QM), Grievance Systems (GS), Adult, Early and Periodic Screening, Diagnostic and Treatment and Maternal Child Health (MCH), and Medical Management (MM). For all standard areas except two, CMDP scored below the 95 percent threshold.

Performance Measures and Performance Improvement Projects

For more information on the CYE 2018 performance measures and PIPs, please refer to the CYE 2019 Acute, Comprehensive Medical and Dental Program (CMDP), Children's Rehabilitative Services (CRS) and RBHA Report which details activities conducted in CYE 2018.

Arizona Health Care Cost Containment System

Contract Year Ending 2019
External Quality Review Annual Report

for

Arizona Long Term Care System (ALTCS) Contractors

July 2020

1. Executive Summary

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- Recommendations for improving the quality of care furnished by each Contractor including how the State can target goals and objectives in the quality strategy, under 42 CFR §438.340, to better support improvement in the quality, timeliness, and access to healthcare services furnished to Medicaid members.
- Methodologically appropriate comparative information about all Contractors (described in §438.310[c][2]), consistent with guidance included in the EQR protocols.
- An assessment of the degree to which each Contractor has addressed effectively the recommendations for quality improvement made by the EQRO during the previous year's EQR.

HSAG has prepared the annual technical report for AHCCCS for 15 consecutive years. The report complies with all requirements set forth at 42 CFR §438.364.

This executive summary includes an overview of AHCCCS' EQR activities as provided to HSAG and a high-level summary of the results. The results include a description of HSAG's findings with respect to performance by the AHCCCS Contractors in complying with the AHCCCS contract requirements and the applicable federal 42 CFR §438 requirements for each activity. In addition, this executive summary includes an assessment of each Contractor's strengths and weaknesses related to the quality and timeliness of, and access to, healthcare services and HSAG's recommendations for improving the quality of services.

Additional sections of this annual EQR technical report include the following:

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- Quality Initiatives: An overview of AHCCCS' statewide quality initiatives across its Medicaid managed care program and those that are specific to the Arizona Long Term Care System (ALTCS) program for CYE 2019.
- Contractor Best and Emerging Practices: An overview of the Contractors' best and emerging practices for CYE 2019.
- Network Adequacy Update: A presentation of results for the network adequacy validation (NAV) and analysis conducted in 2019 and HSAG's associated findings.
- Organizational Assessment and Structure Performance: A presentation of results for the Contractor-specific operational review (OR) conducted in CYE 2019 and HSAG's associated findings and recommendations.
- Performance Measure Results: A presentation of results for AHCCCS-selected performance measures for each ALTCS E/PD Contractor and the Department of Economic Security/Division of Developmental Disabilities (DES/DDD), as well as HSAG's associated findings and recommendations for CYE 2018.
- Performance Improvement Project Results: A presentation of the CYE 2018 *Developmental Screening* PIP rates for DES/DDD.

Please see appendices A, B, and C for an overview of the AHCCCS methodology for the operational review, performance measure, and performance improvement project activities, including objectives, descriptions of data obtained, technical methods of data collection and analysis, scoring methodology, and corrective action statements.

Appendix D includes the network adequacy validation study methodology and ALTCS E/PD Contractor results by quarter and county. Appendix E includes the complete text of AHCCCS' CYE 2019 Network Adequacy Report.

Contractors Reviewed

During the CYE 2019 review cycle, AHCCCS contracted with the Contractors[1-2] listed below to provide services to members enrolled in the AHCCCS ALTCS Medicaid managed care program. Associated abbreviations are included.

- Banner University Family Care—Long Term Care (BUFC-LTC)

[1-2] Note: Title 42 CFR §438.2 defines "managed care organization (MCO)," in part, as "an entity that has or is seeking to qualify for a comprehensive risk contract." CMS designates all AHCCCS Contractors as MCOs. Unless citing Title 42 CFR, this report will refer to AHCCCS' MCOs as Contractors.

- Mercy Care—Long Term Care (MC-LTC)
- UnitedHealthcare Community Plan—Long Term Care (UHCCP-LTC)
- Arizona DES/DDD*

*Note: In March 2017, AHCCCS issued a Notice to Cure to DES/DDD citing violations to Contract YH06-0014 related to DES/DDD's process for identification of qualified vendors to provide timely authorized care and services to members, stating that DES/DDD's failure resulted in significant delays in obtaining necessary services for members. In addition, in April 2017, AHCCCS issued a Notice to Cure to DES/DDD citing violations to Contract YH06-0014 related to the failure of DES/DDD's care coordination processes to address delivery of medically necessary care and services to members. In each case, DES/DDD was required to submit a CAP.

From June 28, 2018, to July 3, 2018, AHCCCS' Division of Health Care Management (DHCM) conducted an on-site audit of DES/DDD in response to identified patterns of noncompliance with quality management requirements. The audit findings identified significant noncompliance with AHCCCS contract and policy requirements, immediate concerns regarding members' health and safety, and fundamental concerns about DES/DDD's quality management structure and operations.

In October 2018, AHCCCS issued a Notice to Cure to DES/DDD citing violations to Contract YH06-0014 for critical and substantial failures identified by AHCCCS during the on-site audit by DHCM of DES/DDD's quality management activities. Specifically, DHCM identified quality incident reports (IRs), including medication errors that DES/DDD had not evaluated, triaged using a clinician, or investigated. DHCM found that, not only had these incidents created a substantial backlog, DES/DDD's failure to timely and thoroughly review these incidents placed the health and safety of members at risk. DES/DDD was required to develop an action plan to address the failures and to hire a third-party agency/consultants, with the appropriate clinical expertise and qualifications, to assist the Contractor in completing the identification and resolution of each IR. In addition, DES/DDD was required to perform tracking and trending of all IRs and develop a comprehensive tracking report. Finally, AHCCCS located its quality manager on-site at DES/DDD for 90 days to be directly responsible for the management and oversight of DES/DDD's quality management unit.

Findings, Conclusions, and Recommendations About the Quality of, Timeliness of, and Access to Care

The following section provides a high-level summary of HSAG's findings and conclusions about the quality of, timeliness of, and access to care provided to AHCCCS members.

Network Adequacy Validation

Each quarter, each ALTCS E/PD Contractor submits its contracted network and its internal assessment of compliance with the applicable standards to AHCCCS. HSAG's analysis of network adequacy

considered compliance with 12 AHCCCS-established time/distance standards for specific provider types and populations applicable to the ALTCS E/PD Contractors. Quarterly analytic results were assembled for the October 1, 2018, through June 30, 2019, measurement period for all beneficiary coverage areas for each ALTCS E/PD Contractor.

HSAG's quarterly network adequacy validation (NAV) determined that the Contractors' provider networks met AHCCCS' minimum time/distance network requirements. Each of the three ALTCS E/PD Contractors met all applicable minimum network standards during all quarters. Refer to Appendix D for the complete study methodology and ALTCS E/PD Contractor results by quarter and county. Refer to Appendix E for the complete text of AHCCCS' CYE 2019 Network Adequacy Report.

Organizational Assessment and Structure Standards

AHCCCS conducted a comprehensive OR for each ALTCS E/PD Contractor during CYE 2019, and monitored the progress of all Contractors in implementing their CAPs. Overall, the strongest performance was in the Corporate Compliance (CC), General Administration (GA), and Reinsurance (RI) standard areas, wherein all ALTCS E/PD Contractors demonstrated compliance (standard area scores of 95 percent or above). Additionally, MC-LTC and UHCCP-LTC achieved full compliance (a standard area score of 100 percent) for five of the standard areas reviewed, and BUFC-LTC achieved full compliance for four standard areas. BUFC-LTC met compliance for seven of the 12 standard areas reviewed, and MC-LTC and UHCCP-LTC met compliance for six standard areas.

Standard areas with greatest opportunity for improvement include Case Management (CM); Adult, Early and Periodic Screening, Diagnostic and Treatment, and Maternal Child Health (MCH); Medical Management (MM); and Quality Management (QM). The ALTCS E/PD Contractors did not meet compliance and incurred the greatest number of CAPs during the CYE 2019 OR for these standard areas.

Overall Compliance Scores for the CYE 2019 OR Review Cycle

AHCCCS conducted a comprehensive OR for the ALTCS E/PD Contractors in CYE 2019. Table 1-1 details the percentage score for each Contractor for each of the 12 standard areas.

Table 1-1—ALTCS E/PD Contractors' Standard Area Scores for the CYE 2019 OR Review Cycle

Standard Area	BUFC-LTC	MC-LTC	UHCCP-LTC
Case Management (CM)	93%	82%	89%
Corporate Compliance (CC)	100%	100%	100%
Claims and Information Systems (CIS)	99%	98%	98%
Delivery Systems (DS)	87%	89%	90%
General Administration (GA)	100%	100%	100%

Standard Area	BUFC-LTC	MC-LTC	UHCCP-LTC
Grievance Systems (GS)	99%	100%	100%
Adult, Early and Periodic Screening, Diagnostic and Treatment (EPSDT), and Maternal Child Health (MCH)	72%	93%	75%
Medical Management (MM)	94%	94%	90%
Member Information (MI)	97%	100%	93%
Quality Management (QM)	83%	91%	86%
Reinsurance (RI)	100%	100%	100%
Third-Party Liability (TPL)	100%	87%	100%

As indicated in Table 1-1, all Contractors received 100 percent compliance for three standard areas (CC, GA, and RI) and met the 95 percent compliance threshold for two standard areas (CIS and GS). MC-LTC and UHCCP-LTC both received compliance scores of 100 percent for five standard areas, and BUFC-LTC received standard area scores of 100 percent for four standard areas. BUFC-LTC met the 95 percent compliance threshold on three standard areas, and MC-LTC and UHCCP-LTC both met the 95 percent threshold on one standard area. MC-LTC and UHCCP-LTC both received compliance scores below the 95 percent thresholds for six standard areas, and BUFC-LTC received compliance scores below the 95 percent thresholds for five standard areas.

Table 1-2 summarizes outcomes of the reviews conducted by AHCCCS related to the three Contractors' scores in the 12 standard areas. The table details the number, if any, of standards (within each standard area reviewed) with assigned corrective actions for each Contractor, as well as the total number of standards with assigned corrective actions for all three Contractors.

Table 1-2—CAP Summary per Standard Area by Contractor

Standard Area	BUFC-LTC	MC-LTC	UHCCP-LTC	Total Standards With Required Corrective Actions
Case Management	7	12	8	27
Corporate Compliance	0	0	0	0
Claims and Information Systems	1	1	1	3
Delivery Systems	4	4	2	10
General Administration	0	0	0	0

Standard Area	BUFC-LTC	MC-LTC	UHCCP-LTC	Total Standards With Required Corrective Actions
Grievance Systems	1	0	0	1
Adult, EPSDT, and Maternal Child Health	11	4	8	23
Medical Management	6	5	8	19
Member Information	1	0	2	3
Quality Management	11	8	10	29
Reinsurance	0	0	0	0
Third-Party Liability	0	1	0	1
Total	**42**	**35**	**39**	**116**

Table 1-2 details that, overall, there were 116 standards in which AHCCCS required the three Contractors to complete CAPs. Standard areas with the greatest opportunity for improvement, based on the number of standards with required CAPs, were CM, DS, MCH, MM, and QM. However, of the 27 standards in the CM standard area that AHCCCS assigned CAPs to, MC-LTC was required to complete 12.

Overall Strengths

All ALTCS E/PD Contractors received full compliance (100 percent) standard area scores in the CC, GA, and RI standards. All Contractors scored at or above the 95 percent compliance threshold for the CIS and GS standards. For the MI and TPL standards, only one Contractor scored below the 95 percent compliance threshold.

Overall Opportunities for Improvement and Recommendations

Contractors had the lowest performance in five standard areas (CM, DS, MCH, MM, and QM), as more than one Contractor scored below the 95 percent compliance threshold. The standard areas for which all three Contractors scored below the 95 percent compliance threshold were CM, DS, MCH, MM, and QM (three Contractors). Notably, the QM standard had the greatest number of standards in which scores were below the 95 percent threshold for all three Contractors. However, it is important to note that AHCCCS made extensive changes within its CYE 2019 Contract and Policy revision efforts specific to quality management and quality improvement. As a result of the policy changes, the QM standard area (inclusive of the quality management and quality improvement standards) underwent extensive review and revisions just prior to the CYE 2019 OR review cycle.

Based on the results from the CYE 2019 OR, HSAG makes the following general recommendations to ALTCS E/PD Contractors regarding ORs:

- Contractors should continue to conduct internal reviews of operational systems to identify barriers that affect compliance with AHCCCS standards, State rules, and federal regulations. Specifically, Contractors should cross-reference existing policies, procedures, and information distributed to providers, subcontractors, and members with AHCCCS requirements and ensure, at a minimum, alignment with both the intent and content of AHCCCS standards, State rules, and federal regulations.
- Contractors should continue to regularly monitor and ensure that updates are made to contracts with providers and that policy manual updates from AHCCCS are also included when issued in Contractors' policies, procedures, and manuals (if impacted by the updates). Contractors should also continue to ensure that communications to all areas directly and indirectly impacted by these updates (including Contractor staff members, providers, subcontractors, and members) are provided and documented. In addition, Contractors should continue to assess current monitoring processes and activities to identify strengths and opportunities for improvement within operational processes and implement periodic assessments of those standards reviewed by AHCCCS for which Contractors are found deficient.
- Contractors should continue to apply lessons learned from improving performance for one category of standards to other categories.

Based on AHCCCS' review of the ALTCS E/PD Contractors' performance in the comprehensive OR in CYE 2019, HSAG recommends the following:

- AHCCCS should consider implementing periodic assessments of those standards for which all Contractors did not meet the 95 percent threshold and providing technical assistance to all Contractors on identified areas of deficiency.
- AHCCCS should consider holding technical assistance meetings with Contractors that scored lowest in the ALTCS E/PD OR standards.
- AHCCCS should consider using the quarterly meetings with Contractors as forums in which to share lessons learned from both the State and Contractor perspectives. AHCCCS should present identified best practices on the ALTCS E/PD Contractors' predominant issues and facilitate a group discussion on Contractors' policies and procedures.

Performance Measures

Aggregate Results for CYE 2018

AHCCCS collected data and reported Contractor performance for a set of performance measures for the CYE 2018 measurement period. The following tables display the performance measure rates with established minimum performance standards (MPS). An MPS had not been established for all reported performance measure rates. Contractor-specific results for performance measures with an MPS are

included in Section 8, with additional performance measures (i.e., without an established MPS) included in Appendix B of this report.

Throughout the report, references to "significant" changes in performance indicate statistically significant differences between performance from CYE 2017 to CYE 2018. The threshold for a significant result is traditionally reached when the *p* value is ≤0.05.

Findings

Table 1-3 and Table 1-4 present the CYE 2017 and CYE 2018 aggregate performance measure results with an MPS for the ALTCS E/PD Contractors and DES/DDD. Of note, the ALTCS E/PD aggregate rates include all members who met the enrollment criteria within the ALTCS E/PD line of business. The tables display the following information: CYE 2017 performance; CYE 2018 performance; the relative percentage change between CYE 2017 and CYE 2018 rates; the significance of the relative percentage change, where available; and the AHCCCS MPS. Performance measure rate cells shaded green indicate that aggregate performance met or exceeded the CYE 2018 MPS established by AHCCCS. Of note, measures for which lower rates suggest better performance are indicated by an asterisk (*). For these measures, rates that fall at or below the established MPS are shaded green.

Table 1-3—CYE 2017 and CYE 2018 Aggregate Performance Measure Results—ALTCS E/PD Contractors

Performance Measure	CYE 2017 Performance	CYE 2018 Performance	Relative Percentage Change	Significance Level (*p* value)[1]	MPS
Behavioral Health					
Follow-Up After Hospitalization for Mental Illness					
7-Day Follow-Up	30.3%	34.6%	14.2%	P=0.415	85.0%
30-Day Follow-Up	51.0%	52.4%	2.7%	P=0.810	95.0%
Utilization					
Ambulatory Care (per 1,000 Member Months)					
*ED Visits—Total**	66.7	69.9	4.8%	—	80.0

** A lower rate indicates better performance for this measure; therefore, an increase in the rate indicates a decline in performance.*
[1] Significance levels (p values) noted in the table were calculated by AHCCCS and demonstrate whether the differences in performance between CYE 2017 and CYE 2018 were statistically significant. The threshold for a result being considered statistically significant is traditionally reached when the p value is ≤0.05. Significance levels (p values) in bold font indicate statistically significant values.
— Indicates that a comparison of performance between CYE 2017 and CYE 2018 was not possible or appropriate.
Cells shaded green indicate that the rate met or exceeded the CYE 2018 MPS established by AHCCCS.

Table 1-4—CYE 2017 and CYE 2018 Performance Measure Results—DES/DDD

Performance Measure	CYE 2017 Performance	CYE 2018 Performance	Relative Percentage Change	Significance Level (*p* value)[1]	MPS
Access to Care					
Adults' Access to Preventive/Ambulatory Health Services					
Total	85.8%	87.3%	1.8%	**P<0.001**	75.0%
Annual Dental Visits					
2–20 Years	56.5%	56.9%	0.7%	P=0.444	60.0%
Children and Adolescents' Access to Primary Care Practitioners					
12–24 Months	96.2%	100.0%	4.0%	P=0.238	93.0%
25 Months–6 Years	89.2%	87.4%	-2.0%	**P=0.030**	84.0%
7–11 Years	92.1%	92.2%	0.1%	P=0.918	83.0%
12–19 Years	89.6%	89.8%	0.2%	P=0.677	82.0%
Pediatric Health					
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	43.4%	45.8%	5.5%	**P=0.001**	41.0%
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	53.4%	55.2%	3.4%	P=0.154	66.0%
Preventive Screening					
Breast Cancer Screening					
Breast Cancer Screening	45.9%	45.1%	-1.7%	P=0.698	50.0%
Cervical Cancer Screening					
Cervical Cancer Screening	16.6%	16.3%	-1.8%	P=0.711	64.0%
Utilization					
Ambulatory Care (per 1,000 Member Months)					
*ED Visits—Total**	39.1	44.0	12.8%	—	43.0

** A lower rate indicates better performance for this measure; therefore, an increase in the rate indicates a decline in performance.*
[1] Significance levels (p values) noted in the table were calculated by AHCCCS and demonstrate whether the differences in performance between CYE 2017 and CYE 2018 were statistically significant. The threshold for a result being considered statistically significant is traditionally reached when the p value is ≤0.05. Significance levels (p values) in bold font indicate statistically significant values.
— Indicates that a comparison of performance between CYE 2017 and CYE 2018 was not possible or appropriate.
Cells shaded green indicate that the rate met or exceeded the CYE 2018 MPS established by AHCCCS.

Conclusions

Compared to the CYE 2018 MPS, the ALTCS E/PD Contractors' aggregate performance in the **quality**, **access**, and **timeliness** areas indicated opportunities for improvement as both *Follow-Up After Hospitalization for Mental Illness* measure indicator rates fell below the MPS.

Performance for DES/DDD within the **quality** area indicated opportunities for improvement, with three of four (75.0 percent) measure rates (*Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*; *Breast Cancer Screening*; and *Cervical Cancer Screening*) falling below the MPS. *Adolescent Well-Care Visits* was the only performance measure rate within the **quality** area that exceeded the MPS for DES/DDD.

DES/DDD demonstrated positive performance in the **access** area, exceeding the MPS for five of six (83.3 percent) performance measure rates (*Adults' Access to Preventive/Ambulatory Health Services* and all four *Children and Adolescents' Access to Primary Care Practitioners* indicators).

Additionally, the ALTCS E/PD Contractors' aggregate and DES/DDD's performance measure rates in the Utilization domain (*Ambulatory Care [per 1,000 Member Months]*) should be monitored for informational purposes.

Please see Table B-1 in Appendix B for more information about the assignment of performance measures with an MPS to the Quality, Timeliness, and Access areas.

Recommendations

HSAG recommends that AHCCCS work with the ALTCS E/PD Contractors to increase rates for both measure indicators in the Behavioral Health domain that failed to meet the CYE 2018 MPS. AHCCCS and the ALTCS E/PD Contractors should conduct root cause analyses for the low rates of follow-up visits after hospitalization for mental illness to determine the nature and scope of the issue (e.g., barriers to care, lack of continuity of care, transportation issues, ineffective communication). Effective transition of care programs have been shown to reduce readmissions and exacerbation of symptoms related to mental illness by engaging the patient and family members (e.g., structured discharge checklist for accountability, awareness of red flags), establishing clear transition and care plans (e.g., follow-up appointments scheduled prior to discharge), utilizing transition coaches and providers (e.g., visits and phone calls to review illness management and questions), and ensuring effective provider communication (e.g., healthcare professionals' understanding of transition and care plan).[1-3] After the key factors related to the low rates are identified, AHCCCS and the ALTCS E/PD Contractors should work with providers and members to establish potential performance improvement strategies and solutions to increase follow-up visits and improve member transitions of care.

Additionally, HSAG recommends that AHCCCS work with DES/DDD to increase preventive screenings for women. To understand the cause of the low rates, AHCCCS and DES/DDD should examine potential barriers to women receiving breast cancer and cervical cancer screenings (e.g., provider misconceptions, lack of education, member anxiety) and implement multicomponent interventions to reduce structural barriers. Evidence suggests multicomponent interventions lead to greater effects when they combine strategies to increase community demand for, and access to, cancer

[1-3] Viggiano T, Pincus HA, and Crystal S. Care Transition Interventions in Mental Health. *Current Opinion in Psychiatry*. Vol. 25. No. 6. Nov. 2012.

screening.[1-4,1-5] AHCCCS and DES/DDD should ensure that members receive screenings in accordance with the United States (U.S.) Preventive Services Task Force (USPSTF) screening recommendations for breast cancer and cervical cancer.[1-6,1-7]

Performance Improvement Projects

In CYE 2015, AHCCCS implemented the *E-Prescribing* PIP for all lines of business. The baseline year for this PIP was CYE 2014. The subsequent year was an "Intervention" year in which each Contractor implemented strategies and interventions to improve performance. AHCCCS conducted annual measurements to evaluate Contractor performance, with the first remeasurement reflective of CYE 2016 and the second reflective of CYE 2017. As of CYE 2017, AHCCCS considers the *E-Prescribing* PIP closed for the ALTCS Contractors.

AHCCCS implemented the *Developmental Screening* PIP for the AHCCCS Complete Care (ACC), Comprehensive Medical and Dental Program (CMDP), and the DES/DDD lines of business. Early identification of developmental delays is important when providing effective interventions. During well-child visits, pediatricians look for potential concerns using both developmental surveillance and discussions with parents about their concerns. If any issues are noted, pediatricians should follow through with a developmental screening. Thus, AHCCCS has approved developmental screening tools that should be utilized for developmental screenings by all participating primary care physicians who care for EPSDT-age members.

The purpose of the *Developmental Screening* PIP is to increase the number of children screened for risk of developmental, behavioral, and social delays using a standardized screening tool in the 12 months preceding their first, second, or third birthday. AHCCCS' goal is to demonstrate a statistically significant increase in the number and percentage of children receiving a developmental screening, followed by sustained improvement for one year.

The baseline year for this PIP was CYE 2016. The subsequent year was an "Intervention" year in which each Contractor implemented strategies and interventions to improve performance. AHCCCS conducted annual measurements to evaluate Contractor performance, with the first remeasurement reflective of CYE 2018.

[1-4] The Community Guide. *Cancer Screening: Multicomponent Interventions—Cervical Cancer*. Available at: https://www.thecommunityguide.org/findings/cancer-screening-multicomponent-interventions-cervical-cancer. Accessed on: Mar. 12, 2020.
[1-5] The Community Guide. *Cancer Screening: Multicomponent Interventions—Breast Cancer*. Available at: https://www.thecommunityguide.org/findings/cancer-screening-multicomponent-interventions-breast-cancer. Accessed on: Mar. 12, 2020.
[1-6] U.S. Preventive Services Task Force. *Breast Cancer: Screening*. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/breast-cancer-screening. Accessed on: Mar. 12, 2020
[1-7] U.S. Preventive Services Task Force. *Cervical Cancer: Screening*. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/cervical-cancer-screening. Accessed on: Mar. 12, 2020.

AHCCCS considered that a Contractor demonstrated improvement when it achieved one of the following:

- Met or exceeded the AHCCCS overall average for the baseline measurement if the baseline rate was below the average and the increase was statistically significant.
- Demonstrated a statistically significant increase if its baseline rate was at or above the AHCCCS overall average for the baseline measurement.
- Was the highest-performing plan in any remeasurement and maintained or improved its rate in a successive measurement.

AHCCCS considered that a Contractor demonstrated sustained improvement when it achieved one of the following:

- Demonstrated how the improvement could be reasonably attributable to interventions undertaken by the organization (i.e., improvement occurred due to the project and its interventions, rather than an unrelated reason).
- Maintained or increased improvements in performance for at least one year after those improvements were first achieved.

Although DES/DDD increased its rate of children receiving a developmental screening, DES/DDD did not demonstrate significant improvement from baseline to Remeasurement Year 1.

Overall Assessment of Progress in Meeting EQRO Recommendations

During previous years, HSAG made recommendations in the annual reports for each activity conducted. Table 1-5 is a summary of the follow-up actions per activity that AHCCCS completed in response to HSAG's recommendations during State fiscal year (SFY) 2017–2018. Some of the Contractors have included rates in their responses to the recommendations. Please note that AHCCCS has not approved or validated these rates.

Table 1-5—HSAG Recommendations With AHCCCS Responses to HSAG Recommendations

HSAG Recommendation	AHCCCS Activities
Operational Review	
AHCCCS should consider distributing technical assistance documents to all Contractors and holding in-person meetings with Contractors that scored lowest in the ALTCS OR standards, including guidance on how to complete a CAP.	Scores can change drastically each OR cycle based upon changes made in the tool related to review criteria. However, AHCCCS does offer Technical Assistance for each individual standard that does not meet the criteria. The MCO may request Technical Assistance or AHCCCS may offer based upon outcomes of the OR score.

HSAG Recommendation	AHCCCS Activities
AHCCCS should consider using the quarterly meetings with Contractors as forums in which to share lessons learned from both the State and Contractor perspectives. AHCCCS should present identified best practices on the predominant issues for ALTCS Contractors' issues and facilitate a group discussion on Contractors' policies and procedures. In addition, AHCCCS should consider conducting a root cause analysis with the Contractors to determine why Contractors continue to have difficulty complying with specific standards.	AHCCCS has a variety of venues to share lessons learned with Contractors. OR lessons learned are often discussed at each Contractor's Exit Interview when the OR is completed.
Performance Measures	
HSAG recommends that AHCCCS work with the ALTCS Contractors to increase rates for the behavioral health performance measure that failed to meet the CYE 2017 MPS. AHCCCS and the ALTCS Contractors should conduct root cause analyses for the low rates of follow-up visits after hospitalization for mental illness to determine the nature and scope of the issue (e.g., barriers to care, lack of continuity of care, transportation issues, ineffective communication). Effective transition of care programs have been shown to reduce readmissions and exacerbation of symptoms related to mental illness by engaging the patient and family members (e.g., structured discharge checklist for accountability, awareness of red flags), establishing clear transition and care plans (e.g., follow-up appointments scheduled prior to discharge), utilizing transition coaches and providers (e.g., visits and phone calls to review illness management and questions), and ensuring effective provider communication (e.g., healthcare professionals' understanding of transition and care plan). After the key factors related to the low rates are identified, AHCCCS and the ALTCS Contractors should work with providers and members to establish potential performance improvement strategies and solutions to increase	AHCCCS Contractors not meeting the MPS set forth in the Contract for CYE 2017 Performance Measures were required to submit a proposed CAP for AHCCCS review and approval. This included the *Follow-Up After Hospitalization for Mental Illness* measure. Contractors are required to conduct root cause analyses as part of its CAP proposal and implement interventions that are aimed at addressing the identified barriers.

HSAG Recommendation	AHCCCS Activities
follow-up visits and improve member transitions of care.	
HSAG recommends that AHCCCS work with DES/DDD to increase preventive screenings for women. To understand the cause of the low rates, AHCCCS and DES/DDD should examine potential barriers (e.g., provider misconceptions, lack of education, member anxiety) to women receiving breast cancer, cervical cancer, and chlamydia screenings. Once the causes are identified, AHCCCS and DES/DDD should ensure that members receive screenings in accordance with USPSTF screening recommendations for breast cancer, cervical cancer, and chlamydia in women.	AHCCCS Contractors not meeting the MPS set forth in the Contract for CYE 2017 Performance Measures were required to submit a proposed CAP for AHCCCS review and approval. This included *Breast Cancer Screening*, *Cervical Cancer Screening*, and *Chlamydia Screening* measures. Contractors are required to conduct root cause analyses as part of its CAP proposal and implement interventions that are aimed at addressing the identified barriers.
Performance Improvement Projects	
HSAG recommends that AHCCCS continue to encourage the collaboration among Contractors in the e-prescribing workgroup to improve these indicators.	Contractors demonstrate sustained improvement when they maintain, or increase, improvements in performance for at least one year after the improvement is first achieved. CYE 2017 reflected Remeasurement Year 2 data for all lines of business, with the exception of the Regional Behavioral Health Authorities (RBHAs) Contractors. Based on the CYE 2017 Rates, AHCCCS considered the *E-Prescribing* PIP closed for all Contractors with the exception of the before mentioned RBHAs. Therefore, this workgroup did not occur during CYE 2019.

Table 1-6 presents a summary of the follow-up actions per activity that MC-LTC and UHCCP-LTC reported completing in response to HSAG's recommendations included in the CYE 2018 ALTCS Technical Report. BUFC-LTC was not an ALTCS Contractor during the time the recommendations were applicable. AHCCCS did not require Bridgeway Health Solutions (BWY) to submit follow-up actions due to the close out of the Contractor, and DES/DDD was granted an extension to submit follow-up actions resulting in the receipt of the documents occurring outside of the review cycle for this annual report.

To note, all activities specific to the CYE 2016 OR and the *E-Prescribing* PIP for the ALTCS line of business were completed.

Additionally, the text located after each HSAG recommendation box was submitted by the Contractor. (HSAG only completed minor edits where it was appropriate.)

Table 1-6—MC-LTC's Responses to HSAG's Follow-Up Recommendations

MC-LTC
Performance Measures
HSAG Recommendation: Following a member's discharge from an inpatient admission, Contractors should perform a follow-up call with that member within three days to address any questions or concerns and to discuss progress of the care plan. The ALTCS Contractors should ensure that these follow-up calls are being conducted and confirm during each call that the member has a follow-up visit scheduled with a mental health practitioner and access to necessary community resources.
MC-LTC implemented new interventions during CYE 2019, including the following: • Elected to utilize it for our self-selected PIP topic. • Implemented interventions aimed at addressing the identified barriers. Additionally, MC-LTC is implementing interventions that are carrying over into CYE 2020. The MC-LTC team has twice weekly Institution for Mental Disease (IMD) meetings where treatment and discharge planning are discussed. The LTC case manager and the IMD staff are instructed to arrange a post-discharge appointment within seven calendar days of discharge. Members discharge from the IMD with a follow-up appointment in hand. The LTC case manager follows up with the member to ensure that the member attends the appointment. MC-LTC will continue to monitor the *Follow-Up After Hospitalization for Mental Illness* measure rates quarterly for statistically significant changes. As needed, MC-LTC will apply the Plan-Do-Study-Act (PDSA) model to assess the need to modify existing interventions or implement new interventions.
Performance Improvement Projects
HSAG Recommendation: • HSAG recommends that MC-LTC conduct a current barrier analysis to determine what interventions might be prioritized to increase performance in both indicators. • HSAG recommends that MC-LTC request a meeting with AHCCCS to reconcile the PIP indicator data.
Although MC's performance was below the AHCCCS aggregate, MC was successful in achieving the goal of increasing the number of prescribers electronically prescribing prescriptions and of increasing the percentage of prescriptions which are submitted electronically in order to improve patient safety. Improvements are evidenced in both the AHCCCS calculated data and the MC internal calculations.

Table 1-7—UHCCP-LTC's Responses to HSAG's Follow-Up Recommendations

UHCCP-LTC
Operational Reviews
HSAG Recommendation: Contractors should continue to conduct internal reviews of operational systems to identify barriers that affect compliance with AHCCCS standards, State rules, and federal regulations. Specifically, Contractors should cross-reference existing policies, procedures, and information distributed to providers, subcontractors, and members with AHCCCS requirements and ensure, at a minimum, alignment with both the intent and content of AHCCCS standards, State rules, and federal regulations.
UHCCP-LTC adopts policies as needed and reviews said policies and procedures annually or as often as business or regulatory requirements dictate. UHCCP policies and procedures are instrumental in translating the laws and regulations as well as the company's strategies, mission, and values into documented guidelines for management and staff to follow and act upon.
HSAG Recommendation: Contractors should continue to regularly monitor and ensure that updates are made to contracts with providers and that policy manual updates from AHCCCS are also included when issued in Contractors' policies, procedures, and manuals (if impacted by the updates). Contractors should also continue to ensure that communications to all areas directly and indirectly impacted by these updates (including Contractor staff members, providers, subcontractors, and members) are provided and documented. In addition, Contractors should continue to assess current monitoring processes and activities to identify strengths and opportunities for improvement within operational processes and implement periodic assessments of those standards reviewed by AHCCCS for which Contractors are found deficient.
UHCCP-LTC presents new and substantially revised policies and procedures to the Policy Committee. The Policy Committee recommends approval or denial to Contractor management. If approved by Contractor management, the Policy Committee finalizes approval of the policy and procedure. Policies and procedures are reviewed annually or as often as business needs or regulatory requirements dictate. The Policy Committee is comprised of a cross-functional team designated to provide oversight and to ensure that communication to all areas directly and indirectly impacted by these updates is provided and documented. Policies are then converted to Portable Document Format (PDF) and uploaded to the UHCCP HEART SharePoint, where they can be accessible.
HSAG Recommendation: Contractors should continue to apply lessons learned from improving performance for one category of standards to other categories. Further, Contractors should continue to use opportunities to address and discuss issues identified during ORs.
The UHCCP Quality Management Committee is responsible for reviewing the findings from the AHCCCS OR and for overseeing the internal corrective actions led by the subject matter experts (SMEs) to address deficiencies. Oversight includes discussion and review of best practices as noted in previous ORs as a means to correct policies, procedures, and practices to address deficient standards.

UHCCP-LTC
Performance Measures
HSAG Recommendation: • ALTCS Contractors should conduct root cause analyses for the low rates of follow-up visits after hospitalization for mental illness to determine the nature and scope of the issue (e.g., barriers to care, lack of continuity of care, transportation issues, ineffective communication). • ALTCS Contractors should work with providers and members to establish potential performance improvement strategies and solutions to increase follow-up visits and improve member transitions of care.
UHCCP-LTC conducted a root cause analysis in CYE 2018 and identified the following factors negatively impacting the performance measure: • Long-term care (LTC) members discharged from an acute inpatient facility with a primary discharge diagnosis of "mental illness" are not referred directly to a mental health practitioner unless the discharge orders indicate that the members need further evaluation or treatment. Rather, when the case manager completes the post-hospital assessment (PHA) the member is referred to the assigned primary care physician for follow-up medical services and to coordinate care. • Often, medical conditions or admissions to hospitals may exacerbate mental health conditions, but the underlying issue of a member's admission to a hospital may stem from medical etiology. • Members refuse a referral for behavioral health services (if they are not already established), preferring to seek treatment from their primary care physician or other specialty provider. • Technical specifications do not allow for an outpatient service by a mental health practitioner on the same day of the discharge from the acute inpatient facility. • Due to a change in the National Committee for Quality Assurance (NCQA) technical specifications for this measure, members are no longer considered compliant if the visit by a behavioral health professional occurred on the same day as discharge. National NCQA Healthcare Effectiveness Data and Information Set (HEDIS®)[1-8] rates as well as UHCCP rates dropped significantly as a result in this change in technical specification.
HSAG Recommendation: Following a member's discharge from an inpatient admission, Contractors should perform a follow-up call with that member within three days to address any questions or concerns and to discuss progress of the care plan. The ALTCS Contractors should ensure that these follow-up calls are being conducted and confirm during each call that the member has a follow-up visit scheduled with a mental health practitioner and access to necessary community resources.
During CYE 2018 and into CYE 2019, UHCCP-LTC implemented the following activities in order to improve the *Follow-Up After Hospitalization for Mental Illness* measure (including performing a follow-up call with the member):

[1-8] HEDIS® is a registered trademark of NCQA.

UHCCP-LTC
• Updated the PHA instructions to expand upon a question in which the case manager asks the member "other reason that caused the member to be hospitalized" to include a question or discussion if the member had been discharged from an acute inpatient facility with a principle diagnosis of mental illness. If the answer is "yes," the case manager refers the member to a mental health practitioner and documents their response. All case managers were trained on the PHA instructions by the LTC management team as well as ensuring the member is referred to a behavioral health professional and this training occurred in August 2018 and new hire training has incorporated this practice and continues today. • Include, in its oversight process, the PHA visit within two days of notification with follow-up with a member that had a principle diagnosis of mental illness upon discharge from an acute inpatient facility to ensure the member had a follow-up outpatient visit with a mental health practitioner. The case manager will document referrals and, if applicable, refusal reasons in the member record. The intervention began in August 2018 and is continuing.
HSAG Recommendation: Although the *Plan All-Cause Readmissions* performance measure rates are considered an area of strength, the rates for all three Contractors and the ALTCS aggregate declined significantly from CYE 2016 to CYE 2017. Despite the high performance for this measure, the Contractors should assess the cause of this decline to ensure that performance stays above the MPS in future years.
UHCCP's *Plan All-Cause Readmissions* measure rate for CYE 2017, as reported by AHCCCS, was 12.2 percent. This rate was below the AHCCCS MPS of 17 percent and below the statewide aggregate rate of 15.9 percent. UHCCP generates an internal report on the LTC performance measures and assesses the plan's performance on each performance measure monthly. In the event UHCCP does not exceed the MPS, an internal CAP is brought forth to the UHCCP Quality Management Committee for review and approval. UHCCP will continue this internal monitoring to ensure the health plan continues to exceed the MPS.
Performance Improvement Projects
HSAG Recommendation: Contractors are encouraged to monitor the progress of the PIP interventions employed to increase providers prescribing electronically and prescriptions sent electronically, then adjust interventions as needed to ensure that the rates continue to increase by statistically significant amounts during the second remeasurement period.
During CYE 2019, UHCCP-LTC continued to monitor the e-prescribing rates of providers.

Arizona Health Care Cost Containment System

Contract Year Ending 2019
External Quality Review Annual Report

for

Regional Behavioral Health Authorities

July 2020

HSAG HEALTH SERVICES ADVISORY GROUP

1. Executive Summary

Overview of the Contract Year Ending (CYE) 2019 External Review

The Code of Federal Regulations (CFR) at 42 CFR §438.3641 [1-1] requires that states use an external quality review organization (EQRO) to prepare an annual technical report that describes how data from activities conducted for Medicaid managed care organizations (MCOs), in accordance with the CFR, were aggregated and analyzed. The annual technical report draws conclusions about the quality of, timeliness of, and access to healthcare services that MCOs provide.

According to 42 CFR, Part 438 Subpart E, External Quality Review, §438.358(b) and (c), the three mandatory activities for each MCO, prepaid inpatient health plan (PIHP), and prepaid ambulatory health plan (PAHP) are:

- Validation of performance improvement projects (PIPs).
- Validation of performance measures (PMs) required in accordance with §438.330(b)(2).
- A review conducted within the previous three-year period to determine the MCO's, PIHP's, or PAHP's compliance with the standards set forth in Subpart D of §438.

For contracts starting on or after July 1, 2018, and no later than one year from the issuance of the revised external quality review (EQR) protocol, according to requirements set forth in §438.68, the Centers for Medicare & Medicaid Services (CMS) has established validation of MCO, PIHP, or PAHP network adequacy as a mandatory activity.

In accordance with the 42 CFR §438.358(a), the state; its agent that is not an MCO, PIHP, PAHP, or primary care case management (PCCM) entity (described in §438.310[c][2]); or an EQRO may perform the mandatory and optional EQR-related activities.

As permitted by CMS and incorporated under federal regulation at 42 CFR Part 438, Arizona Health Care Cost Containment System (AHCCCS) elected to retain responsibility for performing the four EQR mandatory activities described in 42 CFR §438.358 (b). AHCCCS prepared Contractor-specific reports of findings related to each of the activities, and, as applicable, required Contractors to prepare and submit their proposed corrective action plans (CAPs) to AHCCCS for review and approval.

AHCCCS contracted with Health Services Advisory Group, Inc. (HSAG) as its CMS-required EQRO to prepare this annual EQR technical report. This report presents AHCCCS' findings from conducting each activity as well as HSAG's analysis and assessment of the reported results for each Contractor's performance and, as applicable, recommendations to improve Contractors' performance.

[1-1] Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Federal Register* Vol. 81, No. 88/Friday, May 6, 2016, Rules and Regulations, p. 27886. 42 CFR §438.364 Medicaid Program; External Quality Review, Final Rule.

HSAG is an EQRO that meets the competence and independence requirements set forth in 42 CFR §438.354. HSAG has extensive experience and expertise in both conducting the mandatory activities and in analyzing information obtained from AHCCCS' reviews of the activities. Accordingly, HSAG uses the information and data to draw conclusions and make recommendations about the quality and timeliness of, and access to care and services that AHCCCS' Contractors provide.

To meet the requirements set forth in 42 CFR §438.364, as the EQRO, HSAG used information obtained from AHCCCS to prepare and provide a detailed annual technical report. The report summarizes findings on the quality of, timeliness of, and access to healthcare services, and includes the following:

- A description of the manner in which the data from all activities conducted were aggregated and analyzed.
- For each EQR-related activity conducted:
  - Objectives.
  - Technical method of data collection and analysis.
  - Description of the data obtained.
  - Conclusions drawn from the data.
- An assessment of each Contractor's strengths and weaknesses.
- Recommendations for improving the quality of care furnished by each Contractor including how the State can target goals and objectives in the quality strategy, under 42 CFR §438.340, to better support improvement in the quality, timeliness, and access to healthcare services furnished to Medicaid members.
- Methodologically appropriate comparative information about all Contractors (described in §438.310[c][2]), consistent with guidance included in the EQR protocols.
- An assessment of the degree to which each Contractor has addressed effectively the recommendations for quality improvement made by the EQRO during the previous year's EQR.

HSAG has prepared the annual technical report for AHCCCS for 15 consecutive years. The report complies with all requirements set forth at 42 CFR §438.364.

This executive summary includes an overview of AHCCCS' EQR activities as provided to HSAG and a high-level summary of the results. The results include a description of HSAG's findings with respect to performance by the AHCCCS Contractors in complying with the AHCCCS contract requirements and the applicable federal 42 CFR §438 requirements for each activity. In addition, this executive summary includes an assessment of each Contractor's strengths and weaknesses related to the quality and timeliness of, and access to, healthcare services and HSAG's recommendations for improving the quality of services.

Additional sections of this annual EQR technical report include the following:

- Introduction to the Annual Technical Report: An introduction to the annual technical report, including a description of the EQR mandatory activities.

- Overview of the Arizona Health Care Cost Containment System: An overview of AHCCCS' background including the Medicaid managed care history, AHCCCS' strategic plan with key accomplishments for CYE 2019, AHCCCS' quality strategy, and waivers and legislative changes impacting AHCCCS' Medicaid programs.
- Quality Initiatives: An overview of AHCCCS' statewide quality initiatives across its Medicaid managed care program and those that are specific to the behavioral health program for CYE 2019.
- Contractor Best and Emerging Practices: An overview of the Contractors' best and emerging practices for CYE 2019.
- Network Adequacy Update: A presentation of results for the network adequacy validation (NAV) and analysis conducted 2019 and HSAG's associated findings.
- Organizational Assessment and Structure Performance: An overview of the operational review (OR) activities conducted in CYE 2019 and HSAG's associated findings and recommendations.

Please see Appendix A for an overview of the AHCCCS methodology for the operational review activities, including objectives, descriptions of data obtained, technical methods of data collection and analysis, scoring methodology, and corrective action statements.

Appendix B includes the network adequacy validation study methodology and Regional Behavioral Health Authority (RBHA) Contractor results by quarter and county. Appendix C includes the complete text of AHCCCS' CYE 2019 Network Adequacy Report.

Contractors Reviewed

During the CYE 2019 review cycle, AHCCCS contracted with the Contractors[1-2] listed below to provide services to members enrolled in the AHCCCS Regional Behavioral Health Authorities

- AzCH-RBHA
- MC-RBHA
- SHCA-RBHA

Findings, Conclusions, and Recommendations About the Quality of, Timeliness of, and Access to Care

The following section provides a high-level summary of HSAG's findings and conclusions about the quality of, timeliness of, and access to care provided to AHCCCS members.

[1-2] Note: Title 42 CFR §438.2 defines "managed care organization (MCO)," in part, as "an entity that has or is seeking to qualify for a comprehensive risk contract." CMS designates all AHCCCS Contractors as MCOs. Unless citing Title 42 CFR, this report will refer to AHCCCS' MCOs as Contractors.

Network Adequacy Validation

Each quarter, each RBHA Contractor submits its contracted network and its internal assessment of compliance with the applicable standards to AHCCCS. HSAG's analysis of network adequacy considered compliance with 12 AHCCCS-established time/distance standards for specific provider types and populations applicable to the RBHA Contractors. Quarterly analytic results were assembled for the October 1, 2018, through June 30, 2019, measurement period for all beneficiary coverage areas for each RBHA Contractor.

HSAG's quarterly Network Adequacy Validation (NAV) determined that the Contractors' provider networks generally met AHCCCS' minimum time/distance network requirements. Each of the three RBHA Contractors met all applicable minimum network standards during Quarter 3. MC-RBHA and SHCA-RBHA met all applicable standards during all quarters. RBHA Contractors met all minimum time/distance network standards during each quarter in all counties except Greenlee and La Paz. Refer to Appendix B for the complete study methodology and RBHA Contractor results by quarter and county. Refer to Appendix C for the complete text of AHCCCS' CYE 2019 Network Adequacy Report.

Organizational Assessment and Structure Standards

ORs were not conducted in CYE 2019 for the RBHA Contractors. Results for ORs conducted in CYE 2020 will be included in the CYE 2020 annual technical reports.

Performance Measures and Performance Improvement Projects

For more information on the CYE 2018 performance measures and PIPs, please refer to the CYE 2019 Acute, Comprehensive Medical and Dental Program (CMDP), Children's Rehabilitative Services (CRS) and RBHA Report, which details activities conducted in CYE 2018.

Arizona Health Care Cost Containment System

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External Quality Review Annual Report

for

Acute Care and Comprehensive Medical and Dental Program

Regional Behavioral Health Authorities

Children's Rehabilitative Services

July 2020

HSAG HEALTH SERVICES ADVISORY GROUP

1. Executive Summary

Overview of the Contract Year Ending 2019 External Review

The Code of Federal Regulations (CFR) at 42 CFR §438.3641 [1-1] requires that states use an external quality review organization (EQRO) to prepare an annual technical report that describes how data from activities conducted for Medicaid managed care organizations (MCOs), in accordance with the CFR, were aggregated and analyzed. The annual technical report draws conclusions about the quality of, timeliness of, and access to healthcare services that MCOs provide.

According to 42 CFR, Part 438 Subpart E, External Quality Review, §438.358(b) and (c), the three mandatory activities for each MCO, prepaid inpatient health plan (PIHP), and prepaid ambulatory health plan (PAHP) are:

- Validation of performance improvement projects (PIPs).
- Validation of performance measures (PMs) required in accordance with §438.330(b)(2).
- A review conducted within the previous three-year period to determine the MCO's, PIHP's, or PAHP's compliance with the standards set forth in Subpart D of §438.

For contracts starting on or after July 1, 2018, and no later than one year from the issuance of the revised external quality review (EQR) protocol, according to requirements set forth in §438.68, the Centers for Medicare & Medicaid Services (CMS) has established validation of MCO, PIHP, or PAHP network adequacy as a mandatory activity.

In accordance with the 42 CFR §438.358(a), the state; its agent that is not an MCO, PIHP, PAHP, or primary care case management (PCCM) entity (described in §438.310[c][2]); or an EQRO may perform the mandatory and optional EQR-related activities.

As permitted by CMS and incorporated under federal regulation at 42 CFR Part 438, Arizona Health Care Cost Containment System (AHCCCS) elected to retain responsibility for performing the four EQR mandatory activities described in 42 CFR §438.358 (b). AHCCCS prepared Contractor-specific reports of findings related to each of the activities, and, as applicable, required Contractors to prepare and submit their proposed corrective action plans (CAPs) to AHCCCS for review and approval.

AHCCCS contracted with Health Services Advisory Group, Inc. (HSAG) as its CMS-required EQRO to prepare this annual EQR technical report. This report presents AHCCCS' findings from conducting each activity as well as HSAG's analysis and assessment of the reported results for each Contractor's performance and, as applicable, recommendations to improve Contractors' performance.

[1-1] Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Federal Register* Vol. 81, No. 88/Friday, May 6, 2016, Rules and Regulations, p. 27886. 42 CFR §438.364 Medicaid Program; External Quality Review, Final Rule.

HSAG is an EQRO that meets the competence and independence requirements set forth in 42 CFR §438.354. HSAG has extensive experience and expertise in both conducting the mandatory activities and in analyzing information obtained from AHCCCS' reviews of the activities. Accordingly, HSAG uses the information and data to draw conclusions and make recommendations about the quality and timeliness of, and access to care and services that AHCCCS' Contractors provide.

To meet the requirements set forth in 42 CFR §438.364, as the EQRO, HSAG used information obtained from AHCCCS to prepare and provide a detailed annual technical report. The report summarizes findings on the quality of, timeliness of, and access to healthcare services, and includes the following:

- A description of the manner in which the data from all activities conducted were aggregated and analyzed.
- For each EQR-related activity conducted:
  - Objectives.
  - Technical method of data collection and analysis.
  - Description of the data obtained.
  - Conclusions drawn from the data.
- An assessment of each Contractor's strengths and weaknesses.
- Recommendations for improving the quality of care furnished by each Contractor including how the State can target goals and objectives in the quality strategy, under 42 CFR §438.340, to better support improvement in the quality, timeliness, and access to healthcare services furnished to Medicaid members.
- Methodologically appropriate comparative information about all Contractors (described in §438.310[c][2]), consistent with guidance included in the EQR protocols.
- An assessment of the degree to which each Contractor has addressed effectively the recommendations for quality improvement made by the EQRO during the previous year's EQR.

HSAG has prepared the annual technical report for AHCCCS for 15 consecutive years. The report complies with all requirements set forth at 42 CFR §438.364.

This executive summary includes an overview of AHCCCS' EQR activities as provided to HSAG and a high-level summary of the results. The results include a description of HSAG's findings with respect to performance by the AHCCCS Contractors in complying with the AHCCCS contract requirements and the applicable federal 42 CFR §438 requirements for each activity. In addition, this executive summary includes an assessment of each Contractor's strengths and weaknesses related to the quality and timeliness of, and access to, healthcare services and HSAG's recommendations for improving the quality of services.

Additional sections of this annual EQR technical report include the following:

- Introduction to the Annual Technical Report: An introduction to the annual technical report, including a description of the EQR mandatory activities.

- Overview of AHCCCS: An overview of AHCCCS' background including the Medicaid managed care history, AHCCCS' strategic plan with key accomplishments for contract year ending (CYE) 2019, AHCCCS' quality strategy, and waivers and legislative changes impacting AHCCCS' Medicaid programs.
- Performance Measure Results: A presentation of results for AHCCCS-selected performance measures for each Acute Contractor, the Comprehensive Medical and Dental Program (CMDP), and each KidsCare Contractor, as well as HSAG's associated findings and recommendations for CYE 2018.
- Performance Improvement Project Results: A presentation of Contractor-specific CYE 2018 rates for the *E-Prescribing* PIP and *Developmental Screening* PIP as well as qualitative analyses and interventions for the Contractors and CMDP.
- CAHPS Results: A presentation of General Child and Children with Chronic Conditions (CCC) results for KidsCare, as well as HSAG's associated findings and recommendations for CYE 2018.

Please see appendices A, B, and C for an overview of the AHCCCS methodology for the performance measures, performance improvement project, and Consumer Assessment of Healthcare Providers and Systems (CAHPS®)[1-2] activities, including objectives, descriptions of data obtained, technical methods of data collection and analysis, scoring methodology, and corrective action statements.

Contractors Reviewed

During CYE 2018, AHCCCS contracted with the Contractors[1-3] listed below to provide services to members enrolled in the AHCCCS Acute Care, Behavioral Health, and Children's Rehabilitative Services (CRS) Medicaid managed care programs. Associated abbreviations are included.

Acute Contractors

- Care1st Health Plan Arizona, Inc. (Care1st)
- Health Choice Arizona (HCA)[1-4]
- Health Net Access (HNA)[1-5]
- Mercy Care Plan (MCP)
- University Family Care (UFC)[1-6]

[1-2] CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).
[1-3] Note: Title 42 CFR §438.2 defines "managed care organization (MCO)," in part, as "an entity that has or is seeking to qualify for a comprehensive risk contract." CMS designates all AHCCCS Contractors as MCOs. Unless citing Title 42 CFR, this report will refer to AHCCCS' MCOs as Contractors.
[1-4] Health Choice Arizona (HCA) is doing business as Steward Health Choice Arizona (SHCA).
[1-5] Health Net Access (HNA) is doing business as Arizona Complete Health-Arizona Complete Care (AzCH-ACC), a health plan owned by Centene Corporation of Health Net Inc.
[1-6] Banner merged with University Family Care (UFC) and is doing business as Banner University Family Care (BUFC).

- UnitedHealthcare Community Plan-Acute (UHCCP-Acute)[1-7]
- Arizona Department of Child Safety (DCS)/Comprehensive Medical and Dental Program (CMDP)

Regional Behavioral Health Authority (RBHA) Contractors

- Cenpatico Integrated Care (CIC)[1-8]
- Health Choice Integrated Care (HCIC)[1-9]
- Mercy Maricopa Integrated Care (MMIC)[1-10]

CRS Contractor

- UnitedHealthcare Community Plan-Children's Rehabilitative Services (UHCCP-CRS)

Findings, Conclusions, and Recommendations About the Quality of, Timeliness of, and Access to Care

The following section provides a high-level summary of HSAG's findings and conclusions about the quality of, timeliness of, and access to care provided to AHCCCS members for the performance measure and CAHPS activities conducted in CYE 2018.

Organizational Assessment and Structure Standards

All activities for the CYE 2016 operational review (OR) cycle have been closed.

Performance Measures

Aggregate Results for CYE 2018

AHCCCS collected data and reported Contractor performance for a set of performance measures for the CYE 2018 measurement period.

Contractor-specific results for performance measures with a minimum performance standard (MPS) are included in Section 4, with additional performance measures (i.e., without an established MPS) included in Appendix A of this report.

[1-7] UnitedHealthcare Community Plan-Acute (UHCCP-Acute) is doing business as UnitedHealthcare Community Plan-Arizona Complete Care (UHCCP-ACC).
[1-8] Cenpatico Integrated Care (CIC) is doing business as Arizona Complete Health-Regional Behavioral Health Authority (AzCH-RBHA), a health plan owned by Centene Corporation of Health Net Inc.
[1-9] Health Choice Integrated Care (HCIC) is doing business as Steward Health Choice Arizona (SHCA).
[1-10] Mercy Maricopa Integrated Care (MMIC) is doing business as Mercy Care-Regional Behavioral Health Authority (MC-RBHA).

Throughout the report, references to "significant" changes in performance indicate statistically significant differences between performance from CYE 2017 to CYE 2018. The threshold for a significant result is traditionally reached when the *p* value is ≤0.05.

Findings

Table 1-1 through Table 1-4 present the CYE 2017 and CYE 2018 aggregate performance measure results with an MPS for the Acute Care Contractors, CMDP, KidsCare Contractors, UHCCP-CRS, General Mental Health/Substance Use (GMH/SU), and RBHA Integrated SMI Contractors. Of note, the Acute Care aggregate rates include all members who met the enrollment criteria within the Acute Care Program line of business; therefore, members enrolled in CMDP were included in the Acute Care aggregate rate calculations in addition to those members enrolled in the six Acute Care Contractors. The GMH/SU aggregate rates include all members who met the eligibility criteria within the GMH/SU program (excluding SMI members).

The tables display the following information: CYE 2017 performance, where available; CYE 2018 performance; the relative percentage change between CYE 2017 and CYE 2018 rates, where available; the significance of the relative percentage change, where available; and the AHCCCS MPS. Performance measure rate cells shaded green indicate that aggregate performance met or exceeded the CYE 2018 MPS established by AHCCCS. Of note, measures for which lower rates suggest better performance are indicated by an asterisk (*). For these measures, rates that fall at or below the established MPS are shaded green.

Table 1-1—CYE 2017 and CYE 2018 Aggregate Performance Measure Results—Acute Care Contractors

Performance Measure	CYE 2017 Performance	CYE 2018 Performance	Relative Percentage Change	Significance Level (*p* value)[1]	MPS
Access to Care					
Annual Dental Visits					
2–20 Years	60.8%	61.1%	0.5%	**P=0.002**	60.0%
Children and Adolescents' Access to Primary Care Practitioners					
12–24 Months	93.1%	94.8%	1.8%	**P<0.001**	93.0%
25 Months–6 Years	82.9%	84.2%	1.6%	**P<0.001**	84.0%
7–11 Years	89.0%	88.4%	-0.7%	**P<0.001**	83.0%
12–19 Years	86.4%	86.1%	-0.4%	**P=0.003**	82.0%
Pediatric Health					
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	39.2%	40.6%	3.6%	**P<0.001**	41.0%
Well-Child Visits in the First 15 Months of Life					
Six or More Well-Child Visits	59.5%	61.5%	3.4%	**P<0.001**	65.0%
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					

Performance Measure	CYE 2017 Performance	CYE 2018 Performance	Relative Percentage Change	Significance Level (*p* value)[1]	MPS
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	60.7%	61.4%	1.2%	**P<0.001**	66.0%
Preventive Screening					
Breast Cancer Screening					
Breast Cancer Screening	54.4%	54.9%	0.9%	**P=0.035**	50.0%
Cervical Cancer Screening					
Cervical Cancer Screening	50.5%	50.8%	0.6%	**P=0.025**	64.0%
Utilization					
Ambulatory Care (per 1,000 Member Months)					
*ED Visits—Total**	53.4	54.8	2.6%	—	55.0

** A lower rate indicates better performance for this measure; therefore, an increase in the rate indicates a decline in performance.*
[1] Significance levels (p values) noted in the table were calculated by AHCCCS and demonstrate whether the differences in performance between CYE 2017 and CYE 2018 were statistically significant. The threshold for a result being considered statistically significant is traditionally reached when the p value is ≤0.05. Significance levels (p values) in bold font indicate statistically significant values.
— Indicates that a comparison of performance between CYE 2017 and CYE 2018 was not possible or appropriate.
Cells shaded green indicate that the rate met or exceeded the CYE 2018 MPS established by AHCCCS.

Table 1-2—CYE 2017 and CYE 2018 Performance Measure Results—CMDP

Performance Measure	CYE 2017 Performance	CYE 2018 Performance	Relative Percentage Change	Significance Level (*p* value)[1]	MPS
Access to Care					
Annual Dental Visits					
2–20 Years	73.8%	75.4%	2.2%	**P=0.034**	60.0%
Children and Adolescents' Access to Primary Care Practitioners					
12–24 Months	97.9%	97.7%	-0.2%	P=0.804	93.0%
25 Months–6 Years	91.8%	92.9%	1.2%	P=0.196	84.0%
7–11 Years	96.8%	96.2%	-0.6%	P=0.447	83.0%
12–19 Years	97.1%	96.4%	-0.7%	P=0.337	82.0%
Pediatric Health					
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	72.3%	72.4%	0.1%	P=0.954	41.0%
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	74.5%	72.6%	-2.6%	P=0.197	66.0%

[1] Significance levels (p values) noted in the table were calculated by AHCCCS and demonstrate whether the differences in performance between CYE 2017 and CYE 2018 were statistically significant. The threshold for a result being considered statistically significant is traditionally reached when the p value is ≤0.05. Significance levels (p values) in bold font indicate statistically significant values.
Cells shaded green indicate that the rate met or exceeded the CYE 2018 MPS established by AHCCCS.

Table 1-3—CYE 2017 and CYE 2018 Aggregate Performance Measure Results—KidsCare Contractors

Performance Measure	CYE 2017 Performance	CYE 2018 Performance	Relative Percentage Change	Significance Level (*p* value)[1]	MPS
Access to Care					
Annual Dental Visits					
2–20 Years	74.3%	74.1%	-0.3%	P=0.847	60.0%
Children and Adolescents' Access to Primary Care Practitioners					
12–24 Months	97.4%	98.6%	1.2%	P=0.610	93.0%
25 Months–6 Years	92.3%	93.1%	0.9%	P=0.499	84.0%
7–11 Years	100.0%	95.7%	-4.3%	P=0.388	83.0%
12–19 Years	95.1%	95.4%	0.3%	P=0.851	82.0%
Pediatric Health					
Adolescent Well-Care Visits					
Adolescent Well-Care Visits	61.1%	59.3%	-3.0%	P=0.269	41.0%
Well-Child Visits in the First 15 Months of Life					
Six or More Well-Child Visits	NA	28.9%	—	—	65.0%
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	75.8%	75.7%	-0.1%	P=0.977	66.0%

NA indicates that the rate was withheld because the denominator was less than 30.
[1] Significance levels (p values) noted in the table were calculated by AHCCCS and demonstrate whether the differences in performance between CYE 2017 and CYE 2018 were statistically significant. The threshold for a result being considered statistically significant is traditionally reached when the p value is ≤0.05. Significance levels (p values) in bold font indicate statistically significant values.
— Indicates that a comparison of performance between CYE 2017 and CYE 2018 was not possible or appropriate.
Cells shaded green indicate that the rate met or exceeded the CYE 2018 MPS established by AHCCCS.

Table 1-4—CYE 2017 and CYE 2018 Performance Measure Results—UHCCP-CRS

Performance Measure	CYE 2017 Performance	CYE 2018 Performance	Relative Percentage Change	Significance Level (*p* value)[1]	MPS
Access to Care					
Annual Dental Visits					
2–20 Years	67.4%	67.7%	0.5%	P=0.606	60.0%
Children and Adolescents' Access to Primary Care Practitioners					
12–24 Months	96.9%	99.1%	2.3%	**P=0.042**	93.0%
25 Months–6 Years	92.7%	92.2%	-0.5%	P=0.422	84.0%
7–11 Years	95.8%	95.8%	0.0%	P=0.981	83.0%
12–19 Years	95.1%	95.1%	0.0%	P=0.912	82.0%
Pediatric Health					
Adolescent Well-Care Visits					

Performance Measure	CYE 2017 Performance	CYE 2018 Performance	Relative Percentage Change	Significance Level (*p* value)[1]	MPS
Adolescent Well-Care Visits	48.9%	48.1%	-1.6%	P=0.409	41.0%
Well-Child Visits in the First 15 Months of Life					
Six or More Well-Child Visits	49.2%	47.3%	-3.9%	P=0.690	65.0%
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life					
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	65.8%	63.8%	-3.0%	P=0.137	66.0%
Utilization					
Ambulatory Care (per 1,000 Member Months)					
*ED Visits—Total**	55.4	55.2	-0.4%	—	43.0

** A lower rate indicates better performance for this measure; therefore, an increase in the rate indicates a decline in performance.*
[1] Significance levels (p values) noted in the table were calculated by AHCCCS and demonstrate whether the differences in performance between CYE 2017 and CYE 2018 were statistically significant. The threshold for a result being considered statistically significant is traditionally reached when the p value is ≤0.05. Significance levels (p values) in bold font indicate statistically significant values.
— Indicates that a comparison of performance between CYE 2017 and CYE 2018 was not possible or appropriate.
Cells shaded green indicate that the rate met or exceeded the CYE 2018 MPS established by AHCCCS.

Table 1-5—CYE 2017 and CYE 2018 Aggregate Performance Measure Results—GMH/SU

Performance Measure	CYE 2017 Performance	CYE 2018 Performance	Relative Percentage Change	Significance Level (*p* value)[1]	MPS
Behavioral Health					
Follow-Up After Hospitalization for Mental Illness					
7-Day Follow-Up	48.1%	49.4%	2.7%	**P=0.034**	85.0%
30-Day Follow-Up	67.2%	67.1%	-0.2%	P=0.971	95.0%

[1] Significance levels (p values) noted in the table were calculated by AHCCCS and demonstrate whether the differences in performance between CYE 2017 and CYE 2018 were statistically significant. The threshold for a result being considered statistically significant is traditionally reached when the p value is ≤0.05. Significance levels (p values) in bold font indicate statistically significant values.
Cells shaded green indicate that the rate met or exceeded the CYE 2018 MPS established by AHCCCS.

Table 1-6—CYE 2017 and CYE 2018 Aggregate Performance Measure Results—RBHA Integrated SMI Contractors

Performance Measure	CYE 2017 Performance	CYE 2018 Performance	Relative Percentage Change	Significance Level (*p* value)[1]	MPS
Access to Care					
Adults' Access to Preventive/Ambulatory Health Services					
Total	92.2%	91.2%	-1.1%	**P<0.001**	75.0%
Preventive Screening					
Breast Cancer Screening					
Breast Cancer Screening	38.7%	37.3%	-3.6%	P=0.170	50.0%

Performance Measure	CYE 2017 Performance	CYE 2018 Performance	Relative Percentage Change	Significance Level (*p* value)[1]	MPS
Cervical Cancer Screening					
Cervical Cancer Screening	46.0%	44.8%	-2.6%	**P=0.030**	64.0%
Behavioral Health					
Follow-Up After Hospitalization for Mental Illness					
7-Day Follow-Up	71.8%	68.5%	-4.6%	**P<0.001**	85.0%
30-Day Follow-Up	87.7%	85.6%	-2.4%	**P<0.001**	95.0%

[1] *Significance levels (p values) noted in the table were calculated by AHCCCS and demonstrate whether the differences in performance between CYE 2017 and CYE 2018 were statistically significant. The threshold for a result being considered statistically significant is traditionally reached when the p value is ≤0.05. Significance levels (p values) in bold font indicate statistically significant values.*

Cells shaded green indicate that the rate met or exceeded the CYE 2018 MPS established by AHCCCS.

Conclusions

Acute Care Contractors

For CYE 2018, the Acute Care Contractors aggregate performance measure rates for the **quality** area indicated opportunities for improvement, with four of five (80.0 percent) measure rates (*Adolescent Well-Care Visits*; *Cervical Cancer Screening*; *Well-Child Visits in the First 15 Months of Life*; and *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*) falling below the MPS. *Breast Cancer Screening* was the only performance measure rate within the **quality** area that exceeded the MPS for the Acute Care Contractors aggregate.

The Acute Care Contractors aggregate demonstrated positive performance in the **access** area, exceeding the MPS for all five performance measure rates (*Annual Dental Visits*; and all four *Children and Adolescents' Access to Primary Care Practitioners* indicators). However, two of five (40.0 percent) performance measure rates (*Children and Adolescents' Access to Primary Care Practitioners—7–11 Years* and *12–19 Years*) demonstrated significant declines from CYE 2017 to CYE 2018.

There were no performance measure rates related to **timeliness** selected for the Acute Care Contractors; therefore, this area was not discussed. Additionally, the utilization performance measure rate (*Ambulatory Care*) should be monitored for informational purposes.

CMDP

Compared to the CYE 2018 MPS, CMDP's performance in the **quality** and **access** areas indicated strength as all seven performance measure rates exceeded the MPS.

There were no performance measure rates related to **timeliness** selected for CMDP; therefore, this area was not discussed.

KidsCare Contractors

For CYE 2018, the KidsCare Contractors aggregate performance measure rates for the **quality** and **access** areas indicated strength as seven of eight (87.5 percent) performance measure rates exceeded the MPS. *Well-Child Visits in the First 15 Months of Life—Six or More Well-Child Visits* was the only performance measure rate within the **quality** area that fell below the MPS.

There were no performance measure rates related to **timeliness** selected for the KidsCare Contractors; therefore, this area was not discussed.

UHCCP-CRS

For CYE 2018, the UHCCP-CRS performance measure rates for the **quality** area indicated opportunities for improvement, with two of three (66.7 percent) measure rates (*Well-Child Visits in the First 15 Months of Life—Six or More Well-Child Visits* and *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*) falling below the MPS. *Adolescent Well-Care Visits* was the only performance measure rate within the **quality** area that exceeded the MPS.

UHCCP-CRS demonstrated positive performance in the **access** area, exceeding the MPS for all five performance measure rates (*Annual Dental Visits* and all four *Children and Adolescents' Access to Primary Care Practitioners* indicators).

There were no performance measure rates related to **timeliness** selected for UHCCP-CRS; therefore, this area was not discussed. Additionally, the utilization performance measure rate (*Ambulatory Care*) should be monitored for informational purposes.

GMH/SU and RBHA Integrated SMI Contractors

Compared to the CYE 2018 MPS, the GMH/SU aggregate and RBHA Integrated SMI aggregate performance in the **quality**, **access**, and **timeliness** areas indicated opportunities for improvement as both *Follow-Up After Hospitalization for Mental Illness* measure rates fell below the MPS.

Performance for the RBHA Integrated SMI aggregate within the **quality** area indicated opportunities for improvement as both measure rates (*Breast Cancer Screening* and *Cervical Cancer Screening*) fell below the MPS. *Adults' Access to Preventive/Ambulatory Health Services* was the only performance measure rate within the **access** area and it exceeded the MPS for the RBHA Integrated SMI aggregate.

Please see Table A-1 in Appendix A for more information about the assignment of performance measures with an MPS to the Quality, Timeliness, and Access areas.

Recommendations

HSAG recommends that AHCCCS work with the Acute Care Contractors and UHCCP-CRS to increase rates for the performance measures that failed to meet the CYE 2018 MPS related to pediatric health. AHCCCS, the Acute Care Contractors, and UHCCP-CRS should conduct root cause analyses for the

low rates of well-child and well-care visits to determine the nature and scope of the issue (e.g., provider billing issues, barriers to care, community perceptions, lack of continuity of care).[1-11] Once the causes are identified, AHCCCS, the Acute Care Contractors, and UHCCP-CRS should work with providers and members to establish potential performance improvement strategies and solutions to increase comprehensive visits for children and adolescents that follow the American Academy of Pediatrics' (AAP's) *Recommendations for Preventive Pediatric Health Care*.[1-12]

HSAG recommends that AHCCCS work with the GMH/SU and RBHA Integrated SMI Contractors to increase rates for the *Follow-Up After Hospitalization for Mental Illness* performance measure that failed to meet the CYE 2018 MPS. AHCCCS and the Contractors should conduct root cause analyses for the low rates of follow-up visits after hospitalization for mental illness to determine the nature and scope of the issue (e.g., barriers to care, lack of continuity of care, transportation issues, ineffective communication). Effective transition of care programs have been shown to reduce readmissions and exacerbation of symptoms related to mental illness by engaging the patient and family members (e.g., structured discharge checklist for accountability, awareness of red flags), establishing clear transition and care plans (e.g., follow-up appointments scheduled prior to discharge), utilizing transition coaches and providers (e.g., visits and phone calls to review illness management and questions), and ensuring effective provider communication (e.g., healthcare professionals' understanding of transition and care plan).[1-13] After the key factors related to the low rates are identified, AHCCCS and the Contractors should work with providers and members to establish potential performance improvement strategies and solutions to increase follow-up visits and improve member transitions of care.

Additionally, HSAG recommends that AHCCCS work with the Acute Care Contractors and RBHA Integrated SMI Contractors to increase preventive screenings for women. AHCCCS, the Acute Care Contractors, and the RBHA Integrated SMI Contractors should examine potential barriers to women receiving breast cancer (RBHA Integrated SMI Contractors only) and cervical cancer screenings and implement multicomponent interventions to reduce structural barriers. Evidence suggests multicomponent interventions lead to greater effects when they combine strategies to increase community demand for, and access to, cancer screening. Interventions include increasing community demand (e.g., patient reminders, one-on-one education, mass media [e.g., television, radio, newspapers]), increasing access to screenings (e.g., assisting with appointment scheduling, addressing transportation barriers, offering child care), and increasing provider participation (e.g., provider

[1-11] The well-child and well-care visits rates for the Acute Care Contractors represent the administrative-only rates. The rates for these performance measures could increase following medical record review.

[1-12] American Academy of Pediatrics. *Recommendations for Preventive Pediatric Health Care*. Available at: https://www.aap.org/en-us/Documents/periodicity_schedule.pdf. Accessed on: Mar. 12, 2020.

[1-13] Viggiano T, Pincus HA, and Crystal S. Care Transition Interventions in Mental Health. *Current Opinion in Psychiatry*. Vol. 25. No. 6. Nov. 2012.

incentives and provider reminders).[1-14,1-15] AHCCCS, the Acute Care Contractors, and the RBHA Integrated SMI Contractors should ensure that members receive screenings in accordance with the United States (U.S.) Preventive Services Task Force (USPSTF) screening recommendations for breast cancer and cervical cancer.[1-16, 1-17]

Performance Improvement Projects

In CYE 2015, AHCCCS implemented the *E-Prescribing* PIP for all lines of business. The baseline year for this PIP was CYE 2014. The subsequent year was an "Intervention" year in which each Contractor implemented strategies and interventions to improve performance. AHCCCS conducted annual measurements to evaluate Contractor performance, with the first remeasurement reflective of CYE 2016 and the second reflective of CYE 2017. As of CYE 2017, AHCCCS considers the *E-Prescribing* PIP closed for the ALTCS Contractors.

AHCCCS implemented the *Developmental Screening* PIP for the AHCCCS Complete Care (ACC), Comprehensive Medical and Dental Program (CMDP), and the DES/DDD lines of business. Early identification of developmental delays is important when providing effective interventions. During well-child visits, pediatricians look for potential concerns using both developmental surveillance and discussions with parents about their concerns. If any issues are noted, pediatricians should follow through with a developmental screening. Thus, AHCCCS has approved developmental screening tools that should be utilized for developmental screenings by all participating primary care physicians who care for EPSDT-age members.

The purpose of the *Developmental Screening* PIP is to increase the number of children screened for risk of developmental, behavioral, and social delays using a standardized screening tool in the 12 months preceding their first, second, or third birthday. AHCCCS' goal is to demonstrate a statistically significant increase in the number and percentage of children receiving a developmental screening, followed by sustained improvement for one year.

The baseline year for this PIP was CYE 2016. The subsequent year was an "Intervention" year in which each Contractor implemented strategies and interventions to improve performance. AHCCCS conducted

[1-14] The Community Guide. *Cancer Screening: Multicomponent Interventions—Cervical Cancer*. Available at: https://www.thecommunityguide.org/findings/cancer-screening-multicomponent-interventions-cervical-cancer. Accessed on: Mar. 12, 2020.

[1-15] The Community Guide. *Cancer Screening: Multicomponent Interventions—Breast Cancer*. Available at: https://www.thecommunityguide.org/findings/cancer-screening-multicomponent-interventions-breast-cancer. Accessed on: Mar. 12, 2020.

[1-16] U.S. Preventive Services Task Force. *Breast Cancer: Screening*. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/breast-cancer-screening. Accessed on: Mar. 12, 2020.

[1-17] U.S. Preventive Services Task Force. *Cervical Cancer: Screening*. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/cervical-cancer-screening. Accessed on: Mar. 12, 2020.

annual measurements to evaluate Contractor performance, with the first remeasurement reflective of CYE 2018.

AHCCCS considered that a Contractor demonstrated improvement when it achieved one of the following:

- Met or exceeded the AHCCCS overall average for the baseline measurement if the baseline rate was below the average and the increase was statistically significant.
- Demonstrated a statistically significant increase if its baseline rate was at or above the AHCCCS overall average for the baseline measurement.
- Was the highest-performing plan in any remeasurement and maintained or improved its rate in a successive measurement.

AHCCCS considered that a Contractor demonstrated sustained improvement when it achieved one of the following:

- Demonstrated how the improvement could be reasonably attributable to interventions undertaken by the organization (i.e., improvement occurred due to the project and its interventions, rather than an unrelated reason).
- Maintained or increased improvements in performance for at least one year after those improvements were first achieved.

Although DES/DDD increased its rate of children receiving a developmental screening, DES/DDD did not demonstrate significant improvement from baseline to Remeasurement Year 1.

Overall Assessment of Progress in Meeting EQRO Recommendations

During previous years, HSAG made recommendations in the annual reports for each activity conducted. Below are summaries of the follow-up actions per activity in response to HSAG's recommendations. Some of the Contractors have included rates in their responses to the recommendations. Please note that AHCCCS has not approved or validated these rates.

Acute Line of Business

Table 1-7 is a summary of the follow-up actions per activity that AHCCCS completed in response to HSAG's recommendations during state fiscal year (SFY) 2017–2018.

Table 1-7—HSAG Recommendations With AHCCCS Responses to HSAG Recommendations

HSAG Recommendation	AHCCCS Activities
Operational Review	
AHCCCS should concentrate improvement efforts on the following standards: Corporate Compliance (CC); Claims and Information Systems (CIS); Adult, EPSDT, and Maternal Child Health (MCH); and Medical Management (MM) standards as these standards were problematic for Contractors during the three-year review cycle. For example, AHCCCS should consider distributing technical assistance documents to all Contractors and holding in-person meetings with Contractors that scored lowest in these standards.	Scores can change drastically each OR cycle based upon changes made in the tool related to review criteria. However, AHCCCS does offer technical assistance for each individual standard that does not meet the criteria. The MCO may request technical assistance or AHCCCS may offer technical assistance based upon outcomes of the OR score.
AHCCCS could consider using the quarterly meetings with Contractors as forums to share lessons learned from both the State and Contractor perspectives. For example, for the CC standard, four of seven Contractors did not meet the AHCCCS performance threshold. AHCCCS should present identified best practices regarding fraud, waste, and abuse issues and facilitate a group discussion related to Contractors' policies and procedures. In addition, AHCCCS should consider conducting a root cause analysis with the Contractors to determine why Contractors continue to have difficulty with the CIS standard.	AHCCCS has a variety of venues to share lessons learned with Contractors. OR lessons learned are often discussed at each Contractor's exit interview when the OR is completed.
AHCCCS could consider developing a template or checklist for the Contractors to ensure that Contractors include all minimum required information in remittance advice to providers. The element requiring that Contractors (and their subcontractors) must include the reason and detailed descriptions related to payments less than billed charges, denials, and adjustments on remittances has been out of compliance for both the CYE 2016 and CYE 2017 ORs. AHCCCS may	Items required to be reflected in the remittance advice sent to providers is clearly outlined in AHCCCS policy. For the ORs completed in CYE 2019, the scores for this element have been increased.

HSAG Recommendation	AHCCCS Activities
also consider reviewing the data capture and transfer processes used for the claims processing systems to ensure alignment with the requirements set forth in the CIS standard. AHCCCS will be working with Contractors (in some cases, new Contractors) that will be providing integrated services, working with new populations, and operating in new geographic service areas; therefore, this is an important standard to target for compliance.	
Performance Measures	
The utilization performance measure rate (*Ambulatory Care*) for the Acute Care aggregate should be monitored for informational purposes.	AHCCCS continues to run the ambulatory care performance measure and will continue its efforts to monitor Acute Care aggregate performance.
AHCCCS works with the Acute Care Contractors to increase rates for the performance measures that failed to meet the CYE 2017 MPS related to pediatric health and screenings for cervical cancer and chlamydia in women. AHCCCS and the Acute Care Contractors should conduct root cause analyses for the low rates of well-child and well-care visits and appropriate screenings for women to determine the nature and scope of the issue (e.g., provider billing issues, barriers to care, community perceptions). Once the causes are identified, AHCCCS and the Acute Care Contractors should work with providers and members to establish potential performance improvement strategies and solutions to increase comprehensive visits for children and adolescents that follow AAP's *Recommendations for Preventive Pediatric Health Care*. Additionally, AHCCCS and the Acute Care Contractors should ensure that members receive screenings in accordance with USPSTF screening recommendations for cervical cancer and chlamydia in women.	AHCCCS Contractors not meeting the MPS set forth in the Contract for CYE 2017 Performance Measures were required to submit a proposed corrective action plan (CAP) for AHCCCS review and approval. This included the *Child and Adolescent Well Care*, *Cervical Cancer Screening*, and *Chlamydia Screening in Women* measures. Contractors are required to conduct a root cause analyses as part of their CAP proposals and implement interventions that are aimed at addressing the identified barriers.

Table 1-8 presents a summary of the follow-up actions per activity that the Acute Contractors reported completing in response to HSAG's recommendations included in the *CYE 2018 Acute Technical Report*.

Additionally, the text located after each HSAG recommendation box was submitted by the Contractor.

Table 1-8—Care1st's Responses to HSAG's Follow-Up Recommendations

Care1st
Performance Measures
HSAG Recommendation: Care1st's reported rate for the *Cervical Cancer Screening* measure demonstrated a statistically significant increase for CYE 2017 (52.3 percent). Although there was an increase, the rate was below the AHCCCS MPS of 64.0 percent. HSAG recommends that Care1st focus efforts on identifying improvement strategies to increase screenings for cervical cancer in women.
As a result of these data and trends, Care1st implemented performance improvement activities that included the following: • In CYE 2014, Care1st executed value-based agreements with several patient-centered medical homes (PCMHs), with incentives to increase performance measure rates. • In CYE 2015, Care1st expanded the number of value-based purchasers with primary care incentives. Each year, once the performance reporting is final, Care1st adjusts the PCP auto-assignment algorithm to direct members to our highest-performing partners. • Education was provided to adult members on recommended preventative services through the member newsletter. • Continue to send quarterly gaps-in-care rosters to providers identifying members with missing visits. • Continue using "wellness messages" identifying member-specific gaps in care allowing for outreach by anyone within Care1st having contact with the member/family. • For CYE 2018, outreach to adults regarding preventive visits and services was expanded. Calls to adults were increased with follow-up letters for members who continued to be noncompliant with the measure. • For CYE 2019, Care1st dedicated a quality improvement (QI) full-time employee (FTE) to make outreach calls to adults. In addition, the Contractor plans a systemwide initiative to identify members and increase engagement with PCPs. • For CYE 2019, Care1st planned to deploy a new staff of Quality Practice Advisors (QPAs) to work with provider offices to close gaps in screenings and services, as well as correct coding. QPAs will use and distribute a new Healthcare Effectiveness Data and Information Set (HEDIS®)[1-18] Adult Resource Guide for providers. • For CYE 2019, WellCare planned to work on a systemwide initiative to better identify and reach members without visits (MWOV), to increase engagement with their PCPs.

[1-18] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

Care1st
• In CYE 2020, Care1st plans to provide education to members 21–64 years old on human papillomavirus (HPV) as a risk factor for cervical cancer and the importance of cervical cancer screening with HPV co-testing, and explore the use of a patient education flyer or brochure, such as the CDC's *Inside Knowledge: Get the Facts About Gynecologic Cancer or Genital HPV: The Facts*. • In CYE 2020, Care1st plans to work with high-volume providers and/or community organizations to host community events to better engage and educate members.
HSAG Recommendation: Care1st's reported rate for the *Chlamydia Screening in Women* measure demonstrated an increase for CYE 2017 (51.2 percent). Although there was an increase, the rate was below the AHCCCS MPS of 63.0 percent. HSAG recommends that Care1st focus efforts on identifying the factors contributing to low rates for this measure and implement improvement strategies to increase screenings for chlamydia in women.
As a result of these data and trends, Care1st implemented performance improvement activities that included the following: • Education was provided to adult members on recommended preventative services through the member newsletter. • Continue to send quarterly gaps-in-care rosters to providers identifying members with missing visits. • Continue using "wellness messages" identifying member-specific gaps in care allowing for outreach by anyone within Care1st having contact with the member/family. • For CYE 2018, outreach to adults regarding preventive visits and services was expanded. Calls to adults were increased with follow-up letters for members that continued to be noncompliant with the measure. • Education on chlamydia screening in teens and young adults was sent to all PCPs serving members younger than 21 years of age in September 2018. • For CYE 2019, Care1st dedicated a QI FTE to make outreach calls to adults. In addition, the Contractor plans a systemwide initiative to identify members and increase engagement with PCPs. • For CYE 2019, Care1st planned to deploy a new staff of QPAs to work with provider offices to close gaps in screenings and services, as well as correct coding. QPAs will use and distribute a new *HEDIS Adult Resource Guide* for providers. • For CYE 2019, WellCare planned to work on a systemwide initiative to better identify and reach MWOV, to increase engagement with their PCPs. • In CYE 2020, Care1st plans to work with high-volume providers and/or community organizations to host community events to better engage and educate members.
HSAG Recommendation: Care1st's reported rate for *Children and Adolescents' Access to Primary Care Practitioners—12–24 Months* measure decreased for CYE 2017 (91.7 percent) and did not meet the AHCCCS

Care1st
MPS of 93.0 percent. HSAG recommends that Care1st continue efforts on identifying improvement strategies to raise rates for this measure.
As a result of these data and trends, Care1st implemented performance improvement activities that included the following: • In CYE 2014, Care1st executed value-based agreements with several PCMHs, with incentives to increase performance measure rates. • In CYE 2015, Care1st expanded the number of value-based purchasers with primary care incentives. Each year, once the performance reporting is final, Care1st adjusts the PCP auto-assignment algorithm to direct members to our highest-performing partners. • In CYE 2015, Care1st began running reports twice a year to compare EPSDT tracking forms with claims for these visits, in order to determine whether physician offices are not correctly billing for EPSDT visits performed. The report matches up a claim for a visit with an EPSDT tracking form received from the provider with a date of service seven days before or after the date on the form to determine if a visit was billed. A list of providers who submitted an EPSDT tracking form but did not bill for a visit is forwarded to the Network Management (NM) department. An NM representative reaches out to the physician office to educate about billing for well visits and resubmitting a correctly coded claim. This monitoring and education process includes both acute and Division of Developmental Disabilities (DDD) claims. • Blast faxes reminding provider offices about correctly coding visits, including billing for a well visit performed in conjunction with a sick visit, were sent to all PCPs with assigned members < 21 years. • Continue to send quarterly gaps in care rosters to providers identifying members with missing visits. • Continue using "wellness messages" identifying member-specific gaps in care, allowing for outreach by anyone within the health plan having contact with the member/family. • Continue intensive telephone outreach efforts to improve access to PCPs. • In Quarter 4 (Q4) of CYE 2017, Care1st implemented a new text messaging program to engage parents of AHCCCS members and remind them when their children are due for well visits and/or dental visits. Care1st was a leader in developing this text messaging approach to parents/guardians and adult Medicaid members that not only educates members of the importance of preventative services but provides regular reminders when visits are not completed. As part of this program, Care1st established a dedicated phone line to link members receiving texts to an EPSDT specialist if they needed help making an appointment or with other issues. The program is based on evidence that shows that interactive and tailored text messages are successful in promoting self-activation among Medicaid members. • Ten medical groups representing members have been recruited as value-based purchasers with Primary Care Incentives incorporated into contracts.

Care1st
• Care1st has sent more than 90,000 text reminders for medical and/or dental visits to parents/guardians. Overall, the response has been positive, with an opt-out rate of approximately 0.5 percent. Feedback from parents indicates that many appreciate the reminders and others are able to access assistance directly from EPSDT specialists. • Care1st runs semiannual reports to compare EPSDT claims with tracking forms to identify billing issues, educate providers, and encourage them to resubmit claims that were not coded as a preventive visit when EPSDT exams were completed. Care1st has been successful in getting claims resubmitted when an EPSDT tracking form indicated a comprehensive well visit in more than 70 percent of cases identified. • An EPSDT Workgroup was convened in February 2018, which included QI, Medical Management, Claims, and NM staff to discuss barriers to care and strategies to better close gaps and identify improvements in data upload processes. Additional activities included improved education for providers regarding performing and coding for EPSDT services during a sick visit and scheduling multiple members of a family on the same day for well visits. • For CYE 2019, Care1st planned to expand the text messaging program to members 0–15 months. • For CYE 2019, Care1st planned to continue and expand provider outreach through the QI team of QPAs, including distribution and the EPSDT Provider Toolkit and other materials. • In CYE 2020, Care1st plans to develop the WellCare "Healthy Rewards" member incentive program for implementation in Arizona. This program includes a financial incentive for completion of six well-child visits by 15 months.
HSAG Recommendation: Care1st's reported rate for the *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life* measure demonstrated a decline from the previous year (CYE 2017 64.2 percent, CYE 2016 66.9 percent) and did not meet the AHCCCS MPS of 66.0 percent. HSAG recommends that Care1st focus efforts on identifying improvement strategies to raise rates for this measure.
Care1st has monitored *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life* rates on a monthly basis for several years, using this and other data from its health information system to identify opportunities for improvement. Based on internal monitoring, Care1st's *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life* rate remained above the MPS of 66 percent through CYE 2016. Although the rate showed a decline in CYE 2017 (64.2 percent), Care1st had the highest rate for this measure among all the Contractors. Since then, internal monitoring has shown the following rates: 67.33 percent in CYE 2018 and 64.14 percent in CYE 2019 (CYE 2019 rate not final). As a result of these data and trends, Care1st implemented performance improvement activities that included the following: • In CYE 2014, Care1st executed value-based agreements with several PCMHs, with incentives to increase performance measure rates.

Care1st
• In CYE 2015, Care1st expanded the number of value-based purchasers with primary care incentives. Each year, once the performance reporting is final, Care1st adjusts the PCP auto-assignment algorithm to direct members to our highest-performing partners. • In CYE 2015, Care1st began running reports twice a year to compare EPSDT tracking forms with claims for these visits, in order to determine whether physician offices are not correctly billing for EPSDT visits performed. The report matches up a claim for a visit with an EPSDT tracking form received from the provider with a date of service seven days before or after the date on the form to determine if a visit was billed. A list of providers who submitted an EPSDT tracking form but did not bill for a visit is forwarded to the NM. An NM representative reaches out to the physician office to educate about billing for well visits and resubmitting a correctly coded claim. This monitoring and education process includes both acute and DDD claims. • Blast faxes reminding provider offices about correctly coding visits, including billing for a well visit performed in conjunction with a sick visit, were sent to all PCPs with assigned members under 21 years of age. • Continue to send quarterly gaps-in-care rosters to providers identifying members with missing visits. • Continue to send monthly "practice pointers" with timely topics related to the EPSDT program and the AHCCCS Periodicity Schedule. • Continue intensive telephone outreach efforts to improve access to PCPs. • Continue to educate parents and caregivers of the value of the well-child visits and the recommended interval for these visits through the member newsletter. • In Q4 of CYE 2017, Care1st implemented a new text messaging program to engage parents of AHCCCS members and remind them when their children are due for well visits and/or dental visits. Care1st was a leader in developing this text messaging approach to parents and guardians and adult Medicaid members that not only educates members of the importance of preventative services but provides regular reminders when visits are not completed. As part of this program, Care1st established a dedicated phone line to link members receiving texts to an EPSDT specialist if they needed help making an appointment or with other issues. The program is based on evidence that shows interactive and tailored text messages are successful in promoting self-activation among Medicaid members.
Performance Improvement Projects
HSAG Recommendation: Care1st remains below the AHCCCS aggregate rate for the percentage of providers using e-prescribing (AHCCCS aggregate rate: 73.42 percent) and for the percentage of e-prescriptions (AHCCCS aggregate rate: 55.76 percent). Although this is the last measurement year, HSAG recommends that Care1st continue to monitor outcomes associated with the reported interventions, particularly provider education.
CYE 2014 was the baseline measurement period for the statewide *E-Prescribing* PIP. During the baseline period, 48.80 percent of Care1st's providers prescribed at least one prescription

Care1st
electronically and 41.23 percent of prescriptions ordered by an AHCCCS-contracted provider were sent electronically. For Remeasurement 2, 62.47 percent of Care1st providers prescribed at least one prescription electronically and 54.18 percent of prescriptions ordered by an AHCCCS-contracted provider were sent electronically. Care1st demonstrated statistically significant and substantively large improvements in the performance of the indicators for this PIP. Care1st internal data showed that the current overall rate of prescriptions for AHCCCS members sent electronically is 54.7 percent. However, the rate for e-prescribing of non-controlled substances is higher, at 62.5 percent. Care1st concluded that increasing provider understanding of electronic prescribing of controlled substances (EPCS) represented an opportunity for improvement. Care1st addressed this barrier through consistent and sustained provider education focusing on EPCS in CYE 2018. Care1st implemented performance improvement activities that included the following: • Educating providers about the benefits of e-prescribing, how to get started, and solutions to barriers—including clarifying that EPCS is legal in Arizona and the specific requirements for EPCS. • Incorporating incentives into value-based purchasing (VBP) agreements to encourage providers—particularly physicians, physician assistants, and nurse practitioners—to improve rates of e-prescribing. • Educating members, via repeated communications in member newsletter articles, about the benefits of sending prescriptions electronically to pharmacies. • Engaging providers to educate members about the benefits of sending prescriptions electronically to pharmacies. • Educating members about the benefits of having their prescriptions sent electronically to related pharmacies. • Providing targeted education through meetings with high-volume providers, such as PCMHs and provider specialties via fax blasts and during provider forums.

Table 1-9—HNA's Responses to HSAG's Follow-Up Recommendations

HNA
Operational Review
No associated HSAG recommendation.
HNA's OR conducted in calendar year (CY) 2017 identified issues in eight of the OR standard areas: MM, Delivery Systems (DS), Grievance Systems (GS), CIS, General Administration (GA), MCH, Quality Management (QM), and Third-Party Liability (TPL). Out of the eight OR standards identified, only three (CIS, GA, TPL) did not meet the 95 percent threshold. Due to these identified issues and scoring less than 95 percent in three standard areas, CAPs were

HNA
created and approved by AHCCCS immediately following the notification of results to HNA. All of the CAPs required have been subsequently approved and closed through AHCCCS. HNA created policies and procedures and continues to review them for ongoing training purposes to ensure full compliance with AHCCCS standards, State rules, and federal regulations.
Performance Measures
HSAG Recommendation: Focus improvement efforts on well-care visits for children and adolescents and on recommended screenings for women. Monitor performance within the access domain as two measures demonstrated statistically significant declines from CY 2016 to CY 2017.
HNA relies on the Quality Management/Performance Improvement (QM/PI) Committee as the body that reviews, monitors, evaluates, and develops interventions targeted at performance measures. The QM/PI Committee is structured to ensure that data drill-down is completed with root cause analysis and Plan-Do-Study-Act (PDSA) cycles driving intervention development and implementation. HNA implemented a highly successful intervention in CYE 2018: follow-up on all EPSDT and dental appointment no-shows by the EPSDT team and follow-up on all specialist appointment no-shows conducted by the medical management team. PCPs send no-show reports on an ongoing daily or weekly basis; and outreach is done immediately, within 24 to 48 hours. If the EPSDT team is able to make contact with the member, the team attempts to have a conference call by contacting the member's PCP to reschedule appointments and addressing any outstanding concerns that the member or physician may have. Additionally, during outreach calls, EPSDT team members question the family/parent of the child to determine what barriers or issues are encountered that prevent completing the appointment. A no-show letter is sent out to every member when a no-show is reported. If the EPSDT team is unable to make contact with the member, they coordinate with community-based health workers where possible to complete direct member outreach. The EPSDT team conducts provider site visits to educate providers about the children's measures, dental measures, and how to complete a developmental screening using an approved tool. The EPSDT team meets with the health plan provider engagement department and the topic of EPSDT, dental, and developmental surveillance will be presented at all upcoming providers forums. HNA plans to begin provider outreach and education via fax blasts regarding the EPSDT measures and available screening tools. Focused interventions on improvement of well-care visits for children and adolescents are performed through the EPSDT team. The EPSDT Subcommittee met quarterly during CY 2019 and reported on new and ongoing interventions. HNA has instituted a member outreach program utilizing interactive voice recording (IVR) calls, email, and text (short message service [SMS]) messaging with campaigns directed at members with care gaps for preventive screenings and well visits. These campaigns have a two-pronged approach. The first set of outreach approaches consist of IVR calls and emails with the focus on education of the screenings and/or well visits and why the member should complete them. The second set of outreach approaches consist of emails and text (SMS)

HNA
messages with the focus on reminding the member of the need to obtain their outstanding screenings and/or well visits. HNA implemented a new member incentive program in the first quarter of CYE 2019, offering a $25 member gift card per service (not to exceed $75) when members receive a well visit or specific preventative screening. Both well visits and preventative screenings continue to be a focus in CYE 2019. QI has developed a calendar of interventions for these measures in partnership with care management, pharmacy, provider engagement, and the payment innovations teams. These interventions incorporate lessons learned from previous PDSA projects and target both member and provider interventions. In conjunction with the case management team, the QI team created and instituted gap closure letters for adult preventive screenings. The letters are available within the electronic health record so the health plan case manager, when completing a call with a member, can send a screening reminder timely. QM has instituted a multi-prong approach to utilize AHCCCS-approved letters, flyers, emails, and events to educate and remind members of the importance of getting needed health screenings. Quality management continues to develop and refine training materials, quick reference guides, and AHCCCS-approved member-facing materials for case management use when talking to members about care gaps. Quality management created provider facing toolkits and HEDIS quick reference guides to assist providers with understanding performance measures and actions related to performance improvement for these measures. Quality management utilized provider forums, monthly medical director meetings, and site visits to provide TA and increase collaboration to launch initiatives geared toward improving performance measures. Targeted provider visits are conducted by the QI/EPSDT team to provide education and distribute provider resources to improve performance measures. Education and resources are provided through a number of other modes including Joint Operating Committee (JOC) meetings, provider update calls, newsletters, and provider forums. The interventions incorporate lessons learned from previous PDSA projects and target both member and provider interventions.
Performance Improvement Projects
HSAG Recommendation: Continue to monitor and evaluate the effectiveness of interventions for the *E-Prescribing* PIP. Identify and rank providers with the greatest volume of prescriptions and lowest e-prescribing rates. Incorporate e-prescribing education and presentations into provider forums and provider engagement meetings. Perform outreach to prescribers with low e-prescribing rates.
HNA has continued to show improvement in e-prescribing rates for both indicators tracked by AHCCCS: percentage of AHCCCS-contracted prescribers using e-prescriptions and percentage of prescriptions submitted by AHCCCCS-contracted prescribers electronically. HNA engaged heavily in the *E-Prescribing* PIP and showed ongoing quarterly improvement over remeasurement periods 1 and 2. Interventions in CYE 2018 included targeted ongoing

HNA
provider education. Beginning in February 2018, HNA actively engaged providers who encountered barriers or issues with e-prescribing through TA support and guidance. The *E-Prescribing* PIP was closed out in Quarter 1 (Q1) of CYE 2019, but interventions and processes established throughout the remeasurement periods will continue to be utilized within the pharmacy department. HNA continues monitoring and evaluation efforts to drive identification of provider deficiencies and best practices to ensure that targeted education and interventions are successful. The pharmacy department will also continue to partner with various HNA departments (e.g., Provider Engagement, Quality Management) to ensure that messaging and support to AHCCCS-contracted providers are consistent and ongoing.

Table 1-10—MCP's Responses to HSAG's Follow-Up Recommendations

MCP
Performance Measures
HSAG Recommendation: AHCCCS and the Acute Care Contractors should conduct root cause analyses for the low rates of well-child and well-care visits and appropriate screenings for women to determine the nature and scope of the issue (e.g., provider billing issues, barriers to care, community perceptions). Once the causes are identified, AHCCCS and the Acute Care Contractors should work with providers and members to establish potential performance improvement strategies and solutions to increase comprehensive visits for children and adolescents that follow AAP's *Recommendations for Preventive Pediatric Health Care*. Additionally, AHCCCS and the Acute Care Contractors should ensure that members receive screenings in accordance with USPSTF screening recommendations for cervical cancer and chlamydia in women. For the *Cervical Cancer Screening* and *Chlamydia Screening in Women* performance measures, all six Contractors fell below the MPS by at least 8 percentage points. Contractors should work with providers to increase cervical cancer screenings, especially for women who have not been screened within the last five years, as 50 to 64 percent of cervical cancer cases occur among these women. AHCCCS and Acute Care Contractors should focus efforts on identifying the factors contributing to low rates for these measures and implement improvement strategies to increase screenings for cervical cancer and chlamydia in women.
MCP conducted a root cause analysis in CYE 2018 for the *Well-Child Visits in the First 15 Months of Life* and *Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life* measures, elected to utilize those for our self-selected PIP topic, and implemented interventions aimed at addressing the identified barriers. Interventions will be continued for those measures where improvement has been achieved and the minimum performance standard has been met. For the *Chlamydia Screening in Women* performance measure, MCP performance has improved as compared to previous years, and is now within 1 percentage point of the MPS.

MCP
Given that the implemented interventions have proven successful in achieving rate improvement, they will be continued. Additionally, MCP's successes with performance measures were also highlighted in this paragraph of the report: "Care1st and MCP demonstrated strength for CYE 2017, with seven of 13 (53.8 percent) performance measure rates for both Contractors meeting or exceeding the MPS. Of note, Care1st and MCP were the only Acute Care Contractors to meet or exceed the MPS for any performance measure rate in the Pediatric Health domain (both Care1st and MCP met or exceeded the MPS for *Adolescent Well-Care Visits* and Care1st also exceeded the MPS for *Well-Child Visits in the First 15 Months of Life—Six or More Well-Child Visits*). MCP was also the only Contractor to meet or exceed the MPS for all five performance measures within the Access to Care domain. Additionally, UHCCP-Acute exceeded six of 13 (46.2 percent) MPS, including four of five (80.0 percent) performance measure rates within the Access to Care domain."
Performance Improvement Projects
HSAG Recommendation: Contractors are encouraged to monitor the progress of the PIP interventions employed to increase providers prescribing electronically and prescriptions sent electronically and to adjust interventions as needed to consolidate the gains made for this PIP.
CYE 2018 represented the final year for the PIP. MCP was successful in achieving the goal of increasing the number of prescribers electronically prescribing prescriptions and of increasing the percentage of prescriptions which are submitted electronically in order to improve patient safety. Those improvements are evidenced in both the AHCCCS calculated data and the MCP internal calculations. Current interventions will continue and new interventions may be developed if a new opportunity for improvement is identified, or if MCP begins to identify a decline in performance.

Table 1-11—UFC's Responses to HSAG's Follow-Up Recommendations

UFC
Operational Review
HSAG Recommendation: Continue to conduct internal reviews of operational systems to identify barriers that impact compliance with AHCCCS standards, State rules, and federal regulations.
Banner UFC (BUFC) has continued to conduct internal reviews of barriers and continues to implement internal solutions to these barriers. Results of internal reviews are communicated internally at BUFC through metric-based dashboards and reported on in the appropriate forum (such as, but not limited to: Quality Management/Performance Improvement Committee, Compliance Committee, report to Health Plan Executives, or Board of Directors Report).

UFC
BUFC has also now restructured and increased its staffing to meet the demands of the ACC implementation. Highly qualified individuals have been incorporated into the overall structure. These new staff have also continued to infuse the organization with new ideas and ways of further streamlining processes.
HSAG Recommendation: Pay particular attention to the DS and MCH standard areas as the Contractor scored 74 percent on each.
Great improvements have continued to be implemented in DS and MCH standards. Regarding Delivery of Service standards, policies, procedures, and desktops were all updated and continue to be updated annually. Improvements have been implemented and continue to be implemented to the Provider Manuals and the dissemination of the information to keep providers abreast of these changes. BUFC has also continued to refine and improve its information systems capabilities and a move from historically manual processes to automated processes. All CYE 2016 cycle CAP-related processes, documentation, tasks, and monitoring activities adopted by the BUFC MCH continue to be carried out by the health plan's obstetrics (OB) and pediatric care management teams, ensuring the maintenance of successful program performance. Aside from this, based on the most recent CYE 2018 ALTCS OR, DS standards requiring CAPs decreased substantially in comparison to the previous OR. Similar findings were found with the MCH standards.
HSAG Recommendation: Continue to regularly monitor and ensure that updates are made to contracts with providers and continue to ensure communication to all providers directly and indirectly impacted by these updates. Additionally, UFC should continue to assess current monitoring processes and activities to identify strengths and opportunities for improvement within operational processes.
BUFC has continued to regularly monitor and update its provider and vendor contracts. Communications with providers and vendors have increased substantially. Provider forums continue to be held as well as quarterly on-site meetings with all value-based providers. BUFC communicates with its vendors through Joint Oversight Committees and other ad-hoc communications. Vendors are monitored by BUFC with results reported internally through dashboards and internal committee, and directly with contracted vendors.
Performance Measures
No associated HSAG recommendation.
BUFC will work with providers and members to establish potential performance improvement strategies and solutions to increase comprehensive visits for children and adolescents that follow the AAP's *Recommendations for Preventive Pediatric Health Care*. 1. Enlist/partner with the Office of Individual and Family Affairs (OIFA) to elicit its assistance in obtaining provider and member feedback through formal mechanisms like focus groups as to strategies for improving and increasing comprehensive visits to children and adolescents.

UFC
2. Leverage existing committee engagement and participation activities, such as the Member Advocacy Committee, to capture member/family perspectives/experiences to inform system-level process improvement as it pertains to increasing comprehensive visits for children and adolescents. 3. Present these recommendations at the QM/PI Committee for approval and implementation into the QM Work Plan. 4. Implement the top three strategies. 5. Measure the success of the strategies through the quarterly performance measure reports.
No associated HSAG recommendation.
BUFC will ensure that members receive screenings in accordance with USPSTF screening recommendations for cervical cancer and chlamydia in women. 1. BUFC will review its screening criteria to ensure that these continue to adhere to USPSTF screening recommendations. 2. Establish provider education materials to ensure that they are aware of the recommendations. 3. Provide provider education by incorporating the materials and BUFC expectations into the provider visits. 4. Include current information and expectations in the provider newsletter. 5. Include updated information into the Provider Manual.
Performance Improvement Projects
HSAG Recommendation: HSAG recommends Contractors to conduct another barrier analysis, prioritize the barriers, and develop interventions to increase the rate of Indicator 1 and maintain the momentum of Indicator 1. **HSAG Recommendation:** HSAG recommended that UFC continue to monitor outcomes associated with the reported interventions as well as any new interventions that UFC were to develop as a result of further barrier prioritization and analysis.
BUFC conducted a barrier analysis based on the rates presented in the CYE 2018 Acute Annual Technical Report and compiled a table delineating identified barriers, overall improvements noted to-date, and summarized progress.

Table 1-12—UHCCP-Acute's Responses to HSAG's Follow-Up Recommendations

UHCCP-Acute
Operational Review
HSAG Recommendation: Contractors should conduct internal reviews of operational systems to identify barriers that impact their compliance with AHCCCS standards, State rules, and federal regulations.
UHCCP-Acute adopts policies as needed and reviews said policies and procedures annually or as often as business or regulatory requirements dictate. UHCCP-Acute policies and procedures

UHCCP-Acute
are instrumental in translating the company's strategies, mission, and values into documented guidelines for management and staff to follow and act upon.
HSAG Recommendation: Contractors should regularly monitor and ensure that updates are made to contracts with providers and that policy manual updates from AHCCCS are also included in Contractors' policies, procedures, and manuals (if impacted by the updates) in a timely manner. Contractors should ensure that communication to all areas directly and indirectly impacted by these updates (including Contractor staff, providers, subcontractors, and members) is provided and documented. In addition, Contractors should assess their current monitoring processes and activities to identify strengths and opportunities for improvement within their operational processes.
UHCCP-Acute presents new and substantially revised policies and procedures to the Policy Committee. The Policy Committee recommends approval or denial to health plan management. If approved by health plan management, the Policy Committee finalizes approval of the policy and procedure. Policies and procedures are reviewed annually or as often as business needs or regulatory requirements dictate. The Policy Committee is comprised of a cross-functional team designated to provide oversight and to ensure that communication to all areas directly and indirectly impacted by these updates is provided and documented. Policies are then converted to Portable Document Format (PDF) and uploaded to the UHCCP HEART SharePoint, where they can be accessible.
HSAG Recommendation: Contractors should continue to implement control systems to address specific findings in the CIS standard related to the requirement that Contractors must pay applicable interest on all claims (including overturned claim disputes) and that Contractors' remittance advice to providers must contain the minimum required information. This remains a consistent issue across Contractors.
UHCCP-Acute has a process in place that allows for payment of interest on all claims, including overturned claim disputes. Interest paid is reported to providers on the UHCCP-Acute provider remit. The response is broken down into two parts: 1) Claims and 2) Overturned Claim Disputes. 1. If a clean claim is not paid to a healthcare professional or a hospital in a timely manner regardless of the provider's contract status, we will pay interest to a healthcare professional or a slow payment penalty to a hospital. In the absence of a contract specifying other late payment terms, we will apply the following rules to pay interest on late payments: • For hospital clean claims, in the absence of a contract specifying otherwise, we shall apply a quick pay discount of 1 percent on claims paid within 30 days of receipt of the clean claim. For hospital clean claims, in the absence of a contract specifying other late payment terms, we shall pay slow payment penalties (interest) on payments made after 60 days of receipt of the clean claim. Interest shall be paid at the rate of 1 percent per month for each month or portion of a month from the 61st day until the date of payment (Arizona Revised Statutes [ARS] §36-2903.01).

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• For all non-hospital clean claims, in the absence of a contract specifying other late payment terms, we will pay interest on payments made after 45 days of receipt of the clean claim (as defined in the AHCCCS). Interest shall be at the rate of 10 percent per annum (prorated daily) from the 46th day until the date of payment. • In the absence of a contract specifying other late payment terms, a claim for an authorized service submitted by a licensed skilled nursing facility, assisted living ALTCS provider, or a home and community-based ALTCS provider shall be adjudicated within 30 calendar days after receipt. We will pay interest on payments made after 30 days of receipt of the clean claim. Interest shall be paid at the rate of 1 percent per month (prorated on a daily basis) from the date the clean claim is received until the date of payment (ARS §36-2943.D). • For non-claim dispute situations, interest shall be paid back to the date interest would have started to accrue. UHCCP-Acute's claim system calculates and applies interest on non-hospital claims paid past the 45-day time limit at 10 percent per annum (calculated daily) unless a different rate is stated in a written contract. The interest is prorated on a daily basis and paid at the time the clean claim is paid. If interest is due, it is paid based on the date of the receipt of the initial claim submission. For hospital, licensed skilled nursing facility, assisted living ALTCS provider, or a home and community-based ALTCS provider, interest shall be paid at the rate of 1 percent per month for each month or portion of a month from the 61st day until the date of payment (ARS §36-2903.01). 2. For claim dispute situations, interest shall be paid back to the date interest would have started to accrue. UHCCP-Acute's claim system calculates and applies interest on non-hospital claims paid past the 45-day time limit at 10 percent per annum (calculated daily) unless a different rate is stated in a written contract. The interest is prorated on a daily basis and paid at the time the clean claim is paid. If interest is due, it is paid based on the date of the receipt of the initial claim submission.
Performance Measures
HSAG Recommendation: Assess the cause of this decline in the two sub-measures, *Children and Adolescents' Access to Primary Care Practitioners—7–11 Years* and *12–19 Years*.
UHCCP-Acute analyzed the historical performance on the two sub-measures, *Children and Adolescents' Access to Primary Care Practitioners—7–11 Years* and *12–19 Years*. Although the rates for the two sub-measures declined from CYE 2016 to CYE 2017, the rates appear to be relatively stable when assessing the rates over a 6-year time period.
HSAG Recommendation: The Acute Care Contractors should focus efforts on identifying the factors contributing to low rates for *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life* (W34).
UHCCP-Acute formed an internal work group and conducted a root cause analysis on well-child visits and identified the following factors negatively impacting well-care visits for children ages 3–6 years old:

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Provider barriers • Lack of member engagement • Lack of member reminders • Lack of interest in outreaching auto-assigned members • Lack of resources and/or knowledge on how to incorporate well-care visits with sick visits – Lack of schedule flexibility – Lack of planning for well-care services – Lack of staff to do member prep for well-care services • Lack of negative consequences for poor performance in measures • Knowledge deficit about amount of money lost by not incorporating well-care visits with sick visits *Member barriers* • Knowledge deficit on what constitutes a well-care visit • Knowledge deficit on importance of well-care visits • Lack of negative consequences for not scheduling well-care visit • Lack of flexibility to take time off work • Lack of compelling reason given by provider to get well-care visit • Lack of transportation • Cultural reasons • Lack of motivation to get well-care visit – UHCCP-Acute $50 incentive not motivating o Providers not aware of incentive • Lack of understanding due to language/communication barriers • Lack of education on value of well-care visit in member mailings sent by UHCCP-Acute • Lack of timely reminders—UHCCP-Acute late with sending out letters to guardians—miss school vacation period • Lack of extended provider hours • Seeks services from non-contracted providers (e.g., Indian Health Services for Native Americans) • Only utilize urgent care when sick *System barriers* • Tech Specs disregards other insurance • Assignment of rural members (2.5 percent drop) • Lack of correct member contact information – Member not notifying AHCCCS of changes

UHCCP-Acute
• Lack of ability to use hybrid data (NCQA hybrid rates are 7 percent higher) *UHCCP-Acute barriers* • Deficit in providing feedback on where member obtains services • Lack of consistent message to providers on how to engage members • Deficit receiving accurate claims—well-care services rendered but not reflected in HEDIS report – Issue with EPSDT screening modifier? • Lack of education in member mailings to four- and six-year-olds regarding well-care visits • Lack of effective member outreach • Lack of members answering calls • Lack of members who answer IVR calls listening to the message UHCCP has experienced an improvement in measure, *Well Child Visits 3 Years to 6 Years of Age* (W34) in comparison between UHCCP-Acute's internal rates with the previous year's AHCCCS-generated rates. UHCCP-Acute implemented a number of member- and provider-based interventions that directly impacted and improved the performance on the W34 measure including: • Member Initiatives – Member incentive for obtaining a well-child visit was offered to guardians of members 3–6 years of age, and 12–20 years of age. The incentive was a $25 gift card in CYE 2017. In CYE 2018, the incentive for W34 was increased to $50. The incentive was implemented in July 2018 and continues today. UHCCP-Acute's Associate Director Quality Management is responsible for oversight of this intervention; – UHCCP-Acute revised the member letter at 4 years of age and 6 years of age that emphasized obtaining missing immunizations, to a letter sent to guardians of members 3–6 years of age stressing the importance of a well child visit, not limited to immunizations but developmental assessment as well. This was implemented in February 2019 and continues today. UHCCP-Acute's Clinical Quality Analyst is responsible for this mailing. • Provider Initiatives – Provider financial incentive to 100 groups that had a sizable Medicaid population under 21 years of age, offering a financial incentive on the group's performance on the three well-child measures. The provider incentive was offered in October 2017 and continues today. UHCCP-Acute's Associate Director Quality Management is responsible for oversight of this intervention; – UHCCP-Acute initiated a quarterly provider gaps-in-care mailing, and included in the gaps-in-care mailing are the measures W34 and AWC. The report was initiated in October 2018 and continues today. UHCCP-Acute's Associate Director Quality Management is responsible for oversight of this intervention;

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o UHCCP-Acute created a report of members who were missing a well-child visit, but, based on claims data had a sick visit with the assigned PCP. The report was reviewed by the assigned clinical practice consultant (CPC) with the providers to review "missed opportunities." Best practices by groups who are able to integrate a well-child visit with a sick visit were shared by the CPC with other assigned groups.
HSAG Recommendation: Acute Care Contractors should focus efforts on identifying the factors contributing to low rates within the women's preventative screening measures and implement improvement strategies to increase screenings for cervical cancer and chlamydia in women.
UHCCP-Acute conducted a root cause analysis for cervical cancer screening and chlamydia screening in women. UHCCP-Acute identified the following root causes: • Not all provider groups with female members assigned to them were notified of gaps in care for screenings. • There was a lack of member education on the importance of obtaining the screenings. Based upon these findings, the following interventions were implemented in CYE 2017 and carried over into CYE 2018: • Approximately 90 percent of the Medicaid membership is assigned to groups that were assigned to CPCs. The CPCs review the adult gaps-in-care with their assigned providers. • UHCCP-Acute implemented a quarterly provider report that is mailed to providers that have fewer than 100 members assigned to their care. The gaps-in-care report includes women missing the cervical cancer screening or chlamydia screening. • UHCCP-Acute initiated IVR calls to women in need of a cervical cancer screening or chlamydia screening. • UHCCP-Acute has experienced marginal improvement in both measures, *Cervical Cancer Screening*: Women Ages 21–64 (CCS), and *Chlamydia Screening in Women* (CHL) as noted in the table below comparing UHCCP-Acute internal rates with the previous year AHCCCS generated rates. • UHCCP-Acute has realized improvement in rates for the CCS and CHL measures; however, continued efforts are underway to increase the percentage of members who received these important services. UHCCP recognizes that not all members will listen to an IVR message in its entirety. Therefore, a new written notification to members will be implemented in 2020 encouraging members to obtain a cervical cancer screening or a chlamydia test.
Performance Improvement Projects
HSAG Recommendation: Even though this is the last measurement period, HSAG recommends that UHCCP-Acute analyze this situation and develop interventions that alleviate the potential discrepancies between UHCCP-Acute and AHCCCS data.
UHCCP-Acute does not require prescribing providers be contracted with AHCCCS for a prescription claim to pay. To do so could cause access to care issues for our members that are

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new to AHCCCS having transitioned into the program or discharged from urgent/emergent care. For future measures, UHCCP-Acute will investigate the feasibility of accurately identifying prescriptions from non-AHCCCS-contracted prescribing providers and removing them from the claims universe and calculations.
HSAG Recommendation: UHCCP-Acute implemented a program called PreCheck MyScript that encourages providers to generate prescriptions electronically while giving real-time information regarding medication formulary status, need for prior authorization, and point of sale drug utilization information. To consolidate gains, HSAG recommends that UHCCP-Acute monitor whether PreCheck MyScript intervention makes a difference in the rates.
UHCCP-Acute is following up internally to see if these data can be extracted, measured, and monitored.

Table 1-13—CMDP's Responses to HSAG's Follow-Up Recommendations

CMDP
Performance Measures
No associated HSAG recommendation.
As reflected in the latest EQR, "CMDP demonstrated overall strength for CYE 2017, exceeding the MPS for all seven performance measure rates with an established MPS. Of note, three performance measure rates (*Annual Dental Visits*; *Adolescent Well-Care Visits*; and *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*) demonstrated significant improvements from CYE 2016 to CYE 2017. Additionally, CMDP's performance for all eight performance measures exceeded the Acute Care aggregate." CMDP is poised to apply continuous improvement practices to preventive services including adolescent engagement and services. CMDP will implement additional outreach interventions and build upon existing member outreach projects to support the health literacy of CMDP members and their caregivers as well as and healthcare engagement of CMDP members. In CYE 2020, interventions will be coordinated through the On-Boarding Unit. Tools for understanding developmental and age-specific needs will be developed and made available to member caregivers to support ongoing development of health literacy in caregivers and members. Additional adaptations for educative elements for any CMDP staff members coordinating or outreaching to members and their caregivers. CMDP's executive management team is currently in the process of "converting" temporary positions into state positions. This will provide stability within in the Onboarding Coordinator team and will strengthen CMDP's outreach documentation efforts. CMDP has also requested to hire a business analyst to assist in the tracking of preventative services and developing visual management tools for the Onboarding Unit to use on a weekly basis and implement interventions in a timelier manner.

Regional Behavioral Health Authority (RBHA) Line of Business

Table 1-14 is a summary of the follow-up actions per activity that AHCCCS completed in response to HSAG's recommendations during SFY 2017–2018.

Table 1-14—HSAG Recommendations With AHCCCS Responses to HSAG Recommendations

HSAG Recommendation	AHCCCS Activities
Operational Review	
AHCCCS should concentrate improvement efforts on the CIS, GA, and MCH standards as most RBHA Contractors scored below the 95 percent compliance threshold. For example, AHCCCS should consider distributing TA documents to the RBHA Contractors and holding in-person meetings with RBHA Contractors. In particular, AHCCCS might want to meet with the RBHA Contractors to determine what issues each RBHA Contractor has in implementing these requirements.	Scores can change drastically each OR cycle based upon changes made in the tool related to review criteria. However, AHCCCS does offer TA for each individual standard that does not meet the criteria. The MCO may request TA or AHCCCS may offer TA based upon outcomes of the OR score.
AHCCCS should consider using the quarterly meetings with RBHA Contractors as forums in which to share lessons learned from both the State and RBHA Contractor perspectives. For example, all RBHA Contractors were required to submit a CAP for the same element in the MCH standard. AHCCCS should present identified best practices regarding developing and implementing a written process to inform all primary care physicians, obstetrician/gynecologist providers, and members of the availability of women's preventative care services as this was problematic for all RBHA Contractors.	AHCCCS has a variety of venues to share lessons learned with Contractors. OR lessons learned are often discussed at each Contractor's exit interview when the OR is completed.
Performance Measures	
HSAG recommends that AHCCCS work with the GMH/SU and RBHA Integrated SMI Contractors to increase rates for the *Follow-Up After Hospitalization for Mental Illness* performance measure that failed to meet the CYE 2017 MPS. AHCCCS and the	AHCCCS Contractors not meeting the MPS set forth in the Contract for CYE 2017 Performance Measures were required to submit a proposed CAP for AHCCCS review and approval. This included the *Follow-Up After Hospitalization for Mental Illness*

HSAG Recommendation	AHCCCS Activities
Contractors should conduct root cause analyses for the low rates of follow-up visits after hospitalization for mental illness to determine the nature and scope of the issue (e.g., barriers to care, lack of continuity of care, transportation issues, ineffective communication). Effective transition of care programs have been shown to reduce readmissions and exacerbation of symptoms related to mental illness by engaging the patient and family members (e.g., structured discharge checklist for accountability, awareness of red flags), establishing clear transition and care plans (e.g., follow-up appointments scheduled prior to discharge), utilizing transition coaches and providers (e.g., visits and phone calls to review illness management and questions), and ensuring effective provider communication (e.g., healthcare professionals' understanding of transition and care plan). After the key factors related to the low rates are identified, AHCCCS and the Contractors should work with providers and members to establish potential performance improvement strategies and solutions to increase follow-up visits and improve member transitions of care.	measure. Contractors are required to conduct root cause analyses as part of their CAP proposals and implement interventions that are aimed at addressing the identified barriers.
HSAG recommends that AHCCCS work with the RBHA Integrated SMI Contractors to increase preventive screenings for women. AHCCCS and the RBHA Integrated SMI Contractors should examine potential barriers to women receiving breast cancer and chlamydia screenings to understand the cause of the low rates (e.g., provider misconceptions, lack of education, member anxiety). Once the causes are identified, AHCCCS and the RBHA Integrated SMI Contractors should ensure that members receive screenings in accordance with USPSTF screening recommendations for breast cancer and chlamydia in women.	AHCCCS Contractors not meeting the MPS set forth in the Contract for CYE 2017 Performance Measures were required to submit a proposed CAP for AHCCCS review and approval. This included the *Breast Cancer Screening* and *Chlamydia Screening in Women* measures. Contractors are required to conduct root cause analyses as part of their CAP proposals and implement interventions that are aimed at addressing the identified barriers.

HSAG Recommendation	AHCCCS Activities
Performance Improvement Projects	
AHCCCS may want to consider offering and facilitating training opportunities to enhance the Contractors' capacity to implement robust interventions and QI processes and strategies for the *E-Prescribing* PIP. Increasing the Contractors' efficacy with QI tools such as root cause analyses, key driver diagrams, process mapping, failure modes and effects analysis (FMEA), and PDSA cycles should help to remove barriers to successfully achieving improvement in the PIP indicator rates.	Contractors demonstrate sustained improvement when they maintain, or increase, improvements in performance for at least one year after the improvement is first achieved. CYE 2017 reflected Remeasurement Year 2 data for all lines of business, with the exception of the RBHA Contractors. Based on the CYE 2017 rates, AHCCCS considered the *E-Prescribing* PIP closed for all Contractors with the exception of the aforementioned RBHAs. While the PIP remained open for the RBHAs, CYE 2018 rates demonstrated improvement from previous years (Baseline Year/ Remeasurement Year 1). Therefore, this workgroup did not occur during CYE 2019.
AHCCCS may want to use the quarterly meetings with Contractors as opportunities to identify and address, related to the PIP process, systemwide barriers which may be impacting the ability to achieve meaningful improvement.	Throughout CYE 2019, AHCCCS utilized the Quarterly Clinical Quality Management Meetings as a venue to conduct training in various focus areas that would support the Contractors' efforts related to integrated care activities and included a focus on the following topics: • Arizona Department of Health Services (ADHS) Vaccines for Children (VFC) Program and KidsCare • Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) • Arizona measles, mumps, and rubella (MMR) • Arizona Head Start • Pediatric oral health Throughout CYE 2019, AHCCCS also hosted the AHCCCS Community Forum, which AHCCCS Contractors, members, and community stakeholders are encouraged to attend. This meeting was conducted twice during the applicable year and included a focus on the following topics:

HSAG Recommendation	AHCCCS Activities
	• AHCCCS crisis activities • Behavioral health referral process • AHCCCS updates The agendas outlining the focus areas/training topics included as part of these meetings can be found in the supporting documentation folder.
AHCCCS should continue the collaboration among RBHA Contractors in the workgroup to improve the PIP study indicator rates. AHCCCS should consider including in the workgroup additional stakeholders who may help with improvement of the PIP study indicator rates.	Contractors demonstrate sustained improvement when they maintain, or increase, improvements in performance for at least one year after the improvement is first achieved. CYE 2017 reflected Remeasurement Year 2 data for all lines of business, with the exception of the RBHA Contractors. Based on the CYE 2017 Rates, AHCCCS considered the *E-Prescribing* PIP closed for all Contractors with the exception of the aforementioned RBHAs. While the PIP remained open for the RBHAs, CYE 2018 rates demonstrated improvement from previous years (Baseline Year/ Remeasurement Year 1). Therefore, this workgroup did not occur during CYE 2019.
AHCCCS may want to consider requiring, for the RBHA Contractors, new PIPs that pertain to aspects of the ACC activities.	AHCCCS is currently considering potential PIP topics for the ACC and RBHA Contractors that will align with the behavioral health aspects of system integration and ACC.

Table 1-15 presents a summary of the follow-up actions per activity that the RBHA Contractors reported completing in response to HSAG's recommendations included in the *CYE 2018 RBHA Technical Report*.

Additionally, the text located after each HSAG recommendation box was submitted by the Contractor.

Table 1-15—CIC's Responses to HSAG's Follow-Up Recommendations

CIC
Operational Review
HSAG Recommendations: • Contractors should continue to conduct internal reviews of operational systems to identify barriers that impact compliance with AHCCCS standards, State rules, and federal

CIC
regulations. Specifically, Contractors should ensure that existing policies, procedures, and information distributed to providers, subcontractors, and members with AHCCCS requirements are cross-referenced with AHCCCS standards, State rules, and federal regulations. • Contractors should continue to assess current monitoring processes and activities to identify strengths and opportunities for improvement within operational processes. In addition, Contractors should implement periodic assessments of those elements reviewed by AHCCCS for which Contractors are found deficient and develop mechanisms to address such areas and enhance existing procedures. • Contractors should continue to implement control systems to address specific findings in the MCH standard related to women's preventative care services to ensure that services are provided in accordance with the AHCCCS Medical Policy Manual as this was a finding for both RBHA Contractors.
The OR conducted for CYE 2018 identified issues in seven of the OR standard areas: CIS, DS, GA, MCH, MM, MI, and QM. Out of the seven OR standards identified, only three (CIS, GA, and MCH) did not meet the 95 percent threshold. Due to these identified issues and scoring less than 95 percent in three standard areas, CAPs were created and approved by AHCCCS immediately following the notification of results to AzCH-RBHA. All of the CAPs required have been subsequently approved and closed through AHCCCS. AzCH created policies and procedures and continues to review them for ongoing training purposes to ensure full compliance with AHCCCS standards, State rules, and federal regulations.
Performance Measures
HSAG Recommendations: • Although the *Adults' Access to Preventive/Ambulatory Health Services* performance measure rates are considered an area of strength, the rates for CIC and the RBHA Integrated SMI Contractors aggregate declined significantly from CYE 2016 to CYE 2017. Despite the high performance for this measure, the cause of this decline should be assessed to ensure that performance stays above the MPS in future years. • The RBHA Integrated SMI Contractors should focus efforts on identifying the factors contributing to low rates for these measures and implement improvement strategies to increase screenings for breast cancer and chlamydia in women and follow-up visits after hospitalization for mental illness.
CIC relies on the QM/PI Committee as the body that reviews, monitors, evaluates, and develops interventions targeted at performance measures. The QM/PI Committee is structured to ensure data drill-down is completed with root cause analysis, and PDSA cycles are developed to drive intervention development and implementation. Focused interventions on improvement of performance measures are developed within the performance improvement team. The QI Subcommittee met quarterly during CY 2019 and reported on all AHCCCS-mandated performance standards, with particular focus and emphasis on interventions and

CIC
impact to the *Breast Cancer Screening, Cervical Cancer Screening,* and *Chlamydia Screening in Women* and *Follow-Up After Hospitalization* (FUH) measures. The Coordination of Care Performance Improvement Plan (COC-PIP), approved by AHCCCS, instituted the intervention year during CY 2018 and has continued through CY 2019. Performance measures make up one indicator for this plan, for which we have included breast cancer, cervical cancer, and chlamydia screenings. CIC has implemented two specific system-level interventions to sustain performance measure impact through coordination of care including actively engaging PCPs into a collaborative AzCH Integrated Care COC process; and HIE implementation. Both of these interventions aim to ensure health homes, PCPs, and specialists remain connected and communicate the completion of, or barriers to, completing health screenings as well as ongoing communication for follow-up when members are due for breast cancer, cervical cancer, and chlamydia screenings or other performance measures. Additionally, through the Population Health Administer program, CIC provided best practices and technical guidance to providers on understanding and tracking which members are eligible for and need breast cancer, cervical cancer, and chlamydia screening(s) completed. CIC has created the transitions of care management team (TCM), which provides intensive discharge planning assistance for high-risk members who do not have a case manager assignment. During the member's inpatient stay, the TCM team coordinates with both the member and the inpatient treatment team to develop a comprehensive and attainable discharge plan. The TCM team follows the member for up to seven days post discharge. If the team determines that the member needs additional support beyond the seven days, the TCM team will complete a warm handoff to care management. In addition to the TCM team's efforts, care management has two staff co-located at two high-volume hospitals to provide assistance in discharge planning and coordination of care. As a part of the COC-PIP, CIC identified a community agency with low FUH rates and partnered with that agency to pilot a program. Starting in June 2019, the health home opened a 23-hour facility, which they will utilize for members who present to the emergency department (ED) or the hospital but do not have acute symptoms to meet admission criteria. The health home will transport those members from the hospital to their facility and provide services, as well as assist in coordination with their care team for the following day. CIC developed provider materials containing information on the FUH measures and includes suggested best practices toward engaging the member to complete these follow-up appointments. CIC has instituted a member outreach program utilizing IVR calls, email, and text (SMS) messaging with a specific campaign directed at members with care gaps for breast cancer, cervical cancer, and chlamydia screenings, as well as members who need preventive care visits. These campaigns have a two-pronged approach. The first set of outreach approaches consist of an IVR call and an email with the focus on education of what are the screenings and/or well visits and why the member should complete them. The second set of outreach approaches consist of an email and a text (SMS) message with the focus on reminding the members of the need to obtain their needed screenings and preventive care visits.

CIC
Quality management has instituted a multi-prong approach to utilize AHCCCS-approved letters, flyers, emails, and events to educate and remind members of the importance of getting needed health screenings and complete their preventive care visits. Quality management continues to develop and refine training materials, which include quick reference guides and AHCCCS-approved member-facing materials for case management use when talking to members about care gaps. In conjunction with the case management team, the QI team created and instituted gap closure letters for adult preventive screenings, including, but not limited to breast and cervical cancer screenings. These letters are available within the electronic health record so the case manager, when completing a call with a member, can send a screening reminder timely. CIC implemented a new member incentive program in the first quarter of CYE 2019 offering a $25 member gift card per service (not to exceed $75) when members complete specific healthy activities. Cervical cancer screenings are an eligible screening to receive the $25 incentive. Because of the nature of well-woman exams, it is likely that a member will complete the chlamydia screening concurrently with an incentivized completion of the cervical cancer screening. CIC set up a mobile mammogram event in Tucson, Arizona, to increase access for members who are in need of their mammogram. CIC plans to hold another event during Q1, CY 2020. QI has developed a calendar of interventions for these measures in partnership with care management, pharmacy, provider engagement, and the payment innovations teams. These interventions incorporate lessons learned from previous PDSA projects and target both member and provider interventions.
Performance Improvement Projects
HSAG Recommendations: • RBHA Contractors are encouraged to monitor the progress of the PIP interventions employed to increase providers prescribing electronically and prescriptions sent electronically, and then adjust interventions as needed to ensure that the rates continue to increase by statistically significant amounts during the second remeasurement period. • HSAG recommends that CIC provide monthly updates on interventions at the chief executive officer (CEO) meetings, especially the financial incentive and CAP interventions.
Monitoring and evaluation efforts continue to drive identification of provider deficiencies and best practices to ensure targeted education and interventions are successful at continuing to improve e-prescribing metrics. The pharmacy department will also continue to partner with various CIC departments (e.g. Provider Engagement, Quality Management) to ensure messaging and support to AHCCCS contracted providers is consistent and ongoing. CIC has continued to show improvement in e-prescribing rates for both indicators tracked by AHCCCS: percentage of AHCCCS-contracted prescribers using e-prescriptions and percentage of prescriptions submitted by AHCCCS contracted prescribers electronically. Compared to baseline year rates for both the GMH/SU and SMI populations, both AHCCCS

CIC
tracking indicators showed improvement over Remeasurement Years 1 and 2. Both indicators for GMH/SU and SMI populations have exceeded the AHCCCS mandated minimum performance standards throughout CY 2019. Additionally, CIC has been tracking and targeting interventions surrounding indicators stratified by age and geographical county that address the percentage of prescriptions submitted electronically to a pharmacy. Again, all stratified indicators for both the SMI and GMH/SU populations have shown improvement over baseline rates in both Remeasurement Year 1 and Remeasurement Year 2. CIC engaged heavily in the *E-Prescribing* PIP and showed ongoing quarterly improvement over both remeasurement periods. Interventions in CY 2018 targeted ongoing provider education. Beginning in February 2018, CIC actively engaged providers who encountered barriers or issues with e-prescribing through TA support and guidance. The improvement in e-prescribing utilization can be reasonably attributed to interventions, including extensive and ongoing quarterly education of and TA to Medical Directors and individual prescribers by CIC pharmacy staff, and issuance of CAPs to providers in need of additional support. In addition, financial incentives supported improvement, notably inclusion of e-prescribing incentive as a value-based payment measure effective Quarter 3 (Q3) CY 2017.

Table 1-16—HCIC's Responses to HSAG's Follow-Up Recommendations

HCIC
Operational Review
HSAG Recommendations: • Contractors should continue to conduct internal reviews of operational systems to identify barriers that impact compliance with AHCCCS standards, State rules, and federal regulations. Specifically, Contractors should ensure existing policies, procedures, and information distributed to providers, subcontractors, and members with AHCCCS requirements are cross-referenced with AHCCCS standards, State rules, and federal regulations. • Contractors should continue to assess current monitoring processes and activities to identify strengths and opportunities for improvement within operational processes. In addition, Contractors should implement periodic assessments of those elements reviewed by AHCCCS for which Contractors are found deficient and develop mechanisms to address such areas and enhance existing procedures. • Contractors should apply lessons learned from improving performance for one category of standards to other categories. For example, Contractors should look at CAPs completed from previous ORs to determine best practices specific to their organizations to identify and correct policies, procedures, and practices so as to address deficient standards and monitor subsequent compliance. Further, Contractors should use opportunities to address and discuss issues identified during ORs. • Contractors should continue to implement control systems to address specific findings in the MCH standard related to the women's preventative care services to ensure that services

HCIC
are provided in accordance with the AHCCCS Medical Policy Manual, as this was a finding for all RBHA Contractors.
HCIC institutes a comprehensive compliance program, including the seven elements of a compliance program per industry standards (including internal monitoring and auditing). HCIC maintains a Compliance Committee Meeting template/format that includes a summary of tracking/monitoring of routine activities (such as deliverables, policies and procedures, fraud, waste, and abuse referrals, CAPs, and risk items). HCIC engages in various routine monitoring of operational functions (which ultimately are collectively reported to the State by way of scheduled deliverables). HCIC's performance as reported via these deliverables is then rolled up into the Compliance Committee Meeting, reflected in each Compliance Committee Meeting packet. HCIC updated Policy IBH.7.113, Provider Service Rep Training, to reference training for provider inquiry handling and tracking (including resolution time frames), internal procedures for initiating contracting or AHCCCS registration, claim submission methods and resources, and claim dispute and appeal procedures. HCIC revised Policy IBH.16.013 to clarify that the AZ OB Ambulatory Medical Record Review audits conducted by the third-party vendor include both OB/GYN and PCP records in an effort to monitor the provision of well-woman services. HCIC addressed AHCCCS' follow-up comments received and revised documents accordingly. • HCIC revised IBH.16.013 to: – Ensure it accurately details the covered services included as part of the well-woman preventive care visit (in accordance with AMPM 411 Section C-1). – More specifically address provider monitoring activities. While cervical cancer screening and mammograms are HEDIS measures, HCIC still uses this data in part in its monitoring of well-woman service utilization. – Provide more information about the methods HCIC uses for member outreach related to women's preventive benefits, including mention of services being available at no cost to the member and assistance with appointment scheduling and arrangement of medically necessary transportation. – Provide more information about the methods HCIC uses for provider education and outreach related to women's preventive care. • HCIC created a new chapter in the Provider Manual (Chapter 4.5) to address well-woman preventive care benefits, requirements, and provider monitoring. • HCIC drafted an informational handout about women's preventive care benefits. Once approved, it will be mailed to members within 30 days of enrollment and annually to educate members about their well-woman benefits to comply with AMPM Policy 411 Section B-3. • Provider outreach was enhanced through the revision of the IBH.16.013—Women's Preventive Care Services policy and procedure, the Provider Manual, Chapter 4.0—

HCIC
Covered Services, and through the Provider Newsletter sample addressing women's preventive care services. • Monitoring included: – Revision of IBH.16.013—Women's Preventive Care Services policy and procedure – Revision of IBH.9.002—Medical Record Review policy and procedure – Ambulatory Medical Record Review Tool: AZ OB Audit Tool 2017 • Member Outreach included: – Revision of IBH.16.013—Women's Preventive Care Services policy and procedure – Member Newsletter addressing women's preventive care services
Performance Measures
HSAG Recommendations: • The Contractors should conduct root cause analyses for the low rates of follow-up visits after hospitalization for mental illness to determine the nature and scope of the issue (e.g., barriers to care, lack of continuity of care, transportation issues, ineffective communication). After the key factors related to the low rates are identified, the Contractors should work with providers and members to establish potential performance improvement strategies and solutions to increase follow-up visits and improve member transitions of care. • The RBHA Integrated SMI Contractors should examine potential barriers to women receiving breast cancer and chlamydia screenings to understand the cause of the low rates (e.g., provider misconceptions, lack of education, member anxiety). Once the causes are identified, AHCCCS and the RBHA Integrated SMI Contractors should ensure that members receive screenings in accordance with the U.S. Preventive Services Task Force (USPSTF) screening recommendations for breast cancer and chlamydia in women.
HCIC reviewed previous methods of tracking follow-up appointments; the review revealed that a number of members receive follow-up after hospitalization that does not meet the criteria to count in the numerator for this measure because they either take place with incorrect staff or are billed using codes that do not meet the criteria for the measure. A review of recently discharged members uncovered inconsistencies in appointments scheduled by discharging hospitals. It is not clear that all hospitals understand the requirements related to follow-up after discharge. A review of individual cases for purposes of root cause analysis was not able to uncover any single clear barrier to a member attending follow-up appointments, as each case is complex and the barriers unique. There also does not exist at this time a platform specifically designed for the discussion of these barriers within the system of care.
Performance Improvement Projects
HSAG Recommendations:

HCIC
• The RBHA Contractors may want to use the quarterly collaboration meetings with stakeholders as opportunities to identify and address systemwide barriers to the PIP process, which may be impacting ability to achieve meaningful improvement. • The RBHA Contractors should continue to identify and prioritize barriers so as to develop robust interventions for the *E-Prescribing* PIP. • The RBHA Contractors are encouraged to monitor the progress of the PIP interventions employed to increase providers prescribing electronically and prescriptions sent electronically, and then adjust interventions as needed to ensure that the rates continue to increase by statistically significant amounts during the second remeasurement period.
HCIC participated in Health Current (formerly AzHec) in order to discuss and identify statewide barriers to e-prescribing. This was targeted internally to help bring HCIC expectations in line with the expectations of the other health plans. As part of HCIC's larger project to incentivize health homes and move toward value-based purchasing, HCIC started an incentive for health homes that e-prescribe 65 percent or more of their prescriptions. This is to encourage participation in e-prescribing. It is designed to encourage buy-in from agencies as a whole, and to encourage systems that support providers' use of e-prescribing. HCIC's overall number and percent of e-prescriptions from the first remeasurement to the second remeasurement showed a 10.81 percent increase in the rate of prescriptions sent electronically overall.

Table 1-17—MMIC's Responses to HSAG's Follow-Up Recommendations

MMIC
Performance Measures
HSAG Recommendations: • HSAG recommends that AHCCCS work with the GMH/SU and RBHA Integrated SMI Contractors to increase rates for the *Follow-Up After Hospitalization for Mental Illness* performance measure that failed to meet the CYE 2017 MPS. AHCCCS and the Contractors should conduct root cause analyses for the low rates of follow-up visits after hospitalization for mental illness to determine the nature and scope of the issue (e.g., barriers to care, lack of continuity of care, transportation issues, ineffective communication). • Following a member's discharge from an inpatient admission, Contractors should perform a follow-up call with that member within three days to address any questions or concerns and to discuss progress of the care plan. AHCCCS and the GMH/SU Contractors should ensure that these follow-up calls are being conducted and confirm during each call that the member has a follow-up visit scheduled with a mental health practitioner and access to necessary community resources.

MMIC
MMIC will continue to monitor the follow-up after hospitalization rates quarterly for statistically significant changes. As needed, MMIC will apply the PDSA model to assess the need to modify existing interventions or implement new interventions. Based on the improved outcomes, the current interventions will be continued.
HSAG Recommendation: Additionally, HSAG recommends that AHCCCS work with the RBHA Integrated SMI Contractors to increase preventive screenings for women. AHCCCS and the RBHA Integrated SMI Contractors should examine potential barriers to women receiving breast cancer and chlamydia screenings to understand the cause of the low rates (e.g., provider misconceptions, lack of education, member anxiety).
Based on the improved outcomes for the *Cervical Cancer Screening* and *Chlamydia Screening in Women* measures, the current interventions will be continued. MMIC will continue its current interventions for the *Breast Cancer Screening* measure, including sending birthday reminder notices to members needing well-woman screenings. MMIC has also recently included the SMI population in existing MMIC breast cancer screening interventions and outreaches, which MMIC has proven successful in improving rates for these measures in other populations, and will continue the interventions during CYE 2020.

AHCCCS
Arizona Health Care Cost Containment System

APPENDIX C:
BUDGET NEUTRALITY REPORT

Arizona Health Care Cost Containment System
Budget Neutrality Status by Federal Fiscal Year
Total Funds - All Populations
For the Period October 1, 2011 - September 30, 2016
Updated 10/19

Without Waiver Expenditure Limit Calculation	Actual 2012 DY 1	Actual 2013 DY 2	Actual 2014 DY 3	Actual 2015 DY 4	Estimate 2016 DY 5	Total
Member Months						
TANF/SOBRA	11,704,352	11,622,919	11,797,802	12,538,049	13,087,930	60,751,052
SSI	1,957,433	1,995,474	2,075,547	2,174,958	2,214,163	10,417,575
AC	1,633,495	969,125	206,508	-	-	2,809,128
ALTCS-EPD	343,281	346,428	353,798	359,999	359,110	1,762,616
ALTCS-DD	294,427	307,374	320,872	336,869	350,821	1,610,363
Family Planning Extension	50,024	55,971	14,885	-	-	120,880
Expansion State Adults		-	1,822,917	3,359,603	3,705,353	8,887,873
Combined	15,983,012	15,297,291	16,592,329	18,769,478	19,717,377	86,359,487
Without Waiver PMPM						
TANF/SOBRA	585.28	615.71	647.73	681.41	716.85	651.42
SSI	885.41	938.53	994.84	1,054.53	1,117.81	1,002.09
AC	562.30	600.57	600.08	-	-	608.25
ALTCS-EPD	4,737.37	4,983.71	5,242.86	5,515.49	5,802.30	5,263.14
ALTCS-DD	4,922.38	5,217.72	5,530.78	5,862.63	6,214.39	5,578.13
Family Planning Extension	16.60	18.01	12.77	-	-	16.78
Expansion State Adults	-	-	623.83	579.09	579.03	588.24
Weighted	786.98	846.07	879.78	893.96	928.85	870.92
Without Waiver Expenditure Limit						
TANF/SOBRA	6,850,319,393	7,156,396,545	7,641,806,370	8,543,594,521	9,382,041,921	39,574,158,751
SSI	1,733,125,663	1,872,815,893	2,064,844,970	2,293,567,986	2,475,005,667	10,439,360,179
AC	918,520,667	582,023,481	123,922,054	36,049,882	48,139,177	1,708,655,261
ALTCS-EPD	1,626,248,054	1,726,496,688	1,854,914,415	1,985,571,530	2,083,663,007	9,276,893,693
ALTCS-DD	1,449,280,104	1,603,790,699	1,774,672,617	1,974,937,424	2,180,136,769	8,982,817,613
Family Planning Extension	830,631	1,008,110	190,026	-	-	2,028,767
Expansion State Adults	-	-	1,137,188,645	1,945,504,765	2,145,499,317	5,228,192,727
Total	12,578,324,512	12,942,531,416	14,597,539,097	16,779,226,108	18,314,485,858	75,212,106,990
DSH Allotment	154,369,963	161,973,765	160,771,261	160,408,856	159,816,238	797,340,083
Total Without Waiver Expenditure Limi	12,732,694,475	13,104,505,181	14,758,310,358	16,939,634,964	18,474,302,096	76,009,447,074
With Waiver Expenditures						
TANF/SOBRA	3,415,708,532	3,582,361,477	3,539,898,256	3,600,524,014	3,982,347,227	18,120,839,506
SSI	1,349,499,952	1,426,826,711	1,545,627,761	1,739,284,853	1,848,114,631	7,909,353,908
AC	918,520,667	582,023,481	123,922,054	36,049,882	48,139,177	1,708,655,261
ALTCS-EPD	1,061,603,724	1,166,651,266	1,195,332,840	1,243,620,369	1,262,822,459	5,930,030,658
ALTCS-DD	939,086,691	1,005,552,496	1,067,544,797	1,170,346,154	1,252,959,914	5,435,490,052
Family Planning Extension	830,631	1,008,110	190,026	-	-	2,028,767
Expansion State Adults	-	-	1,137,188,645	1,945,504,765	2,145,499,317	5,228,192,727
AI/AN Uncompensated Care	22,866,717	97,192,513	53,888,765	13,437,080	7,647,155	195,032,230
SNCP/DSHP	296,636,120	558,334,298	240,250,917	135,561,857	116,750,000	1,347,533,192
Expenditure Subtotal	8,004,753,034	8,419,950,352	8,903,844,061	9,884,328,974	10,664,279,880	45,877,156,301
DSH	155,762,651	163,280,200	162,283,023	152,801,559	170,272,775	804,400,208
Total With Waiver Expenditures	8,160,515,685	8,583,230,552	9,066,127,084	10,037,130,533	10,834,552,655	46,681,556,509
With Waiver Expenditure PMPMs						
TANF/SOBRA	291.83	308.22	300.05	287.17	304.28	
SSI	689.42	715.03	744.68	799.69	834.68	
AC	562.30	600.57	600.08	-	-	
ALTCS-EPD	3,092.52	3,367.66	3,378.57	3,454.51	3,516.53	
ALTCS-DD	3,189.54	3,271.43	3,327.01	3,474.19	3,571.51	
Family Planning Extension	16.60	18.01	12.77	-	-	
Expansion State Adults	-	-	623.83	579.09	579.03	
Budget Neutrality Variance	4,572,178,790	4,521,274,629	5,692,183,274	6,902,504,431	7,639,749,441	**29,327,890,565**
Cumulative Variance	4,572,178,790	9,093,453,419	14,785,636,693	21,688,141,124	29,327,890,565	
Variance by Waiver Group						
TANF/SOBRA	3,434,610,861	3,574,035,068	4,101,908,114	4,943,070,507	5,399,694,694	21,453,319,245
SSI	383,625,711	445,989,182	519,217,209	554,283,133	626,891,036	2,530,006,271
AC	-	-	-	-	-	-
ALTCS-EPD	564,644,330	559,845,422	659,581,575	741,951,161	820,840,548	3,346,863,035
ALTCS-DD	510,193,413	598,238,203	707,127,820	804,591,270	927,176,855	3,547,327,561
Family Planning Extension	-	-	-	-	-	-
Expansion State Adults	-	-	-	-	-	-
DSH	(1,392,688)	(1,306,435)	(1,511,762)	7,607,297	(10,456,537)	(7,060,125)
AI/AN Uncompensated Care	(22,866,717)	(97,192,513)	(53,888,765)	(13,437,080)	(7,647,155)	(195,032,230)
SNCP/DSHP	(296,636,120)	(558,334,298)	(240,250,917)	(135,561,857)	(116,750,000)	(1,347,533,192)
	4,572,178,790	4,521,274,629	5,692,183,274	6,902,504,431	7,639,749,441	29,327,890,565
	480.84	507.57	518.90	518.68	534.55	
		5.6%	2.2%	0.0%	3.1%	

Arizona Health Care Cost Containment System
Budget Neutrality Status by Federal Fiscal Year
Total Funds - All Populations
For the Period October 1, 2016 - September 30, 2021
Updated 9/20

Without Waiver Expenditure Limit Calculation	Estimate 2017 DY 6	Estimate 2018 DY 7	Estimate 2019 DY 8	Estimate 2020 DY 9	Estimate 2021 DY 10	Total
Member Months						
TANF/SOBRA	13,482,714	12,917,762	12,664,544	13,634,561	14,043,897	66,743,478
SSI	2,241,231	2,275,213	2,290,383	2,270,211	2,440,426	11,517,464
ALTCS-EPD	362,059	369,046	383,832	375,790	373,863	1,864,590
ALTCS-DD	367,160	384,901	405,830	429,543	460,660	2,048,094
Newly Eligible Adults	1,344,121	1,303,370	1,288,157	1,354,338	1,542,792	6,832,778
Expansion State Adults	3,819,185	3,737,844	3,829,011	4,147,232	4,347,427	19,880,699
Combined	21,616,470	20,988,136	20,861,757	22,211,675	23,209,065	108,887,103
Without Waiver PMPM						
TANF/SOBRA	749.11	782.82	818.05	854.86	893.33	
SSI	1,162.52	1,209.02	1,257.38	1,307.68	1,359.99	
ALTCS-EPD	6,016.98	6,239.61	6,470.48	6,709.89	6,958.16	
ALTCS-DD	6,462.96	6,721.48	6,990.34	7,269.95	7,560.75	
Newly Eligible Adults	344.80	358.51	362.24	376.73	441.58	
Expansion State Adults	600.68	649.52	713.12	741.64	877.79	
Weighted	925.89	983.79	1,042.95	1,073.97	1,139.49	
Without Waiver Expenditure Limit						
TANF/SOBRA	10,100,035,885	10,112,282,449	10,360,230,219	11,655,640,800	12,545,834,500	54,774,023,853
SSI	2,605,475,862	2,750,778,021	2,879,881,777	2,968,709,500	3,318,955,000	14,523,800,160
ALTCS-EPD	2,178,501,762	2,302,703,112	2,483,577,279	2,521,509,600	2,601,398,600	12,087,690,353
ALTCS-DD	2,372,940,394	2,587,104,373	2,836,889,682	3,122,756,100	3,482,935,100	14,402,625,649
Newly Eligible Adults	463,446,215	467,267,022	466,619,567	510,219,800	681,258,800	2,588,811,404
Expansion State Adults	2,294,099,974	2,427,810,870	2,730,558,996	3,075,753,100	3,816,143,600	14,344,366,540
Total	20,014,500,091	20,647,945,848	21,757,757,520	23,854,588,900	26,446,525,600	112,721,317,959
DSH Allotment	160,509,328	162,832,936	166,932,007	169,491,286	120,105,286	779,870,843
Total Without Waiver Expenditure Limit	20,175,009,420	20,810,778,784	21,924,689,527	24,024,080,186	26,566,630,886	113,501,188,802
With Waiver Expenditures						
TANF/SOBRA	3,943,965,278	4,013,319,586	4,002,226,228	4,481,134,800	5,474,797,300	21,915,443,192
SSI	1,965,933,865	2,072,927,606	2,104,291,504	2,169,186,600	2,751,583,100	11,063,922,675
ALTCS-EPD	1,386,780,684	1,437,707,472	1,544,257,849	1,572,376,800	1,670,521,000	7,611,643,805
ALTCS-DD	1,382,278,096	1,568,572,942	1,813,888,664	1,996,670,500	2,282,371,900	9,043,782,102
Newly Eligible Adults	463,446,215	467,267,022	466,619,567	510,219,800	681,258,800	2,588,811,404
Expansion State Adults	2,294,099,974	2,427,810,870	2,730,558,996	3,075,753,100	3,816,143,600	14,344,366,540
DSHP	13,165,373	21,137,600	27,306,100	20,975,000	14,991,000	97,575,073
Targeted Investments	19,325,179	70,000,000	90,000,000	70,000,000	50,000,000	299,325,179
AI/AN Uncompensated Care	3,208,226	-	-	-	-	3,208,226
SNCP/DSHP	95,000,000	22,500,000	-	-	-	117,500,000
Expenditure Subtotal	11,567,202,890	12,101,243,098	12,779,148,908	13,896,316,600	16,741,666,700	67,085,578,196
DSH	160,509,328	162,832,936	166,932,007	169,491,286	120,105,286	779,870,843
Total With Waiver Expenditures	11,727,712,218	12,264,076,034	12,946,080,915	14,065,807,886	16,861,771,986	67,865,449,039
With Waiver Expenditure PMPMs						
TANF/SOBRA	292.52	310.68	316.02	328.66	389.83	
SSI	877.17	911.09	918.75	955.50	1,127.50	
ALTCS-EPD	3,830.26	3,895.74	4,023.26	4,184.19	4,468.27	
ALTCS-DD	3,764.78	4,075.26	4,469.58	4,648.36	4,954.57	
Newly Eligible Adults	344.80	358.51	362.24	376.73	441.58	
Expansion State Adults	600.68	649.52	713.12	741.64	877.79	
DY1-DY5 BN Carry-over 29,327,890,565						
DY6-DY10 BN Variance	8,447,297,201	8,546,702,750	8,978,608,612	9,958,272,300	9,704,858,900	
Phase-Down of DY6-DY10 Variance	2,111,824,300	2,136,675,687	2,244,652,153	2,489,568,075	2,426,214,725	
Cumulative DY-DY10 Variance	31,439,714,865	33,576,390,552	35,821,042,705	38,310,610,780	40,736,825,505	**40,736,825,505**
Variance by Waiver Group						
TANF/SOBRA	6,156,070,607	6,098,962,863	6,358,003,991	7,174,506,000	7,071,037,200	32,858,580,661
SSI	639,541,997	677,850,415	775,590,273	799,522,900	567,371,900	3,459,877,485
ALTCS-EPD	791,721,078	864,995,640	939,319,430	949,132,800	930,877,600	4,476,046,548
ALTCS-DD	990,662,298	1,018,531,431	1,023,001,018	1,126,085,600	1,200,563,200	5,358,843,547
Newly Eligible Adults	-	-	-	-	-	-
Expansion State Adults	-	-	-	-	-	-
DSHP	(13,165,373)	(21,137,600)	(27,306,100)	(20,975,000)	(14,991,000)	(97,575,073)
Targeted Investments	(19,325,179)	(70,000,000)	(90,000,000)	(70,000,000)	(50,000,000)	(299,325,179)
AI/AN Uncompensated Care	(3,208,226)	-	-	-	-	(3,208,226)
SNCP/DSHP	(95,000,000)	(22,500,000)	-	-	-	(117,500,000)
	8,447,297,201	8,546,702,750	8,978,608,612	9,958,272,300	9,704,858,900	45,635,739,763

Arizona Health Care Cost Containment System
Budget Neutrality Status by Federal Fiscal Year
Total Funds - All Populations
For the Period October 1, 2021 - September 30, 2026
Updated 9/20

Without Waiver Expenditure Limit Calculation	Estimate 2022 DY 1	Estimate 2023 DY 2	Estimate 2024 DY 3	Estimate 2025 DY 4	Estimate 2026 DY 5	Total
Member Months						
TANF/SOBRA	14,324,775	14,611,270	14,903,496	15,201,566	15,505,597	74,546,704
SSI	2,489,235	2,539,019	2,589,800	2,641,596	2,694,427	12,954,076
ALTCS-EPD	381,340	388,967	396,746	404,681	412,775	1,984,510
ALTCS-DD	469,873	479,271	488,856	498,633	508,606	2,445,239
Newly Eligible Adults	1,573,648	1,605,121	1,637,223	1,669,968	1,703,367	8,189,327
Expansion State Adults	4,434,376	4,523,063	4,613,524	4,705,795	4,799,911	23,076,668
Combined	23,673,246	24,146,711	24,629,645	25,122,238	25,624,683	123,196,524
Without Waiver PMPM						
TANF/SOBRA	408.44	428.07	448.88	470.92	493.95	
SSI	1,179.51	1,233.02	1,290.26	1,350.61	1,413.43	
ALTCS-EPD	4,674.37	4,886.45	5,113.28	5,352.44	5,601.39	
ALTCS-DD	5,193.99	5,455.93	5,735.58	6,031.85	6,342.55	
Newly Eligible Adults	462.45	484.55	507.87	532.67	558.68	
Expansion State Adults	919.30	963.22	1,009.58	1,058.87	1,110.59	
Weighted	752.50	788.32	826.37	866.67	908.80	
Without Waiver Expenditure Limit						
TANF/SOBRA	5,850,803,114	6,254,703,864	6,689,826,264	7,158,751,246	7,659,043,614	33,613,128,101
SSI	2,936,072,619	3,130,666,106	3,341,515,523	3,567,760,736	3,808,378,051	16,784,393,035
ALTCS-EPD	1,782,526,927	1,900,667,101	2,028,676,457	2,166,032,795	2,312,114,619	10,190,017,898
ALTCS-DD	2,440,516,301	2,614,867,073	2,803,873,559	3,007,680,279	3,225,857,299	14,092,794,510
Newly Eligible Adults	727,737,815	777,762,588	831,495,537	889,534,052	951,640,521	4,178,170,514
Expansion State Adults	4,076,500,747	4,356,719,827	4,657,710,658	4,982,819,569	5,330,715,560	23,404,466,360
Total	17,814,157,522	19,035,386,558	20,353,097,998	21,772,578,676	23,287,749,663	102,262,970,417
DSH Allotment	70,805,286	74,800,143	78,885,143	83,062,143	87,460,300	395,013,014
Total Without Waiver Expenditure Limit	17,884,962,807	19,110,186,701	20,431,983,141	21,855,640,819	23,375,209,963	102,657,983,432
With Waiver Expenditures						
TANF/SOBRA	5,818,833,600	6,208,229,900	6,592,022,700	7,066,780,200	7,633,394,600	33,319,261,000
SSI	2,924,492,600	3,120,199,600	3,313,090,400	3,551,699,100	3,836,474,400	16,745,956,100
ALTCS-EPD	1,775,496,500	1,894,312,800	2,011,419,200	2,156,281,600	2,329,172,300	10,166,682,400
ALTCS-DD	2,425,796,200	2,588,130,400	2,748,128,700	2,946,048,900	3,182,263,100	13,890,367,300
Newly Eligible Adults	724,069,100	772,523,800	820,281,200	879,357,900	949,864,800	4,146,096,800
Expansion State Adults	4,055,950,100	4,327,374,200	4,594,892,500	4,925,816,700	5,320,768,700	23,224,802,200
Targeted Investment 2	18,500,000	36,000,000	48,000,000	36,000,000	21,500,000	160,000,000
Traditional Healing	21,723,600	21,723,600	21,723,600	21,723,600	21,723,600	108,618,000
Native American Adult Dental	74,200	97,500	103,300	114,800	121,100	510,900
Expenditure Subtotal	17,764,935,900	18,968,591,800	20,149,661,600	21,583,822,800	23,295,282,600	101,762,294,700
DSH	70,805,286	74,800,143	78,885,143	83,062,143	87,460,300	395,013,014
Total With Waiver Expenditures	17,835,741,186	19,043,391,943	20,228,546,743	21,666,884,943	23,382,742,900	102,157,307,714
With Waiver Expenditure PMPMs						
TANF/SOBRA	406.21	424.89	442.31	464.87	492.30	
SSI	1,174.86	1,228.90	1,279.28	1,344.53	1,423.86	
ALTCS-EPD	4,655.94	4,870.11	5,069.79	5,328.34	5,642.72	
ALTCS-DD	5,162.66	5,400.14	5,621.55	5,908.25	6,256.84	
Newly Eligible Adults	460.12	481.29	501.02	526.57	557.64	
Expansion State Adults	914.66	956.74	995.96	1,046.76	1,108.51	
DY6-DY10 BN Carry-over 11,408,934,941						
DY1-DY6 BN Variance	49,221,622	66,794,758	203,436,398	188,755,876	(7,532,937)	
Phase-Down of DY1-DY5 Variance	12,305,405	16,698,690	50,859,100	47,188,969	-	
Cumulative DY-DY5Variance	11,421,240,346	11,437,939,036	11,488,798,135	11,535,987,104	11,528,454,168	**11,528,454,168**

ARIZONA HEALTH CARE COST CONTAINMENT SYSTEM
BUDGET NEUTRALITY UPDATE NOTES

All amounts are for demonstration purposes only. Actual Budget Neutrality model will be negotiated with CMS over the next twelve months.

2017-2021 Assumptions

1) Actual through third quarter of FFY20

2) Budget assumptions for last quarter of FFY20 and all of FFY21

3) FFY21 includes new hospital assessment projected TF spend of $1.640 billion

4) In accordance with State Medicaid Director Letter (#18-009; August 22, 2018) the state is only allowed to carry over 25% of the most recent five years variance.

2022-2026 Assumptions

1) Population growth of 2.0% annually

2) Growth in WOW PMPMs based on DHHS 2018 Medicaid Actuarial Report (Table 22)

FFY22	FFY23	FFY24	FFY25	FFY26
4.7%	4.8%	4.8%	4.9%	4.9%

3) Growth in WW PMPMs based on AHCCCS Budget for FY22 and then for FY23-FY26 the CMS Office of the Actuary NHE for Medicaid (Table 17)

FFY22	FFY23	FFY24	FFY25	FFY26
4.2%	4.6%	4.1%	5.1%	5.9%

4) DSH assumes that the reductions, as defined in the Cares Act, will take place beginning in FFY21.