



**Arizona's Application for a
New Section 1115 Demonstration
Section I – Program Description**



Modernizing Arizona Medicaid

Arizona's application for a new demonstration includes multiple components. The application reflects Arizona Governor Doug Ducey's vision for a modernized Medicaid program that does more than simply try to adapt to changing times in health care. This proposal is designed to build upon past successes and recognize new opportunities for member engagement, system reform, and long-term sustainability.

PART I

AHCCCS CARE: Choice, Accountability, Responsibility, Engagement

Today's climate presents unique opportunities to further innovation and change within the existing Medicaid program, the Arizona Health Care Cost Containment System (AHCCCS). Because AHCCCS is rooted in a public/private partnership, mainstreams its members, and touches so many lives, changes within the AHCCCS program can also have a positive and transformative effect across Arizona's entire health care system and its citizenry.

Key to transforming health care in Arizona is the ability to move away from federal prescriptions that hamper private sector innovation. Historically, Arizona has been able to achieve this flexibility through its Section 1115 Research and Demonstration Waiver (the "Waiver"). Building upon this platform is the right approach from which to launch a new version of Medicaid for Arizona.

Some people still have an antiquated view of what Medicaid is and who the Medicaid member is. Today's Medicaid program in Arizona engages private health plans that use sophisticated technology and data analytics tools to assess members' health needs and develop person-centered approaches to manage chronic illness and promote prevention and wellness. The face of Medicaid has also changed, serving nearly as many adults as children and persons with disabilities. Accordingly, Medicaid has a far greater responsibility for impacting population health. Even though a snap shot of today's AHCCCS enrollment shows over 1.7 million members, the AHCCCS program served approximately 2 million unique Arizonans at some point in time during the course of a year.

We have an opportunity and obligation to do more. We have the tools to truly modernize Medicaid. The goal of AHCCCS CARE is to: (1) Engage Arizonans to take charge of their health; (2) Make Medicaid a temporary option; and (3) Promote a quality product at the most affordable price.

The AHCCCS CARE Program: A Bridge to Independence

The AHCCCS CARE program uses personal responsibility not as a penalty, but a tool to build a bridge to independence. Members must contribute financially in order to more actively manage their own health. They also need the right tools that allow individuals to access the health care they need on their own terms. Building a healthy balance between requirements and incentives is the AHCCCS CARE approach. Arizona's proposal seeks to require

participation in AHCCCS CARE for persons in the New Adult Group as well as TANF Parents.

AHCCCS CARE: Requiring Member Contributions

- **Copays:** Up to 3% of annual household income. Members will make monthly AHCCCS CARE payments reflecting copays for services already obtained. This also removes the burden of collecting the copay by providers at the point of service. Copayments will serve as a program offset.
- **Premiums:** Up to 2% of annual household income. Included in the monthly AHCCCS CARE payment is a premium requirement set at 2% of income.
- Member contributions do not exceed 5% of annual household income.

Employing Strategic Copays

Copays would be strategically implemented to steer members to the right care at the right setting.

- **No Copays:**
 - Preventive Services
 - Wellness
 - Services to manage chronic illness
 - Persons with Serious Mental Illness
 - Services obtained at your PCP or OB-GYN's office
- **Copay Required:**
 - Non-Emergency use of the Emergency Department
 - Use of opioids except for persons who have cancer or are diagnosed as terminally ill
 - Missed Appointments – There is a code for missed appointments, so providers should submit a claim showing a missed appointment. Copayments will be assessed and added to the member's invoice for what they would have paid for that service.
 - Accessing specialist services without a referral from your PCP. Once a PCP refers to the specialist, the member can go to follow up appointments as needed without additional referrals.
 - Use of brand name drugs when a generic is available, unless the physician has determined that the generic drug is ineffective.

The AHCCCS CARE Account: Giving People Tools to Manage Their Own Health

- The AHCCCS CARE Account is like a Health Savings Account.
- Contributions for premiums go into the AHCCCS CARE Account, which can be used for non-covered services, like dental, vision or chiropractic services.
- Members must be in good standing to be eligible for the AHCCCS CARE Account by: making timely payments; participating in AHCCCS Works; meeting the Healthy Arizona targets.
- Employers and the Philanthropic community can make AHCCCS CARE Account contributions.

Personal Responsibility: Enforcing Member Contribution Requirements

- Over 100% FPL: Members will be disenrolled from the AHCCCS program for a period of six months for failure to make AHCCCS CARE payments.
- Under 100%: Failure to make AHCCCS CARE payments is counted as a debt owed to the State. AHCCCS will work with the Arizona Department of Revenue as to how best to operationalize this aspect of the program.

Healthy Arizona: Promoting Healthy Behaviors

Healthy Arizona is part of the AHCCCS CARE program that sets simple yet important health goals for adult members. Engaging Arizonans in actively managing their health, providing health targets and then affording appropriate and responsible incentives for meeting those targets is a key component to the AHCCCS CARE program.

- Promoting healthy behaviors and proactive measures people can take to better manage their health is part of most corporate wellness programs, but has been missing in Medicaid.
- Healthy Arizona is a set of targets:
 - Promoting wellness: for example, wellness exams, flu shots, glucose screenings, mammograms, tobacco cessation.
 - Managing Chronic Disease: such as, diabetes, substance use disorders, asthma.
- If members meet their Healthy Arizona target, they have the choice of either:
 - Reducing their required AHCCCS CARE payments; or
 - Rolling unused AHCCCS CARE Account funds over into the next benefit year.
- Members can only access the funds in their AHCCCS CARE account if they have met at least one of the Healthy Arizona targets.
- Meeting additional targets may unlock added incentives through corporate and philanthropic partnerships the State is seeking.
- The idea is not to make managing a member's health onerous. Rather, Healthy Arizona sets simple and achievable health goals.

The AHCCCS Works Program: Viewing AHCCCS as a Pit Stop

The AHCCCS Works program builds in the needed element of promoting work within Medicaid and building greater partnerships with the businesses and philanthropic communities. We all share in the goal of healthy employees and healthy families. Now, we can take steps to truly make that happen.

AHCCCS Works: Getting Back to Work

- The Requirements: Per legislative directives like SB1092, all able-bodied individuals must be employed, actively seek employment or attend school or a job training program.
- Work Incentives: In addition, AHCCCS Works builds in Work Incentives.
 - Employers that contribute to their employee's AHCCCS CARE Account can reduce their employee's contribution requirements or that member can use their

- employer's contribution to build up funds in their AHCCCS CARE Account that can be used for non-covered services.
- The AHCCCS Works program will also partner with existing employment supports programs, like the program administered by the Arizona Department of Economic Security (DES) to provide members the tools they need to build their skills and find their confidence.
 - **Once a member's income exceeds AHCCCS eligibility, their AHCCCS CARE Account transfers to a private HSA account or can be maintained through the AHCCCS CARE administrator that they can continue to use.**

Private Sector Partnerships: Engaging the Business and Philanthropic Community

- Employers will be able to make direct contributions into their employees' AHCCCS CARE accounts that their employees can use toward non-covered services.
- The Philanthropic community can make contributions for targeted purposes, such as smoking cessation or managing chronic disease.
- Private sector contributions are tax-deductible.
- This builds upon the AHCCCS public/private model and provides an avenue for employers whose workforce is insured by Medicaid to promote a healthy workforce and mission-driven organizations to truly further their goals.

PART II

The Legislative Partnership

The Arizona Legislature is an important partner in the effort to modernize Medicaid. As part of the 2015 legislative session, the Arizona Legislature included a number of initiatives that form part of this application. The relevance of these requests is to engage the federal government and all stakeholders in a broader dialogue about the role of Medicaid and its long-term sustainability. These legislative directives also are designed to engage in a dialogue about aligning programs. As alignment is sought at the federal level between Medicaid, Medicare and the Marketplace, state legislatures are seeking to include issues like personal responsibility and flexibility as part of that effort.

The legislative directives that Arizona is seeking to include in this application are contained in two key pieces of legislation: Senate Bill 1475 and Senate Bill 1092. These directives are cited below.

Senate Bill 1475:

Sec. 19. AHCCCS; cost sharing requirements; rulemaking exemption

A. The Arizona health care cost containment system administration shall pursue cost sharing requirements for members to the maximum extent allowed under federal law.

B. Subject to approval by the centers for medicare and medicaid services, beginning January 1, 2016, the administration shall charge and collect from each person who is enrolled pursuant to section 36-2901.01, Arizona Revised Statutes:

1. A premium of two percent of the person's household income.
2. A copayment of eight dollars for nonemergency use of an emergency room for the first incident and twenty-five dollars for each subsequent incident if the person is not admitted to the hospital. The administration may not impose a copayment on a person who is admitted to the hospital by the emergency department.
3. A copayment of twenty-five dollars for nonemergency use of an emergency room for the first incident and twenty-five dollars for each subsequent incident if there is a community health center, rural health center or urgent care center within twenty miles of the hospital.

C. Subject to approval by the centers for medicare and medicaid services, beginning January 1, 2016, the administration shall charge and collect from each person who is enrolled pursuant to section 36-2901.07, Arizona Revised Statutes:

1. A premium of two percent of the person's household income.
2. A copayment of twenty-five dollars for nonemergency use of an emergency room if the person is not admitted to the hospital. The administration may not impose a copayment on a person who is admitted to the hospital by the emergency department.
3. A copayment of twenty-five dollars for nonemergency use of an emergency room if there is a community health center, rural health center or urgent care center within twenty miles of the hospital.
4. An exemption from providing nonemergency medical transportation services from October 1, 2015 to September 30, 2016.

D. For the purpose of implementing cost sharing pursuant to this section, the Arizona health care cost containment system administration is exempt from the rulemaking requirements of title 41, chapter 6, Arizona Revised Statutes, for one year after the effective date of this act.

Senate Bill 1092:

36-2903.09. Waivers; annual submittal; definitions

A. On or before March 30 of each year, the director shall apply to the centers for medicare and medicaid services for waivers or amendments to the current section 1115 waiver to allow this state to:

1. Institute a work requirement for all able-bodied adults receiving services pursuant to this article. The work requirement shall:
 - (a) Require an eligible person to either:
 - (i) Become employed.
 - (ii) Actively seek employment, which would be verified by the department.
 - (iii) Attend school or a job training program, or both, at least twenty hours per week.
 - (b) Require an eligible person to verify on a monthly basis compliance with requirements of subdivision (a) of this paragraph and any change in family income.
 - (c) Require the administration to confirm an eligible person's change in family income as reported under subdivision (b) of this paragraph and redetermine the person's eligibility under this article.

(d) Allow the administration to ban an eligible person from enrollment for one year if the eligible person knowingly failed to report a change in family income or made a false statement regarding compliance with the requirements of subdivision (a) of this paragraph.

(e) Allow for an exemption if a person meets any of the following conditions:

(i) Is at least nineteen years of age but is still attending high school as a full-time student.

(ii) Is the sole caregiver of a family member who is under six years of age.

(iii) Is currently receiving temporary or permanent long-term disability benefits from a private insurer or from the government.

(iv) Has been determined to be physically or mentally unfit for employment by a health care professional in accordance with rules adopted by the administration.

2. Place on able-bodied adults a lifetime limit of five years of benefits under this article that begins on the effective date of the waiver or amendment to the current section 1115 waiver and does not include any previous time a person received benefits under this article. The lifetime limit under this paragraph does not include any time during which the person meets any of the following conditions:

(a) Is pregnant.

(b) Is the sole caregiver of a family member who is under six years of age.

(c) Is currently receiving temporary or permanent long-term disability benefits from a private insurer or from the government.

(d) Is at least nineteen years of age but is still attending high school as a full-time student.

(e) Is employed full time but continues to meet the income eligibility requirements under this article.

(f) Is enrolled before reaching nineteen years of age.

(g) Is an eligible person as defined in section 36-2901, paragraph 6, subdivision (a), item (iii).

3. Develop and impose meaningful cost-sharing requirements to deter both:

(a) The nonemergency use of emergency departments.

(b) The use of Ambulance services for nonemergency transportation or when it is not medically necessary.

B. In any year, the director shall apply under subsection A of this section for only the waivers or amendments to the current section 1115 waiver that have not been approved and are not in effect.

C. On or before April 1 of each year, the director shall submit a letter confirming the submission of the waiver requests required under subsection A of this section to the governor, the president of the senate and the speaker of the house of representatives.

D. For the purposes of this section:

1. "Able-bodied" means an individual who is physically and mentally capable of working.

2. "Adult" means an individual who is at least nineteen years of age. END_STATUTE

PART III

Delivery System Reform Incentive Payment (DSRIP): Arizona's Approach

AHCCCS has initiated significant payment and delivery system reform in recent years. These include payment, administration, and care delivery integration of behavioral health and physical health, alignment and care coordination for dually eligible persons, Children's

Rehabilitative Services system simplification, justice system transition of care improvements, and value based purchasing contractual requirements.

With these reform initiatives established, the development of a State Health System Innovation Plan through a State Innovation Model (SIM) Design award, and the findings of the Arizona State Health Improvement Plan, Arizona is positioned to utilize DSRIP to further develop care delivery and payment reform network infrastructure, implement system re-design options identified through the SIM process, establish highly impactful outcome expectations, and strengthen population focused health improvements.

The Arizona DSRIP model will be built on provider network accountability. AHCCCS has a well-established managed care infrastructure. Arizona also has geographically distributed health systems that are well positioned to participate in payment and delivery reform initiatives through the DSRIP. These networks will provide the foundational infrastructure and connectivity to foster provider collaboration and break down persistent silos that limit progress on outcome improvement and cost reduction. The specific transformation models and arrangements will be established based on the findings of the stakeholder driven State Health System Innovation Plan, developed through the Arizona SIM Model Design award.

Projects and Initiatives

The Arizona DSRIP projects and initiatives will focus on areas including, but not limited to:

- Behavioral Health –Physical Health Care Delivery and Payment Integration
- Chronic diseases associated with persons identified as having High Needs/High Costs
- Primary Care models with accountability for population health outcomes

Results of the State Innovation Plan will inform the selection of additional areas of focus and development of a menu of projects in collaboration with healthcare stakeholders that encompasses the selected focus areas.

Performance Metrics

The choice of performance process and outcome measures will be based on the projects and initiatives identified through the SIM process and selected through the DSRIP planning processes and will include:

- Measures of infrastructure development and participation – such as, membership in the state Health Information Exchange
- System redesign – such as, establishing value based payment arrangements that align to produce desired collaboration and integration
- Clinical outcome improvement – such as, establishing targets for hospital readmission or asthma related hospitalizations
- Population health improvement – such as, percentage of homelessness among persons with serious mental illness

In addition, establishing statewide measures will be considered to support collaborative provider accountability for outcomes, and systemic transformation.

Performance Payments

A DSRIP incentive payment methodology will be established based on the milestones of the projects and initiatives established under the Arizona DSRIP.

- Performance payments will be tied to achievement of project specific measures
- Performance payments will be tied to achievement of statewide measures
- Payment pools available for provider performance payments will tie to savings associated with DSRIP initiatives
- Accountable provider networks will have the ability to allocate performance payments to providers in their respective networks
- Payments to provider networks for infrastructure identified as critical to implementation of SIM and DSRIP initiatives and systems changes

Learning Collaborative

Providers will participate in a learning collaborative related to the DSRIP projects. The learning collaborative will be designed to promote the following objectives:

- Encouraging the principle of continuous quality improvement
- Collaborating based on shared ability and experience
- Sharing DSRIP project development including data, challenges, and best practices

PART IV

Home and Community Based Services (HCBS) Final Rule: Arizona's Assessment and Transition Plan

Arizona's successful Home and Community Based Services program for persons enrolled in the Arizona Long Term Care System (ALTCS) has had a long history as part of the State's 1115 Waiver. To conform with the final rule that defines HCBS qualifying settings, Arizona conducted an assessment of its settings, as well as a draft transition plan. Extensive stakeholder meetings and public forums have already been held to seek input and engage in dialogue around the state's Assessment and Transition Plan.

Due to the length of the Assessment and Transition Plan, it will be incorporated by reference here. All materials, including the Assessment and Transition Plan, the schedule of community forums, the presentation that is being reviewed at the forums and other materials can be found on the AHCCCS website at: <http://www.azahcccs.gov/hcbs/default.aspx>.

PART V

The American Indian Medical Home

Supporting Arizona's Commitment to Addressing Health Care Disparities for American Indians/Alaska Natives

Overview

AHCCCS administers Medicaid to over 1.7 million members through a mandatory managed care delivery system. This system operates managed care insurance programs that establish each member with a Primary Care Physician (PCP) upon enrollment. Case management is provided as an administrative service to those members identified by their health plan to require care coordination or assistance in managing a chronic illness. Health plans also offer call lines staffed by medical professionals as an administrative service.

The AHCCCS model requires every Medicaid beneficiary to enroll with a managed care organization (MCO). The only exception to this requirement is for the American Indian/Alaska Native (AI/AN) population, which has the option of enrolling with an MCO or receiving services in the AHCCCS fee-for-service (FFS) program, known as the American Indian Health Program (AIHP). American Indians and Alaska Natives who enroll in the American Indian Health Program receive their care largely through Indian Health Services (IHS) facilities and Tribal facilities operated under Public Law (PL) 93-638. IHS and Tribal facilities do not have the administrative dollars to support case management functions or call lines to assist members in coordinating their care. The clinical leadership of IHS recognizes that fundamental changes in their system are required in this time of fewer resources and health reform.

The IHS Improving Patient Care (IPC) program goal is to engage IHS, Tribal, and Urban Indian health programs to improve the quality of, and access to, care for AI/AN members through the development of a system of care called the "Indian health medical home". The IPC program is focusing on patient-and-family-centered care while ensuring access to primary care for all AI/AN people. High-quality care will be delivered by health care teams who will be making sustainable and measurable improvements in care. Medicaid is IHS' biggest payor/partner. Therefore, AHCCCS would like to align its efforts in Arizona with the efforts being made by IHS and the federal government to modernize and improve the health care delivery system for the AI/AN population.

The most recent U.S. Census figures state the AI/AN population is approximately 350,000 in Arizona.¹ Almost half of the AI/AN population in Arizona is enrolled in AHCCCS, and approximately 75 percent of AI/AN AHCCCS members are enrolled in the American Indian Health Program. Significant health disparities exist between the AI/AN population

¹ Current tribal enrollment numbers collected by survey taken by AHCCCS estimate the AI/AN population in Arizona to be approximately 443,000.

and the general population of Arizona, including the average age of death (17.5 years lower for American Indians), and higher death rates from many preventable diseases. AHCCCS proposes an Indian Health Medical Home Program (IHMHP) that aligns with the IPC program in order to address some of these disparities and to support the ability of IHS, Tribal, and Urban Indian health programs, as well as non-IHS facilities with high AI/AN patient volumes, to better manage the care for American Indians and Alaska Natives enrolled in the American Indian Health Program.

Accordingly, to accomplish these goals AHCCCS seeks the following authority:

- **Comparability** - Waiver from §1902(a)(10)(B) and corresponding regulations at 42 CFR §§440.240, to allow the State to provide services that support a medical home for AI/AN members enrolled in FFS who receive services provided through the IHS and Tribal facilities. These services are Primary Care Case Management, diabetes education, after-hospital care coordination and 24-hour call lines staffed by medical professionals.
- **Reimbursement CNOM-** Expenditure authority to allow the State to pay for services that support a medical home for AI/AN members enrolled in FFS who receive services provided through the IHS and Tribal facilities. Expenditure authority to allow the State to pay non-IHS/Tribal facilities a shared savings payment to support the Indian Health Medical Home Program.

Developing the American Indian Medical Home through Consultation

Originally, this concept was proposed and brought to AHCCCS by the Tucson Area IHS. Verbal notification on the development of this proposal as well as notification that a future consultation meeting would be held to further discuss this topic was provided at an AHCCCS Consultation Meeting with Tribes and IHS, Tribal, and Urban Indian health programs (I/T/U) on March 31, 2011.

AHCCCS also obtained information related to medical home activities from the Navajo Area IHS, Phoenix Area IHS, Tucson Area IHS, and certain Tribal Facilities. This information was used in the development of the first waiver proposal. AHCCCS formally consulted with tribes and I/T/Us in Arizona on the components of the original waiver proposal in accordance with the AHCCCS Tribal Consultation Policy and Medicaid State Plan on August 4, 2011. The amendment was also placed on the AHCCCS website for public comment around that time.

Since then, AHCCCS has embarked upon a Tribal Care Coordination effort of its own. AHCCCS revised this proposal to align this amendment with the IPC and AHCCCS Tribal Care Coordination efforts. The AHCCCS Tribal Care Coordination initiative strives to improve the quality of care for its members by increasing the efficiency of the multiple systems of care in which members can access services. While there are various care coordination models being implemented across the nation, as well as here in Arizona, AHCCCS adopted the Indian Health Service's IPC Care Model to avoid creating

duplication in the system and confusion amongst the various efforts being implemented to improve the care for AI/AN members. Furthermore, the Agency recognizes the importance of promoting a shared message in working toward a common goal — improve the quality, connectivity, and accessibility of care in the American Indian healthcare delivery system. AHCCCS works toward that goal in its role as a facilitator of data exchange to inform providers of utilization trends among members empaneled to them. As a major payor, AHCCCS provides this data so that the medical home can develop interventions that will assist patients empaneled to them to better manage their health. I/T/Us, however, need additional tools to build their capacity to act as medical homes that can be held accountable for reducing emergency department utilization, admissions or readmissions, and improve outcomes.

Anticipated updates to the draft proposal were presented verbally at tribal consultation on August 15, 2013. AHCCCS has also posted the revision to its website for public comment. The revised amendment was also presented to the State Medicaid Advisory Committee on April 9, 2014. Subsequently, representatives from the three IHS Area offices made revisions to the proposal for consideration requiring additional review. These revisions have been incorporated here and will be presented for comment at the tribal consultation in August 21, 2015.

Arizona expects that the oversight and payment for IHMHP service delivery will necessitate close working relationships between the State and the IHS, Tribal, Urban Indian health program, and non-IHS facilities with AI/AN patient volumes greater than 30%, and that this process will enhance collaboration toward similar goals of reducing health disparities and delivering cost-effective care.

Provider Payments

The American Indian Health Program has worked in conjunction with tribes and IHS facilities to determine the cost of delivering an IHMHP, which would reimburse for Primary Care Case Management, a 24-hour call line and care coordination. In order to simplify claiming and payment, AHCCCS has elected not to offer a tiered payment structure, but to combine requirements and payment into one flat rate. The American Indian Health Program cost data from IHS and tribal facilities in Arizona were evaluated to determine a PMPM payment of \$7.11 with an annual increase of 4.6%, which is based upon the average annual increase of the outpatient all-inclusive rate over the past ten years. For approved medical homes providing diabetes education pursuant to guidelines established within that model and herein, an additional \$2.00 PMPM will be available.

The medical home services for which AHCCCS proposes to reimburse are currently not reimbursed through the all-inclusive rate and will therefore be billable by IHS and Tribal facilities only on a monthly basis to AHCCCS. PMPM payments will be made with 100% FFP dollars and will only be available for IHS and tribally operated 638 facilities for FFS members in order to avoid duplicative payment. Facilities will be required to submit an IHMHP claim for each member that is empanelled in their medical home on a monthly

basis. Empanelment will be determined by AHCCCS based on the criteria discussed below.

Overview Development of Medical Home Criteria

IHS and Tribal facilities may choose whether or not to provide an Indian Health Medical Home Program (IHMHP) for their members. In order to receive reimbursement for services provided by their IHMHP, facilities must present their proposal to AHCCCS for review every three years or sooner if their program structure changes. This proposal should detail the mechanisms in place to meet the criteria outlined in the definition of an IHMHP below. For example, when the IHMHP requires that each member be empanelled to a personal Primary Care Provider (PCP), the facility should describe how they empanel patients, what their empanelment rate is, and what type of providers they employ as PCPs. When approved as medical home providers, IHS and Tribal facilities should have a goal of 100% empanelment of their FFS AHCCCS members. However, FFS AHCCCS members will have the option to not be empaneled so as not to restrict choice; reimbursement will be based upon only those members that are formally part of the medical home. To ensure there is choice given, the AHCCCS FFS member must sign a form at the facility stating they are agreeing to be empaneled to that particular facility.

AHCCCS recognizes the importance of prior research and development in the area of medical homes. The AHCCCS criteria for medical home designation are based upon the following Joint Principles of the Patient Centered Medical Home as presented in February 2007 by the American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, and American Osteopathic Association, combined with AHCCCS Tribal Care Coordination and IPC principles.

- **Personal physician** – Each patient has an ongoing relationship with a personal, licensed primary care provider trained to provide first contact, continuous and comprehensive care.
- **Physician directed medical practice** – The personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.
- **Whole person orientation** – The personal physician is responsible for providing for all the patient’s health care needs or taking responsibility for appropriately arranging care with other qualified professionals. This includes care for all stages of life; acute care; behavioral health; chronic care; preventive services; and end of life care.
- **Care is coordinated and/or integrated** across all elements of the complex health care system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient’s community (e.g., family, public and private community-based services). Care is facilitated by registries, information technology, health information exchange and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.

- **Quality and safety** are hallmarks of the medical home.
- **Enhanced access** to care is available through systems, such as open scheduling, expanded hours and new options for communication between patients, their personal physician, and practice staff.
- **Payment** appropriately recognizes the added value provided to patients who have a patient-centered medical home.

With these guidelines in mind and in conjunction with the IHS, tribally operated 638 programs and the American Indian Health Program, AHCCCS has developed the following mandatory criteria for IHMHP designation when provided by IHS and tribally owned or operated 638 facilities in Arizona.

Medical Home Program Mandatory Criteria:

1. Assigns the member to a primary care team led by a primary care physician, nurse practitioner or physician's assistant. When staffing limitations prevent direct patient empanelment to a primary care physician, a primary care physician must be available for consultation and advisement as needed. The primary care team may consist of, but is not limited to, a combination of the following professionals: physician's assistants, nurse practitioners, registered nurses, licensed practical nurses, pharmacists, social workers, case managers, community health representatives (CHRs), diabetes health educators, behavioral health professionals, and medical assistants.
2. Provides or coordinates medically necessary primary and preventive services.
3. Organizes clinical data in an electronic format as a patient-specific charting system for individual patients.
4. Reviews all medications a patient is taking including prescriptions and maintains the patient's medication list in the chart.
5. Maintains a system to track tests and provide follow-up on test results.
6. Maintains a system to track referrals including referral plan and patient report on self-referrals.
7. Provides Care Coordination and Continuity of Care to the member, especially following hospital discharge, and supports family participation in coordinating care. Agrees to provide follow-up with the member within five days of hospital discharge. Provides various administrative functions including but not limited to securing referrals for specialty care and prior authorizations, including referrals for behavioral health treatment.
8. Provides patient education and support as needed.
9. Provides 24/7 voice to voice telephone call-line coverage with immediate availability of an on-call medical professional.
10. Uses mental health and substance abuse screening and referral procedures.
11. Agrees to follow and report to AHCCCS on an annual basis the following measures:
 - a. Hospital readmissions within 30 days of discharge;
 - b. Number of hospital readmissions within 30 days of discharge with a behavioral health diagnosis;
 - c. Average number of ED visits per empanelled patient per year;
 - d. GPRA measure: Childhood immunizations; and

- e. Additional GPRA measures will be added following two years of successful implementation of these criteria.

Patient Empanelment

While an AHCCCS member retains the right to seek care from any AHCCCS registered provider, AHCCCS may only pay for one medical home per member. In order to avoid reimbursement to two different IHMHPs for the same member, AHCCCS will recognize patient empanelment to a specific IHMHP by the receipt of claims for at least three distinct dates of services within a six month time period within the member's service area. An IHMHP will not be able to be reimbursed for PMPM claims until the empanelment process has been completed

After a facility is approved as a medical home by AHCCCS, the facility must submit to AHCCCS Division of Fee-for-Service Management (DFSM) a file of empaneled members. Members submitted that already have been empaneled in a medical home will be rejected back to the facility; in this case, the facility or member can request a transfer through the transfer process.

All empanelment files and transfers must be submitted to AHCCCS by the 22nd of the month for the facility to be able to submit a claim for the following month. Information received after the 22nd of the month will not be able to be claimed until the following month.

The AHCCCS transfer process can be utilized when a member is empaneled with another facility. In this case, the facility that would like the member to be transferred must complete the AHCCCS approved transfer form. This form must be signed by the requesting facility, the currently empaneled facility and the member.

Diabetes Education Mandatory Criteria

IHMHPs providing diabetes education must provide an evidence-based curriculum designed to enhance regular treatment and disease-specific education, such as diabetes instruction. The Diabetes Education Program provides individuals with the skill sets necessary to coordinate all the things needed to manage their health, which is particularly helpful for individuals with more than one chronic condition. Subjects covered by an IHMPP Diabetes Education Program must include:

1. Education on techniques to deal with problems such as frustration, fatigue, pain and isolation
2. Education on appropriate exercise for maintaining and improving strength, flexibility, and endurance
3. Education on the appropriate use of medications and medication compliance
4. Education on how to communicate effectively with family, friends, and health professionals
5. Nutrition Education
6. Education on decision making
7. Education on how to evaluate new treatments

IHMHPs using a diabetes education curriculum and receiving an additional PMPM for these services must separately report the following:

- Hospital readmissions within 30 days of discharge with a diabetes diagnosis
- Number of ED visits with a diabetes diagnosis

Non-IHS/Tribal facilities: Supporting the IHS Indian Health Medical Home Model

American Indian members are not limited to using only IHS/Tribal facilities. They access care from non-IHS/Tribal facilities particularly in areas where a non-IHS/638 facility is more readily available than an IHS/Tribal facility. Additionally, AI/AN members often access non-IHS/638 facilities and providers for specialty care that may not be accessible at an IHS/Tribal facility. As a result, there are a number of non-IHS/Tribal facilities with high AI/AN patient volumes that can help support the IHMHP. These facilities are grappling with issues of care coordination, hospital readmissions and non-emergent use of the emergency department related to the AI/AN population.

Facilities with high AI/AN inpatient enrollment in AIHP, specialty care (e.g., OB/GYN) or emergency department patient volumes can help support the IHMHP model by allowing an IHS/Tribal facility to embed an IHS/Tribal care coordinator within their facility. Non-IHS/Tribal facilities that exceed 30% AI/AN patient volumes are eligible to receive shared savings payments through structured arrangements with AHCCCS that, among other measures: reduce emergency department use; reduce readmissions, coordinate with behavioral health; and share data with AHCCCS. These initiatives will be arranged on a case-by-case basis depending on the specialty of the provider type.

By supporting the model in this way, the non-IHS/Tribal facilities will be partnering with the IHMHP to connect AIHP enrolled members with the services necessary to address the health disparities that exist within the population, thereby, reducing the rate of hospital readmissions and non-emergent use of the emergency department. These facilities should be rewarded for the improvements in care delivery and in savings achieved for their efforts in supporting this model. Addressing healthcare disparities for the AI/AN population is not possible without the participation of non-IHS/Tribal facilities.

Arizona is proposing to offer services that support an Indian Health Medical Home Program – Primary Care Case Management, 24-hour call line, diabetes education and care coordination – to its acute care FFS Population. IHMHPs will be charged with addressing health disparities between American Indians and other populations in Arizona, specifically by enhancing case management and care coordination. In tracking the successes of IHMHPs across the state, Arizona expects to see trends indicating cost savings through the prevention of hospital readmissions and improved control of non-emergent use of the emergency department. Non-IHS/Tribal facilities will also share in those savings as critical players in addressing healthcare disparities for the AI/AN population.

PART VI

Building upon Arizona's Past Successes

While Arizona has had a longstanding 1115 Waiver through which the State has operated its Medicaid program, the demonstration has not remained stagnant. In fact, through over 33 years of Medicaid managed care experience, the State of Arizona has learned that Medicaid managed care is an evolutionary process. Existing demonstrations are modified, adjustments are continually made, and the program is further refined, modernized and streamlined. The result is a Medicaid managed care operation that is continually seeking opportunities to improve and build upon past successes to achieve greater health outcomes for its members and long-term sustainability for the program.

As part of this refinement, this new demonstration will reflect modifications to the following programs:

- ***The merger between AHCCCS and the Division of Behavioral Health Services.*** As part of the 2015 legislative session, Governor Ducey proposed and the Arizona Legislature approved an administrative simplification effort that brought together the AHCCCS program with its longstanding partner, the Division of Behavioral Health Services (DBHS) within the Arizona Department of Health Services (ADHS). Historically, ADHS/DBHS has served as AHCCCS' contracted managed care organization (MCO) for the provision of behavioral health services to AHCCCS members. In turn, ADHS/DBHS contracts with Regional Behavioral Health Authorities (RBHAs) that provide the behavioral health benefit for members. Through the Governor's Administrative Simplification effort, DBHS will merge with AHCCCS and the RBHAs will become the AHCCCS contracted MCOs for administration of the behavioral health benefit. The terms of existing RBHA contracts for both Maricopa County and Greater Arizona (all other counties) will remain the same. Technical clean-up of the language in the State's Waiver will reflect this merger. The State will offer a redline of recommended language changes at a future date.
- ***Aligning Benefits for Dual Eligibles.*** Arizona currently has 45% of its approximately 130,000 dual eligible members aligned in the same health plan for both their Medicaid and Medicare benefits. This percentage of aligned dual members is the highest in the nation. Health plan alignment allows the plans to better administer health benefits, and simplifies the system for members. The results are improved health outcomes. Because Medicare pays for a significant portion of the behavioral health benefit and the AHCCCS acute plans are serving members as the Medicaid and Medicare plan, the State on October 1, 2015, will align the behavioral health benefit into the AHCCCS acute MCOs. This allows dual eligible members choice of health plan for their complete benefit package. Technical clean up language will be offered to reflect that dual eligible members are no longer subject to the waiver provision mandating enrollment into the RBHA only for their behavioral health benefit.
- ***Continuing Existing Authorities.*** Arizona will also seek to continue existing authorities that have served the State well. A table of these current authorities is attached. These include mandatory managed care, HCBS, uncompensated care payments for Indian Health Services and Tribal 638 Facilities, and others.

- **Critical Access Hospital Supplemental Payments.** Per legislative changes to 36-2903.01(U) made as part of the 2015 legislative session, the State is seeking to enhance its current payments to Critical Access Hospitals (CAH). The State has begun a dialogue with stakeholders around possible ways to structure this program and will include additional detail upon further stakeholder engagement. Specifically, the statute provides:
 - “U. Subject to the approval of the centers for medicare and medicaid services, political subdivisions of this state, tribal governments and any university under the jurisdiction of the Arizona board of regents may provide to the Arizona health care cost containment system administration monies in addition to any state general fund monies appropriated for critical access hospitals in order to qualify for additional federal monies. Any amount of federal monies received by this state pursuant to this subsection shall be distributed as supplemental payments to critical access hospitals.”

PART VII

Safety Net Care Pool Transition Plan

Background

In April 2012, CMS approved the Safety Net Care Pool (SNCP) program designed to help hospitals with managing the burden on uncompensated care costs. This was approved at a time when the State had frozen new enrollment for its childless adult category (0-100% FPL). Many hospitals across the State participated in the SNCP, and the program proved to be incredibly valuable as a bridge to 2014. The program ended on December 31, 2013, in anticipation of the State’s restoration of childless adult coverage and addition of new coverage for adults 100-133% FPL. However, SNCP was extended for Phoenix Children’s Hospital (PCH) to address issues unique to freestanding children’s hospitals that did not benefit from adult coverage restoration and expansion. Subsequently, PCH received two one-year extensions of SNCP.

During 2014, AHCCCS contracted with Public Consulting Group to conduct an independent evaluation of the use of SNCP funds prior to and after the January 1, 2014 extension period, an analysis of factors that contributed to the necessity of SNCP, and an analysis of the findings and conclusions drawn from the factors that contributed to the necessity of SNCP. Public Consulting Group made a number of observations and conclusions.

- PCH serves a population with a high rate of Medicaid coverage and a low proportion of uninsured patients in comparison to safety net hospitals.
- Before and after implementation of the ACA reforms, the uninsured have constituted a marginal group within the hospital’s overall payer mix, with no significant changes in the proportion of “self-pay” clients over the past five years.

- Analysis revealed an 83% growth in overall uncompensated care costs between FFY 2011 and FFY 2012. This increase in costs is due to a number of causal factors introduced in that year, including major changes in PCH volumes, higher patient acuity, and significant rate reductions implemented by AHCCCS.
- Although PCH's financial picture in 2014 remains incomplete, some of the factors driving the hospital's higher uncompensated care since 2011 have been mitigated, if not eliminated. It appears that the effort to contain Medicaid costs is increasingly effective, and that the care delivery system has become more closely aligned with the payment system and new reimbursement rates established by AHCCCS.
- The hospital's Medicaid shortfall is the unique consequence of a convergence between the State's cost containment efforts and PCH's high quality, high cost delivery system. Public Consulting Group also states: "The high cost of care at the hospital is not merely a function of higher patient acuity, but must also be placed within the wider context of PCH's ambitious organizational growth and its aspirations to be a national leader in high quality pediatric care, equipped with cutting-edge medical technology, attracting top physician talent, and producing highly-respected research."
- While SNCP does not represent a permanent solution to assuring adequate Medicaid cost coverage to the hospital, it continues to serve as an essential mechanism for transitioning PCH to the post-ACA health care environment.
- SNCP funding has not adversely affected the hospital's capability or willingness to achieve greater efficiencies. Rather, they appear to have facilitated the hospital's ongoing movement in this direction, allowing PCH the budgetary room to implement additional efficiencies, including value-based delivery system and payment reforms, without substantially disruptive effects on the hospital's level of quality. For this reason, extension of SNCP authorization appears justifiable.

Public Consulting Group's full report can be found on the agency's website at: http://www.azahcccs.gov/reporting/Downloads/1115waiver/Doc2AZ_SNCP_Eval_Report_FIN_AL.pdf.

In addition to last year's report, AHCCCS contracted with Navigant Consulting to analyze the cost per inpatient discharge at Phoenix Children's Hospital compared to selected other children's hospitals, including those located in Alabama, California, Florida, Illinois, Minnesota, and Washington. These hospitals were chosen because of the ease of obtaining data. After adjusting for the differences in hospital specific Medicaid case-mix index and regional wage differences, as well as adjusting for inflation to make hospital years comparable, the average cost per discharge ranged from \$11,204 to \$27,377. The average cost per discharge at PCH was \$17,416, which was slightly below the average of \$17,536 and slightly above the median of \$16,823. The full analysis is attached.

PCH has also presented to AHCCCS a study conducted by the Children's Hospital Association that compared costs of 32 children's hospitals across the country. This study indicated PCH's cost of delivering care was 15% below the nationwide mean.

Transitioning Away from SNCP: Short and Long-Term Opportunities

The State is committed to working with PCH to move away from total reliance on SNCP. However, the State also recognizes that this transition cannot be achieved overnight. The State has committed to taking immediate action steps that will help PCH lessen its current SNCP reliance, as well as identify longer term goals to achieve a more complete transition away from SNCP.

Current AHCCCS Payment Reforms

APR-DRG Payment Methodology

On October 1, 2014, AHCCCS transitioned from a tiered per diem inpatient reimbursement system to an APR-DRG payment system to further AHCCCS' goals of enhancing quality of member care and promoting efficient delivery of services. AHCCCS contracted with Navigant Consulting to provide assistance in analyzing, acquiring and implementing a DRG-based inpatient hospital payment system, and sought and received an abundance of input from impacted hospitals on implementing the new payment methodology in a budget neutral fashion. Navigant Consulting estimated that the change in payment methodology would **result in an increase in payments of \$9,704,392 for PCH**, which will be phased in over two years, achieving full implementation in the third year of APR-DRG.

Reimbursements for High-Acuity Pediatric Cases

Beginning with discharges on and after January 1, 2016, AHCCCS will address the costs associated with high-acuity pediatric services at all hospitals by increasing reimbursement for pediatric cases with Severity of Illness (SOI) levels 3 and 4 under the APR-DRG system. This change is projected to increase reimbursements to inpatient hospitals by nearly \$20 million annually. The projected **impact to Phoenix Children's Hospital is an annual increase of \$10,059,405**.

Other Payment Reforms and Solutions

While AHCCCS is committed to ensuring a transition away from SNCP, and is working to increase reimbursement rates to PCH outside of the SNCP program, any payment reforms to PCH must be taken in the larger context of the AHCCCS program as a whole. This is particularly challenging at a time when Arizona is still recovering from the Great Recession. Due to a continued budget shortfall, Arizona's State Fiscal Year 2016 budget included language which allowed AHCCCS to reduce rates for providers up to 5% in aggregate for Federal Fiscal Year 2016. Based on information received from providers and associations representing thousands of providers statewide, AHCCCS worked to find alternative solutions to a rate reduction while still living within the Legislature's lower appropriation for the program that factored in a 5% rate reduction. The resulting reimbursement rate strategy for FY 2016 includes some rate increases in areas identified as critical, among them the high-acuity pediatric cases discussed above.

AHCCCS requests a five year transition away from SNCP payments, whereby SNCP payments are reduced, from a maximum of \$137 million in 2015 to \$117 million in 2016, \$90

million in 2017, \$70 million in FY 2018, \$50 million in 2019 and \$25 million in 2020. During this phase-out period, AHCCCS will continue to implement solutions designed to account for the high-quality, high-cost services provided by PCH without adversely impacting other providers. Ultimately, any final reform needs to be multi-faceted and include increases in Medicaid reimbursement, as well as a continued focus by PCH on achieving greater efficiencies.

Some potential solutions appear below:

Graduate Medical Education Funding

AHCCCS intends to revise the Arizona Administrative Code detailing the Graduate Medical Education distribution process for the purpose of updating the method for determining a hospital's Indirect Medical Education (IME) costs. This change has the potential to increase IME funding by more than \$81,000,000 annually for Arizona training hospitals. **The projected impact to Phoenix Children's Hospital is an annual increase of \$12,500,000.** As Arizona is currently under a rule-making moratorium, the change will require approval from the Governor's Office in order to proceed. Including Executive approval and factoring in the typical rulemaking process timeframe, this change could not be implemented any sooner than one year.

Value Based Purchasing

Under consideration for an effective date of October 1, 2016, AHCCCS registered Arizona hospitals that meet AHCCCS established value based performance metrics requirements (yet to be determined) may receive a Value Based Purchasing (VBP) Differential payment for both inpatient and outpatient hospital services. The purpose of the VBP Differential is to incentivize and reward facilities that have committed to supporting designated actions that improve patient care and health outcomes, and reduce cost of care growth. Preliminary analysis suggests PCH would likely be eligible for a VBP differential under any approach yet considered.

Increased Reimbursements for High-Acuity Pediatric Cases

AHCCCS will continue to evaluate whether additional increases for pediatric cases with Severity of Illness (SOI) levels 3 and 4 under the APR-DRG system should be made beyond the increase that will take place in January.

Other Delivery System Reform Opportunities

AHCCCS continues to develop opportunities for delivery system reform, which would support PCH's continued work to improve the efficiency and quality of the care received by its patients both in the hospital and throughout the community. These options include, but are not limited to, support for care coordination and integrated care efforts.

AHCCCS

Analysis of Cost per Discharge for Children's Hospitals

State	Medicare Provider ID	Hospital Name	Claims Data Begin Date	Claims Data End Date	APR-DRG Grouper Version	APR-DRG Case Mix ¹	Wage Index ²	Labor Portion	Inflation Factor ³	Average Cost Per Discharge ⁴	Inflated Average Cost Per Discharge	Average Cost Per Day	Average Cost Per Discharge Adjusted for Wage Index	Average Cost Per Discharge Adjusted for Wage Index and Case Mix
													$H = ((F * C / B) + (F * (1 - C)))$	
						A	B	C	D	E	F = E*(1+D)	G		
													$G = F/A$	
Arizona	033302	Phoenix Children's Hospital	1/1/2014	12/31/2014	31	1.1867	1.0412	0.696	0.0%	\$ 21,254.30	\$ 21,254.30	\$ 4,045.21	\$ 20,668.94	\$ 17,417.16
Alabama	013301	USA Women's and Children's Hospital	10/1/2012	9/30/2013	31	0.6440	0.7542	0.620	2.4%	\$ 5,862.00	\$ 6,002.69	\$ 1,154.80	\$ 7,215.61	\$ 11,204.36
California	N/A	Loma Linda University Medical Center	1/1/2009	12/31/2009	29	1.3397	1.2477	0.696	11.5%	\$ 15,900.00	\$ 17,728.50	\$ 1,947.86	\$ 15,278.89	\$ 11,404.71
California	N/A	Child Hosp-Ctrl CA	1/1/2009	12/31/2009	29	1.2225	1.2477	0.696	11.5%	\$ 16,954.22	\$ 18,903.96	\$ 2,264.29	\$ 16,291.93	\$ 13,326.73
California	053302	Children's Hospital of Los Angeles	1/1/2009	12/31/2009	29	1.7059	1.2477	0.696	11.5%	\$ 25,861.42	\$ 28,835.48	\$ 2,849.35	\$ 24,851.18	\$ 14,567.78
Minnesota	243302	Children's Health Care	1/1/2013	12/31/2013	31	1.7012	1.0979	0.696	1.9%	\$ 26,746.12	\$ 27,254.30	\$ 3,247.33	\$ 25,562.83	\$ 15,026.35
California	053304	Children's Hospital -Orange County	1/1/2009	12/31/2009	29	1.3864	1.2477	0.696	11.5%	\$ 22,338.03	\$ 24,906.90	\$ 3,207.28	\$ 21,465.43	\$ 15,482.85
California	N/A	Children's Hospital & Research Center	1/1/2009	12/31/2009	29	0.9888	1.6439	0.696	11.5%	\$ 18,955.25	\$ 21,135.10	\$ 2,884.69	\$ 15,373.32	\$ 15,547.45
California	053303	Rady Children's Hospital -San Diego	1/1/2009	12/31/2009	29	1.2335	1.2477	0.696	11.5%	\$ 20,443.70	\$ 22,794.73	\$ 3,648.70	\$ 19,645.10	\$ 15,926.31
Florida	103301	Nicklaus Children's Hospital	7/1/2013	6/30/2014	30	1.3790	0.7980	0.620	1.3%	\$ 19,355.15	\$ 19,606.77	\$ 3,134.98	\$ 22,683.90	\$ 16,449.53
Florida	103300	All Children's Hospital	7/1/2013	6/30/2014	30	1.9900	0.8986	0.620	1.3%	\$ 30,887.34	\$ 31,288.88	\$ 2,823.67	\$ 33,477.91	\$ 16,823.07
Illinois	143302	Shriners Hospital for Children	7/1/2013	6/30/2014	30	1.6950	1.0276	0.696	1.3%	\$ 29,546.40	\$ 29,930.50	\$ 8,421.09	\$ 29,370.99	\$ 17,327.96
Illinois	143300	Lurie Children's Hospital	7/1/2013	6/30/2014	30	1.4640	1.0276	0.696	1.3%	\$ 28,303.10	\$ 28,671.04	\$ 4,612.17	\$ 28,135.07	\$ 19,217.59
California	053309	E & L Miller Child Hosp	1/1/2009	12/31/2009	29	0.6282	1.2477	0.696	11.5%	\$ 13,237.45	\$ 14,759.76	\$ 2,148.96	\$ 12,720.35	\$ 20,248.89
California	053305	Lucile Salter Packard Children's Hospital	1/1/2009	12/31/2009	29	0.9178	1.6650	0.696	11.5%	\$ 23,635.57	\$ 26,353.66	\$ 4,316.66	\$ 19,027.82	\$ 20,731.99
Minnesota	243300	Gillette Children's Hospital	1/1/2013	12/31/2013	31	1.5968	1.0979	0.696	1.9%	\$ 35,072.57	\$ 35,738.95	\$ 5,502.60	\$ 33,520.90	\$ 20,992.55
Alabama	013300	The Children's Hospital of Alabama	10/1/2012	9/30/2013	31	1.0730	0.8294	0.620	2.4%	\$ 19,866.00	\$ 20,342.78	\$ 3,352.79	\$ 22,937.07	\$ 21,376.58
Washington	503301	Mary Bridge Children's Hospital	7/1/2010	6/30/2011	31	1.1820	1.1220	0.696	7.7%	\$ 27,003.52	\$ 29,082.79	\$ 6,749.13	\$ 26,881.83	\$ 22,742.66
Washington	503300	Seattle Children's Hospital	7/1/2010	6/30/2011	31	1.6590	1.1349	0.696	7.7%	\$ 45,975.18	\$ 49,515.27	\$ 4,923.15	\$ 45,418.87	\$ 27,377.26

Notes:

1. Case mix based on each State's APR-DRG grouper version's national weights. Note national weights in different grouper versions are on different scales.
2. Based on Medicare wage index in effect during the claims data period. Note that Medicare wage indices in different years are on different scales.
3. Inflation factors are calculated by determining the change in the hospital market basket index level from the midpoint of the claims data period to the midpoint of calendar year 2014. The hospital market basket index levels are based on quarterly HIS Global Insight index level data released by CMS.
4. Estimated costs based on varied approaches (either detailed revenue code costing or aggregate CCR-based costing) across states in this analysis.