MES Modernization Roadmap

for the Hawaii and Arizona Partnership

Deliverable 5.4.1

AHCCCS/MQD MES Modernization Roadmap Consultant

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Document History

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3.1	6/22/2025	Kimberly Smith	Updated based on AHCCCS and MQD feedback

1. Introduction

The Arizona Health Care Cost Containment System (AHCCCS) and the Hawaii Med-QUEST Division (MQD) selected NTT DATA to develop a long-term strategic MES Modernization Roadmap for the Hawaii and Arizona Partnership to achieve compliance with Centers for Medicare & Medicaid Services (CMS) requirements to improve interoperability and sustainability of technology solutions that support Medicaid service delivery.

1.1. Purpose and Scope of This Document

The Medicaid Enterprise Systems (MES) Modernization Roadmap provides recommendations to AHCCCS and MQD in their shared efforts to achieve compliance with CMS requirements to improve interoperability and sustainability of technology solutions that support Medicaid service delivery. The roadmap is an overarching plan to modernize and transform the agencies by identifying recommended actions, integrated high-level timelines, and estimated costs.

1.2. Intended Audience

This deliverable is intended to be used by the following project stakeholders:

- AHCCCS / MQD executive team
- AHCCCS / MQD project team
- NTT DATA consulting team

1.3. Deliverable Owner, Approver, and Reviewers

Exhibit 1 documents the MES Modernization Roadmap owner, approver, and reviewers.

Exhibit 1: Deliverable Owner, Approver, and Reviewers

Role	Responsibilities	Person(s) Assigned
Deliverable Owner (NTT DATA)	Ensures shared expectations are established, agreed upon and documented in advance via the DED; develops the deliverable according to the agreed-upon expectations; addresses feedback and works with the deliverable approver to achieve deliverable acceptance	• Brad Perrin
Deliverable Approver (AHCCCS / MQD)	Ensures shared expectations are established, agreed upon and represented in the DED; identifies deliverable reviewers in advance; coordinates the deliverable review and provides consolidated feedback to be addressed by the deliverable owner	• AHCCCS/MQD Executive Team
Deliverable Reviewer (AHCCCS / MQD)	Reviews the deliverable and provides feedback to the Deliverable Approver(s)	• AHCCCS/MQD Project Manager • AHCCCS/MQD Business Subject Matter Expert • AHCCCS/MQD Technical Subject Matter Expert • AHCCCS/MQD Infrastructure Subject Matter Expert • AHCCCS Budget Finance

2. Executive Summary

2.1. Introduction

The Medicaid Enterprise Systems (MES) Modernization Roadmap for the Hawaii and Arizona Partnership guides AHCCCS and MQD in their shared efforts to achieve compliance with Centers for Medicare & Medicaid Services (CMS) requirements to improve interoperability and sustainability of technology solutions that support Medicaid service delivery. The roadmap is an overarching plan to modernize and transform the agencies' business processes through their shared technology initiatives by identifying recommended actions, integrated high-level timelines, and estimated costs.

The partnership between Hawaii and Arizona has been in place for over two decades, showcasing the power of collaboration between two states with distinct Medicaid programs. This ongoing partnership can be attributed to the complementary nature of the two programs, which despite their differences in operational size and structure, have survived within a shared systems model. The MES Modernization Roadmap is a strategy document that guides the joint work of the partnership for AHCCCS and MQD, while acknowledging that both organizations have unique goals and business operations that are out of scope for the partnership, and those goals are identified and tracked independently by each entity.

During the early stages of the partnership, the primary commonality between the Hawaii and Arizona Medicaid programs was their managed care delivery model, implemented through respective 1115 demonstration waivers. This model was underpinned by a shared Prepaid Medical Management Information Systems (PMMIS/HPMMIS). These systems provided a framework that allowed both states to deliver services efficiently and effectively.

As the partnership matured, both states expanded and innovated at a similar pace, addressing similar service lines. However, despite this parallel growth, the individual state programs and organizational structures evolved differently. This divergence allowed each state to tailor their approaches to meet specific needs while still benefiting from the shared framework of the partnership.

2.2. Evolution of the Systems Model

Over the years, the partnership's systems model has transformed significantly. Originally based on a common set of MMIS systems, it has now evolved into a hybrid model of disparate and aging modular architectures. This architecture combines shared systems and vendors with state-specific systems and vendors, all connected across a legacy architecture. This hybrid approach has enabled both states to leverage their strengths while maintaining the flexibility to address unique challenges and opportunities. At the same time, the legacy architecture foundations have hindered the ability for the agencies to replace and innovate systems together in a timely and efficient manner.

2.3. Roadmap Development

Starting in 2022, NTT DATA performed the following key activities to develop and maintain an MES Modernization Roadmap for the Arizona-Hawaii partnership.

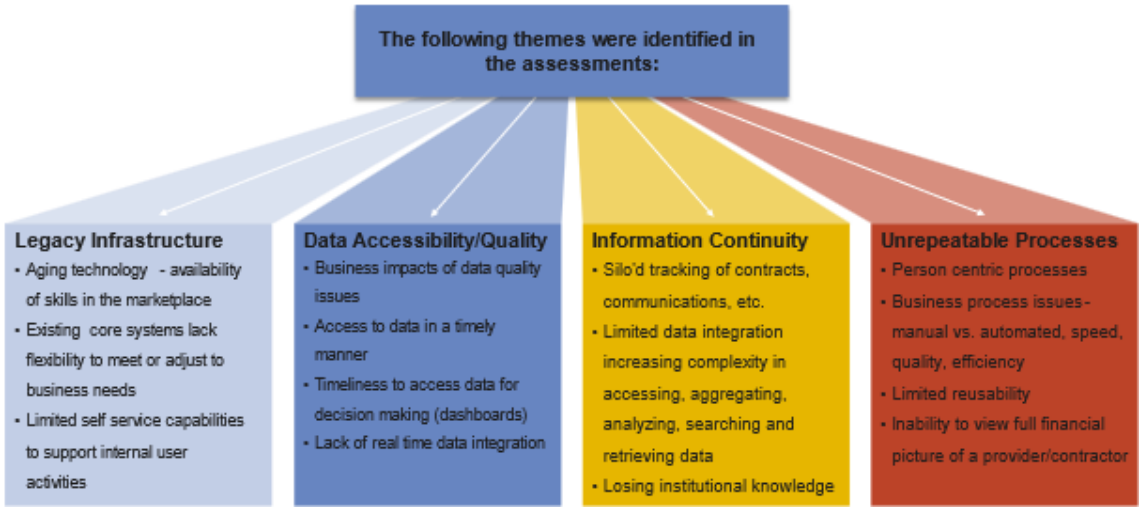
- **Visioning.** Confirmed with AHCCCS and MQD leaders the agencies' strategic visions, business goals, and information technology goals
- **Assessments.** Conducted business, information, technical architecture, and organization assessments to identify organizational challenges
- **Information Gathering.** Convened deep dive sessions with AHCCCS and MQD staff to gain a deeper understanding of capabilities
- **Market Research.** Evaluated solutions available on the market and vendor capabilities to meet the needs of AHCCCS and MQD

- **Roadmap Development.** Documented a recommended path forward with solutions to address the organizational challenges, including a high-level timeline and estimated costs associated with implementing the identified solutions
- **Roadmap Updates and Guidance.** Monitored progress against the initial roadmap, updated the roadmap with key achievements, and guided AHCCCS and MQD on mid-course adjustments

2.4. Organizational Challenges

The initial business, information, technical architecture, and organization assessments identified a set of organizational challenges that are summarized in Exhibit 2.

Exhibit 2: Identified Organizational Challenges



Legacy Infrastructure

Aging Technology. The current PMMIS/HPMMIS are mainframe hosted systems developed in the IDEAL 4GL coding language and supported by a DATACOM database. This technology is reaching an end of support life due to the impending retirement of current development staff and the lack of market availability for qualified replacements. In addition, the ongoing licensing and maintenance costs continue to increase budgetary needs.

- **Inflexibility of Core Systems.** Limited configuration capabilities exist within the PMMIS/HPMMIS, with nearly all business rules being hard coded. This has led to elongated maintenance timelines that have created a backlog of critical changes that continues to negatively affect the business operations of both agencies.
- **Limited Self Service Capabilities.** The lack of an Enterprise Business Workflow Management Software platform has resulted in business being performed through email, Excel, and Microsoft Access. In addition, there is limited business rules documentation to support analysis of issues/concerns without involving the system support teams.

Data Accessibility/Quality

- **Data Quality.** High volumes of historical data in the PMMIS/HPMMIS, coupled with a lack of current documentation, make it critical to perform extensive data profiling and analysis to ensure accurate information and the successful conversion and transfer to a new system
- **Timeliness of Data.** Information access requires the use of multiple data sources that lack integration and are difficult to access within legacy systems. This leads to dated reporting that fails to inform the business in a timely manner and a lack of timely review of data quality issues

Information Continuity

- **Limited Data Integration.** The existing data warehouse contains subsets of data from the mainframe and lacks the full scope of data from other MES modules to perform critical business analysis and decision support.
- **Losing Institutional Knowledge.** The lack of current and complete documentation at all levels of the system and organization creates a significant risk due to the impending retirement of many staff members with institutional knowledge.

Unrepeatable Processes

- **Person Centric Processes.** AHCCCS and MQD maintain their operations through isolated activities that rely on individual employees to track agency business through manual procedures that lack consistent and current documentation.
- **Lack of Enterprise Governance.** The lack of both an enterprise program management office and established governance structures, policies, and tools across the combined organizations puts AHCCCS and MQD at significant risk to proceed with MES modernization.
- **Inability to View Full Financial Picture.** AHCCCS and MQD rely heavily on the manual aggregation of disparate information from multiple sources to provide required state and federal financial reporting.

2.5. Recommended Modernization Roadmap

The initial AHCCCS and MQD MES Modernization Roadmap was organized into four domains of recommended solutions to help modernize, organize, and efficiently integrate both enterprises that currently operate in disparate and aging modular architectures. The four domains are:

1. Operationalize Governance
2. Replace Legacy Infrastructure
3. Improve Data Accessibility and Quality
4. Develop and Leverage Operational Assets

The modernization work was organized around eight projects that affected both agencies as they address AHCCCS-managed systems and services for both AHCCCS and MQD. Some of these projects are complete, while others are still in progress. At the completion of these eight projects, AHCCCS and MQD will continue to retain and maintain the existing vendor-managed modules and/or replacements that support key functions, such as eligibility, provider enrollment, and electronic visit verification. These eight projects are:

1. Create Enterprise Documentation
2. Establish Enterprise Program Management Office (EPMO)
3. Migrate Data Warehouse (DW) to Azure
4. Migrate Web Portals to Azure
5. Implement Systems Integration Platform
6. Refactor HPMMIS/PMMIS
7. Establish Operational Data Store (ODS)
8. Implement Enterprise Business Workflow Management Software

In addition, three agency specific projects were initiated to transform specific areas of the business. The three agency-specific projects are:

1. Implement MQD Health Analytics Program
2. Configure AHCCCS Case Management
3. Configure AHCCCS Hearings and Grievances

2.5.1 Modernization of the Multi-State Hybrid MES

The partnership between Hawaii and Arizona exemplifies the benefits of collaboration and shared innovation. The modernization of this multi-state hybrid MES has aligned Hawaii and Arizona into a scalable and modern integrated architecture. This modernized integrated MES not only supports current operations but is also designed to accommodate future innovations. Whether implementing individual or shared solutions, the states can do so without necessitating major changes to the overall enterprise. This adaptability is both highly desirable and advantageous as the agencies strive to deliver optimal services to their citizens. By leveraging a combination of shared and state-specific systems in a modernized integrated model, both states can innovate within a flexible and scalable architecture that supports their unique needs.

2.5.2 Shared Traits and Common Trajectories

Despite the unique paths each state has taken, there are numerous common traits and similar trajectories between the two agencies. Many of the programs, services, organizational challenges, and operational constraints exhibit similarities. Recognizing these shared elements will further strengthen the partnership, fostering a collaborative environment where both states can learn from each other and achieve greater efficiencies.

2.6. Recommended Transformation

The next steps for the Hawaii and Arizona partnership and the modernized MES will continue to execute upon a strategic plan that aligns people, process, and technology with the goals and measures required to collaboratively achieve the vision and strategy of both AHCCCS and MQD.

Exhibit 3: Strategic Plan Alignment

The modernization of the shared enterprise began with the introduction of functional modules like the provider systems APEP/HOKU and the shared EVV solution. The recommendations of the MES Modernization Roadmap continued the progress with the refactored PMMIS/HPMMIS, Systems Integration Platform (SIP), and ServiceNow. In addition, there have been agency specific modernization efforts such as the MQD HAP. All of these projects and the resulting solutions set the stage for transformation. Successful implementation of the new waiver programs for both agencies relies upon the effective shift from modernization to transformation to maximize the value of new technology through innovative projects and initiatives. Exhibit 4 outlines sixteen projects targeting both the organization and the technology that will support the successful outcomes of the agencies' state plans and updated waiver initiatives.

Exhibit 4: List of Transformation Projects

Module	Project	Goal	Benefits
PMMIS/HPMMIS	Code Based Standardization	Develop, document, and implement clear and maintainable software development standards	• Establishes the ability for the refactored code to be maintainable

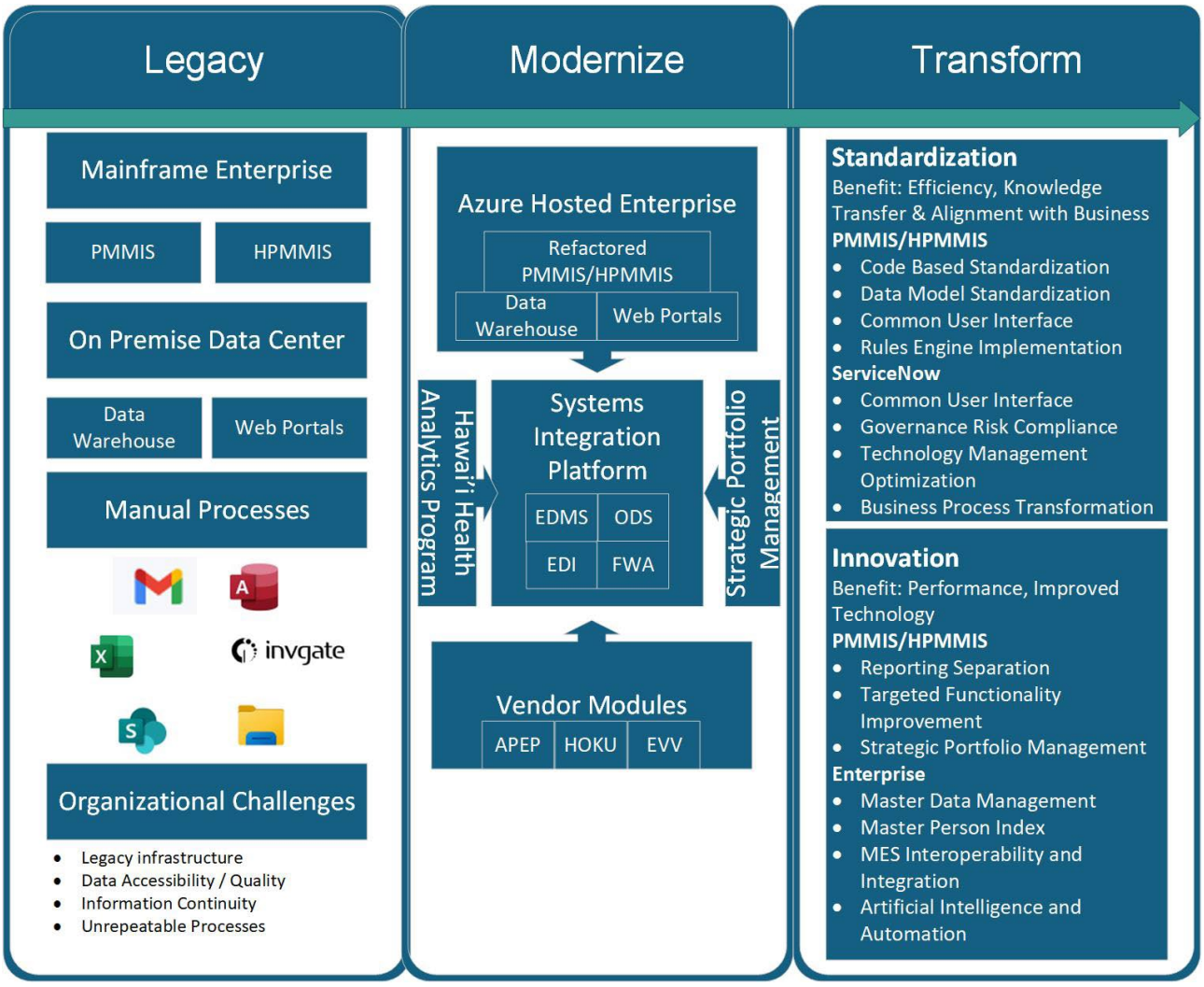
Module	Project	Goal	Benefits
			• Establishes common standards for a changing workforce • Helps align business requirements and logic to the code base
PMMIS/HPMMIS	Data Model Standardization	Develop a comprehensive data management plan	• Enforces consistent database change management • Establishes standards that help with interoperability • Helps improve performance of the system(s)
PMMIS/HPMMIS	User Interface Modernization	Create a common user interface using a maintainable technology stack	• Modernizes the user interface for the current workforce • Creates a standardized look and feel that can be replicated across the enterprise • Provides user efficiency with current UI technologies
PMMIS/HPMMIS	Rules Engine Implementation	Provide a configurable rules base approach to business logic in the system	• Expedites system changes • Provides business user visibility into system rules • Improves processing accuracy
PMMIS/HPMMIS	Reporting Separation	Separate reporting from the core transactional system	• Improves batch cycle and user interface performance by removing competing processes • Creates opportunity for dashboards and other newer reporting technologies
PMMIS/HPMMIS	Targeted Functionality Improvement	Implement best technology solutions for specific business and system needs	• Replaces customized code with software products that provide additional features and support • Removes the burden of maintenance on commodity functions of the system
ServiceNow	Common User Interface	Create a common look and feel for the business users across multiple systems	• Improved worker efficiency through common user interface • Reduced technology stack allowing for manageable ISD staffing
ServiceNow	Strategic Portfolio Management	Implement the tools, processes, and knowledge base for SPM on ServiceNow	• Single enterprise repository for SPM

Module	Project	Goal	Benefits
			• Mature tools and processes to provide enforced standardization • Integration to other tools and services in the enterprise • Integration between AHCCCS, MQD, and vendor program offices
ServiceNow	Governance Risk Compliance	Implement the GRC frameworks, tools, and processes on ServiceNow	• Single enterprise repository for GRC • Mature tools and processes to provide enforcement and standardization • Integration to other tools and services in the enterprise • Reporting and monitoring available to the business through standard platform tools
ServiceNow	Technology Management Optimization	Develop and implement DevOps, SecOps, and FinOps plans within ServiceNow to update, monitor, and control resources in the Azure environments	• Operational Automation • Standardized reporting and monitoring • Adherence to regulatory controls and audits • Centralized method of enterprise management
ServiceNow	Business Process Transformation	Consolidate and Re-engineer business process across the enterprise onto ServiceNow	• Reduces risk by moving critical business functions from email and paper to a centralized system • Improves operational efficiencies through standardized workflows • Allows for continuity of business and knowledge when a team member is absent or gone
Enterprise Innovations	Master Data Management	Implement a centralized MDM solution for the enterprise	• Improves data quality across systems • Improves data accuracy across systems • Improves data interoperability between systems
Enterprise Innovations	Master Person Index	Implement a centralized MPI solution for the enterprise	• Improves data accuracy and completeness • Ensures that the data in PMMIS matches the data in other systems

Module	Project	Goal	Benefits
			• Improves efficiency and cost savings
Enterprise Innovations	MES Interoperability & Integration	Create standardized reporting and application interfaces across the enterprise for all modules and systems	• Focuses reporting at an enterprise level and not a module or system level • Moves the enterprise from a batch file methodology to real-time integrations • Allows for less-disruptive system changes and replacements in the enterprise
Enterprise Innovations	Artificial Intelligence & Automation	Adopt smart approaches to artificial intelligence and automation that improve business outcomes while reducing risk	• Improves access to business knowledge and information • Provides efficiencies to business teams in daily work tasks • Reduces risk of human error through verification methods • Increases workload capacity for business teams through the automation of repetitive tasks

Exhibit 5 outlines the strategic path that AHCCCS and MQD are taking to move from legacy, through modernization, and into transformation, outlining the sixteen projects listed above.

Exhibit 5: Strategic Path to Transformation



2.6.1 Program Alignment

The transformation begins with an understanding of the similarly aligned program focuses of each state that create opportunities to adopt shared and extensible solutions, offering the desired flexibility for AHCCCS and MQD to each achieve their state-specific outcomes. The MES Roadmap transformation projects must provide the necessary solutions to support the opportunities for collaboration and reusability across the two state CMS-1115 waivers in the following areas that are further discussed in the program overview sections of this roadmap:

- Health Related Service Needs (HRSN)
- Justice Initiatives
- Primary Care, Prevention, Health Promotion

2.6.2 Single Enterprise and Unified Operating Model

The ongoing prioritization of the partnership requires a renewed commitment to meeting the goals and objectives of both organizations by adapting both process and structure to meet common needs. The goal of the Hawaii and Arizona partnership is to realize the benefits of reusability and collaboration. This can be achieved through foundational solutions that prioritize the partnership through a single enterprise and a unified operating model that fulfills the visions set forth by the executive leadership teams of both agencies.

Single enterprise considers all the modules and components that make up the Medicaid Enterprise Systems in support of both Medicaid Programs. The unified operating model ensures that any business initiative for either agency is evaluated across both organizations to ensure that solutions are effectively prioritized, fully meet requirements, and take advantage of synergies within the partnership. To operate in this unified manner and fulfill the individual and shared visions within the partnership, the agencies must work together to prioritize a threefold approach of Oversight, Planning, and Governance.

1. **Oversight**. Implementing appropriate oversight through the establishment of an Executive Steering Committee and Working Steering Committee to monitor progress, address critical issues, and make strategic decisions

2. **Governance**. Aligning a governance model to the steering committees that executes against the overall MES Program through the establishment of an effective program management model and an architecture review board

3. **Planning**. Aligning the planning activities to support the overall funding, management, prioritization, and completion of all approved projects

2.6.3 Transformation Projects

The AHCCCS and MQD MES Roadmap consists of sixteen projects as the recommended solutions that will help transform both AHCCCS and MQD through innovation and best practices. Two of the projects are considered organizational projects and will continue to enhance the governance model established in the first roadmap. The other fourteen projects are technology projects designed to capitalize on the new technology stack within the enterprise and maximize the return on investment.

Organizational Projects

1. **Compliance.** AHCCCS and MQD will implement the necessary technology and process solutions to effectively monitor, report, and manage compliance across the respective organizations. The critical focuses include:

- Regulatory Compliance
- Internal Controls and Audits
- Training and Education
- Reporting and Communication
- Risk Management
- Consequences and Incentives
- Responding to Detected Offenses

2. **Enterprise Risk Management.** As part of the IT Governance, Risk, and Compliance (GRC) project, AHCCCS will implement an Enterprise Risk Management (ERM) framework and operationalize that framework. The key steps for implementing a risk mindset include:

- Risk Assessment
- Prioritization
- Developing Strategies
- Training and Education
- Continuous Monitoring and Evaluation
- Stakeholder Engagement
- Use of Technology
- Policy and Procedure Updates

Technology Projects

The technology projects will provide innovation through the modification and enhancement of the systems established within the modernized MES. This includes key transformation projects with PMMIS/HPMMIS and ServiceNow, along with enterprise innovations that support improved integration, automation, and optimization.

PMMIS/HPMMIS

1. **Code Base Standardization.** Developing clear and maintainable software development standards within a technical reference architecture for the new PMMIS/HPMMIS that is implemented through maintenance and enhancement projects to update the code base
2. **Data Model Standardization.** Developing a comprehensive data management plan that includes the governance of database changes to ensure the evaluation of downstream impacts on all systems with maintenance and enhancements
3. **Interface Modernization.** Developing a modernized user interface by replacing the virtualized legacy panels according to a prioritized plan based on user activity and complexity
4. **Rules Engine Implementation.** Implementing one or more rules engines or configurable COTS tools to reduce the need for extensive customization and hard coded business logic
5. **Reporting Separation.** Replacing fixed reports in PMMIS/HPMMIS with reports and dashboards sourced from Operational Data Store (ODS) or Enterprise Data Warehouse (EDW) that support operational business needs, alongside the oversight requirements of CMS and state program and legislative entities
6. **Targeted Functionality Improvement.** Performing targeted analysis to determine if specific MMIS functions are better suited for transformation through modular replacement or re-architecture

Supporting Projects

1. **Common User Interface.** Leveraging a comprehensive solution across the AHCCCS and MQD high use application interfaces, including PMMIS/HPMMIS, to provide a common user experience to enhance worker productivity
2. **Strategic Portfolio Management.** Implementing a complete set of tools, processes, and workflows in support of the portfolio and program management for AHCCCS and MQD
3. **Governance, Risk, Compliance.** Implementing the GRC frameworks, work templates, primary workflows, service catalogue, and monitoring standards to ensure effective oversight of the MES
4. **Technology Management Optimization.** Developing a standardized set of enterprise technology management plans for DevOps, SecOps, and FinOps that are then implemented through automation and integration to manage the Azure enterprise and supported applications
5. **Business Process Transformation.** Establishing a re-engineering team for each organization that will iteratively work across the respective organizations to identify and execute use cases for business process transformation

Enterprise Innovations

1. **Master Data Management and Master Person Index.** Implementing a Master Person Index (MPI) solution and associated Master Data Management (MDM) to improve the ability to identify a person and match them to already known information, reducing the level of effort required to perform post processing reconciliation (NOTE: MQD is establishing an MPI in the Health Analytics Program)
2. **MES Interoperability and Integration.** Developing standardized Application Program Interfaces (APIs) and transactions, along with an enterprise reporting framework, to create common methods of interoperability and integration within the MES
3. **Artificial Intelligence and Automation.** Identifying areas of opportunity and significant use cases to implement proof-of-concept and pilot projects that will continue to drive efficiency and accuracy across the enterprise

Next Steps

The transformation phase of the MES Modernization Roadmap is a forward-looking horizon that provides planning for three to five years beyond the end of the initial modernization projects. The PMMIS/HPMMIS refactor project is the longest duration project in the initial roadmap and will mark the conclusion of the modernization phase. The organization recommendations are near term projects that should be executed concurrently with the modernization phase to achieve the standardization and maturity of the processes and structure to meet successful outcomes. The technology recommendations vary in recommended start dates, outlined further in the roadmap details of Section 7, with several of them continuing in iterative phases throughout the transformation phase. Many of the projects are technology transformations that will be iteratively executed throughout the systems to facilitate incremental changes that maintain stability across the enterprise. Several of the projects will maintain a schedule dependency on other vendor contracts that

are providing the methodology and strategy for programs such as GRC and SPM. In the case of new technological recommendations like artificial intelligence, the identification of meaningful use cases and the maturing of the technology will play a significant role in the determination of timing and scope. This roadmap provides recommendations that should continue to be monitored and evaluated for mid-course corrections and adjustments that allow for technology improvements and organizational changes to be included.

Timeline

The recommended transformation and supporting projects serve as the foundation for AHCCCS to manage and implement system changes, integrate new technologies, and support both the MQD Medicaid Program and their own programs as modifications to the programs occur over time. Many of the proposed projects are concurrent and interdependent with current in-flight initiatives. The timeline for the MES Roadmap, outlined in Exhibit 29, demonstrates the recommended timing and durations of the current and proposed future projects that support and enhance modernization initiatives for AHCCS and MQD.

3. The New Horizon

3.1. Introduction

AHCCCS and MQD have successfully maintained a unique strategic partnership spanning more than two decades, supported by joint technology ventures and shared systems that have controlled the costs for both agencies and met the unique needs of each Medicaid Program. Both AHCCCS and MQD credit strong institutional knowledge, due in part to the long tenures of their employees, as a key factor in the success of their distinctive programs. The factors that contributed to the success of the AHCCCS and MQD programs and services now put both organizations at risk of not being able to: 1) maintain their core systems, 2) effectively make necessary system and process changes to support new legislation and federal mandates, and 3) onboard new staff to address retirement attrition and program growth.

3.2. MES Modernization

The MES Modernization Roadmap, begun in 2022, considered several critical factors to arrive at the recommendations to modernize the shared MES in support of the Arizona and Hawaii Medicaid Programs. Factors included lessons learned from other state modernization journeys, maturity level of vendor offerings in the managed care space, budgetary constraints, and legislative cycles. Additionally, the overall volume of necessary projects and changes were expected to create a tremendous challenge for both AHCCCS and MQD based on the existing technology gaps and staffing concerns.

The MES Modernization Roadmap consisted of eleven projects, organized into four domains, as the recommended solutions to modernize, organize, and efficiently integrate both enterprises that operated in disparate and aging modular architectures. The four domains are:

- Operationalize Governance
- Replace Legacy Infrastructure
- Improve Data Accessibility and Quality
- Develop and Leverage Operational Assets

Operationalize Governance Domain

Operationalizing governance that supports both agencies individually as well as their unique partnership required a shift in how the day-to-day business is supported. The need to look at things holistically, from the top down, was critical as AHCCCS and MQD began to execute on the MES Modernization Roadmap. This also began the shift of certain jobs within the agencies to be institutional subject matter experts providing oversight to vendors brought onboard who have specific expertise and scalability not available within state operating models.

The Operationalize Governance Domain consisted of the following projects and foundational activities:

- Establish Enterprise Program Management Office
- Create Enterprise Documentation
- Organizational Change Management and Business Readiness
- Development Staffing Model

Replace Legacy Infrastructure Domain

The replacement of legacy infrastructure was a key driver for the MES modernization. The entire MES has evolved over 30 years with modules, commercial software, and applications being built around a central mainframe system, all relying on point-to-point file-based interfaces and nightly batch cycles. The mainframe-based PMMIS/HPMMIS is made up of IDEAL code using a DATACOM database. The impending retirements of experienced staff paired with a changing technical workforce that could not supply replacement developers made it necessary to move off the legacy technology as soon as possible.

The significant improvement of modernization tools brought the opportunity for AHCCCS and MQD to achieve modernization of their core systems through a single step refactor process. This was important because the PMMIS/HPMMIS, with years of robust managed care business logic built into them, did not have a comparable replacement in the marketplace. The updated PMMIS/HPMMIS will be maintainable into the future running C# and SQL Server and operating on a more flexible and extensible platform in the Azure cloud.

The replace legacy infrastructure domain focused on a modern architecture supported by a systems integration platform and major systems exiting the mainframe and self-hosted servers and migrated into an AHCCCS-managed Azure cloud tenancy. AHCCCS and MQD would continue to maintain ownership and architectural control of their key systems while allowing the flexibility to utilize vendors in support of maintenance and enhancement efforts of the systems.

The Replace Legacy Infrastructure Domain consisted of the following projects and foundational activities:

- Cloud Strategy
- Security
- Azure Enterprise Data Warehouse Migration Project
- Azure Web Portal Migration Project
- Systems Integration
- PMMIS/HPMMIS Refactor to Azure Project

Improve Data Accessibility and Quality Domain

The third domain of projects focused on implementing systems and processes that would provide better data accessibility for business users and improved data quality. One of the projects became part of the systems integration platform and the other was a project planned under the Hawaii Health Analytics Program.

The Improve Data Accessibility and Quality Domain consists of two major projects:

- Operational Data Store Project
- Hawaii Health Analytics Platform Project

1. The ODS project started with the establishment of an ODS for each state as components of the systems integration platform. The main goal of implementing an ODS as a component of the MES Modernization Roadmap was to integrate data from the multiple data sources within the MES. The creation of ODS instances as part of the System Integration (SI) platform will facilitate the aggregation of all module transaction data that has been siloed away within the individual vendor solutions in the current architecture. This aggregation of data allows AHCCCS and MQD to meet new goals and opportunities in operational reporting and help accurately deliver the metrics supporting the CMS-mandated outcomes being developed for the programs.

2. The Hawaii Health Analytics Platform Project is an active project managed by the Health Analytics Office within MQD and is independent of the MES Modernization Roadmap. There is a large dependency on receiving data from HPMMIS as the primary data source for the Health Analytics Platform. The roadmap provides the changes required to improve the access to data, including the Systems Integration Project, the Operational Data Store Project, and the HPMMIS Refactor.

Develop and Leverage Operational Assets Domain

AHCCCS initiated the foundational step of establishing a common business workflow platform for the enterprise with the procurement of ServiceNow in 2023 through NASPO. The selected ServiceNow platform modules being implemented in phases that started in 2024 will continue to facilitate the onboarding and consolidation of the disparate workflows and processes across the AHCCCS divisions. Key business modules are also being implemented on the platform to replace specific COTS software and manual solutions. In addition, the functionality currently contained within the mainframe (PMMIS) to support the System Service Request (SSR) subsystem for systems change management is being migrated to the platform. The decision to implement ServiceNow aligns with other Arizona state agencies, helping to reduce licensing costs and continuing to support common standards across the state.

The Develop and Leverage Operational Assets Domain consists of three major projects:

- ServiceNow Project
- AHCCCS Case Management Project and Quality Improvement
- AHCCCS Hearings and Grievances Project

3. ServiceNow Project

The implementation of ServiceNow as the standardized platform for Enterprise Business Workflow Management Software will allow the functions currently performed in the PMMIS SSR component to be migrated prior to the PMMIS refactor. The introduction of ServiceNow into AHCCCS will provide a modern configurable platform that supports the following program activities:

- Governance, Risk, Compliance (GRC)
- Change and Release Management
- Knowledge Management
- Contact and Communication Management
- Contract Management
- IT Service Ticketing

4. AHCCCS Case Management Project and Quality Improvement

The AHCCCS case management subsystem, Client Assessment and Tracking System (CATS), within the PMMIS supports the Arizona Long Term Care System (ALTCS) and Tribal ALTCS programs. AHCCCS implemented the replacement of CATS as a module within ServiceNow, providing workflow and reporting capabilities to support managing cases at an individual and agency level. Integration to source systems to pull necessary member, provider, claims, and other sources of data allows for a single interface for case workers. This decoupled Case Management from PMMIS and allowed for the removal of this functionality prior to the PMMIS/HPMMIS Refactor to Azure Project.

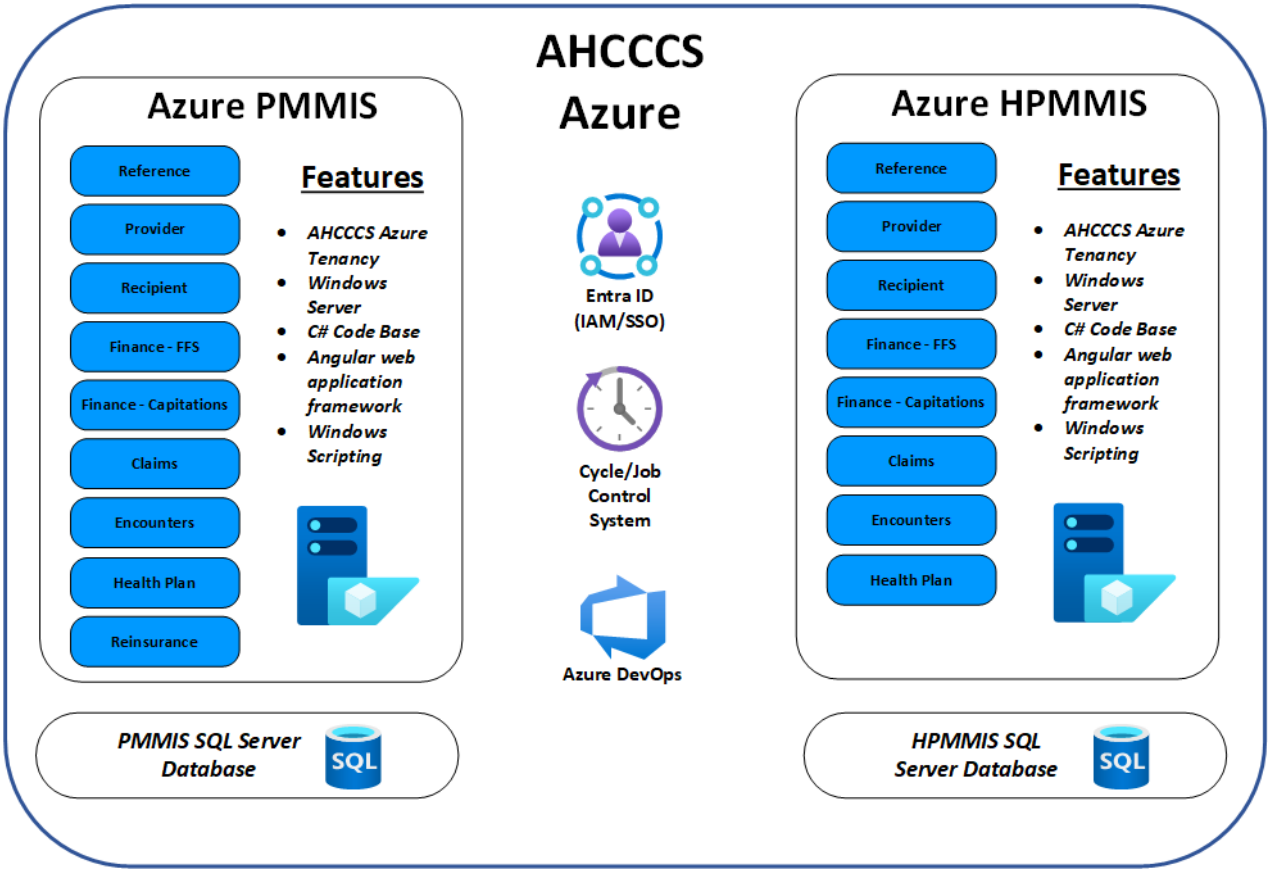
5. AHCCCS Grievances and Hearings Project

The AHCCCS Office of the General Counsel administers grievances, appeals, and hearings through a set of systems and manual processes outside of the PMMIS. AHCCCS replaced ProLaw and the set of manual processes with a module within ServiceNow. This new module provides workflow and reporting capabilities to support Office of the General Counsel administration of grievances, appeals, and hearings. Integration to source systems helps pull necessary member, provider, claims, and other sources of data that provides a single interface for employees.

3.3. New Systems Model and Future Opportunity

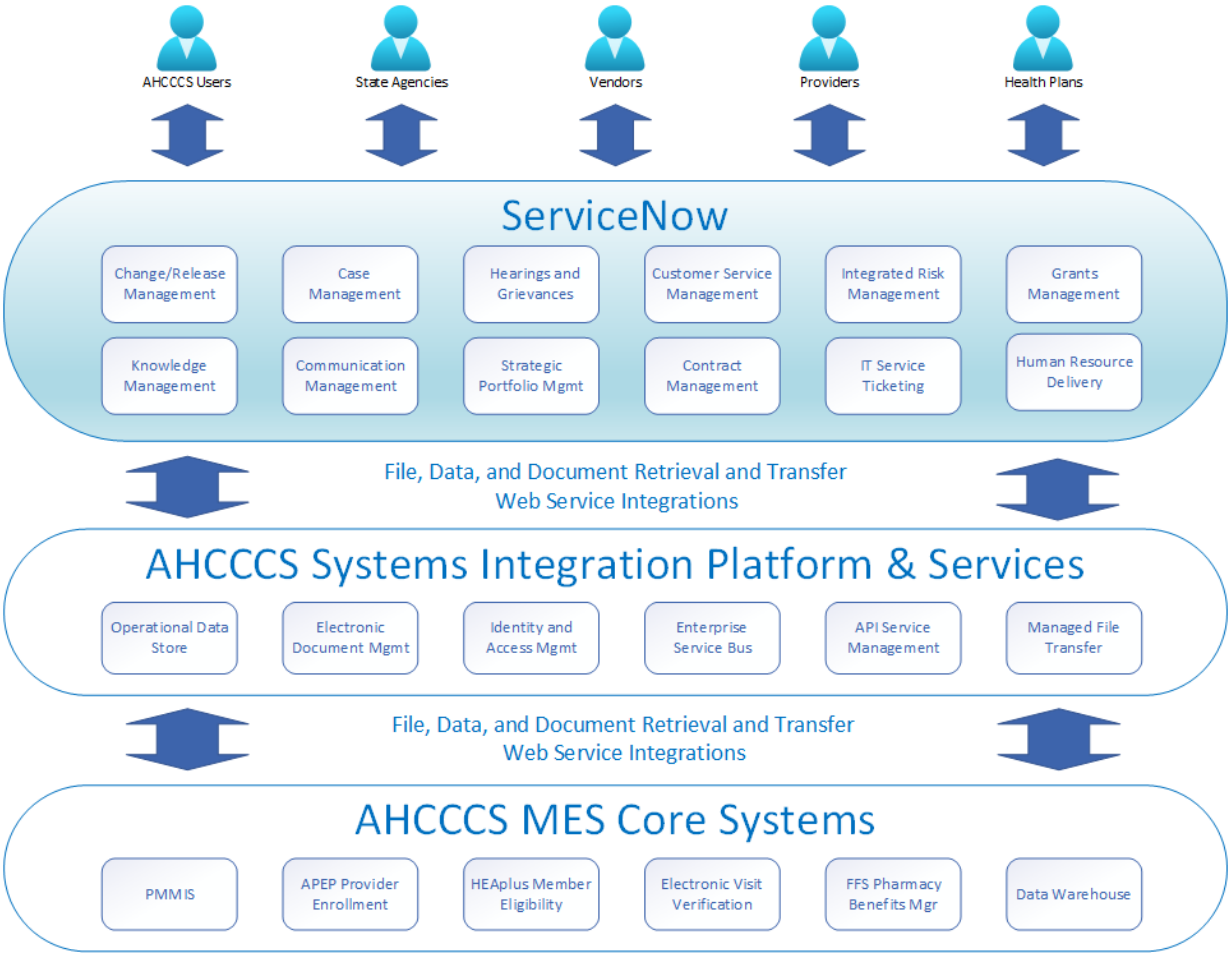
At the completion of the refactor project, AHCCCS and MQD will have new versions of the PMMIS and HPMMIS that are running in the Microsoft Azure cloud with no remaining legacy technologies. The new systems will be paired down to focus on the transactional processing of the Medicaid programs, as the reporting and program management functionality have been transferred to other solutions. The new systems will retain the business rules and processing logic of the original systems running on a modern source code language and database system. This solution positions AHCCCS and MQD to begin strategically re-architecting their core MES functions around best solutions that help drive the goals and strategies of the agencies. Exhibit 6 illustrates the functions that remain in the new PMMIS and HPMMIS at the conclusion of the refactor project.

Exhibit 6: Refactored PMMIS/HPMMIS



In addition to the new versions of the PMMIS/HPMMIS, AHCCCS will also have an integrated set of extensible technologies that can be leveraged with MQD and across a multitude of business opportunities to create standardized solutions. Exhibit 7 demonstrates a user experience architecture of ServiceNow integrated with core systems through the Systems Integration Platform (SIP).

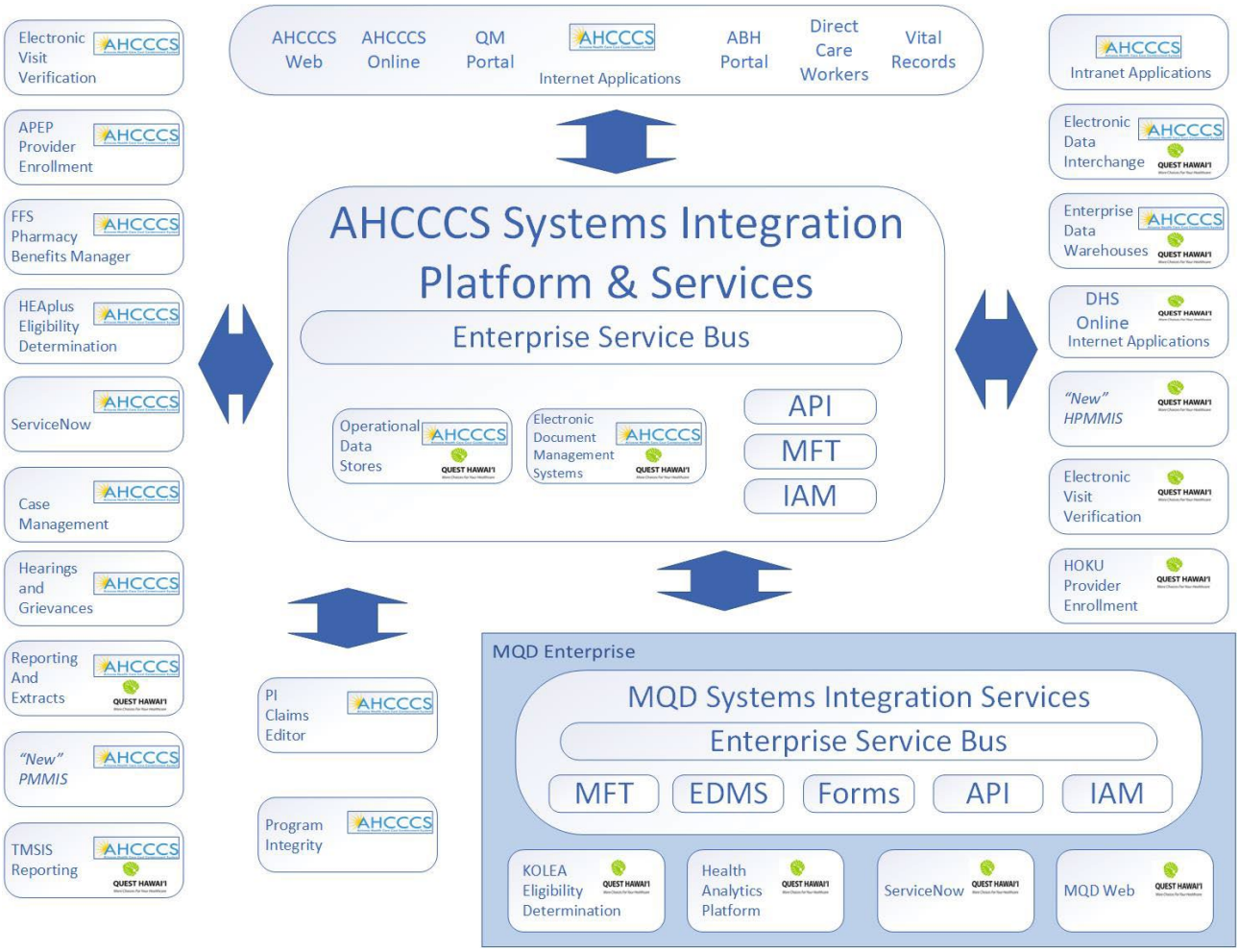
Exhibit 7: AHCCCS ServiceNow Architecture



Modernized Multi-State Hybrid MES

The modernized multi-state hybrid Medicaid Enterprise System (MES) aligns Hawaii and Arizona into a scalable cloud-based modular architecture. This integrated MES is anchored by a vendor managed systems integration platform within the AHCCCS Azure cloud tenancy connected to an integration platform of shared services within the MQD enterprise. This architecture supports the ability to integrate systems and modules inside and outside the AHCCCS and MQD cloud hosted enterprises while also integrating to each other. Whether implementing individual or shared solutions, the states can do so without necessitating major changes to the overall enterprise. This adaptability is both highly desirable and advantageous as the agencies strive to deliver optimal services to their citizens. Exhibit 8 is a high-level architecture of the modernized MES.

Exhibit 8: AHCCCS and MQD MES Architecture Model



Shared Traits and Common Trajectories

Effective implementation of the new waiver programs for both agencies requires careful consideration of various factors, including planning, governance, and technology. Beginning with an understanding of the mutual opportunities shared by the states will create an environment conducive to adopting shared and extensible solutions, offering the desired flexibility for AHCCCS and MQD to each achieve their state-specific outcomes.

Exhibit 9 outlines several topics across the two waiver programs that share common ground and present the opportunity for AHCCCS and MQD to collaborate on planning and solution development. By working together, the states can assist one another in achieving better outcomes and effective management of taxpayer dollars through the exchange of ideas and lessons learned. The state-specific vision and strategy details for each state-specific waiver will be discussed further in this document; however, it is important to draw attention to the common ground to understand how each recommendation and program goal should consider the potential for a collaborative approach and solution.

Exhibit 9: Collaboration Opportunities

Topic	Description	Collaboration Opportunities
Health Related Service Needs (HRSN)	AHCCCS and MQD have successfully completed pilots of their housing service and support initiatives and are now committed to	• Billing and payment strategies (service codes, funding configuration) • Utilization Management

Topic	Description	Collaboration Opportunities
	a significant program focus to improve member health outcomes in their new waivers	• Member outreach and community engagement • Member program enrollment and participation status • Prior Authorization • Care Coordination • Case Management Integration • Provider contracts and enrollment • Program Integrity • Grievance, Hearings and Appeals • Closed Loop Referral System • Continuums of Care (CoC)
Justice Initiatives	The process of managing eligibility and enrollment for status changes for members and eligible members entering/exiting the justice system is a manually intensive process	• Pre-emptive registration • Activation/Suspension of enrollment • Benefit Plan configuration • Outreach and Service Coordination
Primary Care, Prevention, Health Promotion	Much like the recognized benefits of addressing health related service needs, focusing on primary care, prevention and healthy living has also improved health outcomes, especially in the areas of pediatrics, pregnancy care, geriatric care, chronic illness, and serious mental illness	• Early and Periodic Screening, Diagnostic and Treatment (EPSDT) • Case Management • Care Coordination • Community Based Outreach • Closed Loop Referral System • Clinical data Interoperability
		•

4. Medicaid Program Overview - AHCCCS

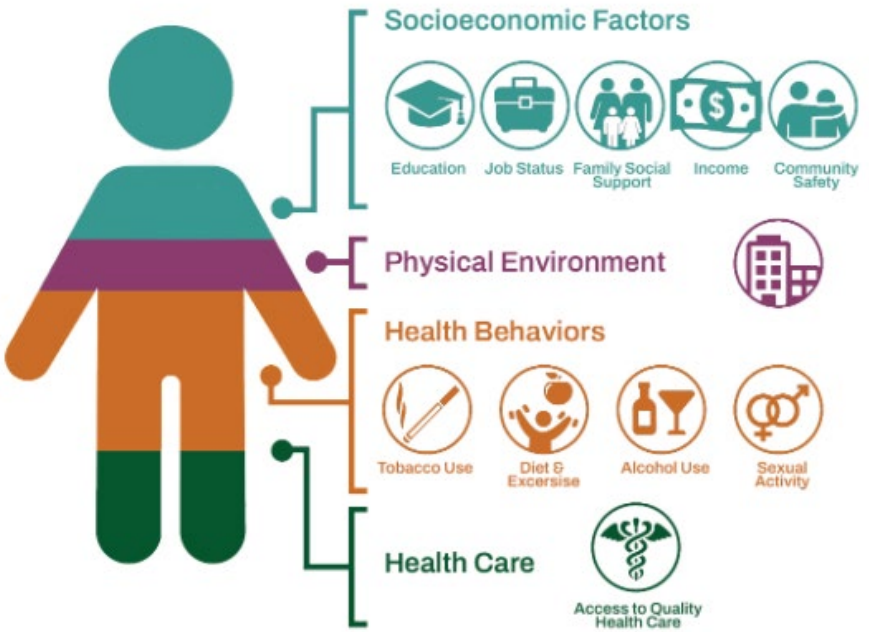
4.1. AHCCCS Vision

AHCCCS is a state Medicaid program that can be described as a leader in program and payment innovation when reviewing its history. This innovation is evident from the program inception in 1982 as mandatory managed care and has continued through many program highlights and initiatives that include the following:

- Implementation of the Arizona Long Term Care System (ALTCS) covering elderly, physically disabled, and developmental disabilities
- Hawaii - Arizona Partnership that extends the AHCCCS IT services to provide and manage an MMIS system that supports Hawaii's Medicaid program
- Integration of physical and behavioral health care services under mandatory managed care contracts known as AHCCCS Complete Care (ACC)
- AHCCCS housing services initiative focusing on housing stability, primarily for Serious Mental Illness (SMI) members

The steady continuum of program development through the many initiatives, including the key programs above, culminated in the current vision and strategy for AHCCCS. As depicted in Exhibit 10, the framework of the AHCCCS delivery model going forward is the Whole Person Care Initiative (WPCI), delivering services across the spectrum of physical and behavioral health care, along with health-related service needs (HRSN) that lead to positive health outcomes for members.

Exhibit 10: Whole Person Care Framework



The three core focuses of the WPCI under the currently approved CMS 1115 waiver include the Housing and Health Opportunities (H2O) program, targeted investments, and Justice Initiatives.

4.1.1 Housing and Health Opportunities (H2O)

The goal of the AHCCCS H2O demonstration is the enhancement and expansion of housing services and interventions for AHCCCS members who are homeless or at risk of becoming homeless. Under this demonstration proposal, the agency seeks to:

- Increase positive health and wellbeing outcomes for target populations, including the stabilization of members' mental health conditions, reduction of substance use, improvement in the utilization of primary care and prevention services, and increased member satisfaction.
- Reduce the cost of care for individuals successfully housed through decreased utilization of crisis services, emergency department utilization, and inpatient hospitalization.
- Reduce homelessness and improve skills to maintain housing stability.

Services under the H2O benefit are furnished to individuals who reside and receive services in their home or in the community, not in an institution. A list of HRSN services and associated descriptions of covered H2O services and housing-related supportive wrap-around services include:

- Outreach and Education Services
- Transitional Housing - Apartment or Rental Unit (Rental Assistance)
- Transitional Housing - Transitional Housing Setting (Enhanced Shelter)
- One-time Transition and Moving Costs
- Home Accessibility Modifications and Remediation
- Housing Pre-Tenancy Services
- Housing Tenancy Services

The launch of the H2O program in October 2024 required the integration of two very distinct and different social service silos in healthcare and housing. AHCCCS made the decision to procure a third-party administrator for the program in 2024. The role of the H2O Program Administrator (H2O-PA) is to assist the state in administering the AHCCCS H2O Program benefit services approved under the waiver demonstration. One of the primary reasons for adopting the program administrator model was to address the challenges faced by AHCCCS to integrate non-traditional services into the MES and the existing AHCCCS operational model.

The other considerations for seeking a program administrator were related to technical limitations of the PMMIS and the operational reach required for the new program. In its current state, the PMMIS is unable to directly integrate with housing providers and services to manage billing, utilization, and payment. This created the need to utilize a Program Administrator as an integrator between third party housing services and AHCCCS. In addition, AHCCCS could not expand their operational structure to manage the outreach and provider network development, as well as the housing care coordination, with current resources and staffing.

At this time, the H2O program has not been integrated into the health plans as part of their managed care strategy. It has been carved out and is specifically focused, within this current demonstration, on the SMI population.

4.1.2 Justice Initiatives

The goal of the justice initiatives is to build efficiency into the transition process for Medicaid enrolled and Medicaid eligible citizens who enter and exit the justice system. The following initiatives are the current focuses being explored:

- Care coordination
- Early intervention
- Expedited application processes
- Automated enrollment suspension/reinstatement processes
- Designated liaisons
- Co-located services are the key services being explored as part of this initiative

The objectives of these initiatives are to remove barriers, close enrollment gaps, and streamline processing that will result in positive outcomes and significant improvements for the member, the AHCCCS eligibility staff, and the correctional and justice organizations.

4.1.3 Targeted Investments 2.0

AHCCCS has updated the successful targeted investments program to help ensure the successful adoption of the WPCI programs through the provider network. The targeted investment program provides financial incentives that encourage AHCCCS providers to develop systems and services that address whole person care needs of the individual in culturally appropriate methods and settings.

Participation in the targeted investments is limited to primary care (adult and pediatric), behavioral health (adult and pediatric), and justice organizations. The goal is to promote the development of infrastructure and protocols within those organizations that will optimize the coordination of services for the members. As such, the organizations must commit to organizational changes and investments to address the following goals:

- Deliver services through culturally and linguistically appropriate standards (CLAS)
- Address health-related service needs that improve health outcomes
- Use the Closed Loop Referral System (Community Cares) to coordinate member care

In addition, other milestones and objectives within each area of concentration (Acute, Behavioral, Justice) must be addressed.

4.2. AHCCCS Strategic Plan

The AHCCCS 2025 - 2029 strategic plan is organized around Access to Care and Quality of Care, and each summarizes a set of agency priorities. Overall, the strategic goals and priorities that address information technology place a heavy emphasis on procuring and building systems that are configurable, interoperable, flexible, replaceable, secure, and based on standard technologies that are mature and have a broad presence in the marketplace. Exhibit 11 outlines the 2025-2029 Strategic Plan.

Exhibit 11: AHCCCS Strategic Plan

Exhibit 12 outlines the objectives and initiatives associated with each strategic goal.

Exhibit 12: AHCCCS Strategic Goals along with Priorities and Initiatives

AHCCCS Strategic Goals	
Strategic Goal	**Priorities and Initiatives**
Advance whole-person care	• Support participation in the Closed-Loop Referral System • Collaborate with partners to make it easier to onboard new Community-Based Organizations (CBOs) and streamline the process of making referrals
Lower the uninsured rate	• Reduce the uninsured rate among those earning < 138% of the federal poverty level (FPL) • Target individuals who would be eligible for AHCCCS programs with a maximum eligibility of 138% FPL • Launch an outreach campaign to build awareness of AHCCCS benefits among communities most likely to be eligible and uninsured
Maintain a Strong Provider Network	• Establish a baseline of provider satisfaction, analyze dissatisfiers, and develop and deploy plans to address key issues
Support Preventive Care	• Reinstate pre-Covid accountability mechanisms for managed care organizations (MCOs) as outlined in the MCO contracts for value-based purchasing initiatives • Develop a Differential Adjusted Payment (DAP) rate for non-Indian Health Service (IHS) providers
Maintain High Member Satisfaction	• Monitor and maintain world-class member satisfaction rate of 85%
Strengthen Program Integrity	• Implement the pre-pay and post-pay system to evaluate claims payments • Develop a communication strategy that includes Technical Assistance (TA) and training of providers who are subject to prepayment review and regularly are denied payment

4.3. AHCCCS Health IT Strategy

In addition to the 2025 - 2029 strategic plan, AHCCCS published its Health IT strategy for 2022-2026 that demonstrates the alignment of the health information technology (HIT) strategy with the health information exchange (HIE) strategy for the state. Exhibit 13 outlines the five Health IT strategy goals and their priorities that AHCCCS is targeting through the development and execution of this MES Program.

Exhibit 13: AHCCCS Health IT Priorities and Goals

Priority: Continue Health IT Collaboration		
Goal 1	**Establish cross-agency collaborations to maximize utilization of Contexture to advance interoperability across the enterprise, the state, and the community.**	
	Strategy 1.1	AHCCCS actively participates in ongoing statewide health IT governance, operations, and business development.
	Strategy 1.2	AHCCCS regularly reviews and evaluates Medicaid and state agency data access and sharing needs.
	Strategy 1.3	AHCCCS coordinates with Contexture to engage community stakeholders to understand health IT opportunities and challenges.
Priority: Create Efficiencies and Improve Healthcare Quality		
Goal 2	**Support data integration to enhance the data exchange infrastructure.**	
	Strategy 2.1	Enhance Arizona's data sharing capabilities to advance public health infrastructure modernization.
	Strategy 2.2	Extend Arizona's data sharing capabilities to enable informed clinical decision making and advance health equity.
Goal 3	**Increase provider access to care information in a standardized format.**	
	Strategy 3.1	Develop and deploy technology and policy infrastructure to support data sharing.
	Strategy 3.2	Maximize available funding to advance the data sharing infrastructure.
	Strategy 3.3	Support Contexture to incentivize HIE utilization to improve quality and address health disparities.
Priority: Improve Data Quality and Modernization		
Goal 4	**Improve operations by modernizing agency technology.**	
	Strategy 4.1	Assess and enhance the AHCCCS MES infrastructure and environment.
	Strategy 4.2	Create and enhance agency dashboards for improved visibility and analytics.
Goal 5	**Increase agency data access and information exchange.**	
	Strategy 5.1	Develop and deploy technology and policy infrastructure to support data sharing.
	Strategy 5.2	Maximize available funding to advance the data sharing infrastructure.

4.4. AHCCCS Challenges and Opportunities

Challenge: Loss of Valuable Business Knowledge Due to Retirements

AHCCCS is currently facing significant challenges. Approximately 20% of the ISD team is eligible to retire now and an additional 20% within the next 5 years. Meaning approximately a full 40% of the current ISD team will be retirement ready within the next 5 years. This impending wave of retirements poses a critical threat to the organization, as it will result in the loss of valuable business knowledge that has been accumulated over many years. The expertise and insights held by these retiring team members are crucial for the smooth operation and continuous improvement of AHCCCS's systems and processes.

One of the primary concerns is the headcount restrictions, mandated by the Governor’s Office, that are coming into effect at a critical juncture. These restrictions will make it challenging to ensure that replacement staff are hired in sufficient time to acquire the necessary business knowledge from the outgoing team members. The process of transferring this knowledge is not only time-consuming but also requires intentional planning and execution to ensure that new hires are adequately prepared to take on their roles.

The loss of experienced staff and the potential gap in knowledge transfer will increase operational risks:

1. **Delayed System Changes**: Without the necessary business knowledge, new staff may struggle to implement system changes effectively. This can lead to delays in critical updates and enhancements, impacting the overall efficiency and effectiveness of the systems.

2. **Increased Risk of Errors**: Inexperienced staff may be more prone to making errors, which can result in system failures or suboptimal performance. This can have a cascading effect on service delivery and user satisfaction.

3. **Reduced Innovation**: The loss of seasoned team members can stifle innovation, as new staff may lack the historical context and deep understanding required to drive forward-thinking initiatives.

4. **Challenges in Meeting Needs**: Ensuring that system changes adequately support the needs of both AHCCCS and MQD becomes more difficult without the insights and expertise of experienced staff. This can lead to misaligned priorities and unmet requirements.

5. **Escalation of Costs**: There are increases in the costs associated with system modifications, due to the absence of expertise and innovation necessary for the effective and precise execution of system changes.

To mitigate these risks, it is essential for AHCCCS to develop a comprehensive succession planning strategy. This strategy should include:

- **Knowledge Transfer Programs**: Structured programs to facilitate the transfer of critical business knowledge from retiring staff to new hires.
- **Mentorship and Training**: Establishing mentorship and training programs to accelerate the learning curve for new staff.
- **Proactive Recruitment**: Initiating recruitment efforts well in advance to ensure that new hires have ample time to learn from experienced team members.
- **Retention Strategies**: Implementing retention strategies to retain key staff members and minimize the impact of retirements.

By addressing these risks proactively, AHCCCS can ensure a smoother transition and maintain the high standards of service delivery that are essential for supporting the needs of both AHCCCS and MQD.

Challenge: Insufficient Quality Assurance Due to Lack of Planning

AHCCCS faces insufficient quality assurance (QA) resulting from inadequate planning. Although the ISD QA team has a QA Plan, individual projects do not properly plan for QA. The lack of a comprehensive QA plan can lead to several issues, including:

1. **Inconsistent Testing Procedures**: Without a well-defined QA plan, testing procedures may vary significantly across different teams and phases of the project. This inconsistency can result in critical defects being overlooked, leading to potential system failures and increased maintenance costs.

2. **Delayed Defect Identification**: A lack of proactive planning for QA can delay the identification of defects until later stages of the project. This can cause significant setbacks, as resolving defects at later stages is often more complex and costly compared to addressing them early in the development cycle.

3. **Inadequate Resource Allocation**: Insufficient planning can lead to inadequate allocation of resources for QA activities. This includes a lack of skilled personnel, tools, and time dedicated to thorough testing. As a result, the quality of the final product may be compromised, affecting the overall success of the modernization efforts.

4. **Poor Documentation and Communication**: Without a structured QA plan, documentation and communication regarding testing processes and results may be lacking. This can hinder collaboration among teams, leading to misunderstandings and misaligned expectations, ultimately impacting the quality of the deliverables.

5. **Increased Risk of Non-Compliance**: AHCCCS aims to achieve compliance with CMS and state requirements. Insufficient QA due to lack of planning increases the risk of non-compliance, as critical regulatory requirements may not be adequately tested and validated.

To address these issues, it is crucial to develop a comprehensive QA plan that provides the standardized methodology for each project that includes clear testing procedures, early issue identification strategies, adequate resource allocation, thorough documentation, and effective communication channels. This will ensure AHCCCS achieves its goals of improving interoperability and sustainability of technology solutions supporting Medicaid service delivery.

Opportunity: Revising Operational Model for Systems Support

The new modern platform presents AHCCCS with a significant opportunity to revise their operational model for systems support while maintaining system ownership. This approach builds on the success of the existing eligibility system operating model, where a vendor provides systems maintenance and operations support. AHCCCS plays a crucial role in this model by ensuring that business requirements are accurately communicated to the vendor and having staff capable of effectively translating these requirements.

1. One of the key strengths of leveraging the existing eligibility system support model is the well-established governance process that aligns with the needs of both AHCCCS and the Arizona Department of Economic Services (ADES). This governance process facilitates awareness of priorities and enables proactive planning for system changes and impacts. By leveraging this governance framework, AHCCCS can ensure that system support operations are efficient, responsive, and aligned with organizational goals. Utilizing the model that works for prioritization between AHCCCS and ADES can be modified to better support the needs of AHCCCS and MQD.

2. The modern platform allows for the adoption of advanced technologies and best practices in systems support. This includes the integration of cloud-native services, automation, and enhanced security measures. These advancements can lead to improved system performance, reduced downtime, and better overall user experience for both staff and beneficiaries.

3. A vendor facilitates the efficient scaling of resources necessary for timely implementation of initiatives, thereby alleviating the limitations associated with state full-time employees (FTEs).

4. The revised operational model can enhance collaboration between AHCCCS and its vendor partners. By fostering a collaborative environment, AHCCCS can ensure that the vendor is fully aligned with its strategic objectives and that any issues are promptly addressed. This collaboration can also lead to continuous improvement in system support processes, resulting in more effective and efficient service delivery.

Overall, the opportunity to revise the operational model for systems support on the new modern platform positions AHCCCS to achieve greater operational efficiency, improved system performance, and enhanced service delivery, all while retaining system ownership and ensuring alignment with organizational priorities. With the new technology allowing AHCCCS to staff up and down and utilization of a vendor that will understand the programs and system, AHCCCS can more effectively meet the needs of both agencies.

Opportunity: Data Governance

Data governance provides several opportunities for AHCCCS, particularly in the context of the MES Program. Establishing a data governance program and moving into operations can be quite challenging in state government, especially with staff that is already overallocated. However, AHCCCS is accelerating the establishment of a data governance program with the help of a vendor. Data governance supports many of the AHCCCS goals in the strategic plan, as well as the goals in the AHCCCS Health IT Strategy. Key benefits include:

1. **Improved Data Quality**: Effective data governance ensures that data is accurate, consistent, and reliable. This leads to better decision-making and more efficient operations.

2. **Enhanced Compliance**: With robust data governance, organizations can ensure compliance with regulatory requirements, reducing the risk of penalties and legal issues.

3. **Increased Efficiency**: By standardizing data management practices, data governance can streamline processes, reduce redundancies, and improve overall efficiency.

4. **Better Data Security**: Data governance helps in implementing strong data security measures, protecting sensitive information from breaches and unauthorized access.

5. **Improved Collaboration**: With clear data governance policies, different departments can collaborate more effectively, sharing data and insights to achieve common goals.

6. **Strategic Decision-Making**: Data governance provides a framework for leveraging data as a strategic asset, enabling organizations to make informed decisions that drive growth and innovation.

These key benefits highlight the importance of data governance in achieving the goals of the MES Program and ensuring a more efficient and effective Medicaid service delivery system.

5. Medicaid Program Overview – Med-QUEST

5.1. MQD Vision

The mission of the State of Hawaii Department of Human Services Med-QUEST Division is to empower Hawaii's residents to improve and sustain wellbeing by developing, promoting, and administering innovative and high-quality healthcare programs with Aloha. MQD has adopted innovative approaches to achieve this mission with a vision focused on improving the accessibility and delivery of health care services for Medicaid beneficiaries across the state. The mechanism by which MQD has implemented its vision is through the QUEST demonstration. QUEST is a Section 1115 demonstration waiver, established first in 1994, renewed for its fifth time in 2019, and pursuing further innovative services in a 2024 renewal. QUEST stands for:

- **Q**uality care
- **U**niversal access
- **E**fficient utilization
- **S**tabilizing costs
- **T**ransforming the way healthcare is provided to QUEST members

From its inception, this demonstration sought to implement a holistic Medicaid program that improves health outcomes of members through a managed care delivery system that focuses on whole person and whole family engagement. The managed care delivery system has proved to be an effective model to ensure appropriate utilization of services and maintain a manageable expenditure growth in the face of expanding population needs. The whole person focus has led to the seamless integration of physical and behavioral health services through managed care delivery and is expanding at each phase into health-related service needs, Home and Community-Based Services (HCBS) for long-term care support needs, and justice intervention to help build a complete and effective service model.

The 2024 five-year renewal of the Hawaii QUEST Section 1115 Demonstration requests the extension for most of the existing expenditure authorities and seeks permission to implement several new authorities in line with the expanding service model to meet whole person and whole community outcomes. Exhibit 14 outlines the seven key initiatives requested in the 2024 renewal, with further discussion of how each initiative continues to advance the vision and strategy of MQD.

Exhibit 14: MQD 1115 Initiative

1. **Housing Related Services**. One of the most significant findings over the last 5-10 years for many state Medicaid agencies through social determinants of health (SDOH) research and pilot initiatives is the measurable improvement in health outcomes leading to a reduction in critical expenditures from the investment of Medicaid dollars in housing related services. MQD began providing housing-related services with the 2019 QUEST demonstration update by implementing the Community Integration Services (CIS) program. The updated program for 2024 is being re-branded as Community Integration Services Plus (CIS+) and will primarily expand the scope and duration of the existing set of services and supports currently being offered in the initial CIS program. In addition, MQD identified a need within the MQD member communities to provide for medical respite in the form of 90-day short-term residential recuperative care for ongoing medical/behavioral services and short-term post hospitalization housing. The expansion of rental and utility subsidies to six months is in line with several other state Medicaid waivers that have gained recent approval by CMS. The transitional case management (TCM) services provided under the original CIS program have been removed from the CIS+ waiver to implement TCM as a more comprehensive whole person integrated case plan outside of just housing services.

2. **Continuous Eligibility for Children.** MQD recognizes that early intervention and care is key to the ongoing health and wellbeing of children and that administrative hurdles causing even temporary delays or gaps in care can lead to later health and development problems. The approval of this measure will close the churn within the CHIP program coverage for numerous children who could be at-risk for ongoing health, education, and developmental challenges due to gaps in care during critical periods.

3. **Pre-Release Services for Justice-Involved Individuals.** The process of administering Medicaid benefits in coordination with correctional departments and agencies around the state is often manually intensive and creates a burden on administrative staff and delays on needed coverage for members. Through this demonstration program, MQD would be able to facilitate a seamless transition from incarceration to community-based care through early planning and intervention. More importantly, critical services like pharmacy fulfillment would be implemented prior to release and ensure that members are provided with their necessary medications without worry of gaps in coverage.

4. **Nutrition Supports.** While housing related services have received a lot of attention within HRSN discussions, one of the most prevalent needs in communities today is nutritional support. The well-documented statistics of nutritional programs being administered through the school systems and the community based social service organizations demonstrate the widespread challenges that families face today in having nutritional needs met. Coordinating the delivery and funding of HRSN services such as nutrition support through Medicaid allows state and federal authorities to monitor and evaluate a more comprehensive wellness plan for the individual that leads to better health outcomes and a reduction in both overlapping and missing services. The forward-thinking program for MQD not only addresses general food distribution needs, but also nutritional education and medically tailored needs.

5. **Contingency Management.** The Contingency Management program is a pilot for members with a qualifying substance use disorder (SUD). The goal of this pilot is to assess the effectiveness of educational and motivational offerings to help and encourage members to seek treatment and adopt a life of sobriety and clean health. The intersection of SUD with homelessness, behavioral and mental health disorders, incarceration, and high-cost emergency room episodes makes it one of the key intersection points of care delivery to positively affect the whole person outcomes for a member. The size, scope, and methods of delivery will be determined during the planning phase of the program and monitored to assess effectiveness and needed changes throughout the pilot period.

6. **Infrastructure Funding.** The biggest hurdles to the implementation of HRSN programs in a state Medicaid agency are the development of the capabilities inside and outside of the agency and the building of an equitable and effective provider network to meet member needs. The challenges include not only the efforts to develop the infrastructure, but also the critical and often highly front-loaded cost of implementation. These are programs that will administer non-traditional services from the perspective of Medicaid, and thus will operate differently from traditional medical and behavioral health services. New data sources and data sharing agreements, along with system and program integrations, will require extensive cooperation with existing and new state, federal, and community-based agencies. The development of a provider network will also require new and innovative community-based outreach models. In addition, there will be the need for new prior authorization, billing, payment, and utilization management tools, methods, and strategies to integrate this new category of services. As such, MQD

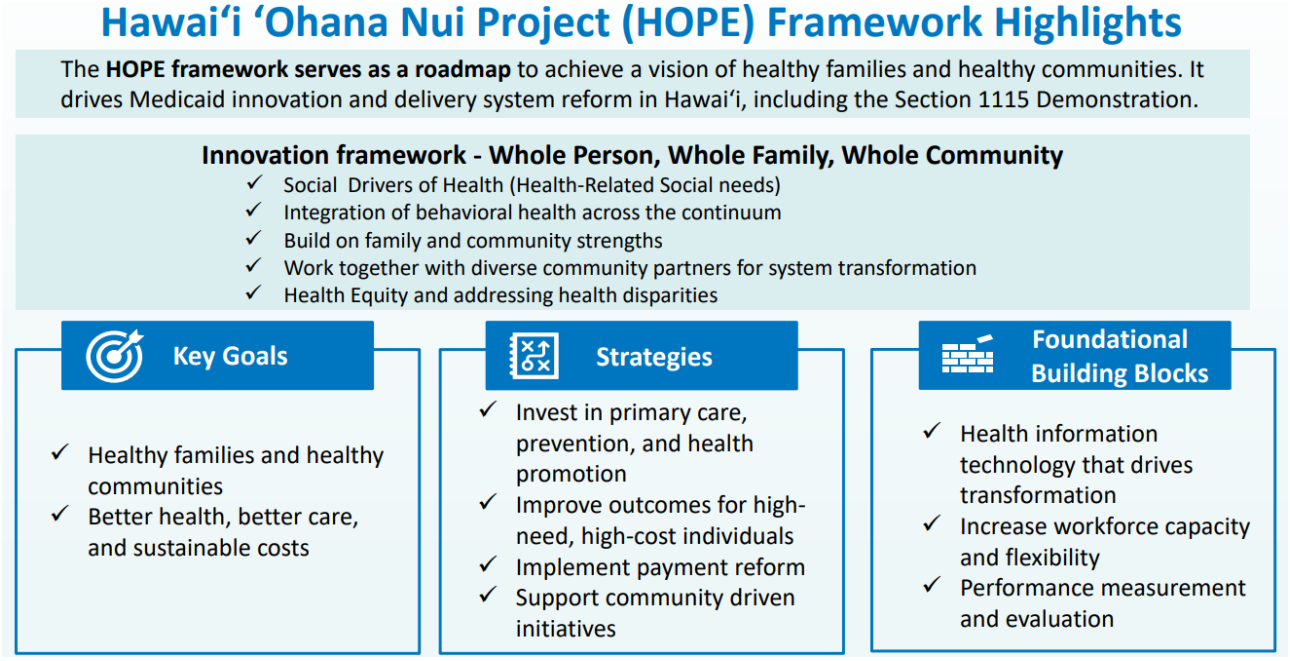
has requested Medicaid matching funds to ensure the proper planning and financial runway are in place to realize the goals of the program.

7. **Designated State Health Programs.** This request has not been widely adopted, as CMS has continued to slowly evaluate and approve the spending authority of Medicaid matching funds for designated state health programs. Prior to Hawaii's updated waiver request, CMS had moved forward with approvals for Oregon, Arizona, and California to cover a percentage of cost for designated state health programs. Administrative officials in CMS and state agencies have started to better understand the need to help align and consolidate the funding model for social services delivery. The goals of supporting properly aligned state health programs are to avoid overlaps in spending, conflicts in service delivery, barriers to utilizations management, and blind spots in program and spending evaluation.

5.2. MQD Strategy

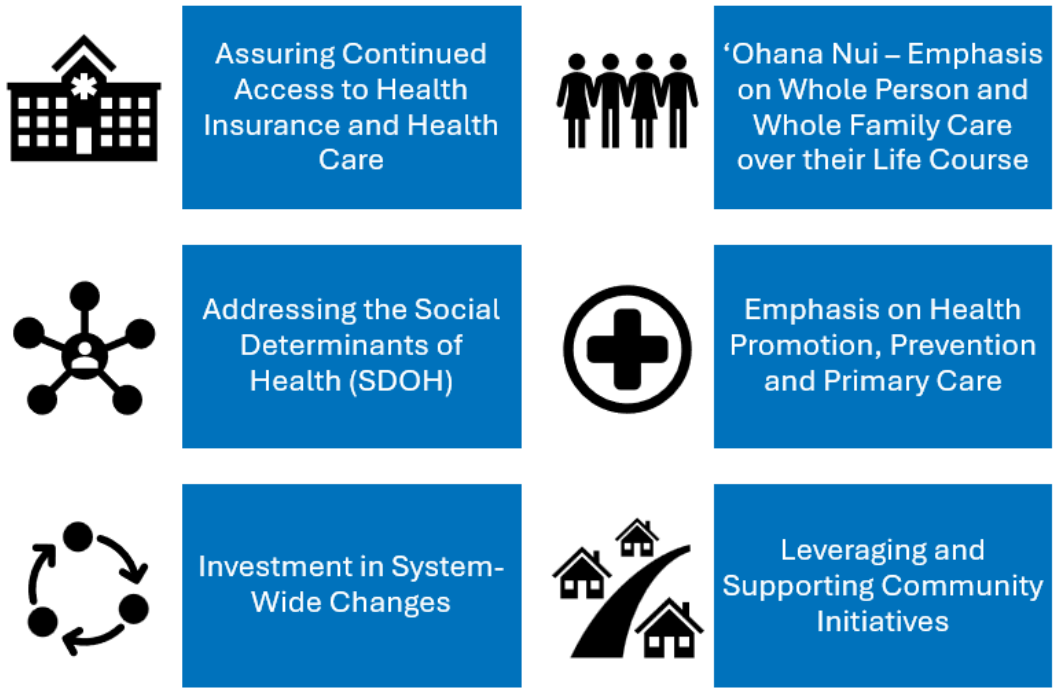
The strategy for MQD that continues to prioritize the goal of healthy families and healthy communities was established with the HOPE Initiative in 2017. The Hawaii Ohana Nui Project Expansion (HOPE) framework, including highlights, goals, strategies, and building blocks, are depicted in Exhibit 15.

Exhibit 15: The HOPE Framework



With a large Medicaid population and high cost of living, Hawaii aims to reduce income disparities by focusing on data collection, quality, and proper stratification to identify and address equity impacts. MQD established six guiding principles for the HOPE framework to ensure success. Exhibit 16 outlines these principles, followed by a discussion on their application in the agency.

Exhibit 16: Guiding Principles



1. **Assured Continued Access to Health Insurance and Health Care.** Access to health care for Hawaii's Medicaid population relies on an effective eligibility and enrollment process and a capable, quality, and equitable provider network. Payment reform, technology investments, provider outreach, and community services are essential for success. Strong business processes and data analytics also play a crucial role in achieving these goals.

2. **'Ohana Nui - Emphasis on Whole Person and Whole Family Care over their Life Course.** The HOPE framework emphasizes holistic care for individuals and families. This approach is gaining traction in Medicaid programs nationwide. The integration of physical, behavioral, and health-related services in MQD demonstration waivers improves outcomes for 'Ohana Nui.

3. **Addressing the Social Determinants of Health (SDOH).** For the better part of the last decade, state Medicaid programs have implemented new analytic solutions or contracted valued partners to better understand the vast amounts of data in their enterprises and help move them to more value-based programs. Through the evaluation of certain member segments such as high-cost high-needs, serious mental illness, and aged, blind, disabled, the data began to show that addressing other social determinants outside of healthcare could have significant positive impacts on both the health outcomes and cost management for significant segments of the member base. This has led to the implementation of health-related service needs programs within many of the new 1115 Medicaid waivers, including the one for MQD.

4. **Emphasis on Health Promotion, Prevention, and Primary Care.** Promoting health for children and adults helps prevent chronic illnesses and lowers healthcare costs. Hawaii is enhancing pediatric care, reducing unintended pregnancies, improving pregnancy-related care, and increasing adult preventive screenings and services.

5. **Investment in System-Wide Changes.** To develop and expand the 1115 demonstration, MQD used a community-based approach to gather feedback from agencies, members, and providers. The insights were used to evaluate the system-wide impacts on service delivery, health outcomes and cost of care. As system-wide changes are continuously evaluated, the input from third parties and members is valuable in achieving the program goals.

6. **Leveraging and Supporting Community Initiatives.** The state of Hawai`i and MQD continue to build community partnerships and encourage health plans to contribute to the communities they serve. Collaboration among health plans and the state on program-wide solutions is essential in evaluating and addressing social determinants of health needs. MQD aims to invest in community care and develop initiatives that connect integrated health systems with community resources to enhance population health.

5.3. MQD Challenges and Opportunities

Opportunity: Single Enterprise Supporting a Unified Operating Model

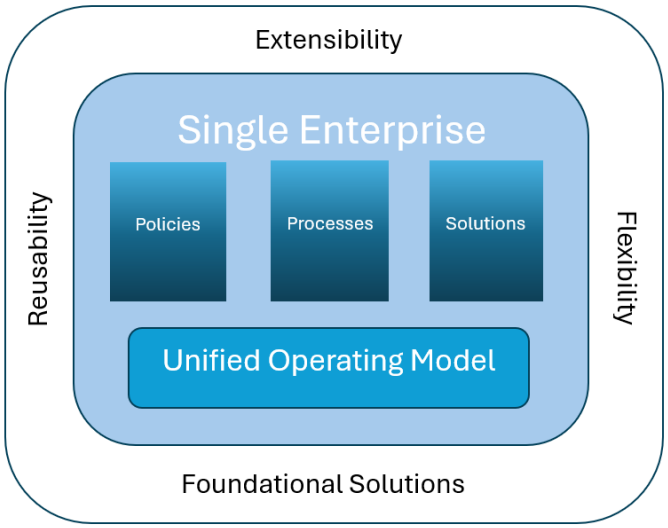
Like many state government organizations, MQD is constrained by insufficient resources, including staffing and systems to support day-to-day work activity and a lack of efficient solutions. These constraints have resulted in an overwhelming sense of unachievable work and a perspective that all policies and procedures are unique.

MQD has a shared Ohana but has not had the time to realize that same “big picture connected” concept within its plans. Upon closer inspection, one can realize that many shared qualities, components, and associated needs provide a tremendous opportunity to establish foundational solutions. These foundational solutions provide the necessary qualities of reusability, extensibility, and flexibility. Developing a holistic approach that intentionally looks for the common ground in policies, processes, and solutions can result in success that has exponential growth potential to reduce burden, enhance employee and member satisfaction, and more rapidly meet goals and outcomes.

The concepts of foundational solutions and a holistic approach that focuses on the entire organization are grounded within the context of both a single enterprise and a unified operating model. For the purposes of this roadmap plan summary, the terms “single enterprise” and “unified operating model” are understood in the following manner:

- Single enterprise considers all the modules and components that make up the Medicaid Enterprise Systems in support of the Medicaid Program. This includes all systems and vendors for which MQD maintains oversight authority and provides funding. Examples include KOLEA, HPMMIS, HOKU, and EVV. An example of a system that would not be included in the single enterprise is the Federal Hub, which is critical to the Medicaid Program but is not controlled or funded by MQD.
- A unified operating model ensures that any business decision for MQD is evaluated across the entire organization to understand the full impact and determine the complete scope of requirements to ensure those requirements can meet outcomes while synergizing across the organization. This results in the alignment of all teams and vendors prior to solutioning.

Exhibit 17: Unified Operating Model



Challenge: Organization Silos Hindering Holistic Process with Effective Communications

Several success factors are needed to develop and implement enterprise standards and best practices into an organization. The most important are to establish purposeful structure, communication, and processes that facilitate adoption and cohesive organizational integration.

Currently, MQD delivers upon their mission through functional efficiencies and deep expertise developed within the individual departments of specialized staff. The MQD business teams operate autonomously within their given area to best meet the needs of MQD members. This has worked throughout the life of a Medicaid program that has focused on a set of well-defined goals. However, as the agency continues to grow and expand into new opportunities to meet member needs, the introduction of new programs, services, and methods of delivery will require a holistic and unified approach to implementation.

The programs and services being introduced in the 1115 waiver, approved by CMS in 2024, begin to evolve a traditional Medicaid program under MQD into a vastly expanded service model that includes non-traditional services and providers in the areas of housing, nutrition, and justice-involved early engagement. This change requires organizational transformation. The risk of expanding the MQD programs within the existing state of an organization with autonomous and diversified business teams could be a disjointed set of effective team processes that may not work well together at an agency level to achieve the overall success of the mission. The identified risk is based specifically upon the outcome of an evaluation of the overall MQD organization through conversations and observations of the key individual teams and projects.

Exhibit 18 describes the existing operating model and an example of how this impacts the business.

Exhibit 18: Organization Silo Observation

Challenge: Disparate and Misaligned Resources Hampering Effective Oversight

As MQD continues to provide services that move beyond the traditional medical and behavioral health services, oversight becomes even more critical. Oversight includes measuring program success in ensuring the dollars spent are improving the outcomes for the citizens of Hawaii, ensuring the systems are properly implementing MQD policy, and validating that MQD is meeting state and federal regulations. MQD expressed the challenges related to the oversight of the Medicaid program, with a heavy emphasis on manual processes and the need to consolidate and reconcile data from different sources.

Currently, a major barrier in managing program oversite is disparate data sources that are not necessarily complete, leading to decisions that are not fully informed. Work being done to resolve this issue with the Health Plans, partners, and key stakeholders has shown improvement in this area; however, the issues are not yet fully resolved. The Health Analytics Program (HAP) will provide more insight and awareness to the issue and accelerate the identification of the root causes.

MQD requires the ability to provide greater detail at the benefit plan level to ensure that a clear determination of funding utilization can be achieved to measure the success of implemented programs. The requirements of the updated 1115 Waiver under CMS review require a new funding model that necessitates changes in HPMMIS to support the new programs. There are concerns around the timeframes required to enhance HPMMIS and possible delays due to corresponding changes needed with the Refactor project.

MQD is currently evaluating the strategy and approach to determine the most effective way to continue building and expanding the Community Integration Services (CIS) program within the updated 1115 waiver. Although the initial CIS program was implemented as an integrated service through the Managed Care Organizations, the realization through the early program demonstration is that extensive intervention, support, and oversight by MQD has been required to make the program viable. Through time, responsibilities and activities have slowly shifted to the Managed Care Organizations; however, further analysis is needed to make a final decision of whether to deliver the upgraded CIS+ program through carved out Fee-for-Service or continue through Managed Care Organizations. Once the decision is made, MQD will need to ensure that policies, procedures, and systems are implemented to provide appropriate oversight.

Exhibit 19 describes the Disparate and Misaligned Resources and how it impacts the business.

Exhibit 19: Disparate and Misaligned Resources

Opportunity: HRSN Program Encounter, Status, and Referral Data Quality and Alignment

In addition to looking at the broader program-wide opportunities and challenges that can be addressed, specific opportunities exist to modify and enhance the HPMMIS, systems of participating health plans, and other MES and state agency supporting systems to align data in support of more timely and accurate reporting. The 2024 QUEST 1115 demonstration waiver renewal application includes the required plans for budget neutrality and outlines the hypotheses and evaluation approaches to measure the program's success. Key metrics that must be monitored include metrics that support the following:

- HRSN services reaching the right members
- Improved health outcomes due to HRSN supports and services
- Effective transition of members into permanent supportive housing
- Reduced geographic and member demographic disparities in the provider network
- Minimized administrative gaps and barriers impeding member eligibility and access to care

Within the 2024 QUEST waiver proposal, the following challenges were noted from review of the original CIS program:

- Data Quality and Accuracy
    - Proper assignment, transmission, and storing of H-status codes indicating CIS+ program status
    - Accurate capture, storage, and transmission of member demographic information, especially race

    - Program adoption and consistent use of International Classification of Diseases Tenth Version (ICD-10) Z codes for SDOH documentation

- Lack of Clarity between Stakeholders
    - This starts with the challenge to bring together two different government programs addressing healthcare and housing.
    - This also extends to the broad matrix of community-based organizations and government agencies that must engage with these programs and coordinate data, services, and financial commitments.

In addition, it is recommended that MQD work with AHCCCS to map Encounter service codes in a detailed manner to appropriate funding sources. This allows assignment and rollup at the time of processing for state and federal reporting.

Opportunity: Lack of an Enterprise Solution to Track and Process Inbound Requests

MQD staff have built intake and tracking processes that rely heavily on tools like email, Microsoft Excel, Microsoft Access, and paper notes to track details that in many cases are critical program details related to financials, grievances and appeals, and health plan management. There has been an effort to migrate some of these localized processes into a more centralized and formal solution such as Microsoft SharePoint; however, this still leaves a lot of room for opportunity to address these disparate processes with a more complete solution. SharePoint requires extensive customization and the supplementation of additional tools and services to fulfill all the process and automation needs of the organization. Developing a solution based upon a business management workflow platform enhances the ability to build repeatable daily workflows and simplifies the reporting and monitoring of the Medicaid program with the following benefits.

- Automation
- Reduced time to assign and research
- Transparency
- Repeatability and extensibility
- Reportability

MQD's partner, BerryDunn, is currently developing business process flows and documenting the current state for many processes. These business process flows should be evaluated at an enterprise level to identify potential commonalities and areas for standardization, rather than merely focusing on existing common practices. Once standardizations have been identified they can be implemented into a common platform that provides MQD with a common look and feel for all workflow-based activities.

6. Organization Recommendations

This section presents a series of recommendations aimed at optimizing the organizational structure and processes of AHCCCS and MQD. These recommendations are designed to address current challenges, leverage opportunities, and align with the strategic goals of both agencies. By implementing these recommendations, AHCCCS and MQD can enhance their operational efficiency, improve service delivery, and ensure the successful modernization of their Medicaid Enterprise Systems (MES).

6.1. Organization: Single Enterprise and Unified Delivery Model

Joint partnerships between state Medicaid agencies are not a new phenomenon; however, none have maintained the longevity of the Arizona-Hawaii partnership. Much of the success over the first two decades can be attributed to the relationships developed between the two organizations that facilitated effective communications. In addition, the limited systems footprint that was primarily encompassed by the PMMIS/HPMMIS kept the scope of the maintenance, enhancements, and operations to a manageable focus.

Like many state government organizations, AHCCCS and MQD have significantly expanded the number of systems within their respective enterprises. The scope of legislative changes and CMS mandates being implemented today often require systems changes that span multiple systems and require comprehensive planning and coordination. At the same time, long serving staff retirements coupled with replacement challenges, along with both state and federal budget challenges, have contributed to insufficient resources and a lack of timely and efficient solutions. These constraints have caused communication gaps and a lack of alignment on solutions due to a failure to realize the common elements and goals of policies, procedures, and initiatives both within each agency and across the two organizations.

The ongoing prioritization of the Arizona-Hawaii partnership requires a renewed commitment to the goals and objectives of both organizations, with a focus on adapting the process and structure to meet common needs. To develop a renewed joint operating model, each agency must first refine its own model to enable integration while still meeting individual state needs. This will begin to set the foundation for more collaborative approaches to implementing new policies within the shared infrastructure that supports both agencies collectively.

The goal of the Hawaii and Arizona partnership is to realize the benefits of reusability and collaboration through a shared systems operational model that achieves the visions set forth by the executive leadership teams of both AHCCCS and MQD. AHCCCS and MQD executive leaders meet at both the individual state level and jointly. To provide guidance on the execution of the visions, separate and combined, the agencies must work together to prioritize a threefold approach of Oversight, Governance, and Planning.

6.1.1 Oversight

The Executive Steering Committee (ESC) will provide oversight while the Working Steering Committee (WSC) will provide oversight and be actively engaged in the MES program. Each committee will provide a specific scope of oversight, with both the ESC and WSC having voting representation from the business and technical leadership of AHCCCS and MQD, in addition to attendance by key stakeholders.

- Executive Steering Committee
    - Remain informed of progress (and any impediments to progress), decisions made/needed, and risks/issues (especially any that might need to be escalated to the ESC to help address/resolve)
    - Vet decisions in direction (based on awareness of impact within the agencies)
    - Provide decision-making authority at executive level
    - Assist with removal of obstacles through executive decision
- Working Steering Committee

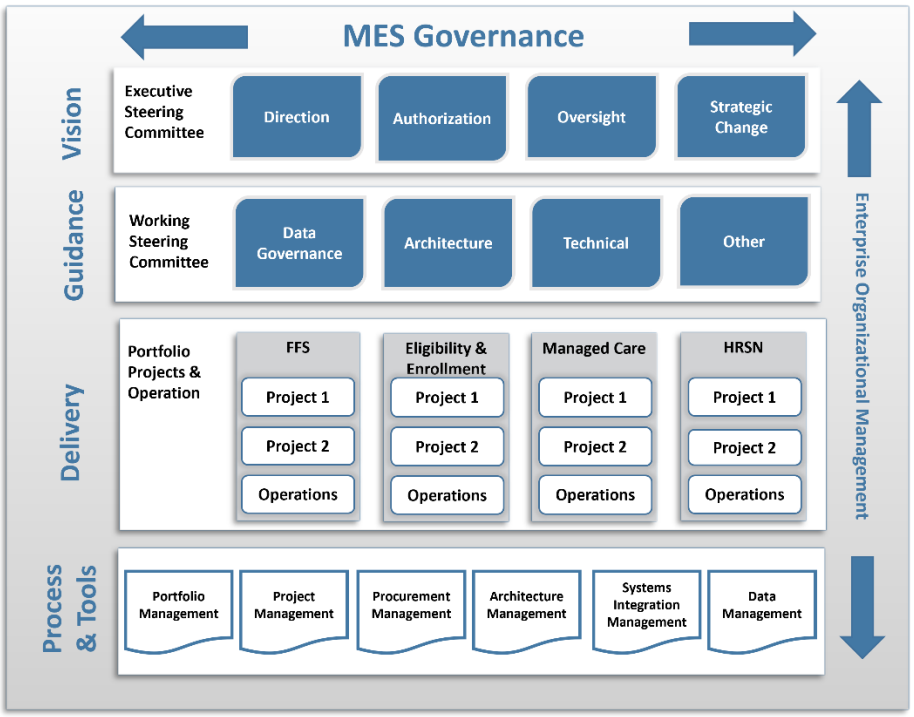
- Remain informed of progress, remove impediments (obstacles) as needed, oversee risks/issues
- Remove impediments
- Vet changes in direction (based on impact to the business)
- Make decisions at a business unit leadership level

6.1.2 Governance

MES Portfolio Governance Model

To strengthen the AHCCCS and MQD partnership, each organization must bolster the governance of business functions independently, which will enable the stability needed for true collaboration. AHCCCS and MQD should both work to continue implementing the roadmap recommendations of operationalizing governance through strategic portfolio management. It is recommended that each agency adopt an MES Governance model like what is shown in Exhibit 20. This model ensures that there are tools and processes in place to support the execution of MES governance. Several activities driving the need for an effective governance model include portfolio definition, project management, procurement management, and architectural planning so that projects can maximize reusability and supportability in the enterprise. A unified delivery model ensures that all business initiatives are evaluated across each agency. This will not only aid in determining the complete scope of requirements but also ensure those requirements can meet outcomes and be synergized across all systems. This results in the alignment of all teams and vendors prior to solutioning.

Exhibit 20: Agency MES Governance Model



The extension of this MES governance framework as a shared Arizona-Hawaii partnership governance framework offers tremendous opportunity to maximize value and accelerate innovation around the common requirements and needs associated with the waiver programs. In addition, this framework will strengthen this historic partnership by aligning the planning, communication, and support functions for all aspects of the shared operation across the two agencies.

A continuous process that requires joint evaluation and prioritization is needed to ensure that both agencies' needs are met with an effective methodology. Assessments should initially be conducted at the individual agency level and subsequently reviewed by a joint working committee subgroup for common elements,

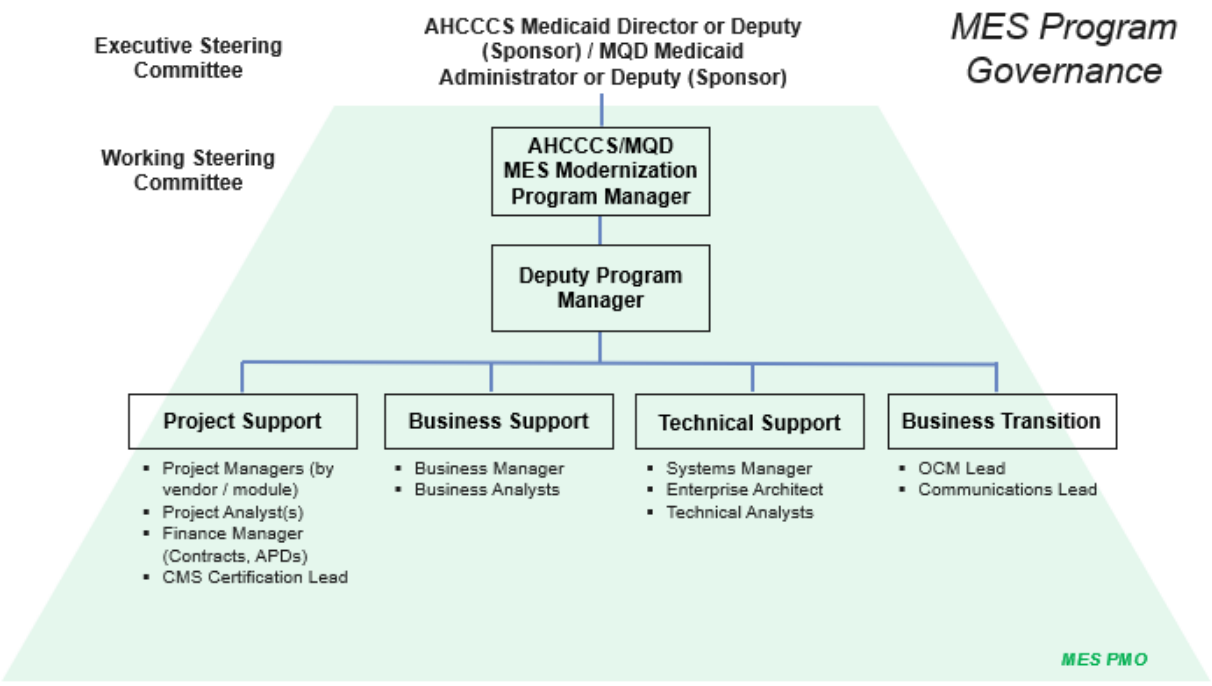
including standardization, reusability, supportability, and interoperability across both organizations. As evaluations are agreed upon within the subcommittee, the joint working steering committee must prioritize projects. Upon reaching consensus on the scope of work and prioritization, tasks will be assigned to the delivery teams for execution.

A governance model aligned to the steering committees that executes against the overall MES Program supports the steering committee activities by having a more strategic focus on coordination of efforts around key milestones and long-term goals. Currently a governance structure exists to align project objectives; however, the structure lacks the standardization to ensure execution of successful outcomes and vision desired at an enterprise level. In addition, the MES program governance continues to operate outside of an overall portfolio management model. Along with portfolio alignment, an architecture review board is needed to ensure that the defined standards are implemented and followed, and that project specific activities and designs integrate and align to the overall enterprise.

Key components of a governance model include:

- **Portfolio Management**: Portfolio Management involves the coordination, dissemination of information, and execution of processes necessary for the oversight and strategic direction of the enterprise. At the portfolio level, it establishes the procedures required to manage activities at an executive or strategic tier and sets common processes and templates that guide program-level workflows consistently across the portfolio. These standardized processes enhance efficiency and uniformity at the portfolio, program, and project levels. Establishing these procedures at the portfolio level ensures best practices are implemented uniformly, eliminating the need to repeatedly define or document processes for multiple programs or projects.
- **Architecture Review Board**: To support the Executive Steering Committee, the Architectural Review Board should be leveraged to guide decision making and prioritization of MES Program activities to support technical governance and establish consistent standards for technology investments.
- **Program Management**: Within the overall portfolio, it is necessary to maintain the MES modernization program through the successful completion of the planned projects. Exhibit 21 shows the MES program governance. What is not shown are the business units, Health Plans, and system vendors in place. They play a large role in the success of the MES program; hence the MES program manager must ensure that the business units are informed, involved, and part of the decision-making process. The MES program maintains a dedicated staff model solely focused on the execution of the MES Modernization Roadmap. The MES program is managed by an MES Program Manager dedicated to each state. The program managers work in lock step with each other to keep the program on track and ensure that each agency's needs are accounted for. Each program manager should be experienced in MES Modernization efforts and should have been either a program manager or deputy representing the state or vendor on a state MMIS/MES replacement project.

Exhibit 21: MES Program Governance



6.1.3 Planning

AHCCCS, MQD, and all stakeholders must align their planning activities to support the overall funding, management, prioritization, and completion of all approved projects. The planning necessary to manage the multiple project dependencies and resource needs across an integrated enterprise must be performed prior to design, development, and implementation. Additionally, planning should establish an overall approach to managing multiple vendors across the enterprise—for example. both the technical and business solutions—to ensure consistency and alignment between projects. This will provide a more cohesive contract/vendor management environment to support projects through operations. Planning activities should incorporate strategic decision making to proactively plan for long-term success through the following:

- Define organizational roles and responsibilities across the organizations, including technology units, business units, and vendors
- Set clear expectations for all project participants in alignment with schedule, responsibilities, and scope
- Ensure the involvement of oversight bodies guides the execution of planned activities
- Monitor staffing levels and constraints to minimize impact on the execution of current, future, and concurrent activities
- Evaluate business priorities on an ongoing basis to ensure that the MES Program continues to align with current CMS, FNS, and state policy and guidance.

6.2. Enterprise Risk Management

As part of the IT Governance, Risk, and Compliance (GRC) project, AHCCCS will implement an Enterprise Risk Management (ERM) framework and operationalize that framework within ServiceNow. This initiative aims to enhance risk identification, assessment, and mitigation capabilities, thereby improving program outcomes and providing a more predictable financial forecast by mitigating unexpected costs. To prevent cost overruns, compliance issues, and service delivery failures, a risk-based approach can be employed in program management to identify and address risks early, before they escalate. Additionally, this approach assists with resource allocation, enabling the reallocation of staff and funds to the most critical areas.

The effective implementation of a risk mindset involves several key steps:

- **Risk Assessment:** Conduct a comprehensive risk assessment to identify potential risks in various areas such as financial management, compliance, and service delivery. This helps in understanding where vulnerabilities lie.
- **Prioritization**: Once risks are identified, prioritize them based on their potential impact and likelihood. This ensures that the most critical risks are addressed first, optimizing resource allocation.
- **Developing Strategies**: Create targeted strategies to mitigate identified risks. This could include enhancing internal controls, improving data analytics capabilities, and implementing robust monitoring systems.
- **Training and Education**: Ensure that all staff members are trained in risk management principles and understand their role in mitigating risks. Regular training sessions can help keep everyone informed about the latest best practices and regulatory changes.
- **Continuous Monitoring and Evaluation**: Establish a system for ongoing monitoring and evaluation of risk management activities. This allows for the timely identification of new risks and the effectiveness of mitigation strategies.
- **Stakeholder Engagement**: Engage with stakeholders to gather insights and feedback. This collaborative approach can help in identifying risks that might not be apparent internally and in developing more effective mitigation strategies.
- **Use of Technology**: Leverage technology such as data analytics and predictive modeling to identify and manage risks more effectively. These tools can help in detecting patterns and anomalies that might indicate potential issues.
- **Policy and Procedure Updates**: Regularly review and update policies and procedures to ensure they are aligned with current risk management practices and regulatory requirements.

By following these steps, AHCCCS can create a robust risk management framework that improves service delivery and ensures compliance with regulatory requirements. AHCCCS has already begun the process of developing an Enterprise Risk Management Framework and it is suggested that MQD also establish a similar framework as risk management is currently performed at a project level.

Alignment to Strategy

Organization	Goal	Details
AHCCCS	Maintain high member satisfaction	Effective risk management reduces the potential of system errors and outages that may impact enrollment and/or access to care for members
AHCCCS	Maintain a strong provider network	Effective stakeholder engagement, accurate and timely communication, and continuous feedback evaluation and response help mitigate risks for provider abrasion
MQD	Assured Continued Access to Health Insurance and Health Care	Effective risk management reduces the potential of system errors and outages that may impact enrollment and/or access to care for members
MQD	Assured Continued Access to Health Insurance and Health Care	Effective stakeholder engagement, accurate and timely communication, and continuous feedback evaluation and

Organization	Goal	Details
		response help mitigate risks for provider abrasion

6.3. Compliance

AHCCCS has established a Compliance Office that is responsible for ensuring adherence to regulations and internal policies, safeguarding the organization from legal risks and enhancing the quality of care for beneficiaries. This includes responsibilities in communications, training, and reporting mechanisms, all managed within ServiceNow. The program involves ensuring compliance, establishing policies and procedures, conducting auditing and monitoring, and reporting any issues. Additionally, it includes developing a staffing structure and implementing incremental improvements. It is recommended that MQD establish a similar Compliance Office.

Compliance with state Medicaid programs involves several key components to ensure that the program operates within federal and state regulations, maintains integrity, and delivers quality care to beneficiaries. The main aspects include:

7. **Regulatory Compliance**

   - Adherence to Federal and State Laws: Medicaid programs must comply with a complex set of federal and state regulations, including those outlined by CMS and state-specific guidelines.
   - Written Policies and Procedures: Compliance can be achieved through written policies and procedures that meet regulatory requirements and are reviewed and updated regularly.

8. **Internal Controls and Audits**

   - Regular Audits: Conducting regular internal and external audits to identify and rectify compliance issues.
   - Monitoring Systems: Implementing robust monitoring systems to continuously track compliance with policies and procedures.

9. **Training and Education**

   - Staff Training: Providing ongoing training and education to staff about compliance requirements, ethical standards, and reporting mechanisms.

10. **Reporting and Communication**

    - Confidential Reporting Systems: Establishing confidential reporting systems for employees and beneficiaries to report suspected fraud or non-compliance without fear of retaliation.
    - Transparency: Maintaining open lines of communication with stakeholders, including beneficiaries, providers, and regulatory bodies.

11. **Risk Management**

    - Risk Assessments: Conducting regular risk assessments to identify potential areas of non-compliance and implementing strategies to mitigate these risks.
    - Corrective Actions: Developing and implementing corrective action plans to address identified compliance issues promptly.

12. Consequences and Incentives

- Consequences for instances of noncompliance: Ensuring documented remediation, sanctions, or both, for instances of noncompliance are available for all staff. This could include educational or remedial consequences or punitive sanctions.
- Incentives to encourage compliance: Establishing incentives to encourage staff participation in the compliance program.

13. Responding to Detected Offenses

- Investigations of Violations**:** Establishing appropriate procedures for prompt and thorough investigations that ensure coordinating with appropriate teams as necessary, including legal counsel, human resources, and inspector general.
- Reporting**:** Depending on the nature of the violation, ensuring the appropriate Federal and State reporting requirements are followed.

Alignment to Strategy

Organization	Goal	Details
AHCCCS	AHCCCS Strategic Plan	To effect the people, process, and technology needed to successfully achieve the strategic goals of the organization, AHCCCS must implement and maintain a strong compliance program that is supported by the necessary tools and processes that drive automation, oversight, and decision making
MQD	MQD Strategic Plan	To effect the people, process, and technology needed to successfully achieve the strategic goals of the organization, MQD must implement and maintain a strong compliance program that is supported by the necessary tools and processes that drive automation, oversight, and decision making

Risks

Description	Mitigation	Trigger
If AHCCCS and MQD do not implement a rigorous compliance program, then both agencies could end up failing audits that could lead to funding suspension and/or sanctions	Engage a compliance expert that can provide a framework utilizing new or existing technology modules to accelerate adoption	Continuous compliance issues

6.3.1 CMS FFP Planning and Reporting

Outcome statements and metrics are part of the Advance Planning Document (APD) process and the Streamlined Modular Certification (SMC) process. CMS has begun the process of making outcomes and metrics a requirement for all systems, regardless of certification, to be reported at a minimum yearly with the Operational APD (OAPD). This requirement has been enforced for modules undergoing the streamlined modular certification process and in new implementation projects where states seek enhanced funding. CMS has informed Medicaid Directors that CMS may opt to recertify already implemented systems, regardless of

prior certification status. As part of this initiative, CMS will now mandate that states include outcome measures with all APD submissions, including the annual OAPD.

CMS mandates outcomes with recommended metrics for numerous modules. However, states may need to establish their own outcomes or use a combination of CMS and state outcomes in certain cases. All outcomes should be measurable through automated methods, minimizing the effort required to generate them. With the implementation of the Operational Data Store (ODS), the capability to automatically measure and report on specific metrics will be enhanced. Dashboards and reports should be developed to ensure that the state always remains informed about the outcomes, enabling proactive adjustments to the program based on early indicators from these dashboards.

APDs establish the budget with CMS for the upcoming federal fiscal year. For implementation projects spanning multiple years, CMS requires the state to estimate the entire project, but spending approval is limited to one year. CMS will approve the overall project, the annual budget, and any necessary vendor contracts for project implementation. The AHCCCS and MQD partnership is unique because, while each state has its own independent APDs for various projects and operational needs, AHCCCS submits multiple APDs on behalf of both states. These APDs outline the budget for each state to manage the project or operations. The interagency agreement defines how those budgets are cost-allocated across the two states.

Change management must ensure that both states are involved in discussions regarding joint initiatives, with a clear understanding of the financial impact. This process includes evaluating the available funding planned and approved by CMS, verifying that both states have the necessary funds, and determining if additional funding needs to be requested from CMS. Any contracts, whether new or amended, must receive prior approval from CMS before any work commences. AHCCCS's adoption of a risk-based management approach will aid in identifying requirements in advance, ensuring sufficient time to secure funding and obtaining CMS approval for both funding and contracts.

Tracking funding has become increasingly complex with the MES Program due to having multiple projects within the program, several sources of funding, and constant adjustments needed to support changes arising after the program commenced. It is anticipated that this complexity will persist, necessitating a new approach for tracking program components, including funding and contracts. Leveraging Strategic Portfolio Management processes will assist in this endeavor by enabling the definition of the program, estimation of the budget, and utilization of these estimates to build the APDs. As the program progresses and vendors begin to invoice, there will be clear visibility regarding expenditure against the budget and contracts.

CMS continues to refine the requirements around T-MSIS, ensuring that data quality is sufficient for research to support federal policy development and increasingly support CMS-required reporting. CMS has indicated an ongoing intention to modify T-MSIS to improve clarity in managed care data, which could significantly impact AHCCCS and MQD. Transitioning T-MSIS to the ODS and fully documenting the transformations will enable agencies to more readily adopt these changes. This transition will also equip MQD with comprehensive knowledge of their T-MSIS file compilations, allowing them to conduct research independently and reducing the support burden on AHCCCS. Maintaining compliance with T-MSIS reporting will ensure that CMS continues to provide enhanced funding.

Adapting CMS-64 reporting to the ODS in a format that facilitates quicker and easier uploads to the MBES/CBES will significantly reduce manual efforts for MQD. This approach, which decouples from operational systems and provides comprehensive documentation, should be adopted for all state and federal reporting to streamline mapping to the CMS system. Implementing this structure will aid in managing and monitoring compliance with state and federal reporting requirements.

Alignment to Strategy

Organization	Goal	Details
AHCCCS	Improve operations by modernizing agency technology	The implementation of the portfolio into the ServiceNow SPM module will allow AHCCCS to accurately track the funding, funding allocations, and expenditures and ensure that contracts are in alignment

Organization	Goal	Details
AHCCCS	Improve operations by modernizing agency technology	Implementing detailed funding source assignment and accurate category of service crosswalks for adjudicated claims and processed encounters will ensure that expenditures are accurately assigned to the correct summary lines in the CMS-64
MQD	Health information technology that drives transformation	The integration of the MQD program with AHCCCS into the governance process provides the collateral benefit of providing MQD with timely and accurate financial details to support the planning of the MQD budgetary needs
MQD	Health information technology that drives transformation	Implementing detailed funding source assignment and accurate category of service crosswalks for adjudicated claims and processed encounters will ensure that expenditures are accurately assigned to the correct summary lines in the CMS-64

Risks

Description	Mitigation	Trigger
If AHCCCS and MQD do not apply this level of rigor and detail to managing the portfolio, then both agencies could end up with budgetary shortfalls or be out of CMS compliance	Implement strict controls with a review gate that prevents a project initiation that is not compliant with the SPM tools and processes	A project initiated outside of Strategic Portfolio Management,

7. Technology Recommendations

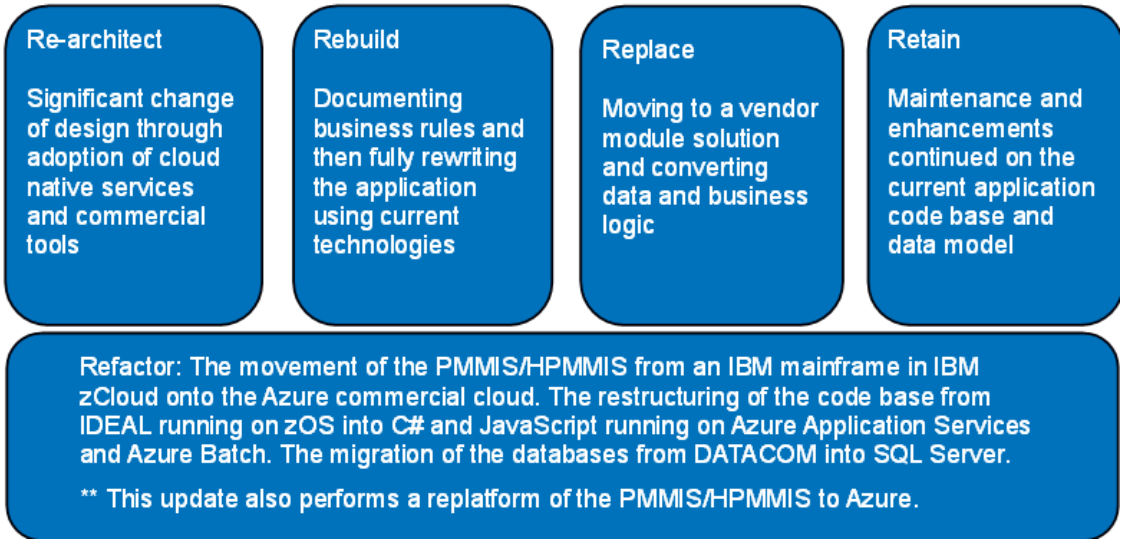
This section discusses the recommendations for strategies and methodologies to transform the Medicaid Enterprise Systems (MES) for AHCCCS and MQD. The section outlines a comprehensive approach to re-architect, retain, rebuild, refactor, and replace existing systems and processes to enhance efficiency, improve service delivery, and ensure compliance with CMS requirements. The goal is to transform the agencies' business processes through shared technology initiatives.

7.1. PMMIS/HPMMIS Transformation

The next generation modernization plan for the PMMIS/HPMMIS centers on six projects, each to be achieved through one of four methodologies of modernization. A key approach to reaching the objectives for the projects involves identifying system functions that can be effectively decoupled from the PMMIS/HPMMIS and modernized utilizing the reusable tools and services implemented within the MES. Numerous extensible solutions provide opportunities, including the Systems Integration Platform (SIP) with common integration technologies, the Operational Data Store (ODS), the Enterprise Data Warehouse (EDW), the Enterprise Document Management System (EDMS), and the ServiceNow platform. Additionally, a comprehensive catalog of cloud-native services and tools is available within the enterprise Azure licensing model. There are also prospects to further enhance specific solutions, such as the program integrity claims editor, to standardize claims edits and audits within a single business rules platform, and the Iguana EDI platform, which offers broader integration and translation services.

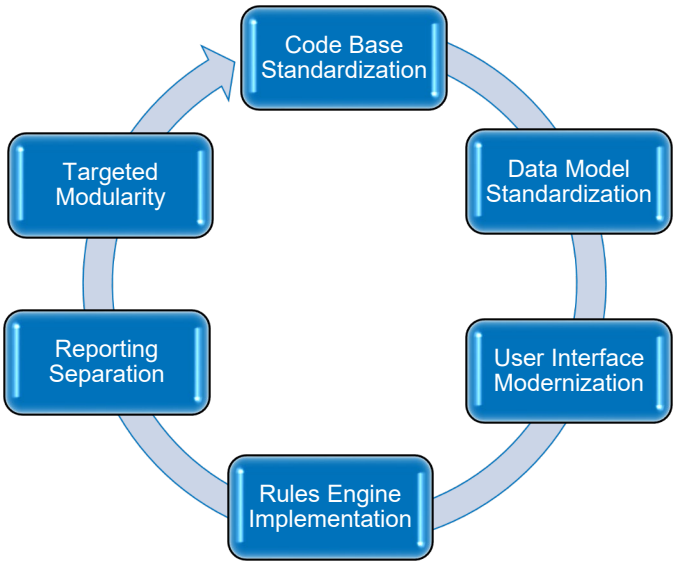
To begin, we define the methodologies that will be utilized to achieve each of the PMMIS/HPMMIS modernization objectives upon the completion of the refactor. Exhibit 22 offers a visual overview and corresponding definitions.

Exhibit 22: Modernization Methodologies



Secondly, we examine the six projects within the PMMIS/HPMMIS modernization plan. These projects address the fundamental constraints and technical debt associated with the PMMIS/HPMMIS architecture, which pose ongoing challenges and risks for maintenance and enhancement projects. Exhibit 23 illustrates the six projects with detailed descriptions provided in the subsequent sections.

Exhibit 23: PMMIS/HPMMIS Modernization Projects



7.1.1 Code Base Standardization

The refactor project will produce a new code base using a code generation conversion tool, transforming the existing IDEAL language into C# and JavaScript. IDEAL, a legacy fourth-generation language designed for enhanced human readability, primarily focuses on database queries, business computations, and user interfaces. In contrast, C# and JavaScript are contemporary high-level programming languages that differ significantly from IDEAL in terms of structure, coding methodology, and complexity. The converted C# and JavaScript source code will prioritize the executable logic of the PMMIS/HPMMIS programs. While the resulting source code will feature standardized structures, naming conventions, and program methods, it may not be documented or written in a manner that facilitates straightforward maintenance and enhancements by the broader development teams.

It is recommended that AHCCCS develop and document clear and maintainable software development standards within a technical reference architecture for the new PMMIS/HPMMIS. These standards should encompass critical topics such as code re-organization and structuring, variable and method naming conventions, removal of dead or unused code, and internal documentation of methods and logic. The development team(s) should undergo comprehensive training on the new reference architecture and be required to update the modified code base to comply with the new standards during ongoing maintenance work. To ensure adherence to these changes, detailed team code reviews with revisions are advised throughout the development life cycle. This iterative approach of updating code during projects, rather than a "big bang" approach, is recommended due to its efficiency in terms of time, resources, and overall effectiveness.

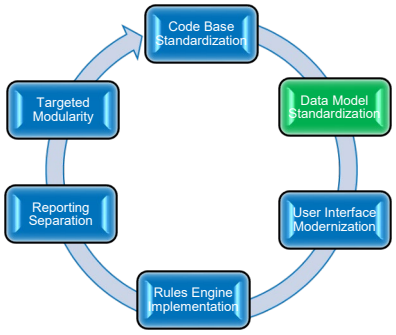
Alignment to Strategy

Organization	Goal	Details
AHCCCS	AHCCCS Health IT Strategy: Improve operations by modernizing agency technology	Improves the ability to modify systems in a timely manner with repeatable coding standards
MQD	Health Information Technology that drives transformation	Allows for the implementation of HRSN services within the HPMMIS as a set of integrated system functions

Risks

Description	Mitigation	Trigger
If there is not a focus on code standardization, there is the potential for code changes to be complex, lengthy, and error prone	Prioritize areas of code to standardize over time and develop comprehensive training for developers	Increasing defects and delayed project schedules in development

7.1.2 Data Model Standardization



The refactoring project will undertake a degree of normalization and updates on the data model. Since DATACOM was not a fully relational database, it posed compatibility issues with transitioning the system to SQL Server. To ensure the converted code functions correctly with these changes, the code conversion tool will abstract the database from the code via a template and translation layer, facilitating program interfacing with the underlying database. Upon completion, the updated system will operate with a fully relational data model; however, it will still lack the full capacity to meet further modernization requirements.

Maintaining a robust and comprehensive data model is essential for ensuring the efficiency, performance, and adaptability of any database system. The data model serves as the blueprint for structuring, storing, and accessing data within the system. Driving changes from the data model down into the database helps to maintain consistency, improve system performance, and facilitate future enhancements. A well-maintained data model allows for normalization and updates that ensure data integrity and reduce redundancy.

Benefits of driving changes from the model down into the database include:

- **Consistency**: Ensuring that changes are driven from the data model down into the database helps maintain consistency across the entire system. This consistency is critical for data integrity and reliability.
- **Performance**: A well-structured data model can significantly enhance the performance of the database system. By optimizing the data model, queries can be executed more efficiently, reducing response times and improving overall system performance.
- **Scalability**: As business needs evolve, the ability to scale the database system becomes essential. A maintained data model allows for easier scalability by providing a clear structure for incorporating new data elements and relationships.
- **Interoperability**: Modernizing the data model and ensuring it adheres to naming standards and future business object structures enhances interoperability with other systems. This is vital for seamless data exchange and integration.
- **Decoupling**: A comprehensive data model facilitates the decoupling of major business functions and subsystems, allowing for more flexible and independent updates to different parts of the system.

To maintain the efficiency and adaptability of systems such as PMMIS/HPMMIS, it is recommended to develop a comprehensive data management plan that includes the governance of database changes. This will ensure that any changes are assessed for necessity and applicability; consider downstream systems such as the ODS and DW; and comply with naming conventions, classification standards, and data type guidelines.

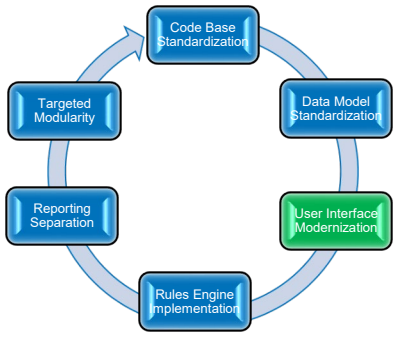
Alignment to Strategy

Organization	Goal	Details
AHCCCS	AHCCCS Health IT Strategy: Improve operations by modernizing agency technology	A well-documented data model with robust governance and maintenance discipline is foundational to ensure consistent naming standards and relational integrity in support of code standardization and rules engine implementations, along with future integrations and interoperability of the PMMIS/HPMMIS
MQD	Health Information Technology that drives transformation	A well-documented data model with robust governance and maintenance supports the ability for MQD to better understand and manage data quality initiatives with partner and stakeholder data sharing integrations, along with ensuring consistent data transfers into the HAP

Risks

Description	Mitigation	Trigger
If AHCCCS does not develop a robust and well documented data model, then the execution of the other transformation goals and integrations may result in data quality issues and negative system performance	Develop and adopt a policy as part of the data governance program that requires data models and a data impact analysis prior to all system changes	Refactor Complete

7.1.3 User Experience



The PMMIS/HPMMIS refactor project aims to migrate PMMIS/HPMMIS to a modern technology stack. However, the user interface will either remain as virtualized legacy screens or be updated to "re-skinned" versions of the same screens with modern widget styles. The virtualized mainframe legacy screens may not provide the same keystroke efficiencies familiar to experienced employees, potentially creating negative impressions and posing a barrier to hiring new employees in the contemporary workforce.

It is recommended that AHCCCS incrementally modernize by replacing legacy panels according to a prioritized plan based on user activity and complexity. The initial decision must focus on determining the appropriate technology solution for the user interface. While the refactor project will construct the new PMMIS/HPMMIS using a JavaScript/Angular technology stack, the user interface language and toolkit will require additional skills for staffing and support within the expanded enterprise.

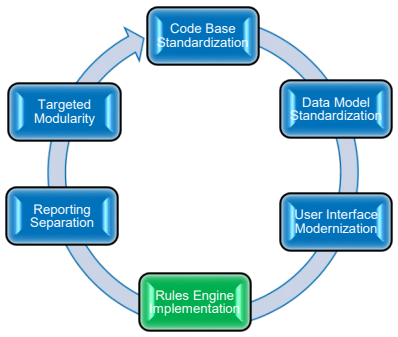
Alignment to Strategy

Organization	Goal	Details
AHCCCS	AHCCCS Health IT Strategy: Improve operations by modernizing agency technology	Improving workforce efficiency and creating an attractive technology platform for the modern workforce
MQD	Health Information Technology that drives transformation	Improving workforce efficiency and creating an attractive technology platform for the modern workforce

Risks

Description	Mitigation	Trigger
If the PMMIS/HPMMIS screens are not modernized, then there will be user dissatisfaction due to inefficiencies from navigating virtualized legacy screens.	Prioritize high touch screens to avoid work backlogs	Refactor Complete
If the PMMIS/HPMMIS screens are not modernized, both agencies may have difficulties hiring/retaining a current generation workforce due to the legacy technology.	Prioritize high touch screens with a plan to complete all systems to ensure a timely modernization	Refactor Complete

7.1.4 Rules Engine Implementation



The primary obstacle to improving the PMMIS/HPMMIS lies in the system's inability to accommodate changes through configuration. The refactored code base will continue to contain hard-coded business rules and intricate, intertwined procedural logic that are challenging to modify. By standardizing the code base and data model, it is feasible to re-architect critical components of the overall system using one or more rules engines or configurable COTS tools, thereby reducing the need for extensive customization.

A comparison of various MES module solutions and next-generation MMIS systems across the country reveals several areas within the system that could benefit from being re-architected as configurable solutions. Therefore, it is recommended that AHCCCS and MQD prioritize the business functions outlined in Exhibit 24 for re-architecture to a configurable, rules-based approach. This approach would enable updates and maintenance to be conducted via online interfaces and file-based mass updates.

Exhibit 24: Business Function Focus for Configurations

Business Process	Configuration Focus
Claims Adjudication Encounter Processing	The edit and audit process can be separated from the embedded claims engine logic and developed into a configurable rules-based system. This could be achieved by expanding the program integrity claim edit solution, utilizing a commercial rules engine, or integrating a custom rules-based approach within the claims engine.

Business Process	Configuration Focus
Enrollment Process	Several areas can be enhanced using configurable rules. The benefit plan/key code enrollment logic can be integrated into a rules-based process that prioritizes and assigns members through classification/determination reference code sets and rules. Additionally, the managed care plan member assignment process can be structured around a reference code set and rules-based process.
Capitation Payment	The capitation payment process involves determining a rate cell that applies based on member enrollment criteria. The rate cell matrix and enrollment criteria can be managed as configurable reference data, which are then utilized in a rules-based process.
Financial Payments	Medicaid programs often classify funding sources and service categories for claims and capitation payments, summarizing spending for state and federal reports. This classification can occur during payment calculations of claims adjudication and capitation. Using a rules-based process with abstracted fund sources and service categories allows efficient updates via a configurable toolset.

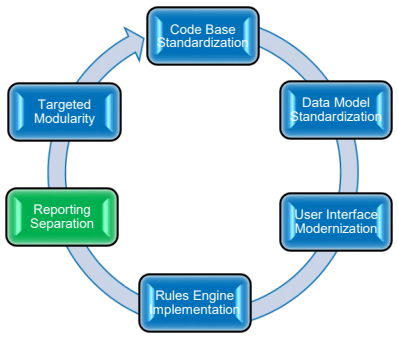
Alignment to Strategy

Organization	Goal	Details
AHCCCS	Strengthen Program Integrity	Allows for configurable rules that can be implemented in a timely manner to prevent fraud
AHCCCS	AHCCCS Health IT Strategy: Improve operations by modernizing agency technology	Configurable business rules allow for timely implementation of changes and enhancements that expands project capacity and increases solution innovation
MQD	Health Information Technology that drives transformation	Configurable business rules allow for timely implementation of changes and enhancements that expands project capacity and increases solution innovation

Risks

Description	Mitigation	Trigger
If the selected rules engine does not meet business and system needs, the implementation may have negative effects on system performance	Appropriate evaluation of the solution/tool and extensive testing	Negative performance results during UAT or performance/capacity testing

7.1.5 Reporting Separation



One of the objectives of the MES Program is to facilitate the separation of reporting from transactional processing in core systems. This initiative provides AHCCCS and MQD with several strategic advantages, including enhanced accuracy and quality of reports due to the integration of data within the Operational Data Store (ODS), Enterprise Data Warehouse (EDW), Hawaii Analytics Platform (HAP), or other centralized data marts. Moreover, the modernization of core systems can concentrate on transactional business processes, aiding in making informed decisions regarding data models and systems architecture, as well as cloud infrastructure and resources.

The recommendation for AHCCCS and MQD is to identify opportunities to transition point-in-time reports and develop dashboards that cater to operational business needs, alongside the oversight requirements of CMS and state program and legislative entities. Currently, much of the operational and federal reporting is generated from PMMIS/HPMMIS. The review of existing reporting functionalities and subsequent migration decision-making can be conducted during the PMMIS/HPMMIS refactor or concurrently with code base and data model standardization. This comprehensive modernization approach will effectively align projects with technological objectives.

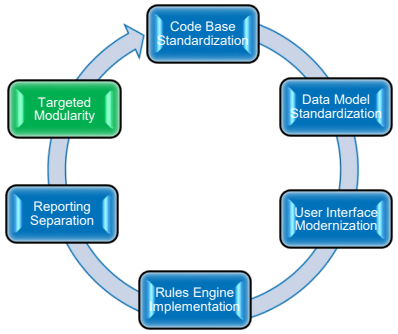
Alignment to Strategy

Organization	Goal	Details
AHCCCS	Strengthen Program Integrity	Able to identify abnormalities through dashboards and real time reporting closer to the time of processing and payment
AHCCCS	Support data integration to enhance the data exchange infrastructure	The consolidation and integration of the broad set of data sources will allow for better clinical and operational analysis
AHCCCS	Increase agency data access and information exchange	The consolidation and integration of the broad set of data sources will facilitate more accurate sharing of information with partners and CMS
MQD	Performance measurement and evaluation	The consolidation and integration of the broad set of data sources will enable the ability to bring the necessary data into the HAP and ensure accurate reporting for Managed Care performance monitoring and HRSN outcome evaluation

Risks

Description	Mitigation	Trigger
If AHCCCS and MQD do not prioritize the order, scope, and methodology of transformation, both organizations may end up with a solution that does not meet reporting needs	Perform a reporting inventory evaluation that targets the removal or transformation of unnecessary reports and identifies opportunities for dashboards over point-in-time reporting	Schedule threshold that ensures a plan is executed prior to the completion of the PMMIS/HPMMIS refactor

7.1.6 Targeted Functionality Improvement within the PMMIS/HPMMIS



It is essential to conduct a comprehensive assessment of the outcomes of the previous five goals before identifying potential targets for modularization out of the PMMIS/HPMMIS. The sequence and timing are crucial to ensure that the overall system design meets the transformation objectives, allowing the evaluation of complexity and best solutions to inform final decisions. Options for modularizing components of the PMMIS/HPMMIS will include functions such as encounter processing, claims adjudication, and prior authorization. However, based on the overall business strategy and the evaluation of resources and ongoing enhancement plans, justification for replacing and modularizing functions from the core MMIS systems may not be warranted.

Certain changes in the PMMIS/HPMMIS are needed to support AHCCCS/MQD, even though they do not require decoupling functionality. For instance, being able to accept and store complete demographic data from the eligibility file in the given order allows for a thorough analysis of program effectiveness by evaluating encounters against members. This demographic data will likely look different for AHCCCS and MQD but both agencies have a need for a more complete demographic dataset. This is an example of a change that might be initiated by either agency but requires a more comprehensive analysis of the use cases to ensure the design accounts for the future needs of either agency.

It is recommended that AHCCCS and MQD prioritize other modernization goals to develop an effective MMIS model, which will enable AHCCCS and MQD to enhance and maintain the systems more efficiently and cost-effectively over time. During the architectural planning and design phases, analysis can be conducted to determine if specific MMIS functions are better suited for transformation through modular replacement or re-architecture.

Alignment to Strategy

Organization	Goal	Details
AHCCCS	Improve operations by modernizing agency technology	As AHCCCS continues to implement non-traditional services into their Medicaid program, there may be opportunities to implement a solution that can efficiently decouple from or integrate into the PMMIS and has clear opportunities and advantages over utilizing a custom code base.
MQD	Health Information Technology that drives transformation	As MQD implements new services within their QUEST waiver, there may be necessity or opportunity to move in a different technology direction than AHCCCS and/or implement a separate solution that will integrate with or decouple the HPMMIS

Risks

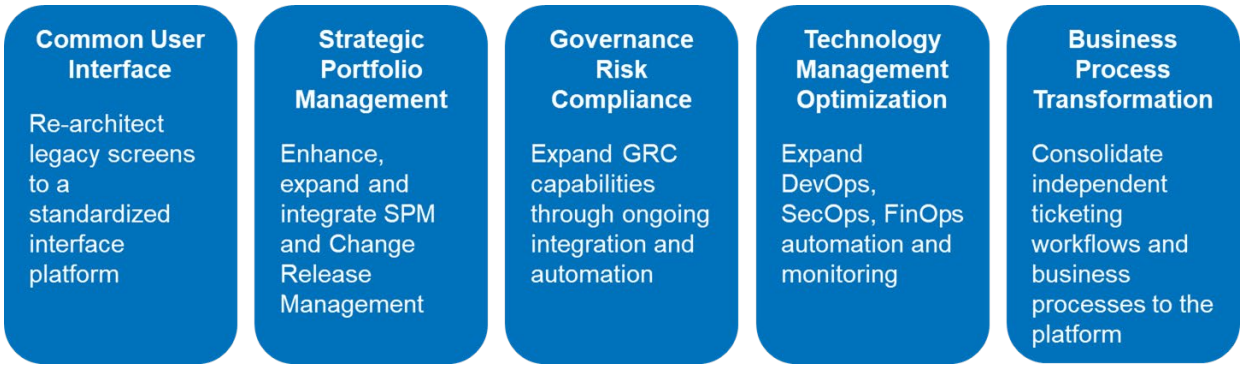
Description	Mitigation	Trigger
If either agency chooses to unilaterally maintain a monolith custom code base, then there may be a loss of opportunity for new functionality and/or the transfer of cost to new innovations	Create a Technical Reference Architecture (TRA) with an evaluation process and criteria to determine whether a solution is a proper fit to the enterprise	Procurements or systematic changes are made without following the approved governance structure

Description	Mitigation	Trigger
If either agency procures new software or solutions that do not meet agency needs or standards, then the operational performance or operational budget may be negatively impacted	Implement an active Architecture Review Board (ARB) that evaluates modular opportunities and ensures appropriate solutions for the enterprise	Procurements or systematic changes are made without following the approved governance structure

7.2. ServiceNow

The implementation of ServiceNow as the standardized business workflow management platform has introduced numerous opportunities to enhance and optimize the operational model. These enhancements span various areas, including improving the user experience for all stakeholders (employees, members, providers/health plans), facilitating organizational planning and monitoring; mitigating risks; optimizing technology, managing technical debt; and further aggregating, automating, and improving workflows and business processes. The initial ServiceNow implementation projects established core platform functions and basic functionalities, enabling the integration of manual and disparate processes and the transition of key business operations. AHCCCS was the primary adopter of the ServiceNow platform to transform their organization. Separately, MQD operates its own systems, with opportunities for shared solutions and extendable integrations where beneficial. Exhibit 25 outlines the five projects recommended to transform the enterprise through the enhancement of the ServiceNow platform in AHCCCS.

Exhibit 25: ServiceNow Projects



7.2.1 Common User Interface

State Medicaid agencies consistently report challenges regarding productivity friction and frustration experienced by operational workers. These difficulties stem from the necessity of accessing multiple disparate systems for daily work routines. The number of systems can be considerable, depending on the age of the enterprise and core MMIS, with each system possessing a unique user interface and functionalities that may not align with a specific operating system or widget style. A modern single system interface that enables workers to perform their tasks uniformly across all functions is often proposed as an ideal solution. Organizations with legacy technology stacks can achieve considerable success by identifying and consolidating as many systems as possible into a common user interface, particularly older mainframe and 4GL client-server applications, into a common front-end user experience (UX) solution.

This presents an opportunity to leverage modern technology to implement a consistent user interface within the AHCCCS and MQD organizations to further modernize the MES, including the PMMIS/HPMMIS and potentially other AHCCCS/MQD-managed MES modules and applications. The completion of the PMMIS/HPMMIS refactor project will transition these systems into a modern technology stack; however, the user interface will remain either virtualized legacy screens or updated versions of the same screens with newer widget styles. Furthermore, the user interface language and toolkit will constitute an additional skillset required for staff and support within the expanded enterprise. The transformation of the PMMIS/HPMMIS can

incrementally commence by replacing legacy panels with a common user interface, reducing the technology stack and offering reusability to a core system implemented within the enterprise.

Alignment to Strategy

Organization	Goal	Details
AHCCCS	Improve operations by modernizing agency technology	Improving workforce efficiency by standardizing on a single enterprise user interface for high volume UI/UX activities
MQD	Health Information Technology that drives transformation	Improving workforce efficiency by standardizing on a single enterprise user interface for high volume UI/UX activities

Risks

Description	Mitigation	Trigger
If AHCCCS moves ISD developed applications—for example PMMIS—into the common user interface (UI) provided by the ServiceNow platform, then there is a possibility that a future migration to a COTS product will not allow for the use of a custom platform.	Focus on the high touch point screens to maximize efforts instead of an all or none approach	The process to procure a new system or move individual components from existing code sets into new tools

7.2.2 Strategic Portfolio Management

The implementation of the Strategic Portfolio Management module has established a robust foundation for AHCCCS to enhance their portfolio management practices through a platform and toolset that ensures automation, integration, and standardization across the enterprise. The MES Modernization Program has advanced AHCCCS into a hybrid environment of self-managed and vendor-managed Azure-based modules and workloads, necessitating a comprehensive strategy for effective enterprise management. This strategy must also incorporate external vendor-managed modules in the overall planning process to ensure coordinated execution and successful delivery. Detailed recommendations for the program management office are available within Section 6.1.2, the program management section of the MES Modernization Roadmap. The purpose of this section is to outline how the strategy can be integrated within the ServiceNow platform, providing reusable tools and integrations to support the success of the program.

Integrated Change Management

The complexity of concurrent MES activities requires comprehensive processes that will establish repeatable and maintainable standards and reporting. An enterprise-level approach begins with the integration of a business management workflow platform that is maintained distinctly by AHCCCS and MQD. This will allow MQD to work within their existing planning model and seamlessly submit and monitor change requests and maintenance needs to the planning portfolio maintained within the AHCCCS. Establishing integrated processes that leverage the existing infrastructure will bolster communication and transparency, while increasing efficiencies across AHCCCS and MQD. The prioritization of activities should be governed by the Executive Steering Committee, with oversight, planning and inputs from the Working Steering Committee, vendors, and technology and business stakeholders.

MES vendors who utilize ServiceNow for their own PMO lifecycle can integrate their portfolio as well or be provided access through a user interface (UI) to coordinate project planning with AHCCCS and MQD. The proposed ServiceNow solution should, at a minimum, address the following areas in coordination with the overall PMO development process:

- **Project Request Submission:** Project request form submission and workflow for approvals, supporting documentation, and impact analysis.
- **Project Inventory Management:** Reports, dashboards, and charting of all projects that include prioritization, release assignment, documentation and schedule management, and other knowledge base support.
- **Release Management:** Assignment of projects to releases with dependency coordination across the enterprise. Workflow management for approvals and coordination with project tools such as testing repository, test automation tools, and DevOps pipelines.
- **Resource Management:** The tracking of resource assignments, baselines, and utilization to include scheduling, time recording, reporting and analysis, and financial management.
- **APD Management:** The APD serves as a crucial planning tool for numerous projects within the MES. AHCCCS and MQD must incorporate the APD and related information, including financials and outcomes, into the program portfolio within ServiceNow.

Alignment to Strategy

Organization	Goal	Details
AHCCCS	Improve operations by modernizing agency technology	The full integration of the agency planning and portfolio management with the comprehensive toolset within ServiceNow will provide accurate state and federal budgeting and financial monitoring, effective contract management, and more comprehensive insight and control of the project portfolio
MQD	Health Information Technology that drives transformation	The full integration of the AHCCCS and MQD Project Management modules would allow MQD to maintain an agency level portfolio strategy that can also support the submission and management of prioritized work for AHCCCS maintained systems and services. This will provide transparency to MQD to understand project and budget considerations for HPMMIS and other AHCCCS managed systems.

Risks

Description	Mitigation	Trigger
If AHCCCS and MQD fail to integrate their agency portfolio management, inconsistencies will continue to occur within the governance process putting projects and budgets at risk	Ensure that the SPM implementation accurately reflect governance needs by: • Developing a comprehensive integration plan • Establishing clear governance frameworks • Conducting regular audits and reviews • Investing in training and support • Utilizing automation tools • Engaging with experienced vendors	Failure to integrate the documented plans and solutions into the SPM solution.

7.2.3 Governance, Risk and Compliance

The implementation of the GRC project by AHCCCS, in collaboration with its vendor, will deliver the hybrid COBIT/ITIL frameworks, work templates, primary workflows, service catalog, and monitoring standards to ensure effective oversight of the MES. All the components of GRC are intended for integration within ServiceNow and are projected to be established prior to the completion of the MMIS refactor project.

It is recommended that AHCCCS further develop the workflows, approval processes, knowledge base, and artifact repository to support auditing and monitoring the MES. This may encompass periodic user account reviews (PUAR), system and organization controls (SOC) audits, penetration tests, enterprise scans, incident response plans and reports, vendor reports, and other audit artifacts. The artifact repository should ideally be organized and indexed within the Enterprise Document Management System (EDMS) within the System Integration Platform (SIP) and subsequently integrated with the user interface and workflows built within ServiceNow. Additionally, AHCCCS should collaborate with their ServiceNow and GRC vendors to identify and implement automation tools and integrations to enhance efficiency and timeliness across various GRC processes.

Alignment to Strategy

Organization	Goal	Details
AHCCCS	Improve operations by modernizing agency technology	The effective use of workflows, knowledge base, and document management within ServiceNow will help to ensure that the GRC program is effectively followed across the organization
MQD	Health Information Technology that drives transformation	The decision to leverage or implement a similar solution, as AHCCCS can help to align the two agencies with GRC and promote broader adoption of GRC across MQD

Risks

Description	Mitigation	Trigger
If AHCCCS and MQD maintain GRC tools, information, and artifacts in multiple tools and resources, then either/both agencies will fail to implement standardized and complete processes across the organizations, resulting in impacts to security and budget measures	Ensure that the GRC implementation accurately reflect governance needs by: • Developing a comprehensive integration plan • Establishing clear governance frameworks • Conducting regular audits and reviews • Investing in training and support • Utilizing automation tools • Engaging with experienced vendors	Failure to integrate the documented plans and solutions into a GRC tool.

7.2.4 Technology Management Optimization

The implementation of the IT Service Management (ITSM) and IT Operations Management (ITOM) modules within ServiceNow offers AHCCCS the capability to centralize its technology management under a unified monitoring and reporting tool, thereby optimizing Azure cloud management. The key success factors for this initiative include the connectors, agents, integrations, and automations that can be deployed from ServiceNow, Microsoft, and other third-party providers.

It is recommended that AHCCCS initially develop and implement a standardized set of enterprise technology management plans for DevOps, SecOps, and FinOps. These plans should be thoroughly documented, outlining the standards, goals, processes, outcomes, and metrics for the agency. Subsequently, the objective will be to implement automation across the enterprise to update, monitor, and control all resources within the Azure environment in accordance with the principles and protocols established in the technology management plans.

Alignment to Strategy

Organization	Goal	Details
AHCCCS	Improve operations by modernizing agency technology	Implementing a centralized IT monitoring and management solution that is integrated with SPM and GRC ensures that appropriate security and budget controls can be maintained across the enterprise
MQD	Health Information Technology that drives transformation	Implementing a centralized IT monitoring and management solution that is integrated with SPM and GRC ensures that appropriate security and budget controls can be maintained across the enterprise

Risks

Description	Mitigation	Trigger
If AHCCCS or MQD fail to implement the necessary plans outlined in this section, then the cloud tenancy of either agency may be at risk of an incident or a significant resource expense that puts state and/or federal funding at risk	Ensure that the ITSM/ITOM implementations accurately reflect needs by: • Implementing DevOps, SecOps, FinOps plans • Establishing proper control frameworks • Conducting regular audits and reviews • Investing in training and support • Utilizing automation tools • Engaging with experienced vendors	Failure to maintain an up-to-date POAM and meet resolution targets

7.2.5 Business Process Transformation

One of the significant opportunities for modernization is the consolidation and standardization of business processes. A unified platform facilitates the rapid construction of efficient workflows and automations through repeatable designs and a standardized toolset. However, to achieve maximum productivity gains, it is crucial that the organization prioritizes continuous collaboration between business and technology groups to perform discovery, design, and deployment of workflows that replace current manual and legacy processes.

It is recommended that AHCCCS and MQD each prioritize a process re-engineering team that will iteratively work across their respective organizations to identify and execute use cases for business process transformation. The minimum staff composition of this collaborative team should include a business analyst, process subject matter expert (SME), developer, and technical lead. Furthermore, it is essential for AHCCCS and MQD leadership to provide clear directives throughout the organizations, mandating that the new processes will supersede previous work patterns, which must be retired. The success of these initiatives will rely on consistent organizational change management, comprehensive communication and training, and strong leadership sponsorship throughout the lifecycle of the transformation.

Service Ticket/Case Tracking

A specific subset of business process transformation is the consolidation and harmonization of the service ticketing and case tracking systems and processes. The initial implementation of ServiceNow migrated several of the key ticketing processes. AHCCCS and MQD should individually look for opportunities to implement ticketing and case tracking workflows for processes that currently reside in paper, email, or SharePoint. Additionally, there may be cross-organization processes that could be enhanced or streamlined through ticketing or case tracking use cases across the AHCCCS/MQD..

Alignment to Strategy

Organization	Goal	Details
AHCCCS	Improve operations by modernizing agency technology	Implementing effective business workflows and automation in ServiceNow through business process transformation will prioritize and centralize workloads and remove distractions for workers to allow them to be more effective and focus on key aspects and functions of their daily job responsibilities
MQD	Health Information Technology that drives transformation	Implementing effective business workflows and automation through business process transformation will prioritize and centralize workloads and remove distractions for workers to allow them to be more effective and focus on key aspects and functions of their daily job responsibilities

Risks

Description	Mitigation	Trigger
If AHCCCS and MQD do not go through business process transformation exercises, then processes may not meet business needs, and the business users will continue to utilize manual and work around methods.	Ensure that business process transformation is fully adopted by the business through: • Conducting business process transformation exercises • Documenting business rules • Providing training and support • Implementing change management strategies • Monitoring and evaluating	Business users continuing to use work around methods to conduct business communication and administration

7.3. Enterprise Innovations

7.3.1 Master Data Management and Master Person Index

As AHCCCS systems evolve under the 1115 waiver, there is a need to focus on interoperability with both internal and external systems like ADES, ADHS, Health Plans, and the Health Information Exchange (HIE). Ensuring accurate person matching across different systems is crucial. AHCCCS Division of Member and Provider Services (DPMS) currently works through the process of reconciling people as they apply for services, as well as addressing issues between the eligibility system and the MMIS. Significant staffing levels are required to perform this reconciliation. A master person index (MPI) can improve the ability to identify a

person and match them to already known information, reducing the level of effort required to perform post processing reconciliation.

An MPI is a database that maintains a unique identifier for every individual whose information is stored within it. This identifier is used to match and link records across multiple systems and databases, enabling the sharing of data between internal and external stakeholders, including other state agencies and health information exchanges (HIEs).

One of the primary benefits of an MPI is improved data accuracy and completeness. By linking records across multiple systems, an MPI can help ensure that all relevant information about an individual is available to those who need it and reduces the likelihood of duplicate or incomplete records.

Another benefit of an MPI is improved efficiency and cost savings. By enabling the sharing of data between systems, an MPI can reduce the need for manual data entry and reconciliation. This can save time and reduce the risk of errors, leading to cost savings for AHCCCS. The staff currently assigned to reconciliation can focus on additional needs of DPMS.

In the context of reconciling member eligibility to member enrollments, an MPI can help to ensure that the data in PMMIS matches the data in other systems, such as the pharmacy system or the systems used by managed care organizations. This can help to reduce errors and discrepancies and ensure that members are correctly enrolled and eligible for the services they need.

MPI plays a critical role in the master data management process by providing a single source of truth for patient data. This is achieved using sophisticated algorithms that match and merge patient records from different sources, such as electronic health records, billing systems, and laboratory information systems.

MPI also supports the master data management process by providing a framework for data governance. This includes defining data ownership, establishing data quality standards, and implementing processes for data validation and correction. AHCCCS has initiatives to improve their data governance, and a governance focus on data quality will improve the implementation and management of the MPI.

Alignment to Strategy

Organization	Goal	Details
AHCCCS	Advance whole-person care	Improves the ability to share member data more effectively and efficiently with AHCCCS partners
AHCCCS	Create Efficiencies and Improve Healthcare Quality	The use of the MPI will enhance the data exchange capabilities, allowing for flow of data between the State HIE, DWEL, and AHCCCS
AHCCCS	Improve Data Quality and Modernization	An MPI can greatly enhance the quality of data and improve the results of master data management activities as data sources are integrated with each other
AHCCCS	Increase agency data access and information exchange	An MPI, implemented using industry best software, with data governance support in terms of policy and procedures, will ensure a maximum return on the investment in an MPI solution
MQD	Support Community Driven Initiatives	The Health Analytics Platform contains an MPI, which improves the ability to collect data from community-driven initiatives, as well as share data with their community partners

Organization	Goal	Details
MQD	Improve outcomes for high-needs, high-cost individuals	The Health Analytics Platform MPI ensures that cost analysis is accurate by improving the ability to integrate data sources from multiple partners, reducing errors and improving data quality.
MQD	Address Social Determinants of Health	The effective use of an MPI will ensure that the integration of data from multiple state agencies and community partners will result in the accurate reporting of SDOH needs and outcomes

7.3.2 MES Interoperability and Integration

The newly implemented cloud-based modular MES by AHCCCS and MQD is designed to leverage modern technological innovations through interoperability and integration. This approach allows businesses to view the MES as an integrated enterprise comprising complementary applications, rather than a collection of mutually exclusive or co-dependent systems. Transitioning from a legacy mainframe-centered MMIS to a system integration platform with common enterprise services eliminates several technical barriers. These advancements include shifting from batch file processing to real-time business transactions via common APIs, implementing dynamic user interfaces and portals separate from core business logic, and decoupling business functions into integrated best-in-class solutions. The recommendations outlined in Exhibit 26 provide guidance on next steps to further promote interoperability and integration across the MES.

Exhibit 26: Interoperability and Integration Next Steps

Focus	Description
Standardized APIs and Transactions managed through the Systems Integration Platform	Implementing strategies that provide real-time communications that complement and/or replace batch file processes that time box processing into limited cycles. The following areas are for consideration: • Provider Enrollment • Member Enrollment • Claims Submission • Prior Authorization Submission
Enterprise Report Model	Creating an enterprise reporting model that allows for dashboards, fixed business reports, ad-hoc reporting, complex analytics, and statistical modelling to support business planning, monitoring, auditing, regulatory reporting, and what-if analysis and new program evaluations.
External Portals	Re-architecting the portals to seamlessly connect with core MES systems through standardized transactions and APIs while remaining decoupled in their architecture, thus allowing the portals to focus more on the user interface needs and not be encumbered with duplicative business logic and technical debt.

Alignment to Strategy

Organization	Goal	Details
AHCCCS	Improve operations by modernizing agency technology	Developing an enterprise based upon a modular framework using a systems integration platform and a mature API framework will allow AHCCCS to continue to

Organization	Goal	Details
		innovate with new solutions in a timely manner without disrupting the entire enterprise with changes
MQD	Health Information Technology that drives transformation	Developing an enterprise based upon a modular framework using a systems integration platform and a mature API framework will allow MQD to continue to innovate with new solutions on their own or in cooperation with AHCCCS in a timely manner without disrupting the entire enterprise with changes

Risks

Description	Mitigation	Trigger
If AHCCCS and MQD do not move key processes into a real-time API based model, then the agencies will be unable to realize the necessary innovations that can transform the enterprise	The implementation of a technical reference architecture (TRA) with mandatory standards for API development and transaction standards and contract requirements for module and application vendors that provide the framework for the following: • Vendor module integration • Internal system integration • AHCCCS to MQD enterprise integration	The planning of an integration change order or procurement with a vendor module or application that does not require the use of APIs and standardized transactions based upon the TRA

7.3.3 Artificial Intelligence and Automation

The most popular topic in technology today and in the foreseeable future is artificial intelligence (AI) and business process automation. While daily news and discussions heavily focus on artificial intelligence, especially generative AI (GenAI), the adoption rate into mainstream business use has been at a much slower pace. This is to be expected and is also recommended based upon the current maturity level of the solutions and lack of clearly identified use cases that provide a confident return on investment. In the near term, few organizations will implement internally developed solutions due to several hurdles that require significant up-front investment, including data security, large language model (LLM) development and training, and generative AI expertise.

The slow internal corporate adoption of AI has not stopped software vendors from investing heavily in AI solutions that can be embedded or integrated into their products. In some cases, AI and GenAI have brought major innovations to industry solutions and commonly used software products that have relied on other technologies and methods in the past.

It is imperative that any discussions and planning for the use of AI and GenAI within an organization, especially public healthcare, begin with governance, standards, appropriate use policies, training, and security. The potential for the inappropriate and unexpected release of organizational information or HIPAA protected data is very high without the proper policies and controls in place. The use of vendor embedded solutions does reduce the risk over in-house solutions; however, Medicaid agencies must first ensure all necessary controls, policies, and procedures are in place to address both legal and ethical concerns.

AHCCCS and MQD already possess the means to introduce AI and GenAI into their respective enterprises. By leveraging tools within Microsoft Office 365, they can utilize AI-driven technologies to assist in everyday

tasks and workflows. These are significant first steps through vendor tools to implement secure GenAI and help introduce staff to the benefits of AI and process automation.

AHCCCS has also introduced chat bots into its customer service model and is implementing a program integrity solution that utilizes large language models to help identify fraud. These early opportunities will help educate and inform AHCCCS to continue to develop innovative strategies and implement sensible AI solutions. Collaborative AI opportunities can be pursued within the partnership to foster innovative solutions that can help both agencies fulfill their strategies. Exhibit 27 identifies areas and initial use case ideas that may be potential areas of interest. The entries with an asterisk (*) indicate opportunities that one or both agencies have already introduced through planning or implementation.

Exhibit 27: Artificial Intelligence Opportunities

Process	Opportunities
Systems Development Life Cycle	• Process Automation and GenAI ability to standardize, enhance, and fully automate DevOps processes, templates, and pipelines • GenAI ability to perform test case development and synthetic data creation for testing • Process Automation and AI to enable automated regression testing • GenAI ability to perform source code generation and source code quality and error analysis
Systems Security and Monitoring	• Machine Learning models to perform predictive analytics and analysis of network and access logs • Artificial Intelligence scan of active logs and alerts to augment live staff to perform eyes on glass analysis and monitoring of systems • Automated alert and notification systems for system events and risk-based triggers
Call Center Operations	• GenAI processing of call transcription with call summarization • * Chat Bot implementation to reduce call volume and leverage self-service opportunities
Program Integrity	• * Fraud analysis based upon machine learning and large language models alongside traditional business rule analysis • * Claim/Encounter edit and audit processes and claims suspension based upon informed patterns from machine learning models
Impact Analysis	• GenAI analysis of source code and reference data to perform impact analysis for enhancements and new programs
Program Management and Scheduling	• Process automation and GenAI to develop program templates, documentation, and reports, and project schedules
Business and System Documentation	• * GenAI tools and processes to scan business rules, policies, data, and source code to generate business and system documentation

Alignment to Strategy

Organization	Goal	Details
AHCCCS	Improve operations by modernizing agency technology	Introducing AI and automation into the development life cycle will create standardized maintenance practices that will reduce defects and ensure software quality.
AHCCCS	Improve operations by modernizing agency technology	Introducing AI and automation into operational workflows and processes will create efficiencies, enforce standardization,

Organization	Goal	Details
		and improve documentation and artifact quality.
MQD	Health Information Technology that drives transformation	Introducing AI and automation into operational workflows and processes will create efficiencies, enforce standardization, and improve documentation and artifact quality.

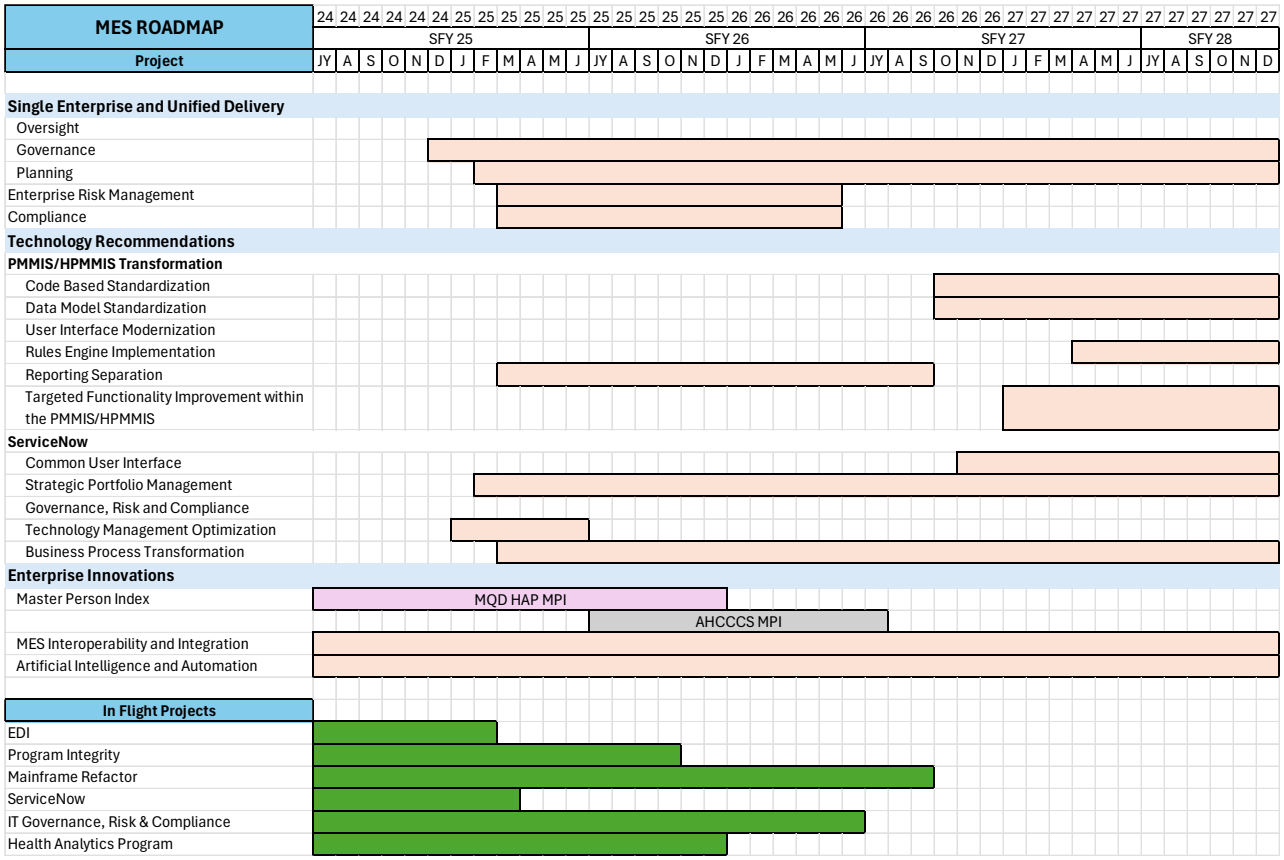
Risks

Description	Mitigation	Trigger
If AHCCCS and MQD do not prioritize governance and training around AI prior to implementation, then HIPAA privacy or organization confidentiality may be compromised through the sending of information to external models or tools	Implement governance, use case, and technology standards specifically for AI and ensure that associated documentation is required throughout the organization	AI project initiation without an approved impact analysis and charter with clearly defined scope and boundaries

8. Timeline

Exhibit 28 illustrates the timeline recommended for initiating the proposed projects and current in-flight projects which may be interdependent. Many of the projects recommended within the roadmap extend beyond the timeline shown below in Exhibit 28 and will serve as the foundation for AHCCCS to manage and implement system changes, integrate new technologies, and support both the MQD Medicaid Program and their own programs as modifications to the programs occur over time.

Exhibit 28: MES Roadmap Timeline



Appendix A Acronyms

This appendix defines the acronyms used in this deliverable.

Acronym	Description
AHCCCS	Arizona Health Care Cost Containment System
APD	Advanced Planning Document
ARPA	American Rescue Plan Act
CCO	Community Care Organization
CMS	Centers for Medicare & Medicaid Services
CRM	Customer Relationship Management
DMS	Document Management Systems
DW	Data Warehouse
EPMO	Enterprise Program Management Office
ERM	Enterprise Risk Management
GRC	Governance, Risk, and Compliance
HCBS	Home and Community-Based Services
HPMMIS	Hawaii Prepaid Medical Management Information Systems
HRSN	Health Related Service Needs
IDEAL	Interactive Data Entry and Analysis Language
IT	Information Technology
MCO	Managed Care Organization
MES	Medicaid Enterprise Systems
MPI	Master Person Index
MQD	Med-QUEST Division
ODS	Operational Data Store
PMMIS	Prepaid Medical Management Information Systems
SIP	Systems Integration Platform
SSR	System Service Request