

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
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State Demonstrations Group

September 17, 2024

Carmen Heredia
Cabinet Executive Officer and Executive Deputy Director
Arizona Health Care Cost Containment System
801 East Jefferson Street
Phoenix, Arizona 850934

Dear Director Heredia:

The Centers for Medicare & Medicaid Services (CMS) completed its review of the amended Evaluation Design, which is required by the Special Terms and Conditions (STCs), specifically, STC 96, of the section 1115 demonstration, “Arizona Health Care Cost Containment System (AHCCCS)” (Project Number: 11-W-00275/9), effective through September 30, 2027. CMS has determined that the amended Evaluation Design, which was submitted on August 14, 2024, and incorporates the demonstration amendment approved on February 16, 2024, meets the requirements set forth in the STCs and our evaluation design guidance, and therefore approves the state’s amended Evaluation Design.

CMS has added the approved amended Evaluation Design to the demonstration’s STCs as Attachment H. A copy of the STCs, which includes the new attachment, is enclosed with this letter. In accordance with 42 CFR 431.424, the approved Evaluation Design may now be posted to the state’s Medicaid website within 30 days. CMS will also post the approved Evaluation Design as a standalone document, separate from the STCs, on Medicaid.gov.

Please note that an Interim Evaluation Report, consistent with the approved Evaluation Design, is due to CMS one year prior to the expiration of the demonstration, or at the time of the extension application, if the state chooses to extend the demonstration. Likewise, a Summative Evaluation Report, consistent with this approved design, is due to CMS within 18 months of the end of the demonstration period. In accordance with 42 CFR 431.428 and the STCs, we look forward to receiving updates on evaluation activities in the demonstration monitoring reports.

We appreciate our continued partnership with Arizona on the AHCCCS demonstration. If you have any questions, please contact your CMS demonstration team.

Sincerely,

Danielle Daly
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A red digital signature line is drawn over the name "Danielle Daly" and the initials "-S".

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Danielle Daly
Director
Division of Demonstration Monitoring and Evaluation

cc: Brian Zolynas, State Monitoring Lead, CMS Medicaid and CHIP Operations Group

**Attachment H
Evaluation Design**

Arizona Health Care Cost Containment System



**Arizona Section 1115 Demonstration
Waiver**

Evaluation Design

August 2024



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1. Background

The Centers for Medicare & Medicaid Services (CMS) and federal law set standards for the minimum care states must provide Medicaid-eligible populations, while also giving States an opportunity to design and test their own strategies for funding and providing healthcare services. Section 1115 of the Social Security Act permits states to test innovative demonstration projects and evaluate state-specific policy changes to increase efficiency and reduce costs. On October 14, 2022, CMS approved Arizona's request to extend its Section 1115 Arizona Health Care Cost Containment System (AHCCCS) Demonstration Waiver (referred to as the Waiver in this report). The extension was approved for an additional five years effective October 14, 2022, through September 30, 2027.¹⁻¹ The Waiver was amended on February 16, 2024, to include additional eligibility expansions. The following nine Waiver programs have been implemented or extended:

- AHCCCS Complete Care (ACC)
- AHCCCS Complete Care–Regional Behavioral Health Agreement (ACC-RBHA)
- Arizona Long Term Care System (ALTCS)^{1-2,1-3}
- Comprehensive Health Plan (CHP)
- Housing and Health Opportunities (H2O)^{1-4, 1-5}
- KidsCare Eligibility Expansion^{1-6,1-7}
- Prior Quarter Coverage (PQC) Waiver
- Targeted Investments (TI) 2.0¹⁻⁸
- Tribal Dental Authority

ACC

On October 1, 2018, AHCCCS transitioned 1.5 million members to seven health plans with fully integrated physical health (PH) and behavioral health (BH) services. By joining PH and BH services under single health plans with their own networks of providers who treat all aspects of healthcare needs, providers are better able to facilitate care coordination and achieve better health outcomes. ACC plans are responsible for providing

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- ¹⁻¹ Centers for Medicare & Medicaid Services. AHCCCS Demonstration Extension and Housing & Health Opportunities Amendment Approval. Available at: <https://www.medicaid.gov/medicaid/section-1115-demonstrations/downloads/az-hccc-ca-10142022.pdf>. Accessed on: Aug 3, 2023.
- ¹⁻² ALTCS was amended on February 16, 2024, to include Parents as Paid Caregivers.
- ¹⁻³ Centers for Medicare & Medicaid Services. Demonstration Approval–CHIP Expansion and Parents as Paid Caregivers Amendment. Available at: <https://www.medicaid.gov/medicaid/section-1115-demonstrations/downloads/az-hccc-dmns-pdftn-aprvl-chip-expn-prnts-paid-crgvrs-amndmnt.pdf>. Accessed on: Jun 14, 2024.
- ¹⁻⁴ The evaluation of the H2O program is awaiting further guidance from CMS. A separate evaluation design for the H2O program will be submitted at a later date.
- ¹⁻⁵ H2O was implemented on October 1, 2024.
- ¹⁻⁶ KidsCare eligibility was expanded on February 16, 2024.
- ¹⁻⁷ Centers for Medicare & Medicaid Services. Demonstration Approval–CHIP Expansion and Parents as Paid Caregivers Amendment. Available at: <https://www.medicaid.gov/medicaid/section-1115-demonstrations/downloads/az-hccc-dmns-pdftn-aprvl-chip-expn-prnts-paid-crgvrs-amndmnt.pdf>. Accessed on: Jun 14, 2024.
- ¹⁻⁸ The TI 2.0 program will have a separate evaluation design.

integrated PH and BH services for (1) adults who are determined not to have a serious mental illness (SMI) (excluding members enrolled with Department of Economic Security/Division of Developmental Disabilities [DES/DDD]); (2) children, including those with special healthcare needs (SHCN) (excluding members enrolled with DES/DDD and the Department of Child Safety [DCS] CHP); and (3) members determined to have an SMI who opt out and transfer to an ACC for the provision of PH services.

Seven ACC contracts were awarded to health plans across three geographical service areas (GSAs): all seven plans are available in the Central GSA (Maricopa, Pinal, and Gila counties); two plans serve the North GSA (Coconino, Yavapai, Mohave, Navajo, and Apache counties); and two plans serve the South GSA (Cochise, Greenlee, Graham, La Paz, Pima, Santa Cruz, and Yuma counties) plus a third plan in Pima County.¹⁻⁹

On November 26, 2018, AHCCCS submitted a request to amend the Special Terms and Conditions (STCs) of the previously approved Section 1115 Demonstration Waiver to “reflect the delivery system changes that resulted from the ACC managed care contract award”.¹⁻¹⁰ Effective October 1, 2022, AHCCCS updated its contracts with ACC health plans to include RBHA responsibilities for those with an SMI designation called ACC-RBHAs. Following the contract update, four plans serve only the ACC population and three plans assumed RBHA responsibilities to serve both the ACC and SMI populations.

Through the Waiver extension, the ACC program seeks to continue to provide quality healthcare to members, ensuring access to care, maintaining, or improving member satisfaction, and continuing to operate as a cost-effective managed care delivery model.

ACC-RBHA

Historically, adult members received BH services through a geographically designated Regional Behavioral Health Authority (RBHA) contracted with AHCCCS, with few exceptions. BH services were covered separately from PH services. To improve care coordination, health outcomes, and efficiencies, AHCCCS took its first step toward integrated care through awarding one health plan the RBHA contract for Maricopa County, effective April 2014. The contract required that the RBHA add PH services for the SMI population it covered for BH services. In October 2015, RBHA contractors statewide began providing integrated care for members with an SMI.^{1-11, 1-12} AHCCCS conducted its largest historical care integration initiative in 2018 by transitioning all acute care members without an SMI designation to seven ACC integrated healthcare plans which provided coverage for PH and BH care.

Effective October 1, 2022, RBHA contracts expired and were replaced with an integrated health system, AHCCCS Complete Care–Regional Behavioral Health Agreement, or ACC-RBHA, a program that awarded ACC contracts with RBHA services. Three health plans were awarded an ACC-RBHA contract: Mercy Care in the

¹⁻⁹ Arizona Health Care Cost Containment System. AHCCCS Complete Care: The Future of Integrated Healthcare. Available at: [AHCCCS Complete Care: The Future of Integrated Healthcare \(azahcccs.gov\)](https://www.azahcccs.gov/CompleteCare/CompleteCare.aspx). Accessed on: Aug 3, 2023.

¹⁻¹⁰ Arizona Health Care Cost Containment System. Re: Arizona’s 1115 Waiver. AHCCCS Complete Care Technical Clarification [email]. November 26, 2018. Available at: https://www.azahcccs.gov/Resources/Downloads/ACC_TechnicalAmendmentCorrection_11262018.pdf. Accessed on: Aug 3, 2023.

¹⁻¹¹ NORC at the University of Chicago. *Supportive Services Expansion for Individuals with Serious Mental Illness: A Case Study of Mercy Maricopa Integrated Care*. August 18, 2017. Available at: <https://es.mercycareaz.org/assets/pdf/news/NORC-MercyMaricopa-CaseStudy.pdf>. Accessed on: Aug 3, 2023.

¹⁻¹² Arizona Health Care Cost Containment System. Behavioral Health, AHCCCS Complete Care (ACC) Began October 1, 2018. Available at: <https://www.azahcccs.gov/Members/BehavioralHealthServices/>. Accessed on: Aug 3, 2023.

Central GSA, Arizona Complete Health—Complete Care Plan in the South GSA, and Care1st Health Plan in the North GSA. Under ACC-RBHA plans, individuals with an SMI designation could receive both PH and BH benefits under one health plan. Additionally, ACC-RBHA GSAs aligned to match previous ACC and ALTCS GSAs.¹⁻¹³

Under the Waiver extension, the ACC-RBHA program will continue to provide quality healthcare to members with BH needs, ensuring access to care for members, and maintaining or improving member satisfaction with care while continuing to operate as a cost-effective managed care delivery model.

ALTCS

In 1988, Arizona’s original Section 1115 Demonstration Waiver was amended to allow the State to implement the ALTCS program, a long-term care program for members who are elderly or who have a physical or intellectual disability. ALTCS provides PH services, long-term services and supports (LTSS), BH services, and home and community-based services (HCBS) to Medicaid members at risk for institutionalization. ALTCS is a managed care program administered separately from the AHCCCS Acute Care Program (AAP) that provides services through prepaid, capitated arrangements with managed care organizations (MCOs). ALTCS members with intellectual disabilities are serviced through a statewide MCO operated by DES/DDD. ALTCS aims to ensure that members are living in the least restrictive, most integrated settings possible and are actively engaged with and participating in their communities.

Under the Waiver extension, the ALTCS program will seek to provide quality healthcare to members with LTSS needs, ensuring access to care for members, and maintaining or improving member satisfaction while continuing to operate as a cost-effective managed care delivery model. The Waiver extension allows for the new authority to accept verbal consent in lieu of a written signature for up to 30 days for all care and treatment documentation for ALTCS members when included in the member’s record and when identity can be reliably established. This authority was temporarily granted to AHCCCS under its Section 1135 Demonstration Waiver to ensure a reliable and timely process for ALTCS members to obtain prompt authorization of critically needed health services while reducing the risk of coronavirus disease 2019 (COVID-19) transmission or infection through the document signature process. Following communication with community stakeholders, AHCCCS requested that this authority be continued following the termination of the COVID-19 public health emergency (PHE) through the Waiver. In addition to the authority allowed by the Waiver, the simultaneous extension of the Appendix K authority impacted ALTCS members. The extension of Appendix K allowed for the provision of personal care in acute care hospitals and included coverage for home-delivered meals for the subset of the ALTCS population that serves individuals with intellectual disabilities.

On February 16, 2024, CMS approved an amendment to the ALTCS program, authorizing the Parents as Paid Caregivers (PPCG) service delivery model. Initially approved under an Appendix K authority on April 6, 2020, to address workforce shortages due to the COVID-19 PHE, PPCG allows legally responsible parents to be reimbursed for providing direct care to their minor children enrolled in ALTCS up to 40 hours a week. Additionally, CMS approved Extended Family Support services, which helps primary caregivers and families

¹⁻¹³ Arizona Health Care Cost Containment System. *ACC-RBHA/TRBHA Map*. Available at: <https://www.azahcccs.gov/AHCCCS/Initiatives/CareCoordination/behavioralhealth.html>. Accessed on: Aug 3, 2023.

adjust to members' disabilities and navigate significant life transitions and the healthcare system. These Extended Family Support services are available for ALTCS members residing at home.¹⁻¹⁴

CHP

On April 1, 2021, AHCCCS integrated PH and BH through replacement of the Comprehensive Medical and Dental Program (CMDP) with Mercy Care DCS CHP, with the goal of simplifying healthcare coverage and encouraging better care coordination for foster children. CHP operates as a single acute health plan under contract with AHCCCS for children who are determined to be Medicaid eligible and who are in DCS custody. CHP provides PH, BH, and dental services for children under the purview of DCS placed in foster homes, with a relative, in a certified adoptive home prior to the entry of the final order of adoption, in an independent living program, or in the custody of a probation department and placed in out-of-home care.

Through the Waiver extension, the CHP program will seek to provide quality healthcare to eligible foster children, ensuring access to care for members, maintaining or improving member satisfaction with care, and operating as a cost-effective managed care delivery model.

KidsCare

On February 16, 2024, CMS approved an amendment to the Waiver, expanding KidsCare eligibility from 200 percent of the federal poverty level (FPL) up to and including 225 percent of the FPL. AHCCCS initially sought to expand KidsCare through a State Plan Amendment; however, AHCCCS maxed out eligibility levels using Title XXI funding. As a result, AHCCCS applied for a Waiver amendment to increase KidsCare eligibility. The approved amendment allows AHCCCS to further increase KidsCare eligibility up to 300 percent of the FPL, subject to State legislature approval. This expansion will make approximately 9,700 additional children under 19 years of age eligible for KidsCare.¹⁻¹⁵

PQC

On January 18, 2019, CMS approved Arizona's request to amend the Waiver to allow AHCCCS to waive PQC retroactive eligibility.¹⁻¹⁶ The renewal continues this authorization, allowing AHCCCS to limit retroactive coverage for all Medicaid members to the first day of the month of application, excluding pregnant women, women who are less than 60 days postpartum, and children under 19 years of age. Pregnant women, women less than 60 days postpartum, and children under 19 years of age are eligible for Medicaid coverage for up to three

¹⁻¹⁴ Centers for Medicare & Medicaid Services. Special Terms & Conditions. Available at: <https://www.medicaid.gov/medicaid/section-1115-demonstrations/downloads/az-hccc-dmns-pdftn-aprvl-chip-expn-prnts-paid-crgvrs-amndmnt.pdf>. Accessed on: Jun 11, 2024.

¹⁻¹⁵ Centers for Medicare & Medicaid Services. Special Terms & Conditions. Available at: <https://www.medicaid.gov/medicaid/section-1115-demonstrations/downloads/az-hccc-dmns-pdftn-aprvl-chip-expn-prnts-paid-crgvrs-amndmnt.pdf>. Accessed on: Jun 11, 2024.

¹⁻¹⁶ Centers for Medicare & Medicaid Services. Approved Demonstration. Available at: <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-appvd-demo-01182019.pdf>. Accessed on: Aug 3, 2023.

months prior to the month in which their application was submitted. The waiver of retroactive coverage is consistent with AHCCCS' historical practice prior to January 2014.¹⁻¹⁷

The PQC waiver was designed to promote continuity of care and discourage coverage gaps that can occur when individuals wait until they experience medical emergencies to apply for Medicaid. The PQC waiver allows AHCCCS the opportunity to evaluate the progress toward the Waiver's goals of continuity of care and personal responsibility through encouraging members to maintain health coverage and reducing gaps in coverage when members "churn" (individuals moving on and off Medicaid repeatedly), therefore improving health outcomes, reducing costs to AHCCCS, and promoting the sustainability of the Medicaid program.

Tribal Dental Authority

Since the 2016 legislative session, Arizona has been working to restore limited AHCCCS coverage for dental benefits that were eliminated during the Great Recession. In 2016 the Arizona legislature authorized AHCCCS to provide a limited dental benefit of \$1,000 per contract year for members enrolled in ALTCS. In 2017 the governor of Arizona restored the emergency dental benefit for adult AHCCCS members through the 2018 fiscal year budget. In 2020 the governor and the State legislature authorized AHCCCS to request approval from CMS to reimburse Indian Health Service (IHS) and Tribal 638 facilities to cover the cost of adult dental services that are eligible for 100 percent federal medical assistance percentage (FMAP), that are in excess of the \$1,000 emergency dental limit for adult members in Arizona's State Plan and the \$1,000 dental limit for individuals ages 21 years or older enrolled in the ALTCS program.¹⁻¹⁸

American Indians and Alaskan Natives (AI/AN) are among the racial and ethnic groups in the United States with the poorest oral health, a disparity that is exacerbated by the geographic isolation of tribal populations and the lack of practicing dentists in IHS or tribal health facilities in rural and frontier locations. On December 21, 2020, AHCCCS applied for permission to enable the State to reimburse for dental services for AI/AN members provided in, at, or as a part of services offered by facilities and clinics operated by the IHS or a tribe or tribal organization. On October 14, 2022, CMS approved the expenditure authority for medically necessary diagnostic, therapeutic, and preventive dental services for AI/AN members beyond the current \$1000 emergency dental limit for adult members in Arizona's State plan and beyond the \$1,000 dental limit for individuals ages 21 years or older enrolled in ALTCS, when these services are provided by participating IHS facilities and/or participating facilities operated by tribes under the Indian Self Determination and Education Assistance Act (ISDEAA).

The Tribal Dental Authority will allow AHCCCS to improve oral health among tribal members and reduce the disproportionate number of AI/AN population members affected by oral disease, improving members' outcomes and experience. The Waiver will also provide the IHS and tribal facilities with the financial resources to attract more dentists to work on tribal reservations and in rural areas.

¹⁻¹⁷ Arizona Health Care Cost Containment System. Proposal to Waive Prior Quarter Coverage. Available at: https://www.azahcccs.gov/Resources/Downloads/PriorQuarterCoverageWaiverToCMS_04062018.pdf. Accessed on: Aug 3, 2023.

¹⁻¹⁸ Centers for Medicare & Medicaid Services. Pending Extension Application. Available at: <https://www.medicare.gov/medicaid/section-1115-demonstrations/downloads/az-hccc-pa8.pdf>. Accessed on: Aug 3, 2023.

Previous Report Findings

For all programs that are a continuation of the prior demonstration period (October 1, 2016, through September 30, 2021), results from the August 2021 Interim Evaluation Report, approved by CMS on October 6, 2022, indicated general improvement in healthcare outcomes and delivery.¹⁻¹⁹ The Executive Summary of the Interim Evaluation Report is located in Appendix E. Results in the Summative Evaluation Report of the prior demonstration period will be submitted to CMS in March 2024. Results for ACC hypotheses were generally mixed. Two measures related to access to care improved while three worsened, and five measures related to quality of care improved while five worsened. Measures related to follow-up visits after hospital or emergency department (ED) stays for mental illness and opioid prescription management increased among the ACC-RBHA group, while measures relating to chronic condition management fell between the baseline and evaluation periods. The CHP program exhibited an increase among preventative visits or wellness services and management of BH conditions. Among the ALTCS Developmental Disability (ALTCS-DD) group, measures related to quality of life decreased; however, analysis of claims data showed improvements in preventive care and management of BH conditions. The ALTCS Elderly and Physically Disabled (ALTCS-EPD) group exhibited improvements in preventive care, access to care, and management of prescription medications, while there was a worsening among measures of managing chronic conditions and hospital readmissions. Analysis of the PQC waiver found that just over half of the measures showed improvement in the likelihood and continuity of member enrollment; however, results showed a worsening in access to care. Three measures for the TI program showed improvements after statistical analysis. No measures indicated a worsening for the TI population, and most measures showed favorable changes that were not statistically significant in part due to small sample sizes in the comparison group. These results should be interpreted with caution, as changes in rates may be heavily influenced by the COVID-19 PHE.

The independent evaluator will include a synthesis of results from the prior demonstration period's Summative Evaluation Report in the Interim Evaluation Report of the Waiver renewal, due to CMS by September 30, 2026.

Additional research questions and measures have been added to this evaluation design since the approval of the prior demonstration period's Interim Evaluation Report in October 2022. Table 1-1 lists the research questions that are new to each program for the Waiver renewal.

¹⁻¹⁹ Arizona Health Care Cost Containment System. Arizona Section 1115 Waiver Evaluation: Interim Evaluation Report. Available at: <https://www.medicaid.gov/sites/default/files/2022-10/ahcccs-interim-eval-rprt.pdf>. Accessed on: Dec 8, 2023.

Table 1-1—New Research Questions for the Waiver Renewal

| Program | Research Question |
|----------|---|
| ACC | <p>1.2: What care coordination strategies or activities have providers been conducting during the renewal period?</p> <p>1.3: Did care coordination strategies improve or maintain patient engagement and follow up care after an IP stay or ED visit during the renewal period?</p> <p>3.1: Do members enrolled in an ACC plan have the same or higher rates of appropriate immunizations compared to prior to the renewal period?</p> |
| ACC-RBHA | <p>5.5: Did care coordination strategies improve or maintain patient engagement and follow up care for substance use and BH conditions during the renewal period?</p> |
| ALTCS | <p>4.6: Did care coordination strategies improve or maintain patient engagement and follow up care for substance use and BH conditions during the renewal period?</p> <p>5.1: Is the percentage of members receiving services at home the same or higher after the implementation of the PPCG service model or Extended Family Support services?</p> <p>5.2: What is the frequency and types of services provided to ALTCS members receiving services through the PPCG service model or Extended Family Support services at home?</p> <p>6.1: Did minor members receiving services through the PPCG service model maintain or improve their access to health services?</p> <p>6.2: Did the PPCG service model impact hospital utilization among ALTCS minors?</p> <p>7.1: Do members receiving services through the PPCG service model or Extended Family Support services experience improved self-assessed health outcomes?</p> <p>8.1: Did the PPCG service model alleviate the shortage of DCWs and increase timely access to needed care?</p> <p>9.1: Did the PPCG service model improve or maintain care stability for ALTCS minors?</p> <p>10.1: Has Extended Family Support services restored, enhanced, or maintained family functioning by preserving effective care for members in the home and community?</p> <p>11.1: Do members receiving services through the PPCG service model and Extended Family Support services have the same or lower rates of social isolation?</p> <p>11.2: Do members receiving services through the PPCG service model have the same or lower rates of reported cases of child maltreatment?</p> <p>12.3: What are the costs associated with the PPCG service model?</p> <p>12.4: What are the benefits/savings associated with the PPCG service model?</p> <p>12.5: Did utilization of services increase after the introduction of the PPCG service model?</p> |
| CHP | <p>2.1: Do CHP members have the same or higher rates of appropriate immunizations in the remeasurement period as compared to the baseline?</p> |

2. Evaluation Questions and Hypotheses

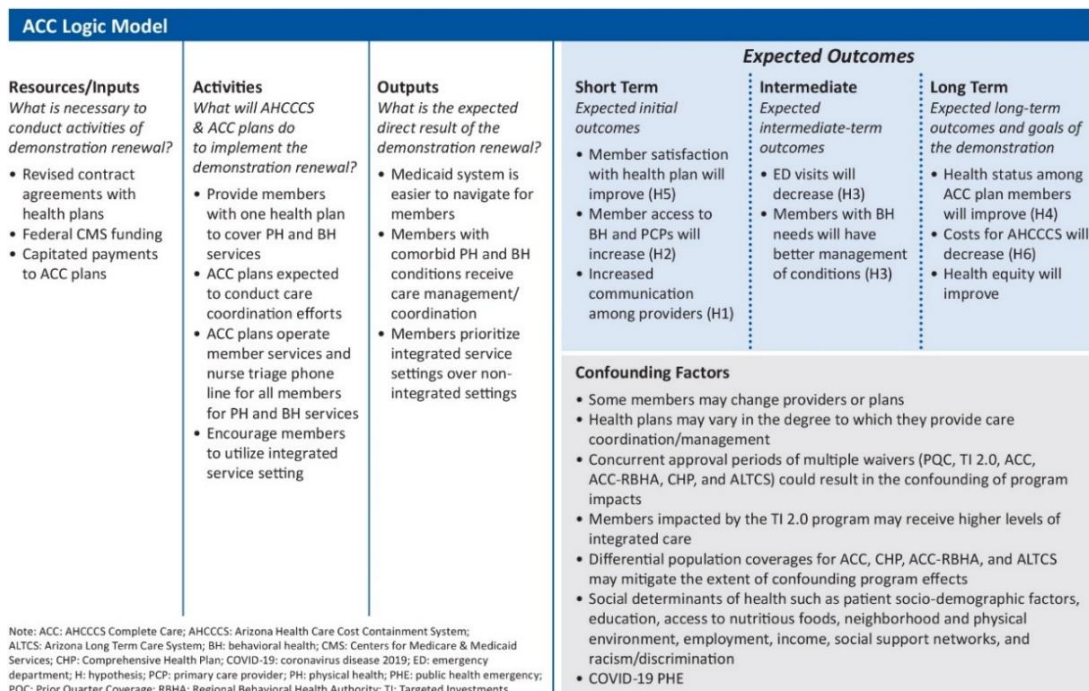
This section provides each program's logic model, hypotheses, research questions, and measures, which focus on evaluating the impact of the Arizona Health Care Cost Containment System (AHCCCS) Section 1115 Demonstration Waiver (referred to as the Waiver in this report).

ACC

Logic Model

Figure 2-1 illustrates that AHCCCS Complete Care (ACC) members, including the ACC population served by three AHCCC Complete Care-Regional Behavioral Health Agreement (ACC-RBHA) plans, should expect to find the Medicaid system easier to navigate. ACC members with physical health (PH) and behavioral health (BH) comorbidities will receive care coordination/management, and members will prioritize practices with integrated services over those with non-integrated services.²⁻¹ With an easier to navigate Medicaid system, member satisfaction should improve. With better care coordination/management, members with complex needs should see improved health outcomes, first shown by increased access to care and reduced utilization of emergency department (ED) visits. In the long term, this is expected to improve members' health and well-being while providing cost-effective care.

Figure 2-1—ACC Logic Model



²⁻¹ Care provided to members with a serious mental illness (SMI) will be evaluated in a separate component dedicated to the impacts of ACC-RBHA plans on this population.

Hypotheses and Research Questions

To comprehensively evaluate the ACC program, six hypotheses, listed in Table 2-1, will be tested using 16 research questions.

Table 2-1—ACC Hypotheses

| ACC Hypotheses | |
|----------------|--|
| 1 | Health plans encourage and/or facilitate care coordination among primary care practitioners (PCPs) and BH practitioners. |
| 2 | Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period. |
| 3 | Quality of care will be maintained or improved during the renewal period. |
| 4 | Member self-assessed health outcomes will be maintained or improved during the renewal period. |
| 5 | Member satisfaction with their healthcare will be maintained or improved during the renewal period. |
| 6 | The ACC program provides cost-effective care. |

Hypothesis 1 is designed to identify in detail the activities the plans conducted to further AHCCCS’ goal of care integration by implementing strategies supporting care coordination and management. Barriers that persist during the renewal period will also be a focus of Hypothesis 1. These research questions will be addressed through semi-structured key informant interviews with representatives from the ACC health plans (including three ACC-RBHA plans that also serve the ACC population), as well as through beneficiary surveys and provider focus groups. The research questions and associated measures for Hypothesis 1 are presented in Table 2-2.

Table 2-2—Hypothesis 1 Research Questions and Measures

| Hypothesis 1: Health plans encourage and/or facilitate care coordination among PCPs and BH practitioners. | |
|---|---|
| Research Question 1.1: What care coordination strategies or activities have ACC plans been conducting during the renewal period? | |
| 1-1 | Health plans' reported evolution of care coordination since the integration period and remaining barriers during the renewal period |
| Research Question 1.2: What care coordination strategies or activities have providers been conducting during the renewal period? | |
| 1-2 | Providers' reported evolution of care coordination since the integration period and remaining barriers during the renewal period |
| Research Question 1.3: Did care coordination strategies improve or maintain patient engagement and follow up care after an inpatient (IP) stay or ED visit during the renewal period? | |
| 1-3 | Percentage of members with follow-up after an ED visit for members with multiple high-risk chronic conditions |
| Research Question 1.4: Do members perceive their doctors to have better care coordination as a result of ACC renewal? | |
| 1-4 | Percentage of members who reported their doctor seemed informed about the care they received from other health providers |

Hypothesis 2 will test whether access to care increased after the renewal of integrating BH and PH care into a single health plan. This hypothesis will be addressed using both claims/encounter data and beneficiary surveys. Where possible, rates will be calculated or reported both prior to and after the renewal of care integration. The measures and associated research questions associated with Hypothesis 2 are presented in Table 2-3.

Table 2-3—Hypothesis 2 Research Questions and Measures

Hypothesis 2: Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period.

Research Question 2.1: Do members enrolled in an ACC plan have the same or better access to primary care services compared to prior to the renewal period?

- | | |
|-----|--|
| 2-1 | Percentage of members meeting minimum time/distance network standards |
| 2-2 | Percentage of adults who accessed preventive/ambulatory health services |
| 2-3 | Percentage of members under 21 years of age who received a comprehensive or periodic oral evaluation |
| 2-4 | Percentage of members who had a well-child visit in the first 30 months of life |
| 2-5 | Percentage of members 3–21 years of age who had a well-care visit with a PCP or obstetrician gynecologist (OB/GYN) |
| 2-6 | Percentage of members who reported they received care as soon as they needed |
| 2-7 | Percentage of members who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed |
| 2-8 | Percentage of members who reported they were able to schedule an appointment with a specialist as soon as they needed |

Research Question 2.2: Do members enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to the renewal period?

- | | |
|------|---|
| 2-9 | Percentage of members who had initiation of SUD treatment |
| 2-10 | Percentage of members who had engagement of SUD treatment |

The primary goal of the renewal of ACC is to promote the health and wellness of its members by improving quality of care, particularly among those with both PH and BH conditions, which will be assessed under Hypothesis 3. This hypothesis will be addressed using both claims/encounter data and national/regional benchmarks. Where possible, rates will be calculated or reported both prior to and after the renewal of care integration. Table 2-4 describes the research questions and measures that AHCCCS will use to determine whether ACC is meeting the goal associated with Hypothesis 3.

Table 2-4—Hypothesis 3 Research Questions and Measures

Hypothesis 3: Quality of care will be maintained or improved during the renewal period.

Research Question 3.1: Do members enrolled in an ACC plan have the same or higher rates of appropriate immunizations compared to prior to the renewal period?

- | | |
|-----|---|
| 3-1 | Percentage of children 2 years of age with appropriate immunization status |
| 3-2 | Percentage of adolescents 13 years of age with appropriate immunizations |
| 3-3 | Percentage of adult members who reported having a flu shot or nasal flu spray |

Research Question 3.2: Do members enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to the renewal period?

- | | |
|-----|---|
| 3-4 | Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent |
|-----|---|

Research Question 3.3: Do members enrolled in an ACC plan have the same or better management of BH conditions compared to prior to the renewal period?

- | | |
|-----|---|
| 3-5 | Percentage of adult members who remained on an antidepressant medication treatment |
| 3-6 | Percentage of members with a follow-up visit after hospitalization for mental illness |
| 3-7 | Percentage of members with a follow-up visit after an ED visit for mental illness |

Hypothesis 3: Quality of care will be maintained or improved during the renewal period.

- 3-8 Percentage of members with follow-up after an ED visit for SUD
- 3-9 Percentage of members diagnosed with a mental health disorder

Research Question 3.4: Do members enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to the renewal period?

- 3-10 Percentage of adult members who have prescriptions for opioids at a high dosage
- 3-11 Percentage of adult members with concurrent use of opioids and benzodiazepines

Research Question 3.5: Do members enrolled in an ACC plan have equal or lower ED or hospital utilization compared to prior to ACC renewal?

- 3-12 Number of emergent ED visits per 1,000 member months
- 3-13 Number of non-emergent ED visits per 1,000 member months
- 3-14 Number of IP stays per 1,000 member months
- 3-15 Percentage of adult IP discharges with an unplanned readmission within 30 days

One of the primary goals of ACC is to provide higher-quality care for its members, ultimately leading to better health status, which will be evaluated under Hypothesis 4. To determine the overall health status among ACC members, the independent evaluator will utilize two survey questions asking members to report their overall health and overall mental or emotional health. The research questions and measures pertaining to Hypothesis 4 are listed in Table 2-5.

Table 2-5—Hypothesis 4 Research Questions and Measures
Hypothesis 4: Member self-assessed health outcomes will be maintained or improved during the renewal period.
Research Question 4.1: Do members enrolled in an ACC plan have the same or higher overall health rating compared to prior to the renewal period?

- 4-1 Percentage of members who reported a rating of overall health as very good or excellent

Research Question 4.2: Do members enrolled in an ACC plan have the same or higher overall mental or emotional health rating compared to prior to the renewal period?

- 4-2 Percentage of members who reported a rating of overall mental or emotional health as very good or excellent

Hypothesis 5 seeks to measure member satisfaction with the ACC plans. Table 2-6 presents the measures and survey questions that will be used to assess member satisfaction.

Table 2-6—Hypothesis 5 Research Questions and Measures
Hypothesis 5: Member satisfaction with their healthcare will be maintained or improved during the renewal period.
Research Question 5.1: Are members equally or more satisfied with their healthcare as a result of integrated care during the renewal period?

- 5-1 Percentage of members who reported a high rating of health plan (8, 9, or 10 out of 10)
- 5-2 Percentage of members who reported a high rating of overall healthcare (8, 9, or 10 out of 10)

Hypothesis 6 (Table 2-7) seeks to measure the cost-effectiveness of the ACC program. A long-term goal of the ACC program is to provide cost-effective care for its members. Since cost effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 6. The independent evaluator will calculate changes in total costs and examine cost drivers within the

Medicaid program consistent with guidance on analyzing costs associated with Section 1115 waivers.²⁻² The approach for assessing cost-effectiveness of ACC is described in detail in the Cost Effectiveness Analysis section.

Table 2-7—Hypothesis 6 Research Questions

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

Research Question 6.1: What are the costs associated with the integration of care under ACC during the renewal period?

Research Question 6.2: What are the benefits/savings associated with the integration of care under ACC during the renewal period?

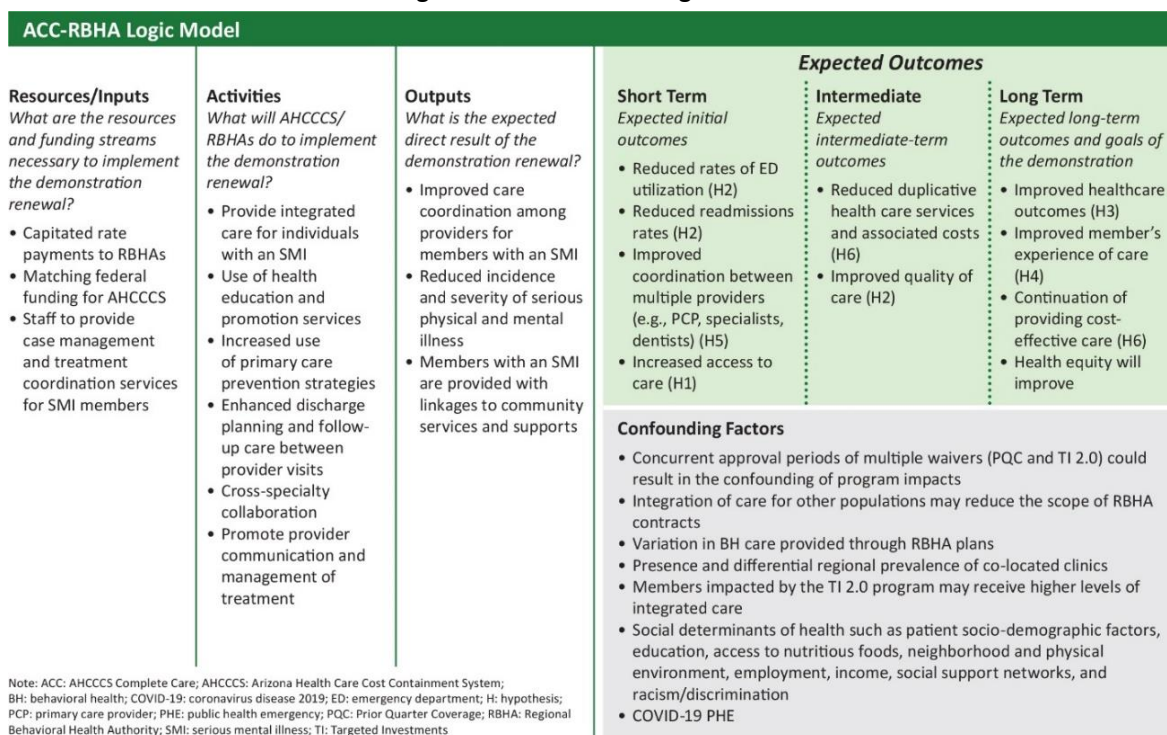
ACC-RBHA

Logic Model

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

²⁻² United States Department of Health and Human Services. Appendix C: Approaches to Analyzing Costs Associated with Section 1115 Demonstrations for Beneficiaries with Serious Mental Illness/Serious Emotional Disturbance or Substance Use Disorders. Available at: <https://www.hhs.gov/guidance/document/appendix-c-analyzing-costs-associated-demonstrations-smised-or-sud-0>. Accessed on: Aug 2, 2023.

Figure 2-2—ACC-RBHA Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the ACC-RBHA program, six hypotheses will be tested using 18 research questions. Table 2-8 lists the six hypotheses.

Table 2-8—ACC-RBHA Hypotheses

| ACC-RBHA Hypotheses | |
|---------------------|---|
| 1 | Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period. |
| 2 | Quality of care will be maintained or improved during the renewal period. |
| 3 | Health outcomes for adult members with an SMI enrolled in an ACC-RBHA will be maintained or improved during the renewal period. |
| 4 | Adult member satisfaction in ACC-RBHA health plans will be maintained or improved over the renewal period. |
| 5 | ACC-RBHAs encourage and/or facilitate care coordination among PCPs and BH practitioners. |
| 6 | ACC-RBHAs will provide cost-effective care for members with an SMI. |

Hypothesis 1 will test whether access to care increased or was maintained throughout the demonstration renewal period. This hypothesis will be addressed using both claims/encounter data and beneficiary survey responses. The research question and measures associated with this hypothesis are listed in Table 2-9.

Table 2-9—Hypothesis 1 Research Questions and Measures

Hypothesis 1: Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period.

Research Question 1.1: Do adult members with an SMI enrolled in an ACC-RBHA have the same or increased access to primary care services compared to prior to the waiver renewal?

- | | |
|-----|--|
| 1-1 | Percentage of members meeting minimum time/distance network standards |
| 1-2 | Percentage of adults who accessed preventive/ambulatory health services |
| 1-3 | Percentage of members who reported they received care as soon as they needed |
| 1-4 | Percentage of members who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed |
| 1-5 | Percentage of members who reported they were able to schedule an appointment with a specialist as soon as they needed |

Research Question 1.2: Do adult members with an SMI enrolled in an ACC-RBHA have the same or increased access to substance abuse treatment compared to prior to the waiver renewal?

- | | |
|-----|---|
| 1-6 | Percentage of members who had initiation of SUD treatment |
| 1-7 | Percentage of members who had engagement of SUD treatment |

The primary goal of providing integrated care for ACC-RBHA members with an SMI is to promote health and wellness by improving the quality of care. Hypothesis 2 will test whether the quality of care provided to members with an SMI improved or was maintained during the Waiver renewal. This hypothesis will be addressed using both claims/encounter data and beneficiary survey responses. The research questions and measures associated with the hypothesis are presented in Table 2-10.

Table 2-10—Hypothesis 2 Research Questions and Measures

Hypothesis 2: Quality of care will be maintained or improved during the renewal period.

Research Question 2.1: Do adult members with an SMI enrolled in an ACC-RBHA have the same or higher rates of appropriate immunizations compared to prior to waiver renewal?

- | | |
|-----|---|
| 2-1 | Percentage of members who reported having a flu shot or nasal flu spray |
|-----|---|

Research Question 2.2: Do adult members with an SMI enrolled in an ACC-RBHA have the same or better management of chronic conditions compared to prior to the waiver renewal?

- | | |
|-----|---|
| 2-2 | Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent |
| 2-3 | Percentage of members with schizophrenia or bipolar disorder using antipsychotic medications who had a diabetes screening test |
| 2-4 | Percentage of members with schizophrenia who adhered to antipsychotic medications |

Research Question 2.3: Do adult members with an SMI enrolled in an ACC-RBHA have the same or better management of BH conditions compared to prior to the waiver renewal?

- | | |
|------|---|
| 2-5 | Percentage of members who remained on antidepressant medication treatment |
| 2-6 | Percentage of members with a follow-up visit after hospitalization for mental illness |
| 2-7 | Percentage of members with a follow-up visit after an ED visit for mental illness |
| 2-8 | Percentage of members with follow-up after an ED visit for SUD |
| 2-9 | Percentage of members diagnosed with a mental health disorder |
| 2-10 | Percentage of members receiving mental health services (total and by IP, intensive outpatient [IOP] or partial hospitalization, outpatient [OP], ED, or telehealth) |

Hypothesis 2: Quality of care will be maintained or improved during the renewal period.
Research Question 2.4: Do adult members with an SMI enrolled in an ACC-RBHA have the same or better management of opioid prescriptions compared to prior to the waiver renewal?

- 2-11 Percentage of members who have prescriptions for opioids at a high dosage
- 2-12 Percentage of members with concurrent use of opioids and benzodiazepines

Research Question 2.5: Do adult members with an SMI enrolled in an ACC-RBHA have the same or lower tobacco usage compared to prior to the waiver renewal?

- 2-13 Percentage of members who indicated smoking cigarettes or using tobacco

Research Question 2.6: Do adult members with an SMI enrolled in an ACC-RBHA have the same or lower hospital utilization compared to prior to the waiver renewal?

- 2-14 Number of emergent ED visits per 1,000 member months
- 2-15 Number of non-emergent ED visits per 1,000 member months
- 2-16 Number of IP stays per 1,000 member months
- 2-17 Percentage of IP discharges with an unplanned readmission within 30 days

To determine the overall health status among ACC-RBHA members with an SMI, the independent evaluator will utilize two survey questions asking members to report their overall health and overall mental or emotional health. The measures and associated research questions are presented in Table 2-11.

Table 2-11—Hypothesis 3 Research Questions and Measures
Hypothesis 3: Health outcomes for adult members with an SMI enrolled in an ACC-RBHA will be maintained or improved during the renewal period.
Research Question 3.1: Do adult members with an SMI enrolled in an ACC-RBHA have the same or higher rating of health compared to prior to the waiver renewal?

- 3-1 Percentage of members who reported a rating of overall health as very good or excellent
- 3-2 Percentage of members who reported a rating of overall mental or emotional health as very good or excellent

Hypothesis 4 will measure member satisfaction and experience of care with the ACC-RBHAs, using three survey questions about members' ratings of the healthcare received from the ACC-RBHAs and providers. Table 2-12 presents the measures and survey questions that will be used to measure these outcomes.

Table 2-12—Hypothesis 4 Research Questions and Measures
Hypothesis 4: Adult member satisfaction in ACC-RBHA health plans will be maintained or improved over the renewal period.
Research Question 4.1: Do adult members with an SMI enrolled in an ACC-RBHA have the same or higher satisfaction in their healthcare compared to prior to the waiver renewal?

- 4-1 Percentage of members who reported a high rating of overall healthcare (8, 9, or 10 out of 10)
- 4-2 Percentage of members who reported a high rating of health plan (8, 9, or 10 out of 10)

Research Question 4.2: Do adult members with an SMI enrolled in an ACC-RBHA perceive their doctors to have the same or better care coordination compared to prior to the waiver renewal?

- 4-3 Percentage of members who reported their doctor seemed informed about the care they received from other health providers

While ACC-RBHAs continued to provide integrated BH and PH care for their adult members with an SMI throughout the Waiver renewal period, there have been changes to care delivery for other AHCCCS members, namely the introduction of ACC in October 2018. Hypothesis 5 will consist of key informant interviews with health plan representatives, subject matter experts from AHCCCS, and providers to assess care coordination activities for the SMI population and identify any changes that could have resulted from the implementation of ACC. Table 2-13 presents the measures and research questions related to this hypothesis.

Table 2-13—Hypothesis 5 Research Questions and Measures

| Hypothesis 5: ACC-RBHAs encourage and/or facilitate care coordination among PCPs and BH practitioners. | |
|---|--|
| Research Question 5.1: What care coordination strategies are the ACC-RBHAs conducting for their members with an SMI? | |
| 5-1 | ACC-RBHAs' reported evolution of care coordination since the integration period and remaining barriers during the renewal period |
| 5-2 | ACC-RBHA's reported challenges from any workforce shortages |
| Research Question 5.2: Have care coordination strategies for members with an SMI changed as a result of ACC? | |
| 5-3 | Reported changes in health plans' care coordination strategies for members with an SMI |
| Research Question 5.3: What care coordination strategies is AHCCCS conducting for its members with an SMI? | |
| 5-4 | AHCCCS' reported care coordination strategies and activities for members with an SMI served by the ACC-RBHAs |
| 5-5 | AHCCCS' reported challenges from any workforce shortages |
| Research Question 5.4: What care coordination strategies and/or activities are providers conducting for their Medicaid patients with an SMI served by the ACC-RBHAs? | |
| 5-6 | Providers' reported evolution of care coordination since the integration period and remaining barriers during the renewal period |
| Research Question 5.5: Did care coordination strategies improve or maintain patient engagement and follow-up care for substance use and BH conditions during the renewal period? | |
| 5-7 | Percentage of members with follow-up after an ED visit for members with multiple high-risk chronic conditions |

Hypothesis 6 (Table 2-14) will measure the cost-effectiveness of providing BH and PH care to members with an SMI through the ACC-RBHAs. A long-term goal of the ACC-RBHAs is to provide cost-effective care for their members. Because cost-effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 6. The independent evaluator will calculate changes in total costs and examine cost drivers within the Medicaid program consistent with the guidance from the Centers for Medicare & Medicaid Services (CMS) on analyzing costs associated with Section 1115 demonstrations.²⁻³ The approach for assessing cost effectiveness of the ACC-RBHAs is described in detail in the Cost-Effectiveness Analysis section.

Table 2-14—Hypothesis 6 Research Questions

| Hypothesis 6: ACC-RBHAs will provide cost-effective care for members with an SMI. | |
|---|--|
| Research Question 6.1: What are the costs associated with providing care for members with an SMI through the ACC-RBHAs during the renewal period? | |
| Research Question 6.2: What are the benefits/savings associated with providing care for members with an SMI through the ACC-RBHAs during the renewal period? | |

²⁻³ Ibid.

ALTCS

Logic Model

Figure 2-3 illustrates that, with additional funding to support integration and operation of Arizona Long Term Care System (ALTCS) plans, members are expected to find the Medicaid system easier to navigate, continue to receive case management, and prioritize practices with integrated services over those with non-integrated services. With improvements to the navigation of the Medicaid system navigation, member access to care should improve. With better case management, members will likely see improved health outcomes, first shown by an increase in quality and access to care. In the long term, this is expected to improve members' health outcomes and well-being while providing cost-effective care.

Figure 2-3—ALTCS Logic Model

| ALTCS Logic Model | | | | | |
|---|--|---|---|--|--|
| Resources/Inputs | Activities | Outputs | Short Term | Expected Outcomes | |
| <p><i>What are the resources and funding streams necessary to implement the demonstration renewal?</i></p> <ul style="list-style-type: none"> Matching federal funding for AHCCCS Capitated payments to contracted health plans Staff to provide case management, treatment coordination services, and family support for those providing uncompensated and uncompensated care | <p><i>What will AHCCCS & ALTCS health plans do to implement the demonstration renewal?</i></p> <ul style="list-style-type: none"> AHCCCS will provide integrated PH, BH, and LTSS care (including HCBS) for members with DD and EPD Health plans will provide services specified in the AHCCCS provided contracts AHCCCS will continue to allow parents of minor children to receive payment for attendant care and habilitation services AHCCCS will establish Extended Family Support services as part of the HCBS benefit package | <p><i>What is the expected direct result of implementing the demonstration renewal?</i></p> <ul style="list-style-type: none"> Medicaid system is easier to navigate for members Members to receive case management services, including, outreach, education, assessments, and follow-ups with case managers Members will have greater access to care, as workforce recruitment and retention within HCBS is expected to improve The DCW shortage and other access to care challenges will be mitigated Member satisfaction and health outcomes will improve for members receiving PPCG or Extended Family Support services Extended Family Support services will assist families in learning skills, adjustment to significant life events, and navigating the health care system Family functioning will be restored, enhanced, and maintained | <p><i>Expected initial outcomes</i></p> <ul style="list-style-type: none"> Member access to BH providers and PCPs will be maintained or increased (H1) Improved coordination between PH and BH providers (H4) Increased or maintained rate of minors in the ALTCS program being served in the home (H5) Mitigated DCW shortage to increase timely access to care providers (H8) | <p><i>Intermediate Expected intermediate-term outcomes</i></p> <ul style="list-style-type: none"> Increased or maintained access to care (H1) Increased or maintained quality of care (H2, H10) Improved primary care service utilization for members receiving PPCG or Extended Family Support services (H6) Improved ongoing care stability for members receiving PPCG services (H9) | <p><i>Long Term Expected long-term outcomes and goals of the demonstration</i></p> <ul style="list-style-type: none"> Improved or maintained healthcare outcomes (H1, H2, H7) Improved or maintained quality of life (H3) Cost-effective care for ALTCS members (H13) Health equity will improve Increased member and family unit stability (H11) Improved community integration for members (H12) |
| | | | <p>Confounding Factors</p> <ul style="list-style-type: none"> Change in coverage after the BH integration for members serviced by DES/DDD Health plans may vary in the degree and consistency of the application of needs assessments and care coordination/management Varying awareness of income eligibility changes Social determinants of health such as patient socio-demographic factors, education, access to nutritious foods, neighborhood and physical environment, employment, income, social support networks, and racism/discrimination COVID-19 PHE Workforce recruitment and retention challenges exacerbated by COVID-19 PHE | | |

Note: AHCCCS: Arizona Health Care Cost Containment System; ALTCS: Arizona Long Term Care System; BH: behavioral health; COVID-19: coronavirus disease 2019; DCW: direct care worker; DD: developmental disability; DDD: Division of Developmental Disabilities; DES: Department of Economic Security; EPD: elderly and physical disabled; H: hypothesis; HCBS: home- and community-based services; LTSS: Long Term Services and Supports; PCP: primary care provider; PH: physical health; PHE: public health emergency; PPCG: Parents as Paid Caregivers

Hypotheses and Research Questions

To comprehensively evaluate the ALTCS program, 12 hypotheses will be tested using 31 research questions. Table 2-15 lists the 12 hypotheses.

Table 2-15—ALTCS Hypotheses

| ALTCS Hypotheses | |
|------------------|---|
| 1 | Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period. |
| 2 | Quality of care will be maintained or improved during the renewal period. |
| 3 | Quality of life for members will be maintained or improved during the renewal period. |
| 4 | ALTCS encourages and/or facilitates care coordination among PCPs and BH practitioners. |
| 5 | The PPCG service model and Extended Family Support services will maintain or increase the rate of members being served in the home. |
| 6 | The PPCG service model will maintain or improve access to quality health services for the target population. |
| 7 | The PPCG service model and Extended Family Support services will improve self-assessed health outcomes. |
| 8 | The PPCG service model will mitigate the DCW shortage by increasing timely accessibility to care providers. |
| 9 | The PPCG service model will improve ongoing care stability for the target population. |
| 10 | The PPCG service model and Extended Family Support services will increase member and family unit stability through increased ability to navigate the healthcare system and decrease stress and burnout. |
| 11 | The PPCG service model and Extended Family Support services will maintain or improve community integration and well-being for members. |
| 12 | ALTCS provides cost-effective care. |

Hypothesis 1 is designed to determine if access to care will be maintained or improved during the renewal period. The measures to test this hypothesis and answer the associated research questions are listed below in Table 2-16.

Table 2-16—Hypothesis 1 Research Questions and Measures

| Hypothesis 1: Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period. | | | |
|--|--|-----|----|
| Research Question 1.1: Do members who are elderly, physically disabled (EPD), and/or members with a developmental disability (DD) have the same or higher rates of access to care and primary care services compared to prior to waiver renewal? | | | |
| Measure Population | | EPD | DD |
| 1-1 | Percentage of members meeting minimum time/distance network standards | X | X |
| 1-2 | Percentage of members who accessed preventive/ambulatory health services | X | X |
| 1-3 | Percentage of members under 21 years of age who received a comprehensive or periodic oral evaluation | | X |
| 1-4 | Percentage of members who had well-child visits in the first 30 months of life | | X |
| 1-5 | Percentage of members 3–21 years of age who had a well-care visit with a PCP or OB/GYN | | X |
| Research Question 1.2: Do adult members who are elderly, physically disabled and/or members with DD have the same or improved rates of access to care as a result of the waiver renewal? | | | |
| Measure Population | | EPD | DD |
| 1-6 | Percentage of members who have a primary care doctor or practitioner | | X |
| 1-7 | Percentage of members who had a complete physical exam in the past year | X | X |
| 1-8 | Percentage of members who had a dental exam in the past year | X | X |
| 1-9 | Percentage of members who had an eye exam in the past year | X | X |
| 1-10 | Percentage of members who had an influenza vaccine in the past year | X | X |

To determine if quality of care is maintained or increased, Hypothesis 2 will evaluate measures associated with preventive care, BH care management, and utilization of care. The measures and associated research questions are presented in Table 2-17.

Table 2-17—Hypothesis 2 Research Questions and Measures

| Hypothesis 2: Quality of care will be maintained or improved during the renewal period. | | | |
|---|---|------------|-----------|
| Research Question 2.1: Do members who are elderly, physically disabled, and/or members with DD have the same or higher rates of preventive care compared to prior to waiver renewal? | | | |
| Measure Population | | EPD | DD |
| 2-1 | Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent | X | X |
| Research Question 2.2: Do members who are elderly, physically disabled, and/or members with DD have the same or better management of BH conditions compared to prior to waiver renewal? | | | |
| Measure Population | | EPD | DD |
| 2-2 | Percentage of members with a follow-up visit after hospitalization for mental illness | X | X |
| 2-3 | Percentage of adult members who remained on an antidepressant medication treatment | X | X |
| 2-4 | Percentage of members with follow-up after an ED visit for SUD | X | X |
| 2-5 | Percentage of members diagnosed with a mental health disorder | X | X |
| Research Question 2.3: Do adult members who are elderly, physically disabled have the same or better management of prescriptions compared to prior to waiver renewal? | | | |
| Measure Population | | EPD | DD |
| 2-6 | Percentage of members with dispensing events of high-risk medications | X | |
| 2-7 | Percentage of members who know what their prescription medications are for | X | |
| Research Question 2.4: Do members who are elderly, physically disabled, and/or members with DD have the same or higher rates of utilization of care compared to prior to waiver renewal? | | | |
| Measure Population | | EPD | DD |
| 2-8 | Number of emergent ED visits per 1,000 member months | X | X |
| 2-9 | Number of non-emergent ED visits per 1,000 member months | | |
| 2-10 | Number of IP stays per 1,000 member months | X | X |
| 2-11 | Percentage of adult IP discharges with an unplanned readmission within 30 days | X | X |

Hypothesis 3 evaluates if the quality of life for members remains the same or improves. The measures and associated research questions are presented in Table 2-18.

Table 2-18—Hypothesis 3 Research Questions and Measures

| Hypothesis 3: Quality of life for members will be maintained or improved during the renewal period. | | | |
|---|--|------------|-----------|
| Research Question 3.1: Do members have the same or higher rates of living in their own home as a result of the ALTCS waiver renewal? | | | |
| Measure Population | | EPD | DD |
| 3-1 | Percentage of members residing in their own home | X | X |
| 3-2 | Type of residence for adult members | X | X |

Hypothesis 3: Quality of life for members will be maintained or improved during the renewal period.
Research Question 3.2: Do adult members have the same or higher rates of feeling satisfied with their living arrangements as a result of the waiver renewal for members who are elderly, physically disabled, and/or members with DD?

| Measure | Population | EPD | DD |
|---------|--|-----|----|
| 3-3 | Percentage of members who want to live somewhere else | X | X |
| 3-4 | Percentage of members who believe services and supports help them live a good life | X | X |

Research Question 3.3: Do adult members have the same or higher rates of feeling engaged as a result of the waiver renewal for members who are elderly, physically disabled and/or members with DD?

| Measure | Population | EPD | DD |
|---------|---|-----|----|
| 3-5 | Percentage of members able to go out and do things they like to do in the community | X | X |
| 3-6 | Percentage of members who have friends who are not staff or family members | X | X |
| 3-7 | Percentage of members who decide or have input in deciding their daily schedule | | X |
| 3-8 | Percentage of members who usually like how they spend their time during the day | X | |

Through key informant interviews, Hypothesis 4 assesses the experience of AHCCCS, the Department of Economic Security/Division of Developmental Disabilities (DES/DDD), and contracted plans continuing the care coordination efforts since integration in October 2019, including workforce shortages. Key informant interviews will also be used to assess any challenges reported by ALTCS Elderly and Physical Disability (ALTCS-EPD) and their contracted plans' during the renewal period, including workforce shortages. Finally, administrative claims/encounter data will be used to assess pertinent aspects of care coordination among the EPD population. The research questions and measures pertaining to this hypothesis are listed in Table 2-19.

Table 2-19—Hypothesis 4 Research Questions and Measures
Hypothesis 4: ALTCS encourages and/or facilitates care coordination among PCPs and BH practitioners.
Research Question 4.1: Did DES/DDD, ALTCS-EPD or their contracted plans encounter barriers during the waiver renewal period of care for members with DD or EPD?

| Measure | Population | EPD | DD |
|---------|--|-----|----|
| 4-1 | DES/DDD and its contracted plans' reported barriers during the renewal period | | X |
| 4-2 | DES/DDD and its contracted plans' reported challenges from any workforce shortages | | X |
| 4-3 | ALTCS-EPD and its contracted plans' reported challenges from any workforce shortages | X | |

Research Question 4.2: What care coordination strategies did DES/DDD and its contracted plans implement as a result of the waiver renewal?

| Measure | Population | EPD | DD |
|---------|--|-----|----|
| 4-4 | DES/DDD's reported evolution of care coordination since the integration period | | X |

Research Question 4.3: Did DES/DDD or its contracted plans encounter barriers to renewal of the waiver for care coordination strategies?

| Measure | Population | EPD | DD |
|---------|--|-----|----|
| 4-5 | DES/DDD and its contracted plans' reported barriers to implementing care coordination strategies | | X |

Research Question 4.4: Did AHCCCS encounter barriers related to the waiver renewal for members with DD or EPD?

| Measure | Population | EPD | DD |
|---------|--|-----|----|
| 4-6 | AHCCCS' reported barriers during the waiver renewal period | X | X |
| 4-7 | AHCCCS' reported challenges from any workforce shortages | X | X |

Hypothesis 4: ALTCS encourages and/or facilitates care coordination among PCPs and BH practitioners.
Research Question 4.5: Did providers encounter barriers related to the waiver renewal for members with DD?

| Measure | Population | EPD | DD |
|---------|--|-----|----|
| 4-8 | Providers' reported evolution of care coordination since the integration period and remaining barriers during the renewal period | | X |

Research Question 4.6: Did care coordination strategies improve or maintain patient engagement and follow up care for substance use and BH conditions during the renewal period?

| Measure | Population | EPD | DD |
|---------|--|-----|----|
| 4-9 | Percentage of members with multiple high-risk chronic conditions who had follow-up after an ED visit | X | X |
| 4-10 | Percentage of members with patient engagement after discharge | X | X |

Hypothesis 5 assesses the degree to which the Parents as Paid Caregivers (PPCG) service model and Extended Family Support services increase the number of ALTCS members served in their homes. This hypothesis will be assessed using AHCCCS reports and state eligibility and enrollment data. The measures and associated research questions are presented in Table 2-20.

Table 2-20—Hypothesis 5 Research Questions and Measures
Hypothesis 5: The PPCG service model and Extended Family Support services will maintain or increase the rate of members being served in the home.
Research Question 5.1: Is the percentage of members receiving services at home the same or higher after the implementation of the PPCG service model or Extended Family Support services?

- 5-1 Percentage of minor members receiving services through the PPCG service model
- 5-2 Percentage of members receiving Extended Family Support services

Research Question 5.2: What is the frequency and types of services provided to ALTCS members receiving services through the PPCG service model or Extended Family Support services at home?

- 5-3 Types and percentage of services provided to minor members by parents
- 5-4 Average number of PPCG services per utilizing member
- 5-5 Average number of Extended Family Support services per utilizing member

Hypothesis 6 assesses if the PPCG service model maintains or improves access to medical care among children who receive services. These measures will be assessed using claims/encounter data. The measures and associated research questions are presented in Table 2-21.

Table 2-21—Hypothesis 6 Research Questions and Measures
Hypothesis 6: The PPCG service model will maintain or improve access to quality health services for the target population.
Research Question 6.1: Did minor members receiving services through the PPCG service model maintain or improve their access to health services?

- 6-1 Percentage of members with well-child visits in the first 30 months of life
- 6-2 Percentage of members 3–21 years of age with a well-care visit with a PCP or OB/GYN
- 6-3 Diagnosed mental health disorders

Research Question 6.2: Did the PPCG service model impact hospital utilization among ALTCS minors?

- 6-4 Number of emergent ED visits per 1,000 member months
- 6-5 Number of non-emergent ED visits per 1,000 member months

Hypothesis 6: The PPCG service model will maintain or improve access to quality health services for the target population.

6-6 Number of IP stays per 1,000 member months

Hypothesis 7 assesses how members receiving services through the PPCG service model or Extended Family Support services view their health outcomes. Beneficiary surveys will be used to address the research questions and measures outlined in Table 2-22.

Table 2-22—Hypothesis 7 Research Questions and Measures
Hypothesis 7: The PPCG service model and Extended Family Support services will improve self-assessed health outcomes.
Research Question 7.1: Do members receiving services through the PPCG service model or Extended Family Support services experience improved self-assessed health outcomes?

7-1 Member rating of overall health
7-2 Member rating of overall mental or emotional health

Hypothesis 8 determines if the PPCG service model helps to mitigate the shortage of direct care workers (DCWs) in Arizona. AHCCCS reports and key informant interviews will be utilized to address the research questions and measures in Table 2-23.

Table 2-23—Hypothesis 8 Research Questions and Measures
Hypothesis 8: The PPCG service model will mitigate the DCW shortage by increasing timely accessibility to care providers.
Research Question 8.1: Did the PPCG service model alleviate the shortage of DCWs and increase timely access to needed care?

8-1 Average time from identification of service needs to receipt of service
8-2 Reported challenges from workforce shortages
8-3 Reported changes in recruitment and retention of DCW workforce
8-4 Proportion of parent DCWs of the total DCW population
8-5 Percentage of members receiving respite services
8-6 Number of hours paid weekly to parents providing PPCG services
8-7 Number of weekly hours non-parent DCWs provide services to minors

Hypothesis 9 assesses whether the provision of services through the PPCG service model improves care stability among members in the program. Insights into care stability for this population will be gathered from beneficiary surveys and key informant interviews. The measures and associated research questions are presented in Table 2-24.

Table 2-24—Hypothesis 9 Research Questions and Measures
Hypothesis 9: The PPCG service model will improve ongoing care stability for the target population.
Research Question 9.1: Did the PPCG service model improve or maintain care stability for ALTCS minors?

9-1 Average number of DCWs per member per year
9-2 Percentage of members or caregivers who reported care stability as good or excellent
9-3 DES/DDD/EPD's and providers' reported barriers to care stability

Hypothesis 10 quantifies member and family unit stability by assessing stress, burnout, and ability to navigate the healthcare system care among members and caregivers. A combination of beneficiary surveys, eligibility and enrollment data, and AHCCCS reports will be used to address measures and associated research questions presented in Table 2-25.

Table 2-25—Hypothesis 10 Research Questions and Measures

Hypothesis 10: The PPCG service model and Extended Family Support services will increase member and family unit stability through increased ability to navigate the healthcare system and decrease stress and burnout.

Research Question 10.1: Has Extended Family Support services restored, enhanced, or maintained family functioning by preserving effective care for members in the home and community?

- | | |
|------|---|
| 10-1 | Percentage of members or caregivers who reported high levels of stress |
| 10-2 | Percentage of members or caregivers who reported their ability to navigate the healthcare system as good or excellent |
| 10-3 | Percentage of members or caregivers who reported their adjustment to disability as good or excellent |

Research Question 10.2: Has the PPCG service model and Extended Family Support services reduced burnout and provided alternate supports for caregivers?

- | | |
|------|--|
| 10-4 | Percentage of caregivers that report high levels of burnout |
| 10-5 | Percentage of parent caregivers who utilize respite services |

The provision of the PPCG service model and Extended Family Support services allows members and their families to receive more services in the home. As a result, rates of social integration will be monitored to determine if there has been a decline in community integration. Data from beneficiary surveys and NCI data will be used to assess if members have the same or lower rates of social isolation. The measures and associated research questions are presented in Table 2-26.

Table 2-26—Hypothesis 11 Research Questions and Measures

Hypothesis 11: The PPCG service model and Extended Family Support services will maintain or improve community integration and well-being for members.

Research Question 11.1: Do members receiving services through the PPCG service model and Extended Family Support services have the same or lower rates of social isolation?

- | | |
|-------|--|
| 11-1 | Percentage of members or caregivers who reported low rates of social isolation |
| 11-2 | Average time spent outside the home |
| 11-3 | Relationships outside of the home |
| 11-4 | Socialization outside of the home |
| 11-5 | Type of schooling |
| 11-6 | Percentage of members engaging with day program services |
| 11-7 | The percentage of respondents who report having friendships with people other than staff or family members |
| 11-8 | The percentage of respondents who report that they would like help to meet new people, make new friends, or keep in contact with friends |
| 11-9 | The percentage of respondents who report often feeling lonely |
| 11-10 | Community inclusion scale |

Hypothesis 11: The PPCG service model and Extended Family Support services will maintain or improve community integration and well-being for members.

Research Question 11.2: Do members receiving services through the PPCG service model have the same or lower rates of reported cases of child maltreatment?

11-11 Percentage of members with substantiated cases of abuse or neglect

Hypothesis 12 measures the cost-effectiveness of the ALTCS program. A long-term goal of ALTCS is to provide cost-effective care for its members. Because cost effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 12. The independent evaluator will calculate changes in total costs and examine cost drivers within the Medicaid program consistent with CMS' guidance on analyzing costs associated with Section 1115 demonstrations.²⁻⁴ An initial increase in costs is likely as members with previously unmet needs for direct care worker services begin to receive the needed services due to the implementation of the PPCG service model. The approach for assessing cost effectiveness of ALTCS is described in detail in the Methodology section, and the research questions are listed in Table 2-27.

Table 2-27—Hypothesis 12 Research Questions

Hypothesis 12: ALTCS provides cost-effective care.

Research Question 12.1: What are the costs associated with the waiver renewal?

Research Question 12.2: What are the benefits/savings associated with the waiver renewal?

Research Question 12.3: What are the costs associated with the PPCG service model?

Research Question 12.4: What are the benefits/savings associated with the PPCG service model?

Research Question 12.5: Did utilization of services increase after the introduction of the PPCG service model?

12-1 Number of billed hours for services provided under the PPCG service model

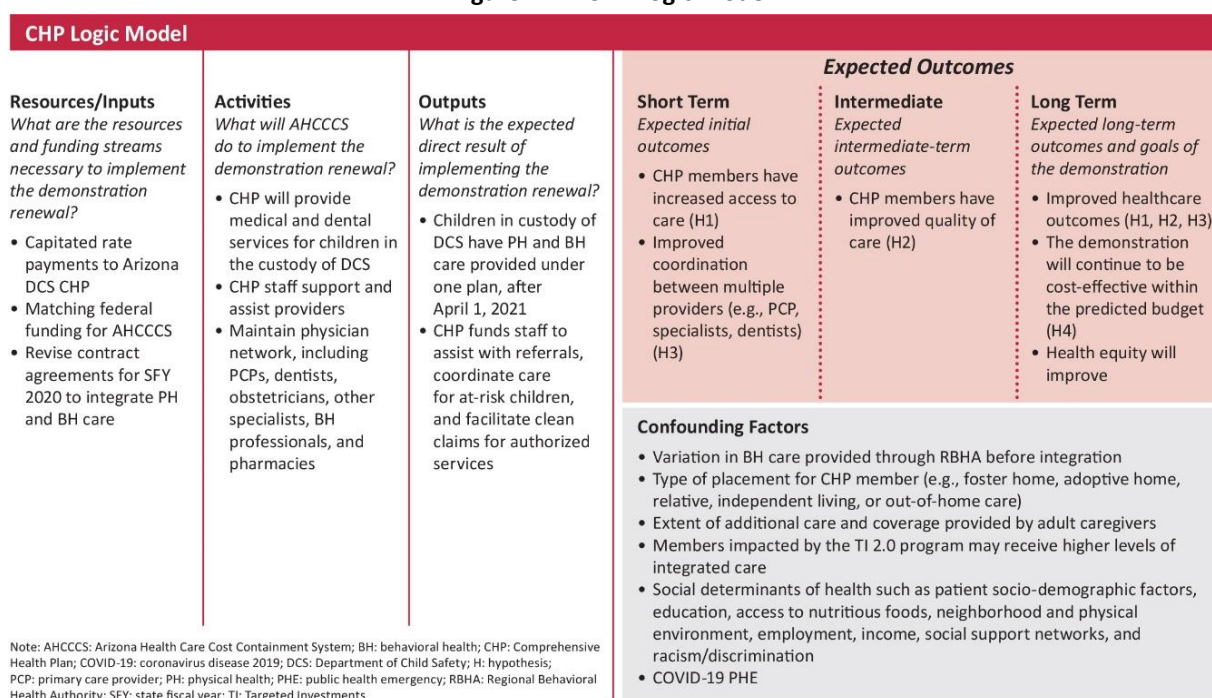
²⁻⁴ Ibid.

CHP

Logic Model

Figure 2-4 illustrates that, with additional funding to support integration and operation of the Comprehensive Health Plan (CHP) program, children in custody of the Department of Child Safety (DCS) had physical and dental care provided under a single plan prior to April 1, 2021, and integrated PH and BH services provided under a single plan thereafter. With improved access to and integration of care, children covered by CHP will likely experience improved health outcomes under a cost-effective care model.

Figure 2-4—CHP Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the CHP program, four hypotheses will be tested using 10 research questions. Table 2-28 lists the four hypotheses.

Table 2-28—CHP Hypotheses

| CHP Hypotheses | |
|----------------|--|
| 1 | Member access to appropriate care for routine medical conditions will be maintained or improved during the integration period. |
| 2 | Quality of care will be maintained or improved during the integration period. |
| 3 | CHP encourages and/or facilitates care coordination among PCPs and BH practitioners. |
| 4 | CHP provides cost-effective care. |

Hypothesis 1 is designed to determine whether the CHP activities during the Waiver maintain or improve member access to PCPs and specialists. Access to care will be assessed by focusing on members' PCPs, dental utilization, and opportunities to make appointments. The hypothesis will be addressed using claims/encounter data. The measures to test this hypothesis and answer the associated research questions are listed below in Table 2-29.

Table 2-29—Hypothesis 1 Research Questions and Measures

Hypothesis 1: Member access to appropriate care for routine medical conditions will be maintained or improved during the integration period.

Research Question 1.1: Do CHP members have the same or increased access to PCPs and specialists in the remeasurement period as compared to the baseline?

- | | |
|-----|--|
| 1-1 | Percentage of members meeting minimum time/distance network standards |
| 1-2 | Percentage of members 3–21 years of age who had a well-care visit with a PCP or OB/GYN |
| 1-3 | Percentage of members under 21 years of age who received a comprehensive or periodic oral evaluation |
| 1-4 | Percentage of members who had well-child visits in the first 30 months of life |

Hypothesis 2 is designed to determine whether the CHP activities during the Waiver maintain or improve the quality of care provided to members. The research questions for this hypothesis will focus on preventive and wellness services, management of chronic conditions, mental health, and hospital utilization. This hypothesis will be addressed using claims/encounter data. The measures and associated research questions are presented in Table 2-30.

Table 2-30—Hypothesis 2 Research Questions and Measures

Hypothesis 2: Quality of care will be maintained or improved during the integration period.

Research Question 2.1: Do CHP members have the same or higher rates of appropriate immunizations in the remeasurement period as compared to the baseline?

- | | |
|-----|--|
| 2-1 | Percentage of children 2 years of age with appropriate immunization status |
| 2-2 | Percentage of adolescents 13 years of age with appropriate immunizations |

Research Question 2.2: Do CHP members have the same or better management of chronic conditions in the remeasurement period as compared to the baseline?

- | | |
|-----|---|
| 2-3 | Percentage of members ages 5 to 18 years who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year |
|-----|---|

Research Question 2.3: Do CHP members have the same or better management of BH conditions in the remeasurement period as compared to the baseline?

- | | |
|-----|--|
| 2-4 | Percentage of children and adolescents on antipsychotics with metabolic monitoring |
| 2-5 | Percentage of members diagnosed with a mental health disorder |
| 2-6 | Percentage of members with follow-up after an ED visit for mental illness |
| 2-7 | Percentage of members with follow-up after hospitalization for mental illness |
| 2-8 | Percentage of members with a follow-up visit after an ED visit for SUD |

Research Question 2.4: Do CHP members have the same or lower hospital utilization in the remeasurement period as compared to the baseline?

- | | |
|------|--|
| 2-9 | Number of emergent ED visits per 1,000 member months |
| 2-10 | Number of non-emergent ED visits per 1,000 member months |
| 2-11 | Number of IP stays per 1,000 member months |

Hypothesis 3 (Table 2-31) is designed to identify in detail the activities CHP conducted to further AHCCCS' goal of care integration through implementing strategies supporting care coordination and management. Identifying barriers encountered during the transition to integrated care and implementing these strategies will also be a focus of Hypothesis 3. These research questions will be addressed through semi-structured key informant interviews with representatives from CHP.

Table 2-31—Hypothesis 3 Research Questions and Measures

| Hypothesis 3: CHP encourages and/or facilitates care coordination among PCPs and BH practitioners. | |
|---|---|
| Research Question 3.1: What barriers did Mercy Care DCS CHP anticipate/encounter during the integration? | |
| 3-1 | Mercy Care DCS CHP's anticipated/reported barriers during transition |
| 3-2 | Mercy Care DCS CHP's reported challenges from any workforce shortages |
| Research Question 3.2: What care coordination strategies did Mercy Care DCS CHP plan/implement during integration? | |
| 3-3 | Mercy Care DCS CHP's planned/reported care coordination activities |
| Research Question 3.3: What barriers to implementing care coordination strategies did Mercy Care DCS CHP anticipate/encounter? | |
| 3-4 | Mercy Care DCS CHP's anticipated/reported barriers in implementing care coordination strategies |

Hypothesis 4 (Table 2-32) seeks to measure the cost-effectiveness of CHP. A goal of CHP is to provide cost-effective care for its members. Because cost effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 4. The independent evaluator will calculate changes in total costs and examine cost drivers within the Medicaid program consistent with CMS's guidance on analyzing costs associated with Section 1115 demonstrations.²⁻⁵ The approach for assessing cost effectiveness of CHP is described in detail in the Cost Effectiveness Analysis section.

Table 2-32—Hypothesis 4 Research Questions

| Hypothesis 4: CHP provides cost-effective care. | |
|---|--|
| Research Question 4.1: What are the costs associated with the integration of care in the CHP? | |
| Research Question 4.2: What are the benefits/savings associated with the integration of care in the CHP? | |

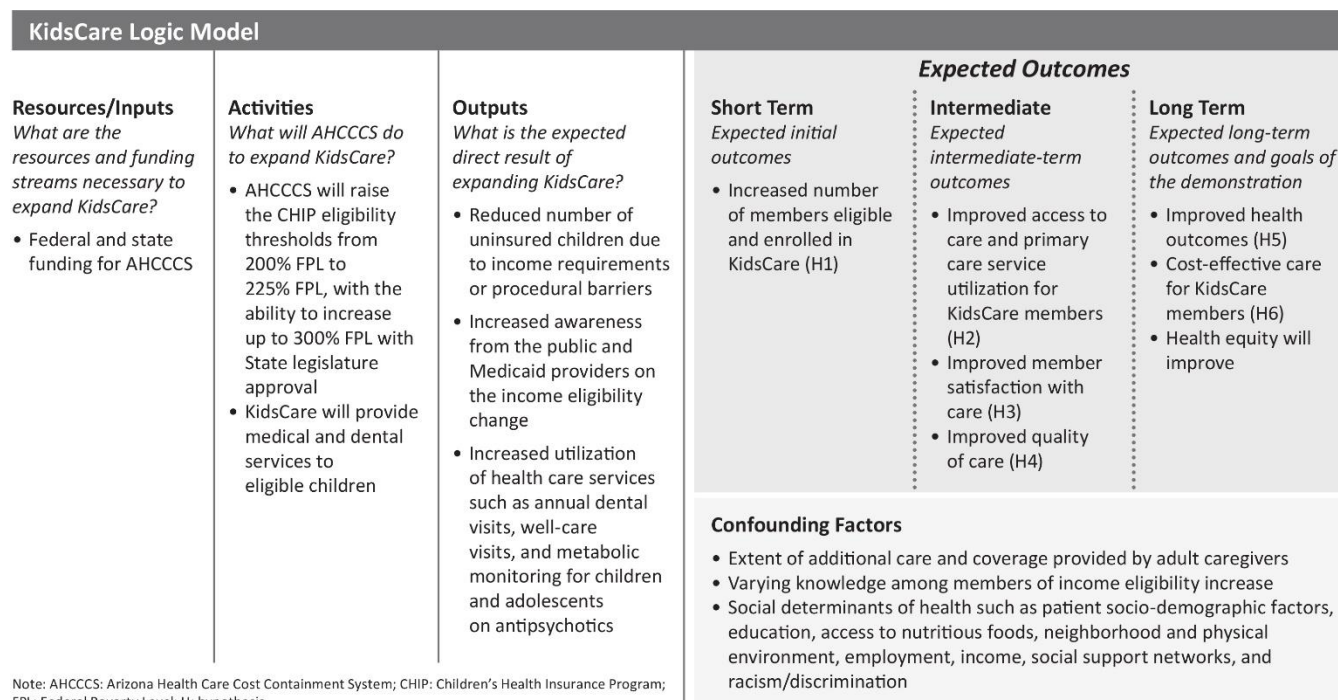
²⁻⁵ Ibid.

KidsCare

Logic Model

Figure 2-5 shows how expanding KidsCare eligibility will lead to more members being eligible for and enrolled in KidsCare in the short-term. AHCCCS expects to see improved health outcomes and cost-effective care for the KidsCare population in the longer-term.

Figure 2-5—KidsCare Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the KidsCare program, six hypotheses will be tested using 13 research questions. Table 2-33 lists the six hypotheses.

Table 2-33—KidsCare Hypotheses

| KidsCare Hypotheses | |
|---------------------|---|
| 1 | Expanding KidsCare eligibility will increase the number of members eligible for and enrolled in KidsCare and reduce the number of children losing eligibility for procedural reasons. |
| 2 | Expanding KidsCare eligibility will improve access to care and increase primary care service utilization for CHIP members. |
| 3 | Expanding KidsCare eligibility will improve member care satisfaction. |
| 4 | Expanding KidsCare eligibility will improve quality of care for members. |
| 5 | Expanding KidsCare will improve self-assessed health outcomes. |
| 6 | Expanding KidsCare will yield cost-effective care for members. |

The KidsCare program seeks to reduce the number of uninsured children in the State by increasing the income eligibility threshold. To determine if the program increased enrollment and reduced dis-enrollment for procedural reasons, AHCCCS reports, Integrated Public Use Microdata Series (IPUMS), American Community Survey (ACS), and eligibility and enrollment data will be utilized.²⁻⁶ The measures and associated research questions are presented in Table 2-48.

Table 2-34—Hypothesis 1 Research Questions and Measures

Hypothesis 1: Expanding KidsCare eligibility will increase the number of members eligible for and enrolled in KidsCare and reduce the number of children losing eligibility for procedural reasons.

Research Question 1.1: Did expanding KidsCare eligibility increase the number of members enrolled in KidsCare?

- 1-1 Number of members enrolled in the KidsCare program
- 1-2 Percentage of KidsCare members out of estimated children eligible for KidsCare

Research Question 1.2: Did expanding KidsCare eligibility reduce the number of uninsured children?

- 1-3 Number of uninsured children in Arizona

Research Question 1.3: Does the KidsCare program promote continuity of care for its members?

- 1-4 Average number of months enrolled
- 1-5 Percentage of KidsCare members who re-enroll after a gap of up to six months
- 1-6 Average number of gaps in Medicaid coverage for KidsCare members who re-enroll after a gap of up to six months
- 1-7 Average number of days per gap in Medicaid coverage for KidsCare members who re-enroll after a gap of up to six months
- 1-8 Percentage of KidsCare members due for renewal who complete the renewal process

Hypothesis 2 determines if expanding eligibility of the KidsCare program increases access to care and primary care service utilization. The measures and research questions in Table 2-49 will be assessed using eligibility and enrollment and claims/encounter data.

Table 2-35—Hypothesis 2 Research Questions and Measures

Hypothesis 2: Expanding KidsCare eligibility will improve access to care and increase primary care service utilization for CHIP members.

Research Question 2.1: Did expanding KidsCare eligibility improve access to healthcare for CHIP members?

- 2-1 Percentage of members meeting minimum time/distance network standards

Research Question 2.2: Did expanding KidsCare eligibility maintain or increase the utilization of primary care and preventative health services?

- 2-2 Percentage of children two years of age with appropriate immunization status
- 2-3 Percentage of adolescents 13 years of age with appropriate immunizations
- 2-4 Percentage of members with well-child visits in the first 30 months of life
- 2-5 Percentage of members 3-18 years of age with a well-care visit with a PCP or OB/GYN
- 2-6 Percentage of children who received any medical care in the past 12 months
- 2-7 Percentage of children who did not receive needed healthcare in the past 12 months

²⁻⁶ Although listed in the Special Terms and Conditions, the assessment of premiums is not included in this Evaluation Design in compliance with guidance from CMS.

Hypothesis 2: Expanding KidsCare eligibility will improve access to care and increase primary care service utilization for CHIP members.

- 2-8 Percentage of children who did not receive needed healthcare due to cost in the past 12 months
- 2-9 Percentage of children screened for risk of developmental, behavioral, and social delays in the 12 months prior to third birthday
- 2-10 Percentage of children who had an outpatient visit with a PCP who received a weight assessment or nutrition counseling

Research Question 2.3: Did expanding KidsCare eligibility improve access to dental care for CHIP members?

- 2-11 Percentage of members under 21 who received a comprehensive or periodic oral evaluation
- 2-12 Percentage of members under 21 who received a topical fluoride application

Hypothesis 3 determines member satisfaction with their care through beneficiary surveys. The measures and associated research questions are presented in Table 2-50.

Table 2-36—Hypothesis 3 Research Questions and Measures

Hypothesis 3: Expanding KidsCare eligibility will improve member care satisfaction.

Research Question 3.1: Did expanding KidsCare eligibility improve member satisfaction with the care received?

- 3-1 Member rating of personal doctor
- 3-2 Member response to getting needed care right away
- 3-3 Member response to getting an appointment for a check-up or routine care at a doctor's office or clinic

Hypothesis 4 evaluates if expanding KidsCare eligibility improves the quality of care for members using claims/encounter data as well as survey data from the National Survey of Children's Health (NSCH). The measures and associated research questions are presented in Table 2-50.

Table 2-37—Hypothesis 4 Research Questions and Measures

Hypothesis 4: Expanding KidsCare eligibility will improve quality of care for members.

Research Question 4.1: Did expanding KidsCare eligibility improve the management of BH conditions?

- 4-1 Percentage of children and adolescents on antipsychotics with metabolic monitoring
- 4-2 Percentage of children on ADHD medication with a follow up during the 30-day initiation phase and the 210-day continuation phase
- 4-3 Follow up after ED visit for substance use
- 4-4 Follow up after hospitalization for mental illness
- 4-5 Follow-up after ED visit for mental illness
- 4-6 Diagnosed mental health disorders

Research Question 4.2: Did expanding KidsCare eligibility impact hospital utilization?

- 4-7 Number of emergent ED visits per 1,000 member months
- 4-8 Number of non-emergent ED visits per 1,000 member months
- 4-9 Number of IP stays per 1,000 member months

Research Question 4.3: Did expanding KidsCare eligibility maintain or improve the management of chronic conditions for members?

- 4-10 Percentage of members ages 5 to 18 who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year
- 4-11 Number of children hospitalized for asthma conditions

Hypothesis 4: Expanding KidsCare eligibility will improve quality of care for members.

- 4-12 Number of children diagnosed with diabetes
- 4-13 Number of hospitalizations or ED visits for diabetes
- 4-14 Percentage of children with diabetes whose lab tests indicate control of their conditions

Research Question 4.4: Did expanding KidsCare eligibility improve parental understanding of their child's care?

- 4-15 Parent understanding of their child's health
- 4-16 Parent understanding of their child's care needs
- 4-17 Parent knowledge of when to seek care for their child

Through beneficiary surveys, Hypothesis 5 assesses the self-assessed health outcomes among KidsCare members. The measures and associated research questions are presented in Table 2-52.

Table 2-38—Hypothesis 5 Research Questions and Measures
Hypothesis 5: Expanding KidsCare will improve self-assessed health outcomes.
Research Question 5.1: Did expanding KidsCare improve member perception of health outcomes?

- 5-1 Percentage of members who reported a rating of overall health as very good or excellent
- 5-2 Percentage of members who reported a rating of overall mental or emotional health as very good or excellent

Hypothesis 6 measures the cost-effectiveness of expanding the income eligibility threshold for KidsCare. The evaluation will include calculating changes in total costs and examining cost drivers within the Medicaid program, consistent with CMS guidance on analyzing costs associated with Section 1115 waivers. The approach for assessing cost-effectiveness of the KidsCare program is detailed in the Cost-Effectiveness Analysis section.²⁻⁷ Additionally, supplemental cost measures, including total cost of care and medical debt, will provide further insights on the program's costs. The measures and associated research questions are presented in Table 2-53.

Table 2-39—Hypothesis 6 Research Questions and Measures
Hypothesis 6: Expanding KidsCare will yield cost-effective care for members.
Research Question 6.1: Did the KidsCare program provide cost-effective care for members?

- 6-1 Total cost of care for KidsCare expansion members and KidsCare members under 200 percent of the FPL
- 6-2 Change in reported medical debt

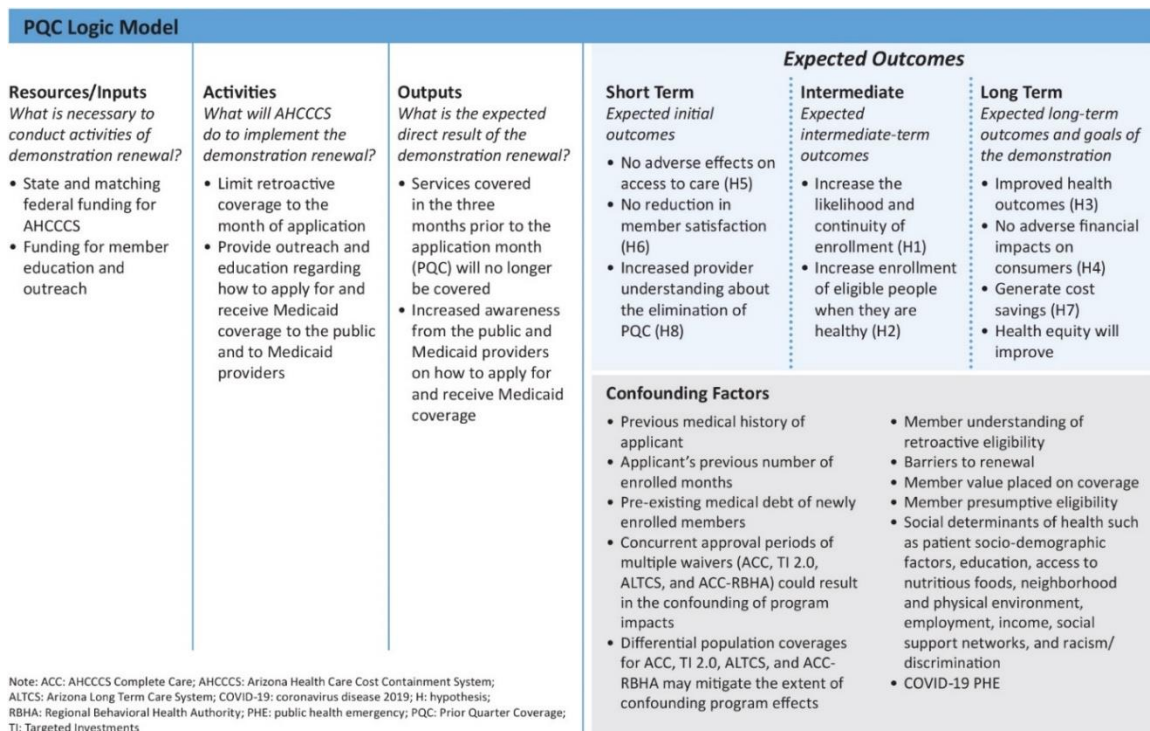
²⁻⁷ Ibid.

PQC

Logic Model

Figure 2-6 illustrates that providing outreach and education to the public and providers regarding the Waiver and limiting retroactive eligibility to the month of application is expected to lead to improved health outcomes, while having no negative effects on access to care and member satisfaction, as well as no negative financial impact to members. These expected outcomes will not all happen simultaneously. Any effects on access to care and member satisfaction are expected to occur first. Later, it is expected that there will be an increase in the likelihood and continuity of enrollment and in the enrollment of eligible people while they are healthy. This aligns with the set objectives of the amendment. Longer-term, there should be no financial impact on members, while generating cost savings to promote Arizona Medicaid sustainability. Ultimately, this should lead to improved health outcomes among members.

Figure 2-6—PQC Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the Prior Quarter Coverage (PQC) Waiver program, seven hypotheses will be tested using 12 research questions. Table 2-40 lists the seven hypotheses.

Table 2-40—PQC Hypotheses

| PQC Hypotheses | |
|----------------|--|
| 1 | Eliminating PQC will increase the likelihood and continuity of enrollment. |
| 2 | Eliminating PQC will increase enrollment of eligible people when they are healthy. |
| 3 | Health outcomes will be better for those without PQC compared to Medicaid members with PQC. |
| 4 | Eliminating PQC will not have adverse financial impacts on consumers. |
| 5 | Eliminating PQC will not adversely affect access to appropriate care for routine medical conditions. |
| 6 | Eliminating PQC will not result in reduced member satisfaction. |
| 7 | Eliminating PQC will generate cost savings over the renewal period. |

Hypothesis 1 will test whether the demonstration renewal results in an increase in the likelihood and continuity of enrollment. The measures and associated research questions are listed in Table 2-41. Improvements in these outcomes would support the Waiver’s goal of increasing enrollment and its continuity among eligible members.

Table 2-41—Hypothesis 1 Research Questions and Measures

| Hypothesis 1: Eliminating PQC will increase the likelihood and continuity of enrollment. | |
|---|---|
| Research Question 1.1: Do eligible people without PQC enroll in Medicaid at the same rates as other eligible people with PQC? | |
| 1-1 | Percentage of Medicaid enrollees per month by eligibility group out of estimated eligible Medicaid recipients |
| 1-2 | Percentage of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage out of estimated eligible Medicaid recipients |
| 1-3 | Number of Medicaid enrollees per month by eligibility group and/or per-capita of State |
| 1-4 | Number of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage |
| Research Question 1.2: What is the likelihood of enrollment continuity for those without PQC compared to other Medicaid members with PQC? | |
| 1-5 | Percentage of Medicaid members due for renewal who complete the renewal process |
| 1-6 | Average number of months with Medicaid coverage |
| Research Question 1.3: Do members without PQC who disenroll from Medicaid have shorter enrollment gaps than other members with PQC? | |
| 1-7 | Percentage of Medicaid members who re-enroll after a gap of up to six months |
| 1-8 | Average number of months without Medicaid coverage for members who re-enroll after a gap of up to six months |
| 1-9 | Average number of gaps in Medicaid coverage for members who re-enroll after a gap of up to six months |
| 1-10 | Average number of days per gap in Medicaid coverage for members who re-enroll after a gap of up to six months |

Hypothesis 2 will test whether eliminating PQC increases the number of healthy enrollees. The measure and associated research question are presented in Table 2-42.

Table 2-42—Hypothesis 2 Research Questions and Measures

| Hypothesis 2: Eliminating PQC will increase enrollment of eligible people when they are healthy. | |
|---|--|
| Research Question 2.1: Do newly enrolled members without PQC have higher self-assessed health status? | |
| 2-1 | Member reported rating of overall health |
| 2-2 | Member reported rating of overall mental or emotional health |

Hypothesis 2: Eliminating PQC will increase enrollment of eligible people when they are healthy.

| | |
|-----|---|
| 2-3 | Percentage of members who reported prior year ED visit |
| 2-4 | Percentage of members who reported prior year hospital admission |
| 2-5 | Percentage of members who reported getting healthcare three or more times for the same condition or problem |

A key goal of waiving PQC is that there will be improved health outcomes among both newly enrolled and established members. Hypothesis 3 will test this by determining if members without PQC have better outcomes than those with PQC or who have been enrolled since pre-implementation of the PQC waiver. The measures and associated research question are presented in Table 2-43.

Table 2-43—Hypothesis 3 Research Questions and Measures
Hypothesis 3: Health outcomes will be better for those without PQC compared to Medicaid members with PQC.
Research Question 3.1: Do members without PQC have better health outcomes when compared to outcomes prior to the renewal period rates and out-of-state outcomes for those with PQC?

| | |
|-----|--|
| 3-1 | Member reported rating of overall health for all members |
| 3-2 | Member reported rating of overall mental or emotional health for all members |

It is crucial to evaluate the financial impact of the PQC waiver on Medicaid members. This evaluation can determine if there are any unintended consequences, such as consumers having additional expenses due to the PQC waiver not covering medical expenses during the prior quarter. Hypothesis 4 evaluates the impact of the PQC waiver by measuring reported member medical debt. The measure and associated research question are presented in Table 2-44.

Table 2-44—Hypothesis 4 Research Question and Measure
Hypothesis 4: Eliminating PQC will not have adverse financial impacts on consumers.
Research Question 4.1: Does the PQC waiver lead to changes in the incidence of member medical debt?

| | |
|-----|---|
| 4-1 | Percentage of members who reported medical debt |
|-----|---|

It is important to ensure that the PQC waiver does not have an impact on access to care. Hypothesis 5 assesses this by examining utilization of office visits and facility visits for members subject to the PQC waiver compared to national benchmarks. The measures and associated research questions are presented in Table 2-45.

Table 2-45—Hypothesis 5 Research Questions and Measures
Hypothesis 5: Eliminating PQC will not adversely affect access to appropriate care for routine medical conditions.
Research Question 5.1: Do members without PQC have the same or higher rates of office visits compared to members with PQC?

| | |
|-----|---|
| 5-1 | Member response to getting needed care right away |
| 5-2 | Member response to getting an appointment for a check-up or routine care at a doctor's office or clinic |

Research Question 5.2: Do members without PQC have the same or higher rates of service and facility utilization compared to rates prior to waiver renewal with PQC?

| | |
|-----|---|
| 5-3 | Percentage of members with a visit to a specialist (e.g., eye doctor, otolaryngologist [ENT], cardiologist) |
|-----|---|

As these changes will directly impact members, it is important to ensure that members remain satisfied with their healthcare. Hypothesis 6 seeks to quantify the impact of the implementation of the PQC waiver has on member satisfaction. The measure and associated research question are presented in Table 2-46.

Table 2-46—Hypothesis 6 Research Question and Measure

| Hypothesis 6: Eliminating PQC will not result in reduced member satisfaction. | |
|--|-------------------------------------|
| Research Question 6.1: Do members without PQC have the same or higher satisfaction with their healthcare compared to prior to waiver renewal with PQC? | |
| 6-1 | Member rating of overall healthcare |

Hypothesis 7 seeks to measure the cost effectiveness of eliminating the retroactive eligibility waiver for which a long-term goal is to provide cost-effective care for members. Because not all aspects of cost effectiveness will be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Research Questions 7-1 and 7-2 for Hypothesis 7. However, a measure is specified for Research Question 7-3. The independent evaluator will calculate changes in total costs and examine cost drivers within the Medicaid program consistent with CMS’ guidance on analyzing costs associated with Section 1115 demonstrations.²⁻⁸ The approach for assessing the cost effectiveness of eliminating PQC is described in detail in the Cost-Effectiveness Analysis section, and the Research Questions are listed in Table 2-47.

Table 2-47—Hypothesis 7 Research Questions and Measures

| Hypothesis 7: Eliminating PQC will generate cost savings over the term of the waiver. | |
|---|---|
| Research Question 7.1: What are the costs associated with eliminating PQC? | |
| Research Question 7.2: What are the benefits/savings associated with eliminating PQC? | |
| Research Question 7.3: Do costs to non-AHCCCS entities stay the same or decrease after implementation of the waiver compared to before? | |
| 7-1 | Reported costs for uninsured and/or likely eligible Medicaid recipients among potentially impacted providers and/or provider networks |

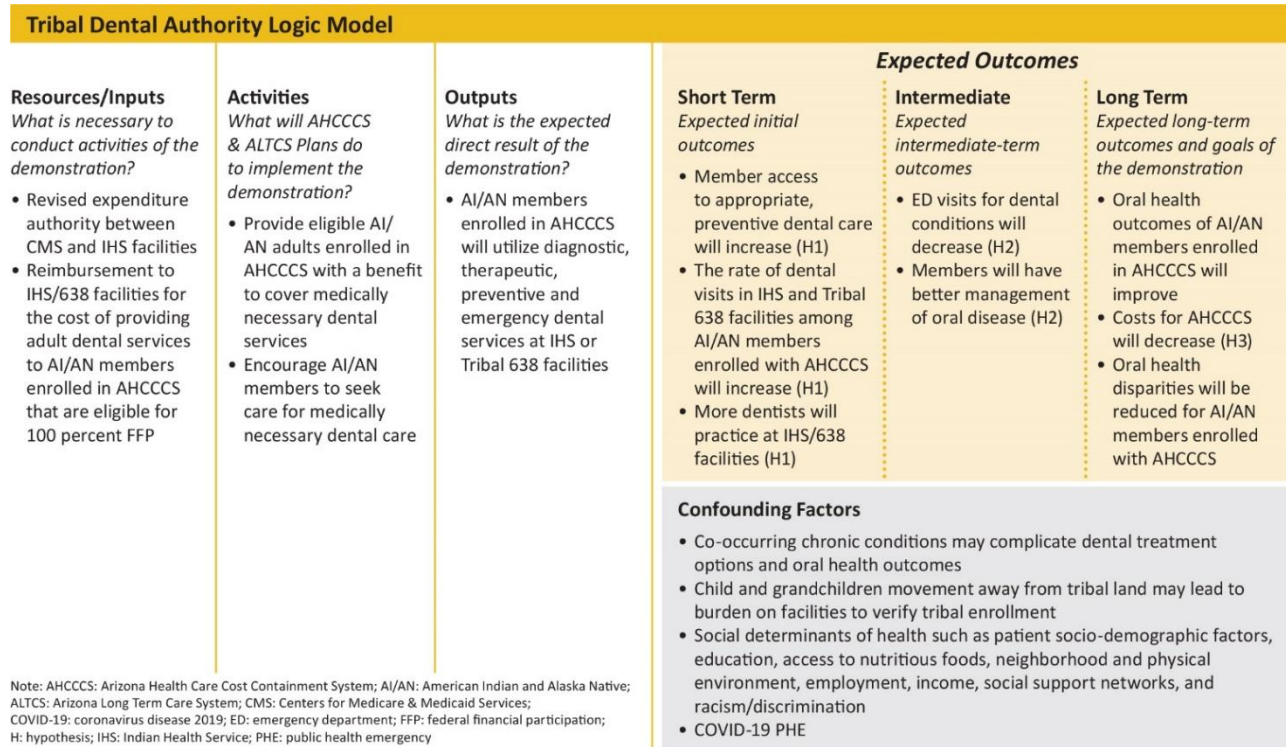
Tribal Dental Authority

Logic Model

Figure 2-7 illustrates how reimbursing Indian Health Service (IHS) and Tribal 638 facilities for the cost of providing adult dental services to American Indian/Alaska Native (AI/AN) members enrolled in AHCCCS managed care plans or its fee-for-service (FFS) program, the American Indian Health Program (AIHP), that are eligible for 100 percent federal financial participation (FFP) will ultimately lead to improved oral health outcomes and cost savings for AHCCCS. By providing eligible AI/AN adults with a benefit to cover medically necessary dental services and encouraging these members to seek medically necessary dental care, AHCCCS expects that in the short-term, member access to dental care will increase and more dentists will practice at IHS/638 facilities. This is hypothesized to lead to fewer ED visits and improved management of oral disease, which in the longer term will lead to improved oral health outcomes and a reduction in oral health disparities among targeted members.

²⁻⁸ Ibid.

Figure 2-7—Tribal Dental Authority Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the Tribal Dental Authority program, four hypotheses will be tested using six research questions. Table 2-48 lists the four hypotheses.

Table 2-48—Tribal Dental Authority Hypotheses

| Tribal Dental Authority Hypotheses | |
|------------------------------------|---|
| 1 | Member access to appropriate, routine dental care will be maintained or improved during the renewal period. |
| 2 | Quality of care will be maintained or improved during the renewal period. |
| 3 | Member oral health outcomes will be maintained or improved during the renewal period. |
| 4 | The Tribal Dental Authority program provides cost-effective care. |

Hypothesis 1 is designed to determine whether the Tribal Dental Authority activities during the Waiver maintain or improve member access to dental care providers. Access to dental care will be assessed by focusing on members' dental utilization and determining if the Waiver resulted in an increase in dental providers practicing in IHS/638 facilities. The hypothesis will be addressed using claims/encounter data and key informant interviews. The measures to test this hypothesis and answer the associated research questions are listed below in Table 2-49.

Table 2-49—Hypothesis 1 Research Questions and Measures

| Hypothesis 1: Member access to appropriate, routine dental care will be maintained or improved during the renewal period. | |
|---|--|
| Research Question 1.1: Did the waiver result in an increased number of dental providers practicing in I and 638 facilities? | |
| 1-1 | Percentage of members meeting minimum time/distance network standards |
| 1-2 | Number of dental providers practicing in I facilities |
| 1-3 | IHS/Tribal 638 staff's reported change in practicing dental providers after the implementation of the expanded tribal dental benefit |
| 1-4 | IHS/Tribal 638 staff's reported barriers before, during, and shortly following the implementation of the expanded tribal dental benefit |
| 1-5 | IHS/Tribal 638 staff's reported changes in quality of care and access to care for tribal members after the implementation of the tribal dental benefit |
| Research Question 1.2: Do members have the same or better access to routine, preventive dental services compared to prior to the demonstration? | |
| 1-6 | Percentage of adult members who received a comprehensive or periodic oral evaluation |
| 1-7 | Number of adult members receiving any covered service in the plan year |

Hypothesis 2 is designed to determine whether the Tribal Dental Authority activities during the Waiver maintain or improve the quality of dental care provided to members enrolled in AHCCCS managed care or AIHP. The research questions for this hypothesis will focus on management of chronic conditions and hospital utilization. This hypothesis will be addressed using both claims/encounter data. The measures and associated research questions are presented in Table 2-50.

Table 2-50—Hypothesis 2 Research Questions and Measures

| Hypothesis 2: Quality of care will be maintained or improved during the integration period. | |
|---|---|
| Research Question 2.1: Do members have the same or better management of chronic dental conditions compared to prior to the demonstration? | |
| 2-1 | Percentage of enrolled adult members with diabetes who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year |
| 2-2 | Percentage of enrolled adult members ages 30 years and older with history of periodontitis who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year |
| 2-3 | Percentage of enrolled adult members ages 30 years and older with a history of periodontitis who received an oral prophylaxis or scaling/root planing or periodontal maintenance visit at least two times within the reporting year |
| 2-4 | Percentage of enrolled adult members ages 18 years and older who are at "elevated" risk (i.e., "moderate" or "high") and received at least two topical fluoride applications within the reporting year |
| Research Question 2.2: Do members have equal or lower ED or hospital utilization compared to prior to the demonstration? | |
| 2-5 | Number of ED visits for ambulatory care sensitive dental conditions |
| 2-6 | Percentage of ambulatory care sensitive dental condition ED visits among adults who visited a dentist after an ED visit |

Hypothesis 3 is designed to determine whether the Tribal Dental Authority maintain or improve the oral health outcomes of members enrolled in AHCCCS managed care or AIHP receiving dental services. The measures and associated research questions are presented in Table 2-51.

Table 2-51—Hypothesis 3 Research Questions and Measures

| | |
|---|--|
| Hypothesis 3: Member oral health outcomes will be maintained or improved during the renewal period. | |
| Research Question 3.1: Do members have the same or better oral health outcomes compared to prior to the demonstration? | |
| 3-1 | Percentage of members with permanent tooth loss |
| 3-2 | Percentage of members with risk of dental caries |
| 3-3 | Percentage of members with periodontitis |
| 3-4 | Percentage of members with oral cancer |
| Research Question 3.2: Has the rate of emergency dental services decreased following implementation of the waiver? | |
| 3-5 | Percentage/number of members that utilized an emergency dental service |

Hypothesis 4 (Table 2-52) seeks to measure the cost effectiveness of the Tribal Dental Authority program. A goal of the Tribal Dental Authority is to provide cost-effective care for members enrolled in AHCCCS managed care or AIHP. Because cost effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 4. The approach for assessing cost effectiveness of the Tribal Dental Authority is described in detail in the Cost Effectiveness Analysis section.

Table 2-52—Hypothesis 4 Research Questions

| | |
|---|--|
| Hypothesis 4: The Tribal Dental program provides cost-effective care. | |
| Research Question 4.1: What are the costs associated with providing care under the Tribal Dental Authority? | |
| Research Question 4.2: What are the benefits/savings associated with providing care under the Tribal Dental Authority? | |

3. Methodology

To assess the impact of the Arizona Health Care Cost Containment System (AHCCCS) Section 1115 Demonstration Waiver (the Waiver), a comparison of outcomes between the intervention group and a valid counterfactual—the intervention group had they not been exposed to the intervention—must be made. The gold standard for experimental design is a randomized controlled trial which would be implemented by first identifying an intervention population, and then randomly assigning individuals to the intervention and the rest to a comparison group, which would serve as the counterfactual. However, random assignment is rarely feasible or desirable in practice, particularly as it relates to healthcare policies.

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

Table 3-1—Sampling of Analytic Approaches

| Analytic Approach | Baseline Data | Comparison Group | Allows Causal Inference | Notes |
|---------------------------|---------------|------------------|-------------------------|--|
| Difference-in-Differences | ✓ | ✓ | ✓ | Trends in outcomes should be similar between comparison and intervention groups at baseline. |
| Interrupted Time Series | ✓ | | ✓ | Requires sufficient data points prior to and following implementation. |
| Pre-Test/Post-Test | ✓ | | | |

Given that each component of the Waiver (AHCCCS Complete Care [ACC], AHCCCS Complete Care – Regional Behavioral Health Agreement [ACC-RBHA], Arizona Long Term Care System [ALTCS], Comprehensive Health Plan [CHP], KidsCare, Prior Quarter Coverage [PQC] Waiver, and the Tribal Dental Authority) serves different populations, a comparison group will be specific to each program.

Evaluation Design Summary

ACC

Summary of Approach

The ACC program, which covers most Medicaid children and adults statewide, began in October 2018 and did not undergo substantive changes upon renewal of the Waiver in October 2022. A comprehensive evaluation of the ACC program and its associated coverage of integrated physical health (PH) and behavioral health (BH) in a single plan was conducted in the Interim Evaluation Report and forthcoming Summative Evaluation Report of the

federal fiscal year (FFY) 2017–2022 renewal period. As a result, this evaluation of the FFY 2023–2027 renewal period will primarily seek to determine whether ACC program goals were maintained or improved during this time period.

Because ACC covers approximately 93.8 percent of all managed care members in Arizona, the viability of an in-state counterfactual group not exposed to the intervention (i.e., ACC) is limited by several factors.

1. The number of members available for a potential comparison group is far smaller than the number of members enrolled in ACC plans, restricting the ability to apply often-used one-to-one matching techniques. Possible solutions include propensity score weighting or matching with replacement. The small pool for the eligible comparison group, however, increases the likelihood that the comparison group would be dominated by only a few individuals, leading to inaccurate and potentially misleading results.
2. A small comparison group reduces statistical power.
3. AHCCCS members not enrolled in an ACC plan are fundamentally different from those who are enrolled in an ACC plan. For example, the theoretical in-state comparison group would consist of those with a serious mental illness (SMI), foster children, those with developmental disabilities (DD), and the elderly and physically disabled. It is possible that these groups could serve as a comparison group with a risk-adjustment algorithm applied; however, this approach is unlikely to sufficiently adjust for the substantial differences across subpopulations to produce accurate and reliable results. Since Arizona does not have an all-payer claims database, it is not possible to identify and use an in-state low-income non-Medicaid population as a comparison group.

Despite these limitations, since ACC covers most children and adults on Medicaid, many measure rates for the ACC population may be compared to national benchmarks to provide context and relative performance of ACC plans.

Intervention and Comparison Populations

The intervention population will consist of members enrolled in an ACC plan at any point during each year of the demonstration period.

There is no viable in-state comparison group. Comparisons to national benchmarks will be made where available to provide context for interpreting results.

ACC-RBHA

Summary of Approach

The legacy Regional Behavioral Health Authority (RBHA) program was in existence prior to the current Waiver renewal period, which began on October 14, 2022. On October 1, 2022, AHCCCS implemented the following changes to the ACC-RBHA program:³⁻¹

³⁻¹ Arizona Health Care Cost Containment System. Competitive Contract Expansion Implementation of ACC-RBHAs. Available at: https://www.azahcccs.gov/AHCCCS/Downloads/Initiatives/BehavioralHealthServices/Members_ContractExpansionFAQs.pdf. Accessed on: Jun 23, 2023.

- Changed the name from RBHA to AHCCCS Complete Care Contractor with a Regional Behavioral Health Agreement (ACC-RBHA).
- Changed the health plans operating in certain counties.
- Operated a single crisis phone number for the entire State.
 - Previously, there were three different crisis numbers across the State (these will remain operable through October 1, 2023)

Although these changes may lead to some disruptions in care (for example, if members must choose a new primary care provider [PCP] due to the change in plans) the impact is not expected to be widespread and is therefore not a focus of the evaluation. The evaluation will primarily seek to determine whether program goals were maintained or improved throughout the renewal period.

Because the target population of the ACC-RBHA evaluation consists of adults with an SMI as defined by Arizona Revised Statute (A.R.S.) §36-550, there is unlikely to be a subset of AHCCCS members who have not gone through the formal SMI determination process and still exhibit similar characteristics. Because of the low likelihood of an in-state comparison group, the evaluation will leverage multiple data points before and after renewal to construct an interrupted time series (ITS) analysis.

Intervention and Comparison Populations

The intervention population will consist of members enrolled in an ACC-RBHA plan at any point during each year of the demonstration period.

There is no viable in-state comparison group.

ALTCS

Summary of Approach

The ALTCS program covers two distinct populations and plans:

- Elderly and/or physically disabled (ALTCS-EPD)
- Intellectually/developmentally disabled (ALTCS-DD)

There were no substantive changes to the ALTCS program upon renewal of the Waiver. The evaluation will therefore primarily seek to determine whether program goals were maintained or improved throughout the Waiver renewal period. For ALTCS-EPD, the Waiver renewal period (October 14, 2022, through September 30, 2027) will be compared to the prior demonstration period (October 1, 2016, through October 14, 2022). As BH services for members with DD were transitioned to ALTCS-DD health plans on October 1, 2019, the Waiver renewal period will be compared to the prior demonstration period (October 1, 2019, through October 14, 2022).

Given that ALTCS only impacts individuals with intellectual/developmental disabilities and individuals who are elderly and/or with physical disabilities, the viability of an in-state comparison group consisting of similar members is limited by several factors. There are few in-state people with DD who are not enrolled in Medicaid and ALTCS. While the number of people who are elderly and/or with physical disabilities who are not enrolled in Medicaid may be somewhat larger, the size of the in-state comparison group is estimated to be far smaller than the similar ALTCS population, thereby reducing the ability to use valid and robust matching techniques to ensure reliable results and reducing statistical power. Even if such an in-state population were sufficient and appropriate

as a comparison group, Arizona does not have an all-payer claims database with which to identify and calculate relevant measures for the comparison group. As a result, the evaluation will leverage multiple data points before and after renewal to construct an ITS analysis for most measures, as well as rely on out-of-state comparison groups for difference-in-differences (DiD) analyses of National Core Indicators (NCI) measures.

Within the ALTCS program, two additional service models, Parents as Paid Caregivers (PPCG) and Extended Family Support, were approved or continued under Section 1115 Waiver authority. The PPCG service model allows parent caregivers to receive payment for providing “extraordinary care” to ALTCS minors while Extended Family Support services provides necessary services to caregivers providing care to any ALTCS member.

Similar to the ALTCS-DD and ALTCS-EPD programs, there are few individuals with DD who are not enrolled in ALTCS. Therefore, comparisons for the PPCG service model and Extended Family Support services are limited to ALTCS members who qualify for the program but choose to not participate. If a valid comparison group can be constructed, a DiD approach will be utilized to compare the outcomes of those who participate in the program to those who do not. If there is insufficient data for a DiD analysis, the most robust alternative analytic method available will be used.

Intervention and Comparison Populations

The ALTCS-EPD population consists of individuals 65 years of age or older and/or medically require long-term care services. Long-term care service needs are determined by a pre-admission screening (PAS).³⁻²

The ALTCS-DD population consists of qualifying individuals with a diagnosis of cognitive disability, cerebral palsy, epilepsy, autism, or Down syndrome. Since children often do not have a specific diagnosis, individuals 6 years of age and under must either have one of the four previously mentioned diagnoses, be determined to be at risk for one of the four diagnoses, or demonstrate a delay that may lead to one of the four diagnoses. Similar to EPD eligibility, members with DD must qualify through the PAS and require institutional level of care.³⁻³

Although there is no viable in-state comparison group, the independent evaluator will leverage the weighted national average from all other states participating in the NCI survey to serve as an out-of-state comparison group for specific measures that employ a DiD approach.

The evaluation of the PPCG service model will consist of an intervention population of minor children who receive “extraordinary care” from their parents. Comparisons may be made to other children enrolled in ALTCS who are eligible for the PPCG service model, but do not receive care services from their parents. Additionally, national rates will be leveraged to compare outcomes among the PPCG population to those nationally.

The evaluation of Extended Family Support services will include an intervention population of minors and adults who receive direct care services from their primary caregivers. Comparison populations may include comparisons to members who would otherwise be eligible for the services, but do not receive care services from their primary caregivers. Additionally, comparisons to national rates or NCI averages will be utilized for further context.

³⁻² Arizona Health Care Cost Containment System. Medical Assistance Eligibility Policy Manual. Available at: https://www.azahcccs.gov/Resources/guidesmanualspolicies/eligibilitypolicy/eligibilitypolicymanual/Policy/Chapter_500_Non-Financial_Conditions_of_Eligibility/MA0509.htm. Accessed on: Jul 6, 2023.

³⁻³ Arizona Department of Economic Security. DDD Eligibility. Available at: https://des.az.gov/sites/default/files/10_DDD_Eligibility.pdf. Accessed on: Jul 6, 2023.

CHP

Summary of Approach

CHP serves children in custody of Arizona Department of Child Safety (DCS) and has been in existence since prior to the current Waiver renewal period, with no substantive changes to the program with the renewal Waiver. However, AHCCCS integrated BH and PH services on April 1, 2021. The integration of BH and PH services was evaluated in the forthcoming Summative Evaluation Report of the FFY 2017–2022 Waiver renewal period. However, because the Summative Evaluation Report will contain one full year of post-implementation data, the evaluation of the FFY 2023–2027 renewal period will continue to build on the foundation set forth in the FFY 2017–2022 evaluation period to study lasting impacts of the transition to integrated care.

Given that CHP only impacts children in the custody of DCS and the unique healthcare needs of this population, the viability of an in-state comparison group consisting of similar members is limited. As such, the evaluation will leverage multiple data points before and after integration to construct an ITS analysis.

Intervention and Comparison Populations

The intervention group will consist of members enrolled in CHP at any point during each year of the renewal period. As described in the Background section, this includes children in:

- Foster homes.
- The custody of DCS and placed with a relative.
- The custody of DCS and placed in a certified adoptive home prior to the entry of the final order of adoption.
- The custody of DCS and in an independent living program as provided in A.R.S. § 8-521.
- The custody of a probation department and placed in out-of-home care.

CHP provides PH and BH care to eligible members from birth to 18 years of age, and up to age 21 in rare instances when the member is not Medicaid eligible.

There is no viable in-state comparison group.

KidsCare

Summary of Approach

Arizona's CHIP program has historically served households with children with incomes at or below 200 percent of the federal poverty level (FPL) among children who were not eligible for Medicaid. The Waiver approved expenditure authority to increase the income eligibility threshold to 225 percent of the FPL, with an opportunity to increase the threshold to 300 percent, pending legislative approval. The evaluation period, February 16, 2024, through September 30, 2027, will seek to determine if the expanded income eligibility reduces the number of uninsured children in Arizona while increasing access to and quality of healthcare for KidsCare enrollees.

Since newly enrolled children in this program are unlikely to have been previously enrolled in Medicaid, there is no baseline period to identify a pre and post change in rates. Therefore, most measures for this program will be limited to a post-implementation analysis.

Intervention and Comparison Populations

The intervention population will consist of members enrolled in KidsCare with incomes above 200 percent of the FPL. Comparisons to KidsCare members with incomes under 200 percent of the FPL will be made where appropriate, and comparisons to uninsured children or children in other states will be made where data is available.

PQC

Summary of Approach

Because the PQC waiver is hypothesized to increase the rate of enrollment among the eligible population, the Waiver has a partial focus on newly enrolled Medicaid members. Specifically, because PQC is expected to increase the rate of enrollment when individuals in the eligible population are healthy, and because there are no readily available administrative data or survey data for the eligible and unenrolled population, the independent evaluator will need to collect data for the evaluation from newly enrolled members. In the context of the PQC waiver, newly enrolled refers to members who satisfy two criteria:

1. Enrolled no earlier than the first day of the month prior to the month of sampling.
2. Experienced a gap in enrollment of at least two months immediately prior to the month of sampling.

Because many measures consider continuously enrolled members to be those enrolled for at least five out of the previous six months, the criteria defined for a newly enrolled member captures those persons who did not have a recent spell of continuous enrollment and who had recently enrolled. This represents the population of members for whom the PQC waiver is expected to increase the likelihood of enrollment when healthy. The evaluation design will therefore capture survey data from newly enrolled members at multiple points in time to assess whether their self-reported health status is increasing as expected. Self-reported health status will also be captured for other members meeting the traditional continuous enrollment criteria. This will also allow the independent evaluator to determine if the health status of members who are not newly enrolled increases over time after implementing the PQC waiver.

Outcomes that rely on State administrative data pertaining to enrollment by eligibility category and rates of enrollment can have intra-year (e.g., monthly) measurements taken both prior to and after implementation. This can serve to build pre- and post-implementation trends that can be evaluated via an ITS analysis and through a pre-test/post-test analysis. These analyses will not utilize a comparison group because no comparable populations exist within Arizona that would not be impacted by the elimination of PQC.

Intervention and Comparison Populations

Where pre-implementation administrative data are available, the intervention population will reflect members who apply for coverage both prior to and post the implementation of PQC. The intervention group will consist of all eligible members who apply for coverage after implementation, expected to be July 1, 2019, excluding pregnant or postpartum women, and infants and children under 19 years of age.

There is no viable in-state comparison group.

Tribal Dental Authority

Summary of Approach

Prior to the Tribal Dental Authority, AHCCCS reimbursed Indian Health Service (IHS) and Tribal 638 facilities for adult dental services that were eligible for 100 percent federal medical assistance percentage (FMAP) in excess of:

- The \$1,000 emergency dental limit for adult members enrolled in the Arizona State Plan
- The \$1,000 dental limit for individuals ages 21 years or older enrolled in the ALTCS program

The renewal of the Waiver on October 14, 2022, marked the start of the Tribal Dental Authority, which authorizes AHCCCS to reimburse expenditures for medically necessary diagnostic, therapeutic, and preventive dental services beyond the previous limits when services are performed by participating IHS facilities.

The evaluation will primarily seek to determine whether program goals were maintained or improved throughout the 2022–2027 Waiver renewal period compared to the baseline period.

Intervention and Comparison Populations

The Tribal Dental Authority population consists of all adult AHCCCS tribal members who were eligible to receive medically necessary dental services in an IHS or Tribal 638 facility.³⁻⁴

Given that the Tribal Dental Authority will impact all individuals who seek care at an IHS/Tribal 638 facility, the viability of an in-state comparison group consisting of similar members is limited. Instead, the independent evaluator may leverage Behavioral Risk Factor Surveillance System (BRFSS) data from American Indian/Alaska Native (AI/AN) Medicaid respondents from all other states that participated in the survey as an out-of-state comparison group for measures that utilize a DiD approach.

Evaluation Periods

Table 3-2 presents the baseline, ramp-up, and evaluation periods of each Waiver program.³⁻⁵

Table 3-2—Evaluation Periods

| Program | Baseline | Ramp-Up | Evaluation |
|------------|------------------------------------|---------------------------------|--------------------------------------|
| ACC | October 1, 2018–September 30, 2022 | — | October 1, 2022–September 30, 2027 |
| ACC-RBHA | October 1, 2016–September 30, 2022 | — | October 1, 2022–September 30, 2027 |
| ALTCS-EPD | October 1, 2016–September 30, 2022 | — | October 1, 2022–September 30, 2027 |
| ALTCS-DD | October 1, 2019–September 30, 2022 | — | October 1, 2022–September 30, 2027 |
| ALTCS-PPCG | April 1, 2018–April 5, 2020 | April 6, 2020–February 16, 2024 | February 16, 2024–September 30, 2027 |

³⁻⁴ Arizona Health Care Cost Containment System. Codes & Values 2021. Available at: <https://www.azahcccs.gov/PlansProviders/Downloads/HealthPlans/FeeForService/HealthPlanIDNumbers.pdf>. Accessed on: Jul 31, 2023.

³⁻⁵ To align the evaluation with annual measurement years, the evaluation periods for each program will generally begin October 1, 2022, even though the waiver was not formally approved until October 14, 2022.

| Program | Baseline | Ramp-Up | Evaluation |
|--------------------------------------|-------------------------------------|------------------------------------|--------------------------------------|
| ALTCS-Extended Family Support | February 16, 2022–February 16, 2024 | — | February 16, 2024–September 30, 2027 |
| CHP | October 1, 2016–September 30, 2020 | October 1, 2020–September 30, 2021 | October 1, 2021–September 30, 2027 |
| KidsCare | — | — | February 16, 2024–September 30, 2027 |
| PQC | July 1, 2016–June 30, 2019 | — | July 1, 2019–June 30, 2027 |
| Tribal Dental Authority | October 1, 2016–September 30, 2022 | — | October 1, 2022–September 30, 2027 |

Evaluation Measures

ACC

Table 3-3 presents the evaluation measures, comparison groups, data sources, and analytic approaches for ACC.

Table 3-3—ACC Evaluation Measures

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---------------------|--|--|
| Hypothesis 1: Health plans encourage and/or facilitate care coordination among PCPs and BH practitioners. | | | | |
| Research Question 1.1: What care coordination strategies or activities have ACC plans been conducting during the renewal period? | 1-1: Health plans' reported evolution of care coordination since the integration period and remaining barriers during the renewal period | N/A | Key informant interviews | Qualitative synthesis |
| Research Question 1.2: What care coordination strategies or activities have providers been conducting during the renewal period? | 1-2: Providers' reported evolution of care coordination since the integration period and remaining barriers during the renewal period | N/A | Provider focus groups | Qualitative synthesis |
| Research Question 1.3: Did care coordination strategies improve or maintain patient engagement and follow-up care after an IP stay or ED visit during the renewal period? | 1-3: Percentage of members with follow-up after an ED visit for members with multiple high-risk chronic conditions | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/Post-test - ITS |
| Research Question 1.4: Do members perceive their doctors to have better care coordination as a result of ACC renewal? | 1- 4: Percentage of members who reported their doctor seemed informed about the care they received from other health providers | N/A | - Beneficiary survey - National/regional benchmarks | - Comparison to national/regional benchmarks - Pre-test/post-test - Subgroup analysis of children and adults |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|---------------------|--|--|
| Hypothesis 2: Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period. | | | | |
| Research Question 2.1: Do members enrolled in an ACC plan have the same or better access to primary care services compared to prior to the renewal period? | 2-1: Percentage of members meeting minimum time/distance network standards | N/A | Member and provider data | <ul style="list-style-type: none"> - Pre-test/post-test - ITS - Subgroup analysis of children and adults - Subgroup analysis by county and/or urbanicity |
| | 2-2: Percentage of adults who accessed preventive/ambulatory health services | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS |
| | 2-3: Percentage of members under 21 years of age who received a comprehensive or periodic oral evaluation | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - Subgroup analysis of children and adults - ITS |
| | 2-4: Percentage of members who had a well-child visit in the first 30 months of life | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS |
| | 2-5: Percentage of members 3–21 years of age who had a well-care visit with a PCP or OB/GYN | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS |
| | 2-6: Percentage of members who reported they received care as soon as they needed | N/A | <ul style="list-style-type: none"> - Beneficiary survey - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - Subgroup analysis of children and adults |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|---------------------|--|---|
| | 2-7: Percentage of members who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed | N/A | - Beneficiary survey - National/regional benchmarks | - Comparison to national/regional benchmarks - Pre-test/post-test - Subgroup analysis of children and adults |
| | 2-8: Percentage of members who reported they were able to schedule an appointment with a specialist as soon as they needed | N/A | - Beneficiary survey - National/regional benchmarks | - Comparison to national/regional benchmarks - Pre-test/post-test - Subgroup analysis of children and adults |
| Research Question 2.2: Do members enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to the renewal period? | 2-9: Percentage of members who had initiation of SUD treatment | N/A | - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | - Comparison to national/regional benchmarks - Pre-test/post-test - ITS - Subgroup analysis of children and adults |
| | 2-10: Percentage of members who had engagement of SUD treatment | N/A | - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | - Comparison to national/regional benchmarks - Pre-test/post-test - ITS - Subgroup analysis of children and adults |
| Hypothesis 3: Quality of care will be maintained or improved during the renewal period. | | | | |
| Research Question 3.1: Do members enrolled in an ACC plan have the same or higher rates of appropriate immunizations compared to prior to the renewal period? | 3-1: Percentage of children 2 years of age with appropriate immunization status | N/A | - State eligibility and enrollment data - ASIIS - Claims/encounter data | - Comparison to national/regional benchmarks - Pre-test/post-test |
| | 3-2: Percentage of adolescents 13 years of age with appropriate immunizations | N/A | - State eligibility and enrollment data - ASIIS - Claims/encounter data | - Comparison to national/regional benchmarks - Pre-test/post-test |
| | 3-3: Percentage of adult members who reported having a flu shot or nasal flu spray | N/A | - Beneficiary survey - National/regional benchmarks | - Comparison to national/regional benchmarks - Pre-test/post-test |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---------------------|--|---|
| Research Question 3.2: Do members enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to the renewal period? | 3-4: Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS - Subgroup analysis of children and adults |
| Research Question 3.3: Do members enrolled in an ACC plan have the same or better management of BH conditions compared to prior to the renewal period? | 3-5: Percentage of adult members who remained on an antidepressant medication treatment | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS |
| | 3-6: Percentage of members with a follow-up visit after hospitalization for mental illness | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS - Subgroup analysis of children and adults |
| | 3-7: Percentage of members with a follow-up visit after an ED visit for mental illness | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS - Subgroup analysis of children and adults |
| | 3-8: Percentage of members with a follow-up visit after an ED visit for SUD | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS - Subgroup analysis of children and adults |
| | 3-9: Percentage of members diagnosed with a mental health disorder | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS - Subgroup analysis of children and adults |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|---------------------|--|---|
| Research Question 3.4: Do members enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to the renewal period? | 3-10: Percentage of adult members who have prescriptions for opioids at a high dosage | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS |
| | 3-11: Percentage of adult members with concurrent use of opioids and benzodiazepines | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS |
| Research Question 3.5: Do members enrolled in an ACC plan have equal or lower ED or hospital utilization compared to prior to ACC renewal? | 3-12: Number of emergent ED visits per 1,000 member months | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - Subgroup analysis of children and adults - ITS |
| | 3-13: Number of non-emergent ED visits per 1,000 member months | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - Subgroup analysis of children and adults - ITS |
| | 3-14: Number of IP stays per 1,000 member months | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS - Subgroup analysis of children and adults |
| | 3-15: Percentage of adult IP discharges with an unplanned readmission within 30 days | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Comparison to national/regional benchmarks - Pre-test/post-test - ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|---------------------|---|--|
| Hypothesis 4: Member self-assessed health outcomes will be maintained or improved during the renewal period. | | | | |
| Research Question 4.1: Do members enrolled in an ACC plan have the same or higher overall health rating compared to prior to the renewal period? | 4-1: Percentage of members who reported a rating of overall health as very good or excellent | N/A | - Beneficiary survey - National/regional benchmarks - BRFSS | - Comparison to national/regional benchmarks - Pre-test/post-test - Subgroup analysis of children and adults |
| Research Question 4.2: Do members enrolled in an ACC plan have the same or higher overall mental or emotional health rating compared to prior to the renewal period? | 4-2: Percentage of members who reported a rating of overall mental or emotional health as very good or excellent | N/A | - Beneficiary survey - National/regional benchmarks | - Comparison to national/regional benchmarks - Pre-test/post-test - Subgroup analysis of children and adults |
| Hypothesis 5: Member satisfaction with their healthcare will be maintained or improved during the renewal period. | | | | |
| Research Question 5.1: Are members equally or more satisfied with their healthcare as a result of integrated care during the renewal period? | 5-1: Percentage of members who reported a high rating of health plan (8, 9, or 10 out of 10) | N/A | - Beneficiary survey - National/regional benchmarks | - Comparison to national/regional benchmarks - Pre-test/post-test - Subgroup analysis of children and adults |
| | 5-2: Percentage of members who reported a high rating of overall healthcare (8, 9, or 10 out of 10) | N/A | - Beneficiary survey - National/regional benchmarks | - Comparison to national/regional benchmarks - Pre-test/post-test - Subgroup analysis of children and adults |
| Hypothesis 6: The ACC program provides cost-effective care. | | | | |
| Research Question 6.1: What are the costs associated with the integration of care under ACC during the renewal period? | There are no specific measures associated with this hypothesis; see Cost Effectiveness Analysis Section for additional detail | N/A | N/A | Cost effectiveness analysis |
| Research Question 6.2: What are the benefits/savings associated with the integration of care under ACC during the renewal period? | | | | |

Note: ACC: AHCCCS Complete Care; AHCCCS: Arizona Health Care Cost Containment System; ASIIS: Arizona State Immunization Information System; BH: behavioral health; BRFSS: Behavioral Risk Factor Surveillance System; ED: emergency department; IOP: intensive outpatient; IP: inpatient; ITS: interrupted time series; OB/GYN: obstetrician gynecologist; OP: outpatient; PCP: primary care provider

ACC-RBHA

Table 3-4 presents the evaluation measures along with the respective comparison groups, data sources, and analytic approaches for ACC-RBHA.

Table 3-4—ACC-RBHA Evaluation Measures

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|---------------------|--|--|
| Hypothesis 1: Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period. | | | | |
| Research Question 1.1: Do adult members with an SMI enrolled in an ACC-RBHA have the same or increased access to primary care services compared to prior to the waiver renewal? | 1-1: Percentage of members meeting minimum time/distance network standards | N/A | Member and provider data | - Pre-test/post-test - ITS - Subgroup analysis by county and/or urbanicity - Subgroup analysis of children and adults |
| | 1-2: Percentage of adults who accessed preventive/ambulatory health services | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 1-3: Percentage of members who reported they received care as soon as they needed | N/A | Beneficiary survey | Pre-test/post-test |
| | 1-4: Percentage of members who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed | N/A | Beneficiary Survey | Pre-test/post-test |
| | 1-5: Percentage of members who reported they were able to schedule an appointment with a specialist as soon as they needed | N/A | Beneficiary survey | Pre-test/post-test |
| Research Question 1.2: Do adult members with an SMI enrolled in an ACC-RBHA have the same or increased access to substance abuse treatment compared to prior to the waiver renewal? | 1-6: Percentage of members who had initiation of SUD treatment | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 1-7: Percentage of members who had engagement of SUD treatment | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---------------------|--|-------------------------------|
| Hypothesis 2: Quality of care will be maintained or improved during the renewal period. | | | | |
| Research Question 2.1: Do adult members with an SMI enrolled in an ACC-RBHA have the same or higher rates of appropriate immunizations compared to prior to waiver renewal? | 2-1: Percentage of members who reported having a flu shot or nasal flu spray | N/A | Beneficiary Survey | Pre-test/post-test |
| Research Question 2.2: Do adult members with an SMI enrolled in an ACC-RBHA have the same or better management of chronic conditions compared to prior to the waiver renewal? | 2-2: Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-3: Percentage of members with schizophrenia or bipolar disorder using antipsychotic medications who had a diabetes screening test | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-4: Percentage of members with schizophrenia who adhered to antipsychotic medications | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| Research Question 2.3: Do adult members with an SMI enrolled in an ACC-RBHA have the same or better management of BH conditions compared to prior to the waiver renewal? | 2-5: Percentage of members who remained on antidepressant medication treatment | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-6: Percentage of members with a follow-up visit after hospitalization for mental illness | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-7: Percentage of members with a follow-up visit after an ED visit for mental illness | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-8: Percentage of members with a follow-up visit after an ED visit for SUD | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|---------------------|--|-------------------------------|
| | 2-9: Percentage of members diagnosed with a mental health disorder | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-10: Percentage of members receiving mental health services (total and by IP, IOP or partial hospitalization, OP, ED, or telehealth) | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| Research Question 2.4: Do adult members with an SMI enrolled in an ACC-RBHA have the same or better management of opioid prescriptions compared to prior to the waiver renewal? | 2-11: Percentage of members who have prescriptions for opioids at a high dosage | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-12: Percentage of members with concurrent use of opioids and benzodiazepines | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| Research Question 2.5: Do adult members with an SMI enrolled in an ACC-RBHA have the same or lower tobacco usage compared to prior to the waiver renewal? | 2-13: Percentage of members who indicated smoking cigarettes or using tobacco | N/A | Beneficiary Survey | Pre-test/post-test |
| Research Question 2.6: Do adult members with an SMI enrolled in an ACC-RBHA have the same or lower hospital utilization compared to prior to the waiver renewal? | 2-14: Number of emergent ED visits per 1,000 member months | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-15: Number of non-emergent ED visits per 1,000 member months | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-16: Number of IP stays per 1,000 member months | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-17: Percentage of IP discharges with an unplanned readmission within 30 days | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|---------------------|--------------------------|-----------------------|
| Hypothesis 3: Health outcomes for adult members with an SMI enrolled in an ACC-RBHA will be maintained or improved during the renewal period. | | | | |
| Research Question 3.1: Do adult members with an SMI enrolled in an ACC-RBHA have the same or higher rating of health compared to prior to the waiver renewal? | 3-1: Percentage of members who reported a rating of overall health as very good or excellent | N/A | Beneficiary survey | Pre-test/post-test |
| | 3-2: Percentage of members who reported a rating of overall mental or emotional health as very good or excellent | N/A | Beneficiary survey | Pre-test/post-test |
| Hypothesis 4: Adult member satisfaction in ACC-RBHA health plans will be maintained or improved over the renewal period. | | | | |
| Research Question 4.1: Do adult members with an SMI enrolled in an ACC-RBHA have the same or higher satisfaction in their healthcare compared to prior to the waiver renewal? | 4-1: Percentage of members who reported a high rating of overall healthcare (8, 9, or 10 out of 10) | N/A | Beneficiary survey | Pre-test/post-test |
| | 4-2: Percentage of members who reported a high rating of health plan (8, 9, or 10 out of 10) | N/A | Beneficiary survey | Pre-test/post-test |
| Research Question 4.2: Do adult members with an SMI enrolled in an ACC-RBHA perceive their doctors to have the same or better care coordination compared to prior to the waiver renewal? | 4-3: Percentage of members who reported their doctor seemed informed about the care they received from other health providers | N/A | Beneficiary survey | Pre-test/post-test |
| Hypothesis 5: ACC-RBHAs encourage and/or facilitate care coordination among PCPs and BH practitioners. | | | | |
| Research Question 5.1: What care coordination strategies are the ACC-RBHAs conducting for their members with an SMI? | 5-1: ACC-RBHAs' reported evolution of care coordination since the integration period and remaining barriers during the renewal period | N/A | Key informant interviews | Qualitative synthesis |
| | 5-2: ACC-RBHAs' reported challenges from any workforce shortages | N/A | Key informant interviews | Qualitative synthesis |
| Research Question 5.2: Have care coordination strategies for members with an SMI changed as a result of ACC? | 5-3: Reported changes in health plans' care coordination strategies for members with an SMI | N/A | Key informant interviews | Qualitative synthesis |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|---------------------|--|-------------------------------|
| Research Question 5.3: What care coordination strategies is AHCCCS conducting for its members with an SMI? | 5-4: AHCCCS' reported care coordination strategies and activities for members with an SMI served by the ACC-RBHAs | N/A | Key informant interviews | Qualitative synthesis |
| | 5-5: AHCCCS' reported challenges from any workforce shortages | N/A | Key informant interviews | Qualitative synthesis |
| Research Question 5.4: What care coordination strategies and/or activities are providers conducting for their Medicaid patients with an SMI served by the ACC-RBHAs? | 5-6: Providers' reported evolution of care coordination since the integration period and remaining barriers during the renewal period | N/A | Provider focus groups | Qualitative synthesis |
| Research Question 5.5: Did care coordination strategies improve or maintain patient engagement and follow up care for substance use and BH conditions during the renewal period? | 5-7: Percentage of members with follow-up after an ED visit for members with multiple high-risk chronic conditions | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/Post-test - ITS |
| Hypothesis 6: ACC-RBHAs will provide cost-effective care for members with an SMI. | | | | |
| Research Question 6.1: What are the costs associated with providing care for members with an SMI through the ACC-RBHAs during the renewal period? | There are no specific measures associated with this hypothesis; see the Cost Effectiveness Analysis Section for details | N/A | N/A | Cost effectiveness analysis |
| Research Question 6.2: What are the benefits/savings associated with providing care for members with an SMI through the ACC-RBHAs during the renewal period? | | | | |

Note: ACC: AHCCCS Complete Care; ACC-RBHA: ACC Contractor with a Regional Behavioral Health Agreement; AHCCCS: Arizona Health Care Cost Containment System; BH: behavioral health; ED: emergency department; IOP: intensive outpatient; IP: inpatient; ITS: interrupted time series; OP: outpatient; SMI: serious mental illness; SUD: substance use disorder

ALTCS

Table 3-5 presents the evaluation measures along with the respective comparison groups, data sources, and analytic approaches for ALTCS.³⁻⁶

Table 3-5—ALTCS Evaluation Measures

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|---|--|--|
| Hypothesis 1: Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period. | | | | |
| Research Question 1.1: Do members who are elderly, physically disabled, and/or members with a DD have the same or higher rates of access to care and primary care services compared to prior to waiver renewal? | 1-1: Percentage of members meeting minimum time/distance network standards | N/A | Member and provider data | <ul style="list-style-type: none"> - Pre-test/post-test - ITS - Subgroup analysis by county and/or urbanicity - Subgroup analysis of children and adults |
| | 1-2: Percentage of members who accessed preventive/ambulatory health services | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |
| | 1-3: Percentage of members under 21 years of age who received a comprehensive or periodic oral evaluation | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |
| | 1-4: Percentage of members who had well-child visits in the first 30 months of life | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |
| | 1-5: Percentage of members 3–21 years of age who had a well-care visit with a PCP or OB/GYN | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |
| Research Question 1.2: Do adult members who are elderly, physically disabled, and/or members with DD have the same or improved | 1-6: Percentage of members who have a primary care doctor or practitioner | Weighted national average of all other NCI-participating states | NCI-IDD survey | <ul style="list-style-type: none"> - Pre-test/post-test - DiD |

³⁻⁶ A DiD analysis will be utilized for the PPCG service model and Extended Family Support services to compare outcomes of members receiving these services to members that would otherwise qualify for the services but are not receiving services in the home. In the case that conducting a DiD analysis is not feasible, the most rigorous method supported by available data will be utilized. For more detail refer to the Methodology section.

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---|--|---|
| rates of access to care as a result of the waiver renewal? | 1-7: Percentage of members who had a complete physical exam in the past year | Weighted national average of all other NCI-participating states | - NCI-IDD survey - NCI-AD survey | - Pre-test/post-test - DiD |
| | 1-8: Percentage of members who had a dental exam in the past year | Weighted national average of all other NCI-participating states | - NCI-IDD survey - NCI-AD survey | - Pre-test/post-test - DiD |
| | 1-9: Percentage of members who had an eye exam in the past year | Weighted national average of all other NCI-participating states | - NCI-IDD survey - NCI-AD survey | - Pre-test/post-test - DiD |
| | 1-10: Percentage of members who had an influenza vaccine in the past year | Weighted national average of all other NCI-participating states | - NCI-IDD survey - NCI-AD survey | - Pre-test/post-test - DiD |
| Hypothesis 2: Quality of care will be maintained or improved during the renewal period. | | | | |
| Research Question 2.1: Do members who are elderly, physically disabled, and/or members with DD have the same or higher rates of preventive care compared to prior to waiver renewal? | 2-1: Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| Research Question 2.2: Do members who are elderly, physically disabled, and/or members with DD have the same or better management of BH conditions compared to prior to waiver renewal? | 2-2: Percentage of members with a follow-up visit after hospitalization for mental illness | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-3: Percentage of adult members who remained on an antidepressant medication treatment | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-4: Percentage of members with a follow-up visit after an ED visit for SUD | N/A | - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | - Comparison to national/regional benchmarks - Pre-test/post-test - ITS - Subgroup analysis of children and adults |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|--|---|--|-------------------------------|
| | 2-5: Percentage of members diagnosed with a mental health disorder | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| Research Question 2.3: Do adult members who are elderly, physically disabled have the same or better management of prescriptions compared to prior to waiver renewal? | 2-6: Percentage of members with dispensing events of high-risk medications | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-7: Percentage of members who know what prescription medications are for | Weighted national average of all other NCI-participating states | NCI-AD survey | - Pre-test/post-test - DiD |
| Research Question 2.4: Do members who are elderly, physically disabled, and/or members with DD have the same or higher rates of utilization of care compared to prior to waiver renewal? | 2-8: Number of emergent ED visits per 1,000 member months | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-9: Number of non-emergent ED visits per 1,000 member months | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-10: Number of IP stays per 1,000 member months | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-11: Percentage of adult IP discharges with an unplanned readmission within 30 days | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| Hypothesis 3: Quality of life for members will be maintained or improved during the renewal period. | | | | |
| Research Question 3.1: Do members have the same or higher rates of living in their own home as a result of the ALTCS waiver renewal? | 3-1: Percentage of members residing in their own home | N/A | - PMMIS - HEAplus | - Pre-test/post-test - DiD |
| | 3-2: Type of residence for adult members with DD | Weighted national average of all other NCI-participating states | - NCI-IDD survey - NCI-AD survey | - Pre-test/post-test - DiD |
| Research Question 3.2: Do adult members have the same or higher rates of feeling satisfied with their living arrangements as a | 3-3: Percentage of members who want to live somewhere else | Weighted national average of all other NCI-participating states | - NCI-IDD survey - NCI-AD survey | - Pre-test/post-test - DiD |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---|-------------------------------------|-------------------------------|
| result of the waiver renewal for members who are elderly, physically disabled, and/or members with DD? | 3-4: Percentage of members who believe services and supports help them live a good life | Weighted national average of all other NCI-participating states | - NCI-IDD survey - NCI-AD survey | - Pre-test/post-test - DiD |
| Research Question 3.3: Do adult members have the same or higher rates of feeling engaged as a result of the waiver renewal for members who are elderly, physically disabled and/or members with DD? | 3-5: Percentage of members able to go out and do things they like to do in the community | Weighted national average of all other NCI-participating states | - NCI-IDD survey - NCI-AD survey | - Pre-test/post-test - DiD |
| | 3-6: Percentage of members who have friends who are not staff or family members | Weighted national average of all other NCI-participating states | - NCI-IDD survey - NCI-AD survey | - Pre-test/post-test - DiD |
| | 3-7: Percentage of members who decide or have input in deciding their daily schedule | Weighted national average of all other NCI-participating states | NCI-IDD survey | - Pre-test/post-test - DiD |
| | 3-8: Percentage of members who usually like how they spend their time during the day | Weighted national average of all other NCI-participating states | NCI-AD survey | - Pre-test/post-test - DiD |
| Hypothesis 4: ALTCS encourages and/or facilitates care coordination among PCPs and BH practitioners. | | | | |
| Research Question 4.1: Did DES/DDD, ALTCS-EPD, or their contracted plans encounter barriers during the waiver renewal period of care for members with DD or EPD? | 4-1: DES/DDD and its contracted plans' reported barriers that persisted beyond the initial integration of care | N/A | Key informant interview | Qualitative synthesis |
| | 4-2: DES/DDD and its contracted plans' reported challenges from any workforce shortages | NA | Key informant interview | Qualitative synthesis |
| | 4-3: ALTCS-EPD and its contracted plans' reported challenges from any workforce shortages | N/A | Key informant interview | Qualitative synthesis |
| Research Question 4.2: What care coordination strategies did DES/DDD and its contracted plans implement as a result of the waiver renewal? | 4-4: DES/DDD's reported evolution of care coordination since the integration period | N/A | Key informant interview | Qualitative synthesis |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|---------------------|--|-------------------------------|
| Research Question 4.3: Did DES/DDD or its contracted plans encounter barriers to renewal of the waiver for care coordination strategies? | 4-5: DES/DDD and its contracted plans' reported barriers to implementing care coordination strategies | N/A | Key informant interview | Qualitative synthesis |
| Research Question 4.4: Did AHCCCS encounter barriers related to the waiver renewal for members with DD? | 4-6: AHCCCS' reported barriers during the waiver renewal period | N/A | Key informant interview | Qualitative synthesis |
| | 4-7: AHCCCS' reported challenges from any workforce shortages | N/A | Key informant interview | Qualitative synthesis |
| Research Question 4.5: Did providers encounter barriers related to the waiver renewal for members with DD? | 4-8: Providers' reported evolution of care coordination since the integration period and remaining barriers during the renewal period | N/A | Key informant interview | Qualitative synthesis |
| Research Question 4.6: Did care coordination strategies improve or maintain patient engagement and follow up care for substance use and BH conditions during the renewal period? | 4-9: Percentage of members with multiple high-risk chronic conditions with follow-up after ED visit | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 4-10: Percentage of members with patient engagement after discharge | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| Hypothesis 5: The PPCG service model and Extended Family Support services will maintain or increase the rate of members being served in the home. | | | | |
| Research Question 5.1: Is the percentage of members receiving services at home the same or higher after the implementation of the PPCG service model or Extended Family Support services? | 5-1: Percentage of minor members receiving services through the PPCG service model | N/A | - AHCCCS reports - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 5-2: Percentage of members receiving Extended Family Support services | N/A | AHCCCS reports | - Pre-test/post-test - ITS |
| Research Question 5.2: What is the frequency and types of services provided to ALTCS members receiving services through the PPCG service model or Extended Family Support services at home? | 5-3: Types and percentage of services provided to minor members by parents | N/A | - AHCCCS reports - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 5-4: Average number of PPCG services per utilizing member | N/A | - AHCCCS reports - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|--|--|--|-------------------------------|
| | 5-5: Average number of Extended Family Support services per utilizing member | N/A | - AHCCCS reports - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| Hypothesis 6: The PPCG service model will maintain or improve access to quality health services for the target population. | | | | |
| Research Question 6.1: Did minor members receiving services through the PPCG service model maintain or improve their access to health services? | 6-1: Percentage of members with well-child visits in the first 30 months of life | - ALTCS minors who do not receive services at home - National/regional benchmarks | - State eligibility and enrollment data - Claims/encounter data | DiD |
| | 6-2: Percentage of members 3–21 years of age with a well-care visit with a PCP or OB/GYN | - ALTCS minors who do not receive services at home - National/regional benchmarks | - State eligibility and enrollment data - Claims/encounter data | DiD |
| | 6-3: Diagnosed mental health disorders | ALTCS minors who do not receive services at home | - State eligibility and enrollment data - Claims/encounter data | DiD |
| Research Question 6.2: Did the PPCG service model impact hospital utilization among ALTCS minors? | 6-4: Number of emergent ED visits per 1,000 member months | ALTCS minors who do not receive services at home | - State eligibility and enrollment data - Claims/encounter data | DiD |
| | 6-5: Number of non-emergent ED visits per 1,000 member months | ALTCS minors who do not receive services at home | - State eligibility and enrollment data - Claims/encounter data | DiD |
| | 6-6: Number of IP stays per 1,000 member months | - ALTCS minors who do not receive services at home - National/regional benchmarks | - State eligibility and enrollment data - Claims/encounter data | DiD |
| Hypothesis 7: The PPCG service model and Extended Family Support services will improve self-assessed health outcomes. | | | | |
| Research Question 7.1: Do members receiving services through the PPCG service model or Extended Family Support services experience improved self-assessed health outcomes? | 7-1: Member rating of overall health | ALTCS members who do not receive services at home | Beneficiary survey | Post implementation trend |
| | 7-2: Member rating of overall mental or emotional health | ALTCS members who do not receive services at home | Beneficiary survey | Post implementation trend |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|--|--|-------------------------------|
| Hypothesis 8: The PPCG service model will mitigate the DCW shortage by increasing timely accessibility to care providers. | | | | |
| Research Question 8.1: Did the PPCG service model alleviate the shortage of DCWs and increase timely access to needed care? | 8-1: Average time from identification of service needs to receipt of service | ALTCS minors who do not receive services at home | - State eligibility and enrollment data - Claims/encounter data - Needs assessment | DiD |
| | 8-2: Reported challenges from workforce shortages | N/A | Key informant interview | Qualitative synthesis |
| | 8-3: Reported changes in recruitment and retention of DCW workforce | N/A | Key informant interview | Qualitative synthesis |
| | 8-4: Proportion of parent DCWs of the total DCW population | N/A | AHCCCS reports | - Pre-test/post-test - ITS |
| | 8-5: Percentage of members receiving respite services | ALTCS minors who do not receive services at home | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 8-6: Number of hours paid weekly to parents providing PPCG services | N/A | AHCCCS reports | - Pre-test/post-test - ITS |
| | 8-7: Number of weekly hours non-parent DCWs provide services to minors | N/A | AHCCCS reports | - Pre-test/post-test - ITS |
| Hypothesis 9: The PPCG service model will improve ongoing care stability for the target population. | | | | |
| Research Question 9.1: Did the PPCG service model improve or maintain care stability for ALTCS minors? | 9-1: Average number of DCWs per member per year | N/A | AHCCCS reports | - Pre-test/post-test - ITS |
| | 9-2: Percentage of members or caregivers who reported care stability as good or excellent | ALTCS minors who do not receive services at home | Beneficiary survey | Post implementation trend |
| | 9-3: DES/DDD/EPD's and providers' reported barriers to care stability | N/A | Key informant interview | Qualitative synthesis |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|---|--|-------------------------------|
| Hypothesis 10: The PPCG service model and Extended Family Support services will increase member and family unit stability through increased ability to navigate the healthcare system and decrease stress and burnout. | | | | |
| Research Question 10.1: Has Extended Family Support services restored, enhanced, or maintained family functioning by preserving effective care for members in the home and community? | 10-1: Percentage of members or caregivers who reported high levels of stress | ALTCS members who do not receive services at home | Beneficiary survey | Post implementation trend |
| | 10-2: Percentage of members or caregivers who reported their ability to navigate the healthcare system as good or excellent | ALTCS members who do not receive services at home | Beneficiary survey | Post implementation trend |
| | 10-3: Percentage of members or caregivers who reported their adjustment to disability as good or excellent | ALTCS members who do not receive services at home | Beneficiary survey | Post implementation trend |
| Research Question 10.2 Has the PPCG service model and Extended Family Support services reduced burnout and provided alternate supports for caregivers? | 10-4: Percentage of caregivers that report high levels of burnout | ALTCS members who do not receive services at home | Beneficiary survey | Post implementation trend |
| | 10-5: Percentage of parent caregivers who utilize respite services | ALTCS minors who do not receive services at home | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| Hypothesis 11: The PPCG service model and Extended Family Support services will maintain or improve community integration and well-being for members. | | | | |
| Research Question 11.1: Do members receiving services through the PPCG service model and Extended Family Support services have the same or lower rates of social isolation? | 11-1: Percentage of members or caregivers who reported low rates of social isolation | ALTCS members who do not receive services at home | Beneficiary survey | Post implementation trend |
| | 11-2: Average time spent outside the home | ALTCS members who do not receive services at home | Beneficiary survey | Post implementation trend |
| | 11-3: Relationships outside of the home | ALTCS members who do not receive services at home | Beneficiary survey | Post implementation trend |
| | 11-4: Socialization outside of the home | ALTCS members who do not receive services at home | Beneficiary survey | Post implementation trend |
| | 11-5: Type of schooling | ALTCS members who do not receive services at home | Beneficiary survey | Post implementation trend |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|--|---|--|-------------------------------|
| | 11-6: Percentage of members engaging with day program services | ALTCS members who do not receive services at home | - State eligibility and enrollment data - Claims/encounter data | DiD |
| | 11-7: The percentage of respondents who report having friendships with people other than staff or family members | Weighted national average of all other NCI-participating states | NCI-DD | - Pre-test/post-test - DiD |
| | 11-8: The percentage of respondents who report that they would like help to meet new people, make new friends, or keep in contact with friends | Weighted national average of all other NCI-participating states | NCI-DD | - Pre-test/post-test - DiD |
| | 11-9: The percentage of respondents who report often feeling lonely | Weighted national average of all other NCI-participating states | NCI-DD | - Pre-test/post-test - DiD |
| | 11-10: Community inclusion scale | Weighted national average of all other NCI-participating states | NCI-DD | - Pre-test/post-test - DiD |
| Research Question 11.2: Do members receiving services through the PPCG service model have the same or lower rates of reported cases of child maltreatment? | 11-11: Percentage of members with substantiated cases of abuse or neglect | ALTCS minors who do not receive services at home | - AHCCCS Reports | - Pre-test/post-test - DiD |
| Hypothesis 12: ALTCS provides cost-effective care. | | | | |
| Research Question 12.1: What are the costs associated with the waiver renewal? | There are no specific measures associated with this these research questions; see Cost Effectiveness Analysis Section for additional detail | N/A | N/A | Cost effectiveness analysis |
| Research Question 12.2: What are the benefits/savings associated with the waiver renewal? | | | | |
| Research Question 12.3: What are the costs associated with the PPCG service model? | | | | |
| Research Question 12.4: What are the benefits/savings associated with the PPCG service model? | | | | |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|---------------------|--|---|
| Research Question 12.5: Did utilization of services increase after the introduction of the PPCG service model? | 12-1: Number of billed hours for services provided under the PPCG service model | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - AHCCCS Reports | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |

Note: AD: aging and disabilities; AHCCCS: Arizona Health Care Cost Containment System; ALTCS: Arizona Long Term Care System; BH: behavioral health; DD: developmental disability; DES/DDD: Department of Economic Security/Division of Developmental Disabilities; DiD: difference-in-differences; ED: emergency department; HEAplus: Health-e-Arizona Plus; IDD: intellectual and developmental disabilities; IOP: intensive outpatient; IP: inpatient; ITS: interrupted time series; NCI: national core indicators; OB/GYN: obstetrician/gynecologist; OP: outpatient; PCP: primary care provider; PMMIS: Pre-Paid Medical Management Information System; PPCG: Parents as Paid Caregivers; SUD: substance use disorder

CHP

Table 3-6 presents the evaluation measures along with the respective comparison groups, data sources, and analytic approaches for CHP.

Table 3-6—CHP Evaluation Measures

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|---------------------|--|--|
| Hypothesis 1: Member access to appropriate care for routine medical conditions will be maintained or improved during the integration period. | | | | |
| Research Question 1.1: Do CHP members have the same or increased access to PCPs and specialists in the remeasurement period as compared to the baseline? | 1-1: Percentage of members meeting minimum time/distance network standards | N/A | Member and provider data | <ul style="list-style-type: none"> - Pre-test/post-test - ITS - Subgroup analysis by county and/or urbanicity |
| | 1-2: Percentage of members 3–21 years of age who had a well-care visit with a PCP or OB/GYN | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |
| | 1-3: Percentage of members under 21 years of age who received a comprehensive or periodic oral evaluation | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |
| | 1-4: Percentage of members who had well-child visits in the first 30 months of life | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---------------------|--|-------------------------------|
| Hypothesis 2: Quality of care will be maintained or improved during the integration period. | | | | |
| Research Question 2.1: Do CHP members have the same or higher rates of appropriate immunizations in the remeasurement period as compared to the baseline? | 2-1: Percentage of children 2 years of age with appropriate immunization status | N/A | - State eligibility and enrollment data - ASIIS - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-2: Percentage of adolescents 13 years of age with appropriate immunizations | N/A | - State eligibility and enrollment data - ASIIS - Claims/encounter data | - Pre-test/post-test - ITS |
| Research Question 2.2: Do CHP members have the same or better management of chronic conditions in the remeasurement period as compared to the baseline? | 2-3: Percentage of members ages 5 to 18 years who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year | N/A | - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | - Pre-test/post-test - ITS |
| Research Question 2.3: Do CHP members have the same or better management of BH conditions in the remeasurement period as compared to the baseline? | 2-4: Percentage of children and adolescents on antipsychotics with metabolic monitoring | N/A | - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | - Pre-test/post-test - ITS |
| | 2-5: Percentage of members diagnosed with a mental health disorder | N/A | - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | - Pre-test/post-test - ITS |
| | 2-6: Percentage of members with follow-up after an ED visit for mental illness | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-7: Percentage of members with follow-up after hospitalization for mental illness | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-8: Percentage of members with a follow-up visit after an ED visit for SUD | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|--|---------------------|--|---|
| Research Question 2.4: Do CHP members have the same or lower hospital utilization in the remeasurement period as compared to the baseline? | 2-9: Number of emergent ED visits per 1,000 member months | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |
| | 2-10: Number of non-emergent ED visits per 1,000 member months | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |
| | 2-11: Number of IP stays per 1,000 member months | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |
| Hypothesis 3: CHP encourages and/or facilitates care coordination among PCPs and BH practitioners. | | | | |
| Research Question 3.1: What barriers did Mercy Care DCS CHP anticipate/encounter during the integration? | 3-1: Mercy Care DCS CHP's anticipated/reported barriers during transition | N/A | <ul style="list-style-type: none"> - Key informant interviews - Provider focus groups | Qualitative synthesis |
| | 3-2: Mercy Care DCS CHP's reported challenges from any workforce shortages | N/A | <ul style="list-style-type: none"> - Key informant interviews - Provider focus groups | Qualitative synthesis |
| Research Question 3.2: What care coordination strategies did Mercy Care DCS CHP plan/implement during integration? | 3-3: Mercy Care DCS CHP's planned/reported care coordination activities | N/A | <ul style="list-style-type: none"> - Key informant interviews - Provider focus groups | Qualitative synthesis |
| Research Question 3.3: What barriers to implementing care coordination strategies did Mercy Care DCS CHP anticipate/encounter? | 3-4: Mercy Care DCS CHP's anticipated/reported barriers in implementing care coordination strategies | N/A | <ul style="list-style-type: none"> - Key informant interviews - Provider focus groups | Qualitative synthesis |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|---------------------|----------------|-----------------------------|
| Hypothesis 4: CHP provides cost-effective care. | | | | |
| Research Question 4.1: What are the costs associated with the integration of care in CHP? | There are no specific measures associated with this hypothesis; see Cost Effectiveness Analysis Section for additional detail | N/A | N/A | Cost effectiveness analysis |
| Research Question 4.2: What are the benefits/savings associated with the integration of care in CHP? | | | | |

Note: ASIS: Arizona State Immunization Information System; BH: behavioral health; CHP: Comprehensive Health Plan; DCS: Department of Child Safety; ED: emergency department; IOP: intensive outpatient; IP: inpatient; ITS: interrupted time series; OB/GYN: obstetrician/gynecologist; OP: outpatient; PCP: primary care provider; SUD: substance use disorder

KidsCare

Table 3-7 presents the evaluation measures along with the respective comparison groups, data sources, and analytic approaches for KidsCare.

Table 3-7—KidsCare Evaluation Measures

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|---------------------|--|---------------------------|
| Hypothesis 1: Expanding KidsCare eligibility will increase the number of members eligible for and enrolled in KidsCare and reduce the number of children losing eligibility for procedural reasons. | | | | |
| Research Question 1.1: Did expanding KidsCare eligibility increase the number of members enrolled in KidsCare? | 1-1: Number of members enrolled in the KidsCare program | N/A | - AHCCCS reports - State eligibility and enrollment data | Descriptive analysis |
| | 1-2: Percentage of KidsCare members out of estimated children eligible for KidsCare | N/A | - AHCCCS reports - IPUMS ACS - State eligibility and enrollment data | Post implementation trend |
| Research Question 1.2: Did expanding KidsCare eligibility reduce the number of uninsured children? | 1-3: Number of uninsured children in Arizona | National Rates | ACS | - Pre/post test - ITS |
| Research Question 1.3: Does the KidsCare program promote continuity of care for its members? | 1-4: Average number of months enrolled | N/A | State eligibility and enrollment data | Post implementation trend |
| | 1-5: Percentage of KidsCare members who re-enroll after a gap of up to six months | N/A | State eligibility and enrollment data | Post implementation trend |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|---|---|--|
| | 1-6: Average number of gaps in Medicaid coverage for KidsCare members who re-enroll after a gap of up to six months | N/A | State eligibility and enrollment data | Post implementation trend |
| | 1-7: Average number of days per gap in Medicaid coverage for KidsCare members who re-enroll after a gap of up to six months | N/A | State eligibility and enrollment data | Post implementation trend |
| | 1-8: Percentage of KidsCare members due for renewal who complete the renewal process | N/A | - State eligibility and enrollment data - Health-e-Arizona Plus (HEAplus) | - Pre/post Test - ITS |
| Hypothesis 2: Expanding KidsCare eligibility will improve access to care and increase primary care service utilization for CHIP members. | | | | |
| Research Question 2.1: Did expanding KidsCare eligibility improve access to healthcare for CHIP members? | 2-1: Percentage of members meeting minimum time/distance network standards | KidsCare members under 200 percent of the FPL | Member and provider data | - Post implementation trend - Subgroup analysis by county and/or urbanicity |
| Research Question 2.2: Did expanding KidsCare eligibility maintain or increase the utilization of primary care and preventative health services? | 2-2: Percentage of children two years of age with appropriate immunization status | - KidsCare members under 200 percent of the FPL - National/regional benchmarks | - State eligibility and enrollment data - ASIIS - Claims/encounter data | Post implementation trend |
| | 2-3: Percentage of adolescents 13 years of age with appropriate immunizations | - KidsCare members under 200 percent of the FPL - National/regional benchmarks | - State eligibility and enrollment data - ASIIS - Claims/encounter data | Post implementation trend |
| | 2-4: Percentage of members with well-child visits in the first 30 months of life | - KidsCare members under 200 percent of the FPL - National/regional benchmarks | - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 2-5: Percentage of members 3-18 years of age with a well-care visit with a PCP or OB/GYN | - KidsCare members under 200 percent of the FPL | - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|--|--|---|
| | | - National/region- al benchmarks | | |
| | 2-6: Percentage of children who received any medical care in the past 12 months | - Uninsured children - National rates | National Survey of Children's Health | - Pre/post Test - ITS - Post implementation trend |
| | 2-7: Percentage of children who did not receive needed healthcare in the past 12 months | - Uninsured children - National rates | National Survey of Children's Health | - Pre/post Test - ITS - Post implementation trend |
| | 2-8: Percentage of children who did not receive needed healthcare due to cost in the past 12 months | - Uninsured children - National rates | National Survey of Children's Health | - Pre/post Test - ITS - Post implementation trend |
| | 2-9: Percentage of children screened for risk of developmental, behavioral, and social delays in the 12 months prior to third birthday | - KidsCare members under 200 percent of the FPL - National/region- al benchmarks | - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 2-10: Percentage of children who had an outpatient visit with a PCP who received a weight assessment or nutrition counseling | - KidsCare members under 200 percent of the FPL - National/region- al benchmarks | - State eligibility and enrollment data - Claims/encounter data - National/regional benchmarks | Post implementation trend |
| Research Question 2.3: Did expanding KidsCare eligibility improve access to dental care for CHIP members? | 2-11: Percentage of members under 21 who received a comprehensive or periodic oral evaluation | KidsCare members under 200 percent of the FPL National/regional benchmarks | - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 2-12: Percentage of members under 21 who received a topical fluoride application | - KidsCare members under 200 percent of the FPL - National/region- al benchmarks | - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|---|--|---------------------------|
| Hypothesis 3: Expanding KidsCare eligibility will improve member care satisfaction. | | | | |
| Research Question 3.1: Did expanding KidsCare eligibility improve member satisfaction with the care received? | 3-1: Member rating of personal doctor | N/A | Beneficiary survey | Post implementation trend |
| | 3-2: Member response to getting needed care right away | N/A | Beneficiary survey | Post implementation trend |
| | 3-3: Member response to getting an appointment for a check-up or routine care at a doctor's office or clinic | N/A | Beneficiary survey | Post implementation trend |
| Hypothesis 4: Expanding KidsCare eligibility will improve quality of care for members. | | | | |
| Research Question 4.1: Did expanding KidsCare eligibility improve the management of BH conditions? | 4-1: Percentage of children and adolescents on antipsychotics with metabolic monitoring | - KidsCare members under 200 percent of the FPL - National/regional benchmarks | - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 4-2: Percentage of children on ADHD medication with a follow up during the 30-day initiation phase and the 210-day continuation phase | - KidsCare members under 200 percent of the FPL - National/regional benchmarks | - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 4-3: Follow up after ED visit for substance use | - KidsCare members under 200 percent of the FPL - National/regional benchmarks | - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 4-4: Follow up after hospitalization for mental illness | - KidsCare members under 200 percent of the FPL - National/regional benchmarks | - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 4-5: Follow-up after ED visit for mental illness | - KidsCare members under 200 percent of the FPL - National/regional benchmarks | - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|--|--|---------------------------|
| | 4-6: Diagnosed mental health disorders | <ul style="list-style-type: none"> - KidsCare members under 200 percent of the FPL - National/region-al benchmarks | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| Research Question 4.2: Did expanding KidsCare eligibility impact hospital utilization? | 4-7: Number of emergent ED visits per 1,000 member months | KidsCare members under 200 percent of the FPL | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 4-8: Number of non-emergent ED visits per 1,000 member months | KidsCare members under 200 percent of the FPL | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 4-9: Number of IP stays per 1,000 member months | <ul style="list-style-type: none"> - KidsCare members under 200 percent of the FPL - National/region-al benchmarks | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| Research Question 4.3: Did expanding KidsCare eligibility maintain or improve the management of chronic conditions for members? | 4-10: Percentage of members ages 5 to 18 who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year | <ul style="list-style-type: none"> - KidsCare members under 200 percent of the FPL - National/region-al benchmarks | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 4-11: Number of children hospitalized for asthma conditions | KidsCare members under 200 percent of the FPL | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 4-12: Number of children diagnosed with diabetes | KidsCare members under 200 percent of the FPL | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 4-13: Number of hospitalizations or ED visits for diabetes | Children not enrolled in AHCCCS | <ul style="list-style-type: none"> - Arizona Department of Health Services/Bureau of Public Health Statistics Hospital Discharge Data - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---|--|---------------------------|
| | 4-14: Percentage of children with diabetes whose lab tests indicate control of their conditions | KidsCare members under 200 percent of the FPL | - State eligibility and enrollment data - The independent evaluator will work with AHCCCS to determine if laboratory data will be available | Post implementation trend |
| Research Question 4.4: Did expanding KidsCare eligibility improve parental understanding of their child's care? | 4-15: Parent understanding of their child's health | N/A | Beneficiary survey | Post implementation trend |
| | 4-16: Parent understanding of their child's care needs | N/A | Beneficiary survey | Post implementation trend |
| | 4-17: Parent knowledge of when to seek care for their child | N/A | Beneficiary survey | Post implementation trend |
| Hypothesis 5: Expanding KidsCare will improve self-assessed health outcomes. | | | | |
| Research Question 5.1: Did expanding KidsCare improve member perception of health outcomes? | 5-1: Percentage of members who reported a rating of overall health as very good or excellent | N/A | Beneficiary survey | Post implementation trend |
| | 5-2: Percentage of members who reported a rating of overall mental or emotional health as very good or excellent | N/A | Beneficiary survey | Post implementation trend |
| Hypothesis 6: Expanding KidsCare will yield cost-effective care for members. | | | | |
| Research Question 6.1: Did the KidsCare program provide cost-effective care for members? | 6-1: Total cost of care for KidsCare expansion members and KidsCare members under 200 percent of the FPL | KidsCare members under 200 percent of the FPL | - State eligibility and enrollment data - Claims/encounter data | Post implementation trend |
| | 6-2: Change in reported medical debt | National rates | - SIPP - Beneficiary survey | Post implementation trend |

Note: ACS: American Community Survey; ADHD: attention-deficit hyperactivity disorder; AHCCCS: Arizona Health Care Cost Containment System; ASIS: Arizona State Immunization Information System; BH: behavioral health; CHIP: Children's Health Insurance Program; ED: emergency department; FPL: federal poverty level; HEAplus: Health-e-Arizona Plus; ITS: interrupted time series; IP: inpatient; IPUMS: Integrated Public Use Microdata Series; OB/GYN: obstetrician/gynecologist; PCP: primary care provider; SIPP: Survey of Income and Program Participation

PQC

Table 3-8 presents the evaluation measures along with the respective comparison groups, data sources, and analytic approaches for the PQC waiver.

Table 3-8—PQC Evaluation Measures

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---------------------|--|---|
| Hypothesis 1: Eliminating PQC will increase the likelihood and continuity of enrollment. | | | | |
| Research Question 1.1: Do eligible people without PQC enroll in Medicaid at the same rates as other eligible people with PQC? | 1-1: Percentage of Medicaid enrollees per month by eligibility group out of estimated eligible Medicaid recipients | N/A | IPUMS ACS | Pre-test/post-test |
| | 1-2: Percentage of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage out of estimated eligible Medicaid recipients | N/A | - Eligibility and enrollment data - IPUMS ACS | - ITS - Pre-test/post-test |
| | 1-3: Number of Medicaid enrollees per month by eligibility group and/or per-capita of State | N/A | - Eligibility and enrollment data - State of Arizona Office of Economic Opportunity | Rapid-cycle reporting—statistical process control chart |
| | 1-4: Number of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage | N/A | Eligibility and enrollment data | Rapid-cycle reporting—statistical process control chart |
| Research Question 1.2: What is the likelihood of enrollment continuity for those without PQC compared to other Medicaid members with PQC? | 1-5: Percentage of Medicaid members due for renewal who complete the renewal process | N/A | Eligibility and enrollment data | - Pre-test/post-test - ITS |
| | 1-6: Average number of months with Medicaid coverage | N/A | Eligibility and enrollment data | - Pre-test/post-test - ITS |
| Research Question 1.3: Do members without PQC who disenroll from Medicaid have shorter enrollment gaps than other members with PQC? | 1-7: Percentage of Medicaid members who re-enroll after a gap of up to six months | N/A | Eligibility and enrollment data | - Pre-test/post-test - ITS |
| | 1-8: Average number of months without Medicaid coverage for members who re-enroll after a gap of up to six months | N/A | Eligibility and enrollment data | - Pre-test/post-test - ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|---------------------|---------------------------------------|---|
| | 1-9: Average number of gaps in Medicaid coverage for members who re-enroll after a gap of up to six months | N/A | Eligibility and enrollment data | Pre-test/post-test |
| | 1-10: Average number of days per gap in Medicaid coverage for members who re-enroll after a gap of up to six months | N/A | Eligibility and enrollment data | Pre-test/post-test |
| Hypothesis 2: Eliminating PQC will increase enrollment of eligible people when they are healthy. | | | | |
| Research Question 2.1: Do newly enrolled members without PQC have higher self-assessed health status? | 2-1: Member reported rating of overall health | N/A | State beneficiary survey | Chi-square |
| | 2-2: Member reported rating of overall mental or emotional health | N/A | State beneficiary survey | Chi-square |
| | 2-3: Percentage of members who reported prior year ED visit | N/A | State beneficiary survey | Chi-square |
| | 2-4: Percentage of members who reported prior year hospital admission | N/A | State beneficiary survey | Chi-square |
| | 2-5: Percentage of members who reported getting healthcare three or more times for the same condition or problem | N/A | State beneficiary survey | Chi-square |
| Hypothesis 3: Health outcomes will be better for those without PQC compared to Medicaid members with PQC. | | | | |
| Research Question 3.1: Do members without PQC have better health outcomes when compared to outcomes prior to the renewal period rates and out-of-state outcomes for those with PQC? | 3-1: Member reported rating of overall health for all members | N/A | - State beneficiary survey - BRFSS | - Comparison to national benchmarks - Pre-test/post-test |
| | 3-2: Member reported rating of overall mental or emotional health for all members | N/A | State beneficiary survey | - Comparison to national benchmarks - Pre-test/post-test |
| Hypothesis 4: Eliminating PQC will not have adverse financial impacts on consumers. | | | | |
| Research Question 4.1: Does the PQC waiver lead to changes in the incidence of member medical debt? | 4-1: Percentage of members who reported medical debt | N/A | - State beneficiary survey - BRFSS | Comparison to other states |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---------------------|---|---|
| Hypothesis 5: Eliminating PQC will not adversely affect access to appropriate care for routine medical conditions. | | | | |
| Research Question 5.1: Do members without PQC have the same or higher rates of office visits compared to members with PQC? | 5-1: Member response to getting needed care right away | N/A | State beneficiary survey | - Comparison to national benchmarks - Pre-test/post-test |
| | 5-2: Member response to getting an appointment for a check-up or routine care at a doctor's office or clinic | N/A | State beneficiary survey | - Comparison to national benchmarks - Pre-test/post-test |
| Research Question 5.2: Do members without PQC have the same or higher rates of service and facility utilization compared to rates prior to waiver renewal with PQC? | 5-3: Percentage of members with a visit to a specialist (e.g., eye doctor, ENT, cardiologist) | N/A | - Eligibility and enrollment data - Administrative claims data | - Comparison to national benchmarks - Pre-test/post-test |
| Hypothesis 6: Eliminating PQC will not result in reduced member satisfaction. | | | | |
| Research Question 6.1: Do members without PQC have the same or higher satisfaction with their healthcare compared to prior to waiver renewal with PQC? | 6-1: Member rating of overall healthcare | N/A | State beneficiary survey | Pre-test/post-test |
| Hypothesis 7: Eliminating PQC will generate cost savings over the term of the waiver. | | | | |
| Research Question 7.1: What are the costs associated with eliminating PQC? | There are no specific measures associated with this hypothesis; see Cost Effectiveness Analysis Section for additional detail | N/A | N/A | Cost effectiveness analysis |
| Research Question 7.2: What are the benefits/savings associated with eliminating PQC? | | | | |
| Research Question 7.3: Do costs to non-AHCCCS entities stay the same or decrease after implementation of the waiver compared to before? | 7-1: Reported costs for uninsured and/or likely eligible Medicaid recipients among potentially impacted providers and/or provider networks | N/A | - Provider focus groups - HCRIS - HCUP-SID | - ITS - Qualitative synthesis |

Note: ACS: American Community Survey; BRFSS: Behavioral Risk Factor Surveillance System; ED: emergency department; ENT: otolaryngologist; HCRIS: Healthcare Cost Report Information System; HCUP-SID: Healthcare Cost and Utilization Project State Inpatient Database; IPUMS: Integrated Public Use Microdata Series; ITS: interrupted time series; PQC: prior quarter coverage

Tribal Dental Authority

Table 3-9 presents the evaluation measures along with the respective comparison groups, data sources, and analytic approaches for the Tribal Dental Authority.

Table 3-9—Tribal Dental Authority Evaluation Measures

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|---------------------|--|--|
| Hypothesis 1: Member access to appropriate, routine dental care will be maintained or improved during the renewal period. | | | | |
| Research Question 1.1: Did the waiver result in an increased number of dental providers practicing in IHS and 638 facilities? | 1-1: Percentage of members meeting minimum time/distance network standards | N/A | Member and provider data | <ul style="list-style-type: none"> - Pre-test/post-test - ITS - Subgroup analysis by county and/or urbanicity - Post-implementation trend analysis |
| | 1-2: Number of dental providers practicing in IHS facilities | N/A | Member and provider data | <ul style="list-style-type: none"> - Pre-test/post-test - ITS - Post-implementation trend analysis |
| | 1-3: IHS/Tribal 638 staff's reported change in practicing dental providers after the implementation of the expanded tribal dental benefit | N/A | Key informant interviews | Qualitative Synthesis |
| | 1-4: IHS/Tribal 638 staff's reported barriers before, during, and shortly following the implementation of the expanded tribal dental benefit | N/A | Key informant interviews | Qualitative Synthesis |
| | 1-5: IHS/Tribal 638 staff's reported changes in quality of care and access to care for tribal members after the implementation of the tribal dental benefit | N/A | Key informant interviews | Qualitative Synthesis |
| Research Question 1.2: Do members have the same or better access to routine, preventive dental services | 1-6: Percentage of adult members who received a comprehensive or periodic oral evaluation | N/A | <ul style="list-style-type: none"> - State eligibility and enrollment data - Claims/encounter data | <ul style="list-style-type: none"> - Pre-test/post-test - ITS - Post-implementation trend analysis |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|---------------------|--|---|
| compared to prior to the demonstration? | 1-7: Number of adult members receiving any covered service in the plan year | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - Post-implementation trend analysis |
| Hypothesis 2: Quality of care will be maintained or improved during the renewal period. | | | | |
| Research Question 2.1: Do members have the same or better management of chronic dental conditions compared to prior to the demonstration? | 2-1: Percentage of adult members with diabetes who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - Post-implementation trend analysis |
| | 2-2: Percentage of enrolled adults ages 30 years and older with a history of periodontitis who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - Post-implementation trend analysis |
| | 2-3: Percentage of enrolled adults aged 30 years and older with a history of periodontitis who received an oral prophylaxis or scaling/root planing or periodontal maintenance visit at least two times within the reporting year | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - Post-implementation trend analysis |
| | 2-4: Percentage of enrolled adults ages 18 years and older who are at “elevated” risk (i.e., “moderate” or “high”) and received at least two topical fluoride applications within the reporting year | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - Post-implementation trend analysis |
| Research Question 2.2: Do members have equal or lower ED or hospital utilization compared to prior to the demonstration? | 2-5: Number of ED visits for ambulatory care sensitive dental conditions | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - Post-implementation trend analysis |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|---|--|---|
| | 2-6: Percentage of ambulatory care sensitive dental condition ED visits among adults who visited a dentist after an ED visit | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - Post-implementation trend analysis |
| Hypothesis 3: Member oral health outcomes will be maintained or improved during the renewal period. | | | | |
| Research Question 3.1: Do members have the same or better oral health outcomes compared to prior to the demonstration? | 3-1: Percentage of members with permanent tooth loss | AI/AN Medicaid members responding to BRFSS survey from all other states that participated | BRFSS | - Pre-test/post-test - DiD |
| | 3-2: Percentage of members with dental caries | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - Post-implementation trend analysis |
| | 3-3: Percentage of members with periodontitis | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - Post-implementation trend analysis |
| | 3-4: Percentage of members with oral cancer | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - Post-implementation trend analysis |
| Research Question 3.2: Has the rate of emergency dental services decreased following implementation of the waiver? | 3-5: Percentage/number of members that utilized an emergency dental service | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - Post-implementation trend analysis |
| Hypothesis 4: The Tribal Dental Authority program provides cost-effective care. | | | | |
| Research Question 4.1: What are the costs associated with providing care under the Tribal Dental Authority? | There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail | N/A | N/A | Cost-effectiveness analysis |
| Research Question 4.2: What are the benefits/savings associated with providing care under the Tribal Dental Authority? | | | | |

Note: AI/AN: American Indian/Alaska Native; BRFSS: Behavioral Risk Factor Surveillance System; ED: emergency department; IHS: Indian Health Service; ITS: interrupted time series

Data Sources

The evaluation of the Waiver will utilize a mixed-methods evaluation design. Quantitative methods include descriptive statistics showing change over time in both counts and rates for specific metrics, or ITS and trend analyses to assess whether the Waiver interventions affected changes across specific outcome measures. For select measures employing a DiD approach, an out-of-state comparison group will be considered. The weighted national average of other NCI-participating states will serve as the comparison group for the ALTCS-DD and ALTCS-EPD populations. AI/AN Medicaid members responding to the BRFSS survey from all other states that participated in the survey will be used a comparison group for one measure utilizing a DiD approach to assess the Tribal Dental Authority. Out-of-state Medicaid data through the Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF) may be used if deemed viable at the time each evaluation report is produced. A qualitative component of the Waiver will also be completed. Providers, subcontracted networks, and staff at AHCCCS and/or health plans will be interviewed to share their perceptions of and experience with the Waiver. In addition, beneficiary surveys will be utilized to better understand patient experience with the Waiver.

Multiple data sources, shown in Table 3-10, will be utilized to evaluate the program-specific hypotheses. In general, these include administrative data, beneficiary survey data, aggregate data, national survey efforts and datasets, provider focus groups, and key informant interviews.

Table 3-10—Major Data Sources

| Data Sources | Administrative Data | Member/Provider Location Data | Beneficiary Surveys | National Benchmarks | Provider Focus Groups | Key Informant Interviews |
|-------------------------|---------------------|-------------------------------|---------------------|---------------------|-----------------------|--------------------------|
| ACC | X | X | X | X | X | X |
| ACC-RBHA | X | X | X | | X | X |
| ALTCS | X | X | X | X | | X |
| CHP | X | X | | X | X | X |
| KidsCare | X | | X | X | | |
| PQC | X | | X | X | X | |
| Tribal Dental Authority | X | X | | | | X |

Administrative Data

Administrative data extracted from the Pre-Paid Medical Management Information System (PMMIS) will be used to calculate most measures proposed in this evaluation design. These data include administrative claims/encounter data, member eligibility, enrollment, and demographic data. Provider data will also be utilized as necessary to identify provider type and member attribution.

Use of fee-for-service (FFS) claims, and managed care encounters will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded from all evaluations because these types of records introduce a level of uncertainty (from matching adjustments and third-party liabilities to the index claims) that can impact reported rates and cost calculations.

To evaluate the Tribal Dental Authority, the independent evaluator will assess whether administrative data from the PMMIS contains the necessary data fields to support calculation of dental measures. If additional data

elements are required, the independent evaluator will work collaboratively with AHCCCS to obtain additional sources of data on dental services provided to individuals who seek care at an IHS or 638 Tribal facility.

Beneficiary Surveys

Beneficiary surveys will be used to assess members' ability to obtain timely appointments, satisfaction and experience with healthcare, and their perception that their personal doctor seemed informed about the care they received from other providers. Consumer Assessment of Healthcare Providers and Systems (CAHPS®)³⁻⁷ surveys are often used to assess satisfaction with provided healthcare services and are adapted to elicit information addressing the research hypotheses related to members' continuity of healthcare coverage, and overall health status and utilization. Results will be compared against national benchmarks where available. The sampling frame for the survey will be identified through eligibility and enrollment data, with specific enrollment requirements being finalized upon inspection of the data. Typically, members are drawn from those enrolled continuously during the last six months of the measurement period, with no more than a one-month gap in enrollment.

Beneficiary surveys will be conducted for the ACC, PQC, and ACC-RBHA programs. To the extent possible, the independent evaluator will align multiple surveys to be distributed at the same time to increase response rates across all programs with overlapping populations. A range of sampling protocols will be considered including simple random samples; stratified random samples; multistage stratifications (i.e., cluster); and targeted oversamples. It is expected that cross-sectional surveys will be conducted once during 2025 and once during 2027.

Because evaluations for several concurrent waivers are planned, the State and its independent evaluator will seek to streamline survey administration across evaluations to minimize the number of separate survey rounds required, thereby minimizing the burden on members, and maximizing the response rate. Therefore, the sampling strategy described above may be revised based on enrollment across waivers. Two survey instruments will be used depending on the population:

- Children: CAHPS 5.0 Child Medicaid Health Plan Survey with the Healthcare Effectiveness Data and Information Set (HEDIS®)³⁻⁸ supplemental item set
- Adults: CAHPS 5.0 Adult Medicaid Health Plan Survey with the HEDIS supplemental item set

To maximize response rates, a mixed-mode methodology (e.g., mail and web-based) for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to members has been shown to increase response rates and will be incorporated into survey administration. The following sections describe the unique survey considerations for each program.

ACC

Members in ACC plans and ACC members in ACC-RBHA plans (i.e., non-SMI population) will be sampled to provide a statistically valid estimate at the program level. The estimate will provide sufficient statistical power to detect a difference in a rate of at least 10 percentage points with 95 percent confidence and 80 percent power for ACC adults and children separately. Assuming a response rate of approximately 15 percent with a 10 percent oversample, the maximum number of surveys to be sent is 2,845 for adults and 2,845 for children, for a total of

³⁻⁷ CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

³⁻⁸ HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

5,690 surveys in each round. Simple random sampling will be conducted pooled across all plans serving the ACC population. Separate samples will be drawn for adults and children. Two rounds of surveys are planned to assess member experience in state fiscal year (SFY) 2025 and SFY 2027.

ACC-RBHA

Similar to the ACC population, members with an SMI served by ACC-RBHA plans will be sampled to provide a statistically valid estimate at the program level. The estimate will provide sufficient statistical power to detect a difference in a rate of at least 10 percentage points with 95 percent confidence and 80 percent power. Assuming a response rate of approximately 15 percent with a 10 percent oversample, the maximum number of surveys to be sent is 2,845. Sampling will be conducting randomly pooled across all ACC-RBHA plans. Two rounds of surveys are planned to assess member experience in SFY 2025 and SFY 2027.

ALTCS

Members receiving care through the Parents as Paid Caregivers (PPCG) service model and Extended Family Support services in the ALTCS program will be sampled to provide a statistically valid estimate at the program level. The estimate will provide sufficient statistical power to detect a difference in a rate of at least 10 percentage points with 95 percent confidence and 80 percent power. Assuming a response rate of approximately 15 percent with a 10 percent oversample, the maximum number of surveys to be sent is 2,845. Sampling will be conducted randomly, pooled across all ALTCS plans. Two rounds of surveys are planned to assess member experience in SFY 2025 and SFY 2027.

KidsCare

Survey-based measures related to the expansion of KidsCare will be based on the CAHPS survey, specifically the CAHPS Item Set for Children with Chronic Conditions (CCC), which is typically administered to the KidsCare population. An additional 500 surveys will be sent to KidsCare expansion members to ensure a sufficient sample size. Typically, the KidsCare CAHPS CCC is sent to a random sample of 1,650 members, with an additional targeted subsample of 1,840 members with chronic conditions, based on claims/encounter data. Historically, the response rate for the KidsCare CAHPS has been approximately 12.46 percent. By coordinating with the KidsCare CAHPS survey, data can be collected at lower cost and with less inconvenience for members.

PQC

Measures pertaining to Hypotheses 2, 3, 4, 5, and 6 will be based on CAHPS and will include CAHPS-like questions specific to the PQC evaluation. The independent evaluator will conduct two rounds of surveys as part of the Waiver renewal evaluation to ask recipients about their self-reported health status. The elimination of PQC is not expected to reduce self-reported health. Rather, the elimination of PQC is expected to increase the enrollment of eligible individuals when they are healthy and reduce the disenrollment of individuals when they are healthy. The evaluation design will capture survey data from newly enrolled members at multiple points in time to assess whether their self-reported health status is increasing as expected.

Measures pertaining to Hypothesis 2 will also be based on CAHPS-like questions. Unlike a traditional CAHPS survey that is limited to members enrolled for at least five of the past six months, the self-reported data needed for Hypothesis 2 must also be collected for a sample of members who are newly enrolled. The sampling frame will be adjusted to include a sample of members who have been enrolled within the past month to capture the health status of members who did not have a recent spell of Medicaid coverage. All members will be eligible to be surveyed, and members who are newly enrolled will be compared to continuously enrolled members who have

had sustained Medicaid coverage. This will allow for comparison of health status between members who are newly enrolled compared to those who have had sustained coverage. A second survey with the same questions will be administered to similar groups later in the Waiver to evaluate how health outcomes between members who are newly enrolled and those who are not newly enrolled have changed over time. Because CAHPS surveys are traditionally limited to members who have been enrolled for at least five of the past six months, and exclude any newly enrolled members, historical data do not exist to serve as a comparison. Additionally, this survey will not allow for causal inferences to be drawn regarding the impact of the PQC waiver. The survey results, however, will provide a descriptive statement about the self-reported health status of members over time to determine if the expected improvements manifest.

Adult members who are not pregnant or postpartum will be randomly sampled to provide a statistically valid estimate at the State level. The estimate will provide sufficient statistical power to detect a difference in a rate of at least 10 percentage points with 95 percent confidence and 80 percent power. Assuming a response rate of approximately 15 percent with a 10 percent oversample, the maximum number of surveys to be sent is 2,845. Sampling will be conducting randomly pooled across all ACC and ACC-RBHA plans. Two rounds of surveys are planned to assess member experience in SFY 2025 and SFY 2027.

Member and Provider Location Data

Member and provider data will be used to calculate the number and percentage of providers within a pre-defined time or distance from members. The PMMIS identifies provider addresses, and the Client Assessment and Tracking System (CATS) identifies member addresses.

ADHS

ASIIS

The Arizona State Immunization Information System (ASIIS) will be used to calculate measures pertaining to immunization history. ASIIS is Arizona's immunization registry, collects immunization information and demographic data. Providers are mandated under A.R.S §36-135 to report all immunizations administered to individuals ages 18 years and younger.³⁻⁹

National Benchmarks

National or regional benchmarks will be incorporated where possible to provide contextual references of performance for standardized HEDIS measures. Because national benchmarks are provided for state Medicaid managed care populations as a whole, their applicability across waiver programs is limited. The ACC program, which covers approximately 93.8 percent of adults and children on Medicaid, is the most representative of the general population, and therefore provides the most appropriate comparison to national benchmarks.

³⁻⁹ Arizona State Legislature. A.R.S. §36-135. Available at: <https://www.azleg.gov/viewdocument/?docName=http://www.azleg.gov/ars/36/00135.htm>. Accessed on: Jul 6, 2023.

Additional Data Sources

T-MSIS

The independent evaluator will consider utilizing an out-of-state comparison group using member-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for member-level data is T-MSIS maintained and collected by the Centers for Medicare & Medicaid Services (CMS). All 50 states, Washington D.C., and two territories are currently submitting data monthly.³⁻¹⁰ It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support individual-level matching to PQC members. However, as of the submission date of this evaluation design, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group, such as pre-intervention claims data or national survey data to provide additional context.

Laboratory Data

If available, laboratory data will be used to monitor diabetes management among children in the KidsCare program. This data will provide insights into the change in hemoglobin, fasting plasma glucose, and urinalysis results among members diagnosed with diabetes or prediabetes to assess condition management. The independent evaluator will work with AHCCCS to determine the best way to access this data.

ACS

Data from the American Community Survey (ACS) will be used to determine the number of uninsured children in Arizona for assessing KidsCare Measure 1-3 (*Number of Uninsured Children in Arizona*).

AHCCCS Reports

Data from the Maintenance of Effort (MOE) report provided by AHCCCS will be used to analyze changes in the recruitment and retention of the direct care worker (DCW) workforce. Additionally, AHCCCS' electronic visit verification (EVV) system data will identify parents who provide care to their minor children. This information will help assess changes in the proportion of parent DCWs relative to total DCWs as a result of the PPCG service model. Further, AHCCCS reports also encompass population statistics that are published monthly by AHCCCS. These reports will be used to evaluate the KidsCare program and assess changes in enrollment numbers following program implementation.

BRFSS

The independent evaluator will consider utilizing an out-of-state comparison group using member-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source is the BRFSS. BRFSS is a health-focused telephone survey developed by the Centers for Disease Control and Prevention (CDC) that collects data from approximately 400,000 adults annually across all 50 states, Washington D.C., and three territories.³⁻¹¹ The questionnaire generally consists of two components: a core component and an

³⁻¹⁰ Centers for Medicare & Medicaid Services. Transformed Medicaid Statistical Information System (T-MSIS). Available at: <https://www.medicare.gov/medicaid/data-and-systems/macbis/tmsis/index.html>. Accessed on: Jul 30, 2023.

³⁻¹¹ Centers for Disease Control and Prevention. About BRFSS. Available at: <https://www.cdc.gov/brfss/about/index.htm>. Accessed on: Jul 20, 2023.

optional component. Beneficiary surveys will be used to assess PQC Measure 3-1 (*General health status*) and ACC Measure 4-1 (*Percentage of members who reported a rating of overall health as very good or excellent*) among the Waiver population; however, rates will also be benchmarked against statewide and national rates from the BRFSS core module Health Status. Similarly, PQC Measure 4-1 (*Percentage of members who reported medical debt*) will use data from other states that utilize the BRFSS module Health Care Access, where available. The Medicaid coverage indicator from the optional/core (depending on the year) module Healthcare Access may be used to identify responses among individuals similar to AHCCCS members.³⁻¹² However, fewer than a dozen states included the optional Healthcare Access module in a given year historically, which may limit the availability and selection of potential benchmark states. For these measures, BRFSS results from other states will be used as a benchmark to provide context and triangulate findings to other states' Medicaid populations. Additionally, the Tribal Dental Authority Measure 3-1 (*Percentage of members with permanent teeth lost*) employs a DiD approach and will utilize data from the BRFSS core module Oral Health to construct a comparison group. Contingent on the availability of data, respondents to the BRFSS survey from all other states may serve as a comparison group to Waiver members.

To provide an understanding of the capabilities of the data for performing statistical analyses, the independent evaluator will calculate the statistical power associated with any out-of-state comparison group data and report the results.

NCI-IDD/NCI-AD

The NCI surveys national Medicaid members with intellectual or developmental disabilities. The NCI-Intellectual and Developmental Disabilities (NCI-IDD) and NCI-Aging and Disabilities (AD) surveys are conducted in-person, and it is expected that half of states participate each year. Arizona has participated in the NCI-IDD survey most years between SFY 2015 and SFY 2021 (the latest year available; Arizona did not participate in SFY 2020) and recently began conducting the NCI-AD surveys. Survey periods cycle annually between July 1 to June 30, with states submitting data by June 30. Each state is required to survey at least 400 individuals, allowing for a robust comparison. However, member-level data are not publicly available, and information is not publicly provided about the methodology and survey administration which could vary across states. State participation is voluntary, and states participation varies by year and survey section. Beginning in 2021, AHCCCS allocated funds to participate in both the NCI-IDD and NCI-AD surveys.³⁻¹³ In addition to state-specific reports, NCI provides aggregate data that may be stratified by demographic factors, such as race/ethnicity, gender, and age, as well as certain diagnoses and living arrangement. As of the writing of this evaluation design, rates for Arizona are available up to the 2020–2021 time period. This will serve as a baseline; and it is anticipated that follow-up rates will be available for Arizona in time to develop the Summative Evaluation Report. If follow-up rates are available, a DiD study design may be employed to compare rates among Arizona residents to the weighted national average of other NCI-participating states. Rates may be stratified by demographics or diagnoses within the limits of sample size and statistical power.

³⁻¹² CAHPS surveys for this evaluation will be administered through both mail and telephone, while BRFSS is administered exclusively through telephone. This difference in survey administration mode may lead to biased comparisons.

³⁻¹³ Arizona Health Care Cost Containment System. Spending Plan for Implementation of the American Rescue Plan Act of 2021. Available at: https://www.azahcccs.gov/AHCCCS/Downloads/Initiatives/ARPA/AHCCCS_ARPA_HCBS_SpendingPlan.pdf. Accessed on: Dec 8, 2023.

NSCH

The National Survey of Children's Health (NSCH) surveys households to assess physical and emotional health of children under the age of 18. This survey facilitated by the Health Resources and Services Administration and allows for a comparison of state level data to national rates, as well as identifying children who are uninsured and those who receive their insurance through government plans. This data will be utilized to assess whether the KidsCare program increased access to medical care and will allow for a comparison to uninsured children in Arizona as well as national rates. There are two main limitations to this data source:

1. Evaluators cannot limit the population to individuals enrolled specifically in KidsCare. Instead, the intervention group will consist of all respondents who indicated healthcare coverage from government insurance.
2. There is a potential for low numerator and denominator counts after limiting to the population(s) of interest. In the case where numerator or denominator counts fall below the CMS suppression criteria, the survey weights will be reported to protect the anonymity of respondents, or the results will be suppressed to ensure accuracy of reporting.

IPUMS-ACS

Data from the Integrated Public Use Microdata Series (IPUMS) American Community Survey (ACS) will be utilized to estimate the number of Medicaid-eligible individuals in Arizona, as part of the analysis of *Percentage of KidsCare members out of estimated children eligible for KidsCare* (KidsCare Measure 1-2), *Percentage of Medicaid enrollees per month by eligibility group out of estimated eligible Medicaid recipients* (PQC Measure 1-1), and *Percentage of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage out of estimated eligible Medicaid recipients* (PQC Measure 1-2). The IPUMS ACS is a "database providing access to over 60 integrated, high-precision samples of the American population drawn from 16 federal censuses, from the ACS of 2000–present."³⁻¹⁴ The independent evaluator will extract data that include demographic information, employment, disability, income, and program participation such as Medicaid enrollment information. IPUMS-ACS data does not include all necessary covariates to precisely identify the eligible KidsCare population in Arizona. Additionally, IPUMS-ACS data are self-reported and may be susceptible to measurement error such as inflation of income by respondents, and different definitions of what constitutes difficulty when ambulating, with self-care, or independent living (e.g., running errands, going to a doctor's office).

HCRIS

Data reported by Medicare-certified institutions housed in the Healthcare Cost Report Information System (HCRIS) will be used to assess non-Medicare uncompensated care costs, including Medicaid shortfalls as part of the measure *Reported costs for uninsured and/or likely eligible Medicaid recipients among potentially impacted providers and/or provider networks* (PQC Measure 7-1). Institutions serving Medicare members are required to submit a cost report to CMS annually, which includes data on non-Medicare uncompensated care costs, non-Medicare and non-reimbursable Medicare bad debts, indigent care costs, charity care, and Medicaid shortfalls. Data from HCRIS will be used to assess facility-level uncompensated care costs and will be compared to states

³⁻¹⁴ IPUMS USA. What is IPUMS USA. Available at: <https://usa.ipums.org/usa/intro.shtml>. Accessed on: Jul 3, 2023.

similar to Arizona that do not operate a retroactive eligibility waiver. There is approximately a one to two-year lag on reporting into the HCRIS system.

HCUP-SID

The Agency for Healthcare Research and Quality (AHRQ) supports the collection of healthcare databases from State data organizations, hospital associations, private data organizations, and the federal government. Healthcare Cost and Utilization Project State Inpatient Database (HCUP-SID) data is available as an alternate data source, or to supplement HCRIS data, to assess PQC Measure 7-1 (*Reported costs for uninsured and/or likely eligible Medicaid recipients among potentially impacted providers and/or provider networks*). HCUP includes the largest collection of longitudinal encounter-level hospital care data in the United States.³⁻¹⁵ HCUP-SID encompasses over 95 percent of all United States hospital discharges, allows for cross-state comparisons, and contains information on the charges and source of payment, including charity care and self-payment.³⁻¹⁶ There is approximately a one-to-two-year lag on reporting into the HCUP-SID.

Needs Assessment

Needs Assessments will be utilized for the ALTCS population participating in the PPCG service model. This assessment will allow the independent evaluator to identify when a service need was identified for members.

SIPP

The Survey of Income and Program Participation (SIPP) collects longitudinal survey responses regarding household income and government program participation. SIPP data will be used for the KidsCare program to assess changes in reported medical debt. This data source identifies individuals on Medicaid with children in the home and can be used to compare rates of Arizona members to those nationally.

Focus Groups and Key Informant Interviews

Focus groups and key informant interviews will be conducted through a semi-structured interview protocol, transcribed, and imported into MAXQDA where the data will be coded to permit qualitative analysis. The transcripts, coding methodologies, and coded data will be used to answer the appropriate research questions.

³⁻¹⁵ Agency for Healthcare Research and Quality. Healthcare Cost and Utilization Project. Available at: <https://www.hcup-us.ahrq.gov/overview.jsp>. Accessed on: Jul 6, 2023.

³⁻¹⁶ Agency for Healthcare Research and Quality. Introduction to the HCUP State Inpatient Databases (SID). Available at: https://www.hcup-us.ahrq.gov/db/state/siddist/Introduction_to_SID.pdf. Accessed on: Jul 6, 2023.

Analytic Methods

Table 3-11 presents the analytic methods that will be used to evaluate the Waiver.

Table 3-11—Analytic Methods

| Analytic Approach | Difference-in-Differences | Interrupted Time Series | Pre/post-test | National Benchmarks | Qualitative Synthesis | Cost-Effectiveness Analysis |
|-------------------------|---------------------------|-------------------------|---------------|---------------------|-----------------------|-----------------------------|
| ACC | | X | X | X | X | X |
| ACC-RBHA | | X | X | | X | X |
| ALTCS | X | X | X | X | X | X |
| CHP | | X | X | X | X | X |
| PQC | | X | X | X | X | X |
| Tribal Dental Authority | X | X | X | | X | X |
| KidsCare | | X | X | X | | X |

DiD

A DiD analysis will be performed on all measures for which a suitable comparison group can be identified (ALTCS and Tribal Dental Authority). The ALTCS-DD and ALTCS-EPD programs will compare rates to the weighted national average of participating states to rates among AHCCCS members. Further, PPCG and Extended Family Support service rates will be compared to national rates and the rates of members eligible, but not participating in either program, where possible. The Tribal Dental program will utilize a comparison group of AI/AN BRFSS respondents from all other states participating in the survey. This approach will compare the changes in outcome rates between the baseline period and the evaluation period, across the intervention and comparison groups. For the DiD analysis to be valid, the comparison group must accurately represent the change in outcomes that would have been experienced by the intervention group in the absence of the program. The DiD analysis will be conducted with member-level rates, using a logistic regression model for measures with binary outcomes.

The logistic regression form of the DiD model is:

$$\ln\left(\frac{Y_{it}}{1 - Y_{it}}\right) = \beta_0 + \beta_1 T + \beta_2 post + \beta_3(post \times T) + \gamma \mathbf{D}'_{it} + \varepsilon$$

where Y is the probability of an outcome for group i in year t , T is a binary indicator of the intervention group, $post$ is a binary indicator for the evaluation period, the vector \mathbf{D}' represents any observed confounding variables that may account for differences between the intervention and comparison groups (described in additional detail below), γ is a coefficient vector, and ε is an error term. The intercept β_0 represents the log-odds of an outcome for the comparison group during the baseline. The coefficient β_1 identifies the average difference in the log-odds of an outcome between the groups during the baseline period prior to the implementation of the Waiver. The time period dummy coefficient β_2 captures the change in the log-odds of an outcome between the baseline and evaluation time periods for the non-intervention group. The coefficient on the interaction term β_3 represents the DiD estimate of interest in this evaluation. In other words, it is how the log-odds of an outcome for the intervention group is changed in the implementation period compared to the pre-implementation period.

For the ALTCS NCI measure employing a DiD approach, member-level data from the NCI surveys are not publicly available, and therefore rates from the Arizona NCI survey will be compared to a weighted national average of all other NCI-participating states. As such, the DiD model for NCI measures will not include any control variables to account for differences in the underlying population characteristics. For other DiD analyses in which member-level data is available, models will include adjustment for demographic characteristics such as age, sex, race/ethnicity, county of residence, as well as additional possible confounders such as Chronic Illness and Disability Payment System (CDPS) risk score, dual eligibility status, duration of Medicaid enrollment, etc.

The DiD approach will be used where possible, as it controls for any factors external to the program that are applied equally to both groups, such as the coronavirus disease 2019 (COVID-19) public health emergency (PHE). However, the method is still susceptible to external factors that may have differentially impacted one group and not the other. If sufficient pre-intervention data are available, it is possible to test if external factors are applied equally to the intervention and comparison groups by visually verifying that both groups exhibit parallel trends in the baseline period. In the absence of treatment, the intervention and comparison groups used in DiD should experience similar changes, manifested as parallel lines during the baseline period. If the parallel trend assumption does not hold, the two-period DiD may still be useful as data during the baseline and evaluation periods will be aggregated into a single pre-intervention and post-intervention average, respectively. Furthermore, the DiD model proposed estimates a single average treatment effect, under the assumption that any heterogeneity in the treatment effect is due to random variation. This assumption is explicit in the model set-up as the DiD treatment effect is represented by a single coefficient (β_3), and therefore any heterogeneity in treatment effects between individuals cannot be modeled. The independent evaluator recognizes the limitations of this approach and will therefore consider estimating additional models such as panel data models, fixed and random effects models, or hierarchical models. Results from adjusted models will be presented and interpreted keeping in mind the limitations of each approach.

If a valid comparison group cannot be constructed, the most rigorous method supported by the data will be utilized.

ITS

When a suitable comparison group cannot be found and data can be collected at multiple points in time before and after the implementation of the program, an ITS methodology can be used. This analysis is quasi-experimental in design and will compare a trend in outcomes between the baseline period and the evaluation period for those who were subject to the program.

In ITS, the measurements taken before a demonstration was initiated are used to predict the outcome if the demonstration did not occur. The measurements collected after the demonstration are then compared to the predicted outcome to evaluate the impact the demonstration had on the outcome.

The ITS model is:

$$Y_t = \beta_0 + \beta_1 \text{time} + \beta_2 \text{post} + \beta_3 \text{time} \times \text{post} + \gamma \mathbf{D}'_{it} + \mu_t$$

where Y_t is the outcome of interest for the time period t , time represents a linear time trend, post is a dummy variable to indicate the time periods post-implementation, $\text{time} \times \text{post}$ is the interaction term between time and post , the vector \mathbf{D}' represents any observed confounding variables that may account for differences between the intervention and comparison groups, and γ is a coefficient vector. For ITS analyses utilizing aggregate-level data, confounding variables will take the form of average values in the population, such as average age, average risk

score, or percent female. For analysis utilizing individual-level data, control variables may include age, sex, race/ethnicity, county of residence, CDPS risk score, dual eligibility status, or duration of Medicaid enrollment. The intercept, β_0 , identifies the starting level of outcome Y , β_1 is the slope of the outcome between the measurements before the program, β_2 is the change in the outcome when the program began, β_3 is the change in the slope for the measurements after the program, and μ_t is the error term.

Assuming that the measurements taken after the implementation of the Waiver would have been equal to the expectation predicted from the measurements taken before the Waiver in the absence of the intervention, any changes in the observed rates after implementation can be attributed to the program. However, as the ITS approach relies on a pre- and post-period, it is unable to differentiate between mechanisms that may have impacted observed changes; it is possible that external events could have occurred simultaneously with the Waiver and influenced the outcomes of interest. The independent evaluator will rely on best practices to mitigate the potentially confounding effect of simultaneously occurring confounding events such as the COVID-19 PHE as well as post-pandemic Medicaid “unwinding” by including the use of dummy variables for each time period. To account for the impact of the COVID-19 PHE, ITS models will incorporate dummy variables to adjust for the confounding effects if sufficient data is available. An indicator variable for quarter 2 (Q2) 2020 will represent the initial wave of the COVID-19 PHE-related shutdowns and stay-at-home orders, and a separate indicator variable for Q3 2020 through the end of Q1 2021 will reflect subsequent Arizona-specific public health orders. For measures calculated annually, an indicator variable for 2020 will be included in the model to adjust for the COVID-19 PHE. Furthermore, the independent evaluator will consider several sensitivity analyses to test the robustness of the main model results. As the Waiver overlaps with the COVID-19 PHE as well as post-pandemic Medicaid “unwinding”, the independent evaluator will explore how the results change when excluding the years most impacted by these external events, or when estimating program effects separately by each year, rather than aggregating baseline years and evaluation years. A similar approach will be taken to account for the “unwinding” period in which the Medicaid continuous enrollment condition authorized ended and AHCCCS began redeterminations of eligibility.

A second assumption of the proposed ITS model is that a linear model can appropriately characterize the relationship between independent variables and the response variable. The independent evaluator will test this assumption by examining error autocorrelation; if subsequent error terms are highly correlated, then parameter estimates and variance obtained from the model may be biased, resulting in misleading conclusions. During analyses, the independent evaluator will take steps to test for autocorrelation and assess the model fit. If the linear model is a poor fit for the data, additional procedures will be explored such as transformation of the model to remove autocorrelation or estimating an autoregressive model.

A limitation of ITS is the need for sufficient data points both before and after program implementation.^{3-17, 3-18, 3-19} To facilitate this methodology, the independent evaluator may consider additional baseline data points using prior

³⁻¹⁷ Baicker, K., and Svoronos, T., (2019) “Testing the Validity of the Single ITS Design,” *NBER Working Paper 26080*. Available at: <https://www.nber.org/papers/w26080.pdf>. Accessed on: Aug 21, 2023

³⁻¹⁸ Bernal, J.L., Cummins, S., Gasparrini, A. (2017) “Interrupted time series regression for the evaluation of public health interventions: a tutorial,” *International Journal of Epidemiology*, 46(1): 348-355. Available at: <https://doi.org/10.1093/ije/dyw098>. Accessed on: Aug 21, 2023

³⁻¹⁹ Penfold, R. B., Zhang, F. (2013) “Use of Interrupted Time Series Analysis in Evaluating Health Care Quality Improvements,” *Academic Pediatrics*, 13(6): S38 - S44. Available at: <https://doi.org/10.1016/j.acap.2013.08.002>. Accessed on: Aug 21, 2023.

year calculations, and/or calculating quarterly rates where feasible, if multiple years both pre-and post-implementation are available to control for seasonality.

Specifically, for the PQC evaluation, the independent evaluator will evaluate one measure for which data on a comparison group will not be available: *Percentage of Medicaid enrollees by eligibility group out of estimated eligible Medicaid recipients*. This measure is intended to be captured monthly through administrative program data. As such, the higher frequency can be used to construct pre- and post-implementation trends using ITS. An ITS approach can be utilized to draw causal inferences if sufficient data points exist before and after implementation, there are no concurrent shocks in the trend around program implementation, and any seasonal effects are adequately accounted for.

ACC, ACC-RBHA, ALTCS, CHP, PQC, and the Tribal Dental Authority will utilize the ITS approach.

Pre-test/post-test

For measures with consistent specifications over time for which national or regional benchmarks are not available, and which have too few observations to support an ITS analysis, rates will be calculated and compared both before and after program integration.³⁻²⁰ Statistical testing will be conducted through a Chi-square analysis. A Chi-square test allows for comparison between two groups that have a categorical outcome, such as survey results or numerator compliance, to determine if the observed counts are different than the expectation.

A pre-test/post-test analysis will be conducted for ACC, ACC-RBHA, ALTCS, CHP, KidsCare, PQC, and the Tribal Dental Authority.

Noninferiority Testing

To support testing of hypotheses that suggest program impacts will “be maintained or improve,” the independent evaluator may consider employing noninferiority statistical testing. Specifically, this approach can be utilized for measures that employ a pre-test/post-test, ITS, or DiD framework.

For measures that include a pre/post or ITS framework, non-inferiority testing can be performed to determine whether measure rates in the evaluation period were meaningfully different from rates in the baseline period (i.e., to statistically test whether rates were “the same or better” than baseline rates). Non-inferiority testing allows for an assessment of meaningful difference in rates by comparing the change in rates between the baseline and evaluation period to a predetermined threshold. This threshold represents the greatest difference between the baseline and evaluation period that can exist while still being considered “equivalent.” Specifically, the predetermined threshold (δ) will be calculated using the following variation of the Cohen’s h equation:

$$\delta = P_2 - \sin\left(\frac{2 * \arcsin(\sqrt{P_2}) \pm h}{2}\right)^2$$

Where P_2 is the baseline average rate and h is the chosen Cohen’s h effect size. While an effect size of 0.20 has commonly been deemed to represent a “small” effect as originally suggested by Cohen, Cohen writes, “the terms

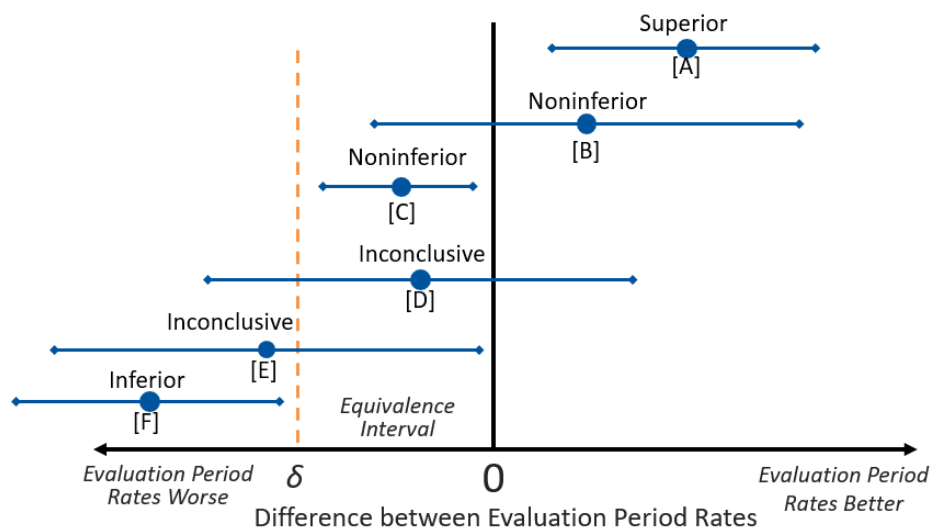
³⁻²⁰ Because measures are calculated on an annual reporting period, the post-implementation period during the current demonstration approval period of three years is insufficient to support an ITS analysis.

‘small,’ ‘medium,’ and ‘large’ are relative, not only to each other, but to the area of behavioral science or even more particularly to the specific content and research method being employed in any given investigation” (p. 25).³⁻²¹ Because the application of effect size in this context is to identify a minimum acceptable difference between proportions while still considering them “equal” for practical purposes, a stricter threshold than what may be typically used is appropriate. Therefore, δ for each measure was calculated based off Cohen’s h of 0.05 (differences between proportions).

Statistical testing will be conducted by assessing whether the observed difference between the average baseline and evaluation period rates is different from δ . The calculated change in rate threshold will be compared to the 95 percent confidence intervals (CI) from performed pre-test/post-test results to determine whether rates were meaningfully different in the demonstration period.

Non-inferiority testing characterizes results in one of four ways as shown in Figure 3-1 below: superior, non-inferior, inconclusive, or inferior. Superior results [A] indicate the CI from the pre-test/post-test is entirely above both the predefined threshold value and zero (i.e., the pre-test/post-test is found to be statistically significant). Non-inferior findings [B/C] indicate that while results from statistical testing may be inconclusive or significantly worsening, non-inferiority testing shows any worsening in rates are not practically/clinically significant and therefore can be characterized as being not inferior to baseline rates. Inconclusive findings [D/E] occur when the 95 percent CI captures the non-inferiority threshold value. Inferior results [F] indicate the CI from the pre-test/post-test is entirely below the predefined threshold value.

Figure 3-1—Non-Inferiority Testing



For measures that use a DiD framework and are hypothesized to perform at least as well as or better than a comparison group, a prespecified fraction (δ) of the change in the comparison group (coefficient on time, β_2) is used to define an “equivalence range” which would conclude that the treatment group performed as well as the comparison group. The equivalence range is bounded by the change in rates for the comparison group, plus or minus 10 percent of the change in the comparison group. The change in the treatment group will be compared

³⁻²¹ Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences.

against this equivalence range using a 95 percent confidence interval. Figure 3-2 illustrates how the equivalence window will be calculated and how statistical significance will be determined.

Figure 3-2—Illustration of Non-Equivalence Testing Procedure

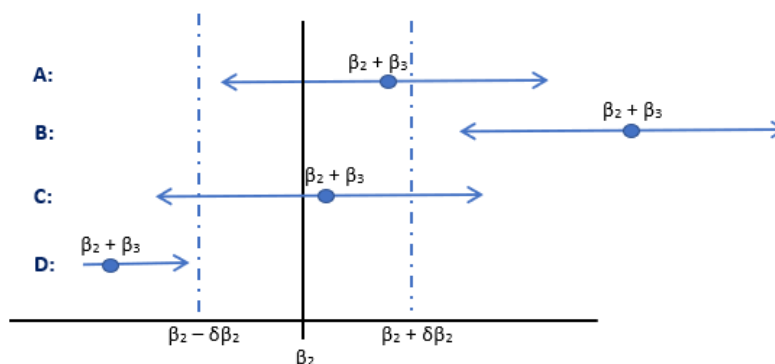


Table 3-12 defines the equivalence intervals used for each scenario in Figure 3-2.

Table 3-12—Noninferiority Equivalence Intervals

| Desired Direction | Equivalence Interval | Noninferiority Threshold |
|---|--|-----------------------------|
| Higher is better and $\beta_2 > 0$ OR Lower is better and $\beta_2 < 0$ | $(\beta_2 - \delta\beta_2)$ to β_2 | $(\beta_2 - \delta\beta_2)$ |
| Lower is better and $\beta_2 > 0$ OR Higher is better and $\beta_2 < 0$ | β_2 to $(\beta_2 + \delta\beta_2)$ | $(\beta_2 + \delta\beta_2)$ |

In Figure 3-2, given a measure in which higher is better, the confidence interval in Scenario A, denoted by the arrows, includes β_2 but not the noninferiority threshold, $(\beta_2 - \delta\beta_2)$. Therefore, evidence supports the finding that the treatment group is not inferior to the comparison group. The confidence interval in Scenario B is above β_2 , which suggests that the treatment group is superior to the comparison group. The confidence interval in scenario C spans both β_2 and $(\beta_2 - \delta\beta_2)$. Therefore, there is insufficient evidence to establish noninferiority and the results are inconclusive. The confidence interval in Scenario D falls below the noninferiority threshold $(\beta_2 - \delta\beta_2)$ and supports the finding that the treatment group is inferior to the comparison group.

Chi-Square Test

A Chi-square test allows for comparison between two groups that have a categorical outcome, such as survey results, to determine if the observed counts are different than the expectation. A test statistic is calculated that compares the observed results to the expected results and a Chi-square distribution is used to estimate the probability of the observed difference from the expected results being due to the Waiver.

A Chi-square test will be conducted for PQC.

Comparison to National Benchmarks

A comparison to national benchmarks approach will be utilized for the evaluation of ACC, ALTCS, CHP, KidsCare, and PQC.

To provide additional context of rates and changes in rates after the transition to integrated care under these plans, the independent evaluator may compare rates from ACC, ALTCS, CHP, KidsCare, or PQC against national benchmarks without necessarily conducting formal statistical testing (e.g., DiD or pre-test/post-test approaches). Rates calculated for ACC, ALTCS, CHP, KidsCare, and PQC can be reported in the context of performance nationally. Although statistical testing through a DiD or pre-test/post-test approach would be preferable, these comparisons may be necessary if the level of data for the comparison group are not granular enough to support such statistical testing.

Post-Implementation Trend Analysis

Analysis of ALTCS, KidsCare, and the Tribal Dental Authority may rely on analysis of the post-implementation trend if sufficient data on provided services are not available or not collected prior to its implementation. Data during the post-implementation period will be analyzed to assess how measures have changed over the course of the program. A regression line fit to the post-implementation data points will test for any statistically significant changes in measure rates.

Health Equity Analysis

In line with Waiver's goals of understanding social inequities and addressing health-related risk factors that play a prominent role in determining health outcomes, a health equity analysis will be conducted. A detailed assessment of changes in health disparities across time will be the primary analytic approach for assessing health equity. Outcome measures for relevant demographic subgroups (e.g., age, sex, race, ethnicity, geography, disability status, language spoke, etc.) will be compared to a reference group and assessed for statistically significant differences as well as clinically meaningful differences in relative percentages and effect sizes. When appropriate, more granular analyses will be conducted. For example, adult and child subgroup analyses detailed in the ACC evaluation design may include stratification by age category (e.g., under five years, 5–17, 18–24, 25–34, 35–44, 45–64).³⁻²²

Qualitative Synthesis

To evaluate the care coordination strategies implemented by health plans as a result of the Waiver, and to identify and understand barriers encountered by health plans and AHCCCS during and after the transition to each program, a series of semi-structured focus groups and key informant interviews with representatives from the health plans, AHCCCS, and providers will be conducted to obtain results for all plan-specific measures. A qualitative synthesis will be utilized to evaluate ACC, ACC-RBHA, ALTCS, CHP, PQC, and the Tribal Dental Authority.

³⁻²² Census Bureau. Exploring the Racial and Ethnic Diversity of Various Age Groups. Available at: <https://www.census.gov/newsroom/blogs/random-samplings/2023/09/exploring-diversity.html>. Accessed on: Dec 12, 2023.

Focus group participants and key informant interviewees will be recruited from nominees identified by the health plans, AHCCCS, and providers. Interviews and focus groups will invite input from representatives of all seven health plans and appropriate individuals identified by AHCCCS as having experience and subject matter expertise regarding the development and implementation of strategies to promote integration of PH and BH service delivery and care integration within the framework of the ACC.

AHCCCS will be asked to provide the names of up to three individuals each from pertinent organizations most familiar with the implementation activities performed by the State and the Waiver, including AHCCCS. Each of these individuals will be requested to participate in a 60 to 90-minute interview session to provide insights into the implementation of the Waiver. A limited number of key informant interviews should be sufficient in this scenario because there will be a limited number of staff at the agency with a working knowledge of the activities associated with the Waiver, and the challenges and successes that accompanied the implementation.

To recruit providers for the focus groups, the independent evaluator will begin by requesting a list of any providers from AHCCCS with whom they have experienced an above-average level of engagement and participation. Those providers most engaged in the program may also be those most able and willing to provide feedback on their experiences during implementation. The independent evaluator will attempt to recruit focus group participants from the providers suggested by AHCCCS initially. The independent evaluator will supplement the list provided by AHCCCS with participating providers in the Waiver stratified by geographic region; location within each region (e.g., urban versus rural providers); and by specialty. Because the providers are participating in the Waiver statewide, the independent evaluator will attempt to recruit focus group participants regionally across the AHCCCS-defined North, Central, and South geographical service areas (GSAs) within the State. Recruiting regionally, will allow for providers operating in large metropolitan areas, as well as smaller rural locations to participate. After stratifying the provider lists, the independent evaluator will sample to recruit providers representing the broadest spectrum of participating providers. By recruiting to maximize the variation in provider types and locations, the data obtained are likely to represent perspectives from a wide variety of participating providers. The recruitment goal is to have five to eight providers participate in each focus group. Focus group meetings will last approximately 90 minutes to allow sufficient time for all participants to voice their perspectives and explore each topic in detail. To facilitate provider participation—particularly for rural providers—focus groups will be held via a Webex teleconference with the option of participant video conferencing. Due to the self-selection of participants and the wide degree of variability across provider types, the focus group participants are not likely to constitute a statistically representative sample of providers within the State. The purpose of the focus group data, however, is not to obtain a statistically representative sample of respondents. Rather, the purpose of the focus group data collection is to obtain a rich set of contextualized descriptions that cannot easily be obtained through administrative data or survey data collection efforts.

A flexible protocol will be developed for focus groups and semi-structured interviews to be conducted with a sample of subjects with knowledge of the specific strategies developed and implemented as a result of ACC, the barriers encountered during the implementation of care coordination activities, and other barriers encountered during the transition to ACC. Interview questions will be developed to seek information about the plans' strategies to promote PH and BH service delivery and care integration activities as well as any barriers encountered, including:

- Organizational structures and operational systems.
- Program design and implementation.
- Member engagement and communication.
- Provider/network relations and communication.

Early focus groups or interviews will inform the development and choice of topics and help inform the selection of additional interview subjects to round out the list of individuals to be interviewed for this project. In both formats, open-ended questions will be used to maximize the diversity and richness of responses and ensure a more holistic understanding of the subject's experience. Probing follow-up questions will be used as appropriate to elicit additional detail and understanding of critical points, terminology, and perspectives. The sessions will be recorded and transcribed with participant consent.

The information obtained from these focus groups and interviews will be synthesized with the results from other quantitative data analyses providing an in-depth discussion of each of the domains/objectives to be considered. As the key informant interviews are being conducted, the independent evaluator will perform ongoing and iterative review of the interview responses and notes to identify overall themes and common response patterns. Unique responses that are substantively interesting and informative will also be noted and may be used to develop probing questions for future interviews. The results of these preliminary analyses will be used to document the emergent and overarching themes related to each research question. The documentation of emergent themes will be reviewed iteratively to determine if responses to interview questions are continuing to provide new perspectives and answers, or if the responses are converging on a common set of response patterns indicating saturation on a particular interview question. As additional interview data are collected, the categories, themes, and relationships will be adjusted to reflect the broader set of concepts and different types of relationships identified. The documentation of emergent themes will also be used as an initial starting point for organizing the analysis of the interview data once all interviews are completed.

Following the completion of the focus groups and key informant interviews, the interview notes and transcripts will be reviewed using standard qualitative analysis techniques. The data will first be examined through open coding to identify key concepts and themes that may not have been captured as emergent themes during previous analyses. After identifying key concepts, axial coding techniques will be used to develop a more complete understanding of the relationships among categories identified by respondents in the data. The open and axial coding will be performed with a focus on identifying the dimensionality and breadth of responses to the research questions posed for the overall project. Interviewee responses will be identified through the analysis to illustrate and contextualize the conclusions drawn from the research and will be used to support the development of the final report.

Cost Effectiveness Analysis

The cost effectiveness analysis is designed to analyze the differences between actual and projected for the evaluation period. Note that the cost analyses do not refer to or attempt to replicate the formal Budget Neutrality test required for Section 1115 Demonstration Waivers, which sets a fixed target under which waiver expenditures must fall that was set at the time the waiver was approved. The methodology for analyzing the Waiver's costs is adapted from CMS' guidance for assessing the costs of substance use disorder (SUD) or SMI evaluations.³⁻²³

Cost of care for Waiver members based on managed care plan payment amounts and FFS reimbursement amounts will be calculated for each member in each month. To identify the source of treatment cost drivers for members, total costs will be stratified by the categories of service presented in Table 3-13. Data will be aggregated across all

³⁻²³ United States Department of Health and Human Services. Appendix C: Approaches to Analyzing Costs Associated with Section 1115 Demonstrations for Beneficiaries with Serious Mental Illness/Serious Emotional Disturbance or Substance Use Disorders. Available at: <https://www.hhs.gov/guidance/document/appendix-c-analyzing-costs-associated-demonstrations-smised-or-sud-0>. Accessed on: Aug 2, 2023.

members in order to calculate per-member per-month (PMPM) costs for each month of the Waiver and 24 months prior.³⁻²⁴ ITS analyses will be conducted for total cost of care, as well as for each level of cost stratification mentioned above. This method will project the cost experience of the Waiver population during the baseline period prior to the Waiver renewal forward in time to the evaluation period following the Waiver renewal. The projected costs will represent a counterfactual estimate of the costs of the waiver population during the evaluation period as if the Waiver had never been renewed. Thus, the method will compare the actual costs of the Waiver population in the evaluation period to the projected counterfactual costs of the waiver population in the evaluation period. Seasonality indicators and variables indicating time periods affected by the COVID-19 PHE and post-pandemic Medicaid “unwinding” will be included in the model to control for these factors.

Table 3-13—Categories of Service

| Categories of Service |
|-----------------------|
| IP |
| OP (ED and Non-ED) |
| LTC |
| Professional |
| Pharmacy |

Note: ED: emergency department; IP: Inpatient; LTC: long-term care; OP: outpatient

As the Waiver will provide additional coverage and services to members, it is possible that there is an initial increase in costs. The independent evaluator will also review the overall cost-effectiveness of the program in which any additional costs incurred through the program are contrasted and compared to observed benefits of the program. The cost-effectiveness analysis will not involve a direct comparison of costs and savings as benefits of the program may be non-pecuniary in nature, such as provision of new services that previously were unavailable, increased employment opportunities leading to improved financial well-being, lower mortality rates and improved health outcomes overall. Furthermore, some benefits may manifest over the long-term and may not be measurable at the time of the evaluation.

Supplemental measures will be utilized to identify the cost-effectiveness of the ALTCS PPCG service model and KidsCare program. Measure 12-1 of the PPCG demonstration seeks to quantify the impact of unmet demand prior to and after implementation of the PPCG service model. The number of billed hours before and after implementation will be assessed to determine the proportional cost increase resulting from the service model. Similarly Measure 6-1 of the KidsCare demonstration will determine how the cost of care for the expansion population differs from the pre-expansion population. Measure 6-2 relating to medical debt will provide further context regarding the burden of medical debt among families with Medicaid-eligible children in Arizona.

³⁻²⁴ CMS guidance describes constructing an ITS with member-level controls. However, due to a low prevalence of costs for most members—especially when stratified by category of service—robust statistical analysis at the member-level was not feasible. CMS guidance references literature on evaluating healthcare expenditures using a two-part model as one mechanism to account for this issue; however, the method described in the literature is not applied in an ITS framework, which relies on assessing trends in costs. Given the frequency of months in which members did not incur any costs and the unbalanced nature of the panel dataset, member-level trends could not be reliably estimated.

Disentangling Confounding Events

Beginning on July 1, 2019, AHCCCS eliminated PQC for most Medicaid adults.³⁻²⁵ This program may introduce confounding effects since impacted members may alter their future care-seeking or enrollment and disenrollment decisions. The independent evaluator may leverage the differential timing between the introduction of each program and effective date of the elimination of PQC to help reduce the potential confounding effects. This is not expected to completely eliminate confounding effects. Without a valid comparison group, any observed changes (or lack thereof) in the rates cannot be completely separated from the impact of the elimination of PQC.

The COVID-19 PHE widely impacted the healthcare system and socioeconomic conditions more broadly beginning in approximately March 2020 with the COVID-19 PHE ending in May 2023.³⁻²⁶ The COVID-19 PHE has already exerted an arguably substantial force on the State of Arizona, its healthcare system, and its Medicaid population. Increases in Medicaid enrollment during the COVID-19 PHE are tied to substantial shifts in the disease conditions and comorbidities of the Medicaid population and may impact aggregate spending by AHCCCS. Social distancing efforts and stay-at-home orders interrupted routine care visits and effectively reduced the demand for many healthcare services to near zero. In an ideal evaluation, the independent evaluator would be able to control for many of these issues during the analysis. The ability to do so in the current context of the Waiver evaluation will depend on the availability of data and control variables.

The independent evaluator will consider methods that allow for the disentanglement of AHCCCS program impacts from results driven by COVID-19 or the policy response within Arizona and other states. There are four possible strategies to account for the potential confounding effects of the COVID-19 PHE. The final method chosen will depend on the measure and data availability at the time of the evaluation.

1. Controlling for the effects of the COVID-19 PHE using model covariates.
2. Excluding years/quarters most impacted by the COVID-19 PHE from the baseline period.
3. Estimate the demonstration effect separately for years most affected by the COVID-19 PHE.
4. Controlling by local area level measures of COVID-19 PHE burden.

First, controlling for the effects of the COVID-19 PHE by including covariates in the models allows for the separation of the effect of the demonstration from the COVID-19 PHE. For measures calculated quarterly, indicator variables will be added to the ITS model for each quarter of the year to adjust for seasonality in the trend. Adjustment for the COVID-19 PHE will be conducted by creating an indicator variable for Q2 2020 to represent the initial wave of the COVID-19 PHE-related shutdowns and stay-at-home orders, and a separate indicator variable for Q3 2020 through the end of Q1 2021 to reflect subsequent Arizona-specific public health orders. For measures calculated annually, an indicator variable for 2020 will be included in the model to adjust for the COVID-19 PHE.

Second, for this evaluation. The most affected years of the COVID-19 PHE (2020–2021) occur within the baseline period. If sufficient baseline data is available, the independent evaluator will consider excluding the most impacted years from the model as a sensitivity analysis. If removing the COVID-19 PHE-impacted data points

³⁻²⁵ Pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age are excluded.

³⁻²⁶ Centers for Disease Control and Prevention. End of the Federal COVID-19 Public Health Emergency (PHE) Declaration. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/your-health/end-of-phe.html>. Accessed on: Jul 17, 2023.

significantly alters the conclusion of the statistical analysis, evaluators will indicate that the results were potentially biased by the COVID-19 PHE and interpret results in the context of this limitation.

The third method for disentangling the effect of the COVID-19 PHE will be calculating yearly demonstration effects separately in pre-test/post-test analyses. The years that are most impacted by the COVID-19 PHE (2020 and 2021) fall within the baseline period, thus, rather than aggregating the years into a single mean value for the entire baseline period and a single mean value for the entire evaluation period, the independent evaluator may consider additional comparisons to estimate the demonstration impact separately for each baseline year. If results vary dramatically across years, particularly for years affected by the COVID-19 PHE compared to years not affected by the COVID-19 PHE, then this may provide context for the COVID-19 PHE's impact separate from the demonstration.

Lastly, the independent evaluator will consider controlling for local effects of the COVID-19 PHE in pre-test/post-test and DiD analyses. When warranted, pre-test/post-test analyses will include county-level COVID-19 hospitalizations and deaths as model covariates, as a proxy for the severity of the COVID-19 PHE.

4. Methodological Limitations

Despite the planned rigor of the evaluation, there are several limitations that may impact the ability of the evaluation to attribute changes in performance metrics to the Arizona Health Care Cost Containment System (AHCCCS) Section 1115 Demonstration Waiver (the Waiver). One of the primary limitations to this evaluation is the lack of a viable in-state or out-of-state comparison group for many Waiver components. Without a suitable contemporaneous comparison group, changes in rates over time may be either fully or partially attributable to secular trends independent of the Waiver. A viable in-state comparison group is unlikely to be found for the following Waiver components:

- **AHCCCS Complete Care (ACC)**—The ACC program enrolls most adults and children on Medicaid.
- **ACC-Regional Behavioral Health Agreement (ACC-RBHA)**—Virtually all adult Medicaid members with a serious mental illness (SMI) are enrolled with an ACC-RBHA.
- **Arizona Long Term Care System (ALTCS)**—The ALTCS program covers all eligible Medicaid members who are elderly and/or physically disabled (EPD) or who have developmental disabilities (DD).
- **Comprehensive Health Plan (CHP)**—All children in the custody of the Arizona Department of Child Safety (DCS) are covered by CHP.
- **KidsCare**—Children enrolled in the KidsCare program are unlikely to have prior Medicaid enrollment. As such, there is no pre-implementation data available for this group.
- **Prior Quarter Coverage (PQC)**—All non-pregnant or postpartum adults are subject to the Waiver.
- **Tribal Dental Authority**—This program extends dental services for adult American Indian/Alaska Native (AI/AN) populations enrolled in an AHCCCS plan who receive care at an Indian Health Service (IHS) or Tribal 638 facility.

For the above-mentioned programs that were implemented across their respective populations of eligible members in Arizona, no eligible comparison group realistically exists within the State, and therefore, no in-state comparison group is identified for any of the Waiver programs. An eligible population could therefore be drawn from another state, provided specific criteria were met. Ideally, the comparison state would have Medicaid members demographically similar to Arizona; a Medicaid system that was similar to Arizona in terms of eligibility, enrollment, and pre-integration policies and programs; a coronavirus disease 2019 (COVID-19) infection rate or likely infection rate (accounting for differentials in testing) comparable to Arizona; and have had a state policy response to the COVID-19 public health emergency (PHE) that was similar to Arizona's response. This combination of factors represents a particularly difficult challenge to surmount in identifying an eligible comparison group. The independent evaluator will consider and explore the use of member-level data from the Transformed Medicaid Statistical Information System (T-MSIS) in order to support an out-of-state comparison group if sufficient resources and relevant years of data are available. Simultaneously, the independent evaluator will continue to work toward identifying states that could be suitable candidates, either individually or combined and weighted to better reflect Arizona's unique characteristics for inclusion in the evaluation, under the assumption that data will be available if such a comparator state or states are identified. However, if ultimately T-MSIS is unavailable, and data cannot be obtained from another state with similar population characteristics and Medicaid policies and procedures in place, then a counterfactual comparison group will not be available. Although in-state comparison groups are not viable for the above programs, an out-of-state comparison group may be constructed using the weighted national average of participating states to National Core Indicator (NCI) and respondents to Behavioral Risk Factor Surveillance System (BRFSS) surveys from all other states that participated.

Additional details regarding why an in-state or out-of-state comparison group is not feasible are included below:

- **ACC-RBHA**—ACC-RBHAs enroll all adult Medicaid members with an SMI, leaving no viable in-state comparison group to estimate counterfactuals. The use of national benchmarks for general Medicaid populations as a comparison group would result in inappropriate comparisons, as members with an SMI differ systematically from the general Medicaid population. No national data could be identified that would provide a reliable and accurate comparison group at the national level. For this reason, no national comparison group can be used to estimate counterfactual results, and thereby determine the causal impacts of the program. Second, the use of an out-of-state comparison group comprised of aggregated rates from the adult Medicaid population designated with an SMI in another state is limited to the extent that the comparison state uses different criteria than Arizona uses to designate members with an SMI. Additionally, this limitation expands to the extent that the policies and procedures of the Medicaid system in the comparison state do not align with those of Arizona.
- **ALTCS**—Due to the unique population of ALTCS members, finding an in-state comparison group is very challenging since all eligible Medicaid EPD or DD members would receive care through ALTCS, removing any possibility for Medicaid members who are elderly and/or with a physical disability or members with DD to serve as a counterfactual. The use of an out-of-state comparison group comprised of aggregated rates from the EPD or DD Medicaid population designated in another state is also limited to the extent that the comparison state uses different criteria than Arizona uses to designate members as EPD or DD. Although an out-of-state comparison group for claims-based measures is limited, for NCI measures, there is an opportunity to compare Arizona rates to the weighted national average of other states participating in the NCI survey.
- **CHP**—Due to the unique needs and specialized care provided to CHP members, finding an in-state comparison group is very challenging. Children in DCS custody have designated case workers and care coordinators to ensure CHP members are receiving timely immunizations, screenings, and check-ups. Therefore, when comparing to in-state non-CHP members these children will have higher rates for certain measures which is not necessarily a reflection of CHP itself, but rather the unique population it serves. For these reasons, the independent evaluator should prioritize finding an out-of-state comparison group that also contains children in DCS custody. However, a limitation related to the use of an out-of-state comparison group is the comparability of that population, the design of the program delivering services to them, and the presence or absence of confounding quality improvement programs. While an out-of-state comparison group can provide a counterfactual design, the granularity of the data available may not allow for strong statistical controls over differences across the populations. Additionally, an independent evaluator is unlikely to be able to control for additional quality improvement programs that may impact a comparison group population.
- **PQC**—Comparison groups represent a unique challenge for this Waiver, particularly because the PQC waiver affects almost all new members except for pregnant women, women who are 60 days or less postpartum, and infants and children younger than 19 years of age. This greatly restricts the feasibility of an in-state comparison group. As a result, many measures listed in the Methodology section either do not have a viable comparison group or are contingent on the availability of out-of-state or aggregate data.
- **Tribal Dental Authority**—The Tribal Dental Authority covers all AI/AN who are at least 21 years old, enrolled in AHCCCS, and receive dental services at an IHS or Tribal 638 facility. Due to the specific oral needs of this population and the provision of care to all AI/AN adults enrolled in AHCCCS, it is challenging to identify a comparison group that accurately represents the needs of this population. As such, measures for this program will rely on comparing AI/AN AHCCCS members to members in other states that participated in the BRFSS core oral health module.

Therefore, the counterfactual comparison for the above programs is the comparison of performance measure rates across the baseline and evaluation periods of the Waiver. The results indicate whether the performance measure rates increased or decreased, and whether the results represented statistically significant changes in performance across time; however causal impacts specifically resulting from the Waiver will be difficult to determine due to the lack of viable comparison group. In addition to the common limitation of identifying comparison groups for the programs above, other program-specific limitations are described below.

ALTCS

Due to ALTCS serving such a unique population, it is impossible to compare ALTCS rates to national benchmarks since these are designed to represent the entire Medicaid population as opposed to EPD individuals or individuals with DD. Combined, this leaves only trending rates over time for much of the ALTCS population, utilizing an ITS approach, or obtaining comparative data from an out-of-state Medicaid authority. The independent evaluator will need to consider variation across performance measure year specifications since these differences could impact the rate calculation. Trending rates also limit comparability between measurement years since the member population can vary. While an interrupted time series (ITS) approach would allow for assessment of immediate and sustained trend changes for ALTCS rates across time, simultaneous factors external to ALTCS co-occurring during the same time period and insufficient pre-period and post-period data points may still present challenges to estimation of causal impact.

Although national benchmarks cannot serve as a viable comparison group, rates reported by National Core Indicators (NCI) provide insight into quality of care for individuals with DD. This data allows an evaluator to compare Arizona specific rates to the weighted national average among all other NCI-participating states. For measures wherein NCI aggregate data are available and serves as a comparison group, the comparison of the ALTCS-DD and ALTCS-EPD populations to this counterfactual will be limited by the inability to perform any statistical matching or include statistical controls in the difference-in-differences (DiD) models to account for differences in the underlying population characteristics, since member-level data are not available through NCI.

The NCI measures used to evaluate Expanded Family Support services are constrained by evaluators' ability to identify individual members. Therefore, while the NCI data provide context for the overall outcomes among all individuals with DD who responded to the survey, it cannot be limited to members in the program. Additionally, NCI data cannot be utilized for the Parents as Paid Caregivers (PPCG) service model, as respondents to the survey must be 18 years of age and older.

KidsCare

Due to the expansion of KidsCare in Arizona, children who were previously not eligible for the Children's Health Insurance Program (CHIP) are now eligible. Therefore, obtaining pre-implementation data for the intervention population is not feasible. While comparisons can be made with existing CHIP members whose incomes are under 200 percent of the federal poverty level (FPL), the absence of pre-implementation data for the intervention group limits analytic approaches to assessing the changes in trends over time after implementation.

PQC

Despite the methodology described in the Disentangling Confounding Events subsection of the Methodology section found earlier in this report, there are still limitations in fully isolating changes in rates attributable to the PQC waiver from other events, particularly from the transition to ACC health plans on October 1, 2018. Since this transition impacts most adults (and children) on Medicaid, comparisons to historical AHCCCS rates before ACC for the acute care population, who are the majority of members in PQC, may be confounded with the transition to ACC. The independent evaluator will identify any individuals impacted by PQC but not ACC to reduce this potential confounding; however, because those exposed to PQC but not ACC are likely to be systematically different (e.g., members enrolled in ALTCS or adults with an SMI) and relatively few in number, confounding effects from ACC may still remain.

Tribal Dental Authority

Isolation of the impact of the Tribal Dental Authority will rely on proper identification of the target population. If there are challenges to appropriate determination of Tribal membership, evaluation of the impact of this program may not represent the truth. Furthermore, calculation of measures for the Tribal Dental Authority will rely on the availability of data on dental services provided in an IHS or 638 Tribal Facility. If such data are not available or not collected prior to the implementation of the Tribal Dental Authority, then there will not be sufficient pre-demonstration data to support a baseline period. Use of analytic methods such as pre/post testing and ITS may not be possible and the ability to attribute changes in outcomes to the Tribal Dental Authority will be severely limited as the analysis will rely on an assessment of post-implementation trends over time. The independent evaluator will collaborate with AHCCCS to identify and obtain the necessary data elements to support the evaluation of the Tribal Dental Authority. Lastly, the global COVID-19 PHE represents a final key limitation to the evaluation design. The COVID-19 PHE impacted the healthcare industry and the entire population on a global scale, requiring substantial changes to the processes used in the delivery of healthcare. In Arizona, as in other locations, healthcare utilization was significantly reduced in 2020, and the impact on performance measure rates was evident in the evaluation results from the prior demonstration period. The independent evaluator will continue to take steps to account for the confounding impact of COVID-19, however it is possible that for some measures wherein the specifications for calculating rates require lengthy look back periods or sufficient data are unavailable, the analysis will not be able to disentangle COVID-19 impacts from program impacts.

Appendix A. Independent Evaluator

The Arizona Health Care Cost Containment System (AHCCCS) will select an independent evaluator with experience and expertise to conduct a scientific and rigorous Medicaid Section 1115 waiver evaluation that meets all the requirements specified in the Special Terms and Conditions (STCs). The independent evaluator will be required to have the following qualifications:

- Knowledge of public health programs and policy
- Experience in healthcare research and evaluation
- Understanding of AHCCCS programs and populations
- Expertise with conducting complex program evaluations
- Relevant work experience
- Skills in data management and analytic capacity
- Medicaid experience and technical knowledge

Based on State protocols, AHCCCS will follow established policies and procedures to acquire an independent entity or entities to conduct the waiver evaluation. In addition, AHCCCS will ensure that the selected independent evaluator does not have any conflicts of interest and will require the independent evaluator to sign a “No Conflict of Interest” statement.

Appendix B. Evaluation Budget

Due to the complexity and resource requirements of Arizona's Section 1115 Arizona Health Care Cost Containment System (AHCCCS) Demonstration Waiver (the Waiver), AHCCCS will need to conduct a competitive procurement to obtain an independent evaluator to perform the services outlined in this evaluation design. After selection of an evaluation vendor, a final budget will be prepared in collaboration with the selected independent evaluator. Tables B-1 through B-6 present the cost estimates for each program.

Table B-1—AHCCCS Complete Care (ACC) Cost Estimate

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|--|------------------|------------------|------------------|------------------|------------------|------------------|---------------|
| Project Administration and Monitoring Reports | | | | | | | |
| Staff Costs | \$ 11,666 | \$ 17,979 | \$ 16,268 | \$ 26,451 | \$ 27,440 | \$ 19,072 | \$ 703 |
| Administrative Costs | \$ 3,401 | \$ 5,241 | \$ 4,742 | \$ 7,710 | \$ 7,999 | \$ 5,560 | \$ 205 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ 15,067 | \$ 23,220 | \$ 21,010 | \$ 34,161 | \$ 35,439 | \$ 24,632 | \$ 908 |
| Key Informant Interviews | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 4,432 | \$ 7,537 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,292 | \$ 2,197 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 5,724 | \$ 9,734 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 7,357 | \$ 1,694 | \$ 3,659 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,145 | \$ 494 | \$ 1,066 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 9,502 | \$ 2,188 | \$ 4,725 | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 3,498 | \$ - | \$ 3,659 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,020 | \$ - | \$ 1,066 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 4,518 | \$ - | \$ 4,725 | \$ - | \$ - |
| Provider Focus Groups | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 4,432 | \$ 8,794 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,292 | \$ 2,563 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 5,724 | \$ 11,357 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 8,253 | \$ 1,694 | \$ 4,181 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,406 | \$ 494 | \$ 1,219 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 10,659 | \$ 2,188 | \$ 5,400 | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 3,946 | \$ - | \$ 4,181 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,150 | \$ - | \$ 1,219 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 5,096 | \$ - | \$ 5,400 | \$ - | \$ - |
| Member/Beneficiary Surveys | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ 7,072 | \$ - | \$ 11,120 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 2,061 | \$ - | \$ 3,241 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 9,133 | \$ - | \$ 14,361 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ 2,653 | \$ - | \$ 7,161 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 773 | \$ - | \$ 2,088 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ 70,619 | \$ - | \$ 73,405 | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 74,045 | \$ - | \$ 82,654 | \$ - | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 8,144 | \$ - | \$ 22,370 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,374 | \$ - | \$ 6,521 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 10,518 | \$ - | \$ 28,891 | \$ - | \$ - |

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|---|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 20,965 | \$ - | \$ 35,936 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 6,111 | \$ - | \$ 10,475 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 27,076 | \$ - | \$ 46,411 | \$ - | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 20,885 | \$ - | \$ - | \$ 3,967 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 6,088 | \$ - | \$ - | \$ 1,157 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 26,973 | \$ - | \$ - | \$ 5,124 | \$ - |
| Statistical Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 33,605 | \$ - | \$ - | \$ 46,375 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 9,796 | \$ - | \$ - | \$ 13,518 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 43,401 | \$ - | \$ - | \$ 59,893 | \$ - |
| EHR Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | | \$ - | | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | | \$ - | | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | | \$ - | \$ - | | \$ - |
| Administrative Costs | \$ - | \$ - | | \$ - | \$ - | | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Reporting | | | | | | | |
| Interim Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 18,181 | \$ 9,304 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 5,300 | \$ 2,712 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 23,481 | \$ 12,016 | \$ - | \$ - | \$ - |
| Summative Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 33,041 | \$ 18,633 |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 9,631 | \$ 5,432 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 42,672 | \$ 24,065 |
| Total | \$ 15,067 | \$ 106,398 | \$ 193,682 | \$ 168,659 | \$ 130,991 | \$ 132,321 | \$ 24,973 |

Table B-2—AHCCCS Complete Care-Regional Behavioral Health Agreement (ACC-RBHA) Cost Estimate

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|--|------------------|------------------|------------------|------------------|------------------|------------------|---------------|
| Project Administration and Monitoring Reports | | | | | | | |
| Staff Costs | \$ 11,666 | \$ 17,989 | \$ 16,268 | \$ 26,451 | \$ 27,440 | \$ 19,072 | \$ 703 |
| Administrative Costs | \$ 3,401 | \$ 5,244 | \$ 4,742 | \$ 7,710 | \$ 7,999 | \$ 5,560 | \$ 205 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ 15,067 | \$ 23,233 | \$ 21,010 | \$ 34,161 | \$ 35,439 | \$ 24,632 | \$ 908 |
| Key Informant Interviews | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 4,432 | \$ 7,537 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,292 | \$ 2,197 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 5,724 | \$ 9,734 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 7,357 | \$ 1,694 | \$ 3,659 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,145 | \$ 494 | \$ 1,066 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 9,502 | \$ 2,188 | \$ 4,725 | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 3,498 | \$ - | \$ 3,659 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,020 | \$ - | \$ 1,066 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 4,518 | \$ - | \$ 4,725 | \$ - | \$ - |
| Provider Focus Groups | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 4,432 | \$ 8,794 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,292 | \$ 2,563 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 5,724 | \$ 11,357 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 8,253 | \$ 1,694 | \$ 4,181 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,406 | \$ 494 | \$ 1,219 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 10,659 | \$ 2,188 | \$ 5,400 | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 3,946 | \$ - | \$ 4,181 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,150 | \$ - | \$ 1,219 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 5,096 | \$ - | \$ 5,400 | \$ - | \$ - |
| Member/Beneficiary Surveys | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ 7,072 | \$ - | \$ 11,120 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 2,061 | \$ - | \$ 3,241 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 9,133 | \$ - | \$ 14,361 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ 2,653 | \$ - | \$ 7,161 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 773 | \$ - | \$ 2,088 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ 35,310 | \$ - | \$ 36,702 | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 38,736 | \$ - | \$ 45,951 | \$ - | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 8,144 | \$ - | \$ 22,370 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,374 | \$ - | \$ 6,521 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 10,518 | \$ - | \$ 28,891 | \$ - | \$ - |

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|---|------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 20,965 | \$ - | \$ 35,936 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 6,111 | \$ - | \$ 10,475 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 27,076 | \$ - | \$ 46,411 | \$ - | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 20,885 | \$ - | \$ - | \$ 3,967 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 6,088 | \$ - | \$ - | \$ 1,157 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 26,973 | \$ - | \$ - | \$ 5,124 | \$ - |
| Statistical Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 33,605 | \$ - | \$ - | \$ 46,375 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 9,796 | \$ - | \$ - | \$ 13,518 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 43,401 | \$ - | \$ - | \$ 59,893 | \$ - |
| EHR Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Reporting | | | | | | | |
| Interim Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 18,181 | \$ 9,304 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 5,300 | \$ 2,712 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 23,481 | \$ 12,016 | \$ - | \$ - | \$ - |
| Summative Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 33,041 | \$ 18,626 |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 9,631 | \$ 5,430 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 42,672 | \$ 24,056 |
| Total | \$ 15,067 | \$ 71,102 | \$ 193,682 | \$ 131,956 | \$ 130,991 | \$ 132,321 | \$ 24,964 |

Table B-3—Arizona Long Term Care System (ALTCs) Cost Estimate

| Evaluation Area/Task | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|--|------------------|------------------|------------------|------------------|------------------|---------------|
| Project Administration and Monitoring Reports | | | | | | |
| Staff Costs | \$ 24,101 | \$ 13,728 | \$ 22,463 | \$ 24,053 | \$ 15,683 | \$ 642 |
| Administrative Costs | \$ 5,878 | \$ 3,348 | \$ 5,479 | \$ 5,866 | \$ 3,825 | \$ 157 |
| Other Costs | | | | | | |
| Total Costs | \$ 29,979 | \$ 17,076 | \$ 27,942 | \$ 29,919 | \$ 19,508 | \$ 799 |
| Member/Beneficiary Surveys | | | | | | |
| Instrument Design | | | | | | |
| Staff Costs | \$ 7,168 | | \$ 10,923 | | | |
| Administrative Costs | \$ 1,748 | | \$ 2,664 | | | |
| Other Costs | | | | | | |
| Total Costs | \$ 8,916 | \$ - | \$ 13,587 | \$ - | \$ - | \$ - |
| Administration | | | | | | |
| Staff Costs | \$ 2,859 | | \$ 7,036 | | | |
| Administrative Costs | \$ 697 | | \$ 1,716 | | | |
| Other Costs | \$ 26,174 | | \$ 26,174 | | | |
| Total Costs | \$ 29,730 | \$ - | \$ 34,926 | \$ - | \$ - | \$ - |
| Analysis | | | | | | |
| Staff Costs | | \$ 8,097 | | \$ 21,439 | | |
| Administrative Costs | | \$ 1,975 | | \$ 5,229 | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 10,072 | \$ - | \$ 26,668 | \$ - | \$ - |
| Key Informant Interviews | | | | | | |
| Instrument Design | | | | | | |
| Staff Costs | | \$ 4,461 | \$ 9,735 | | | |
| Administrative Costs | | \$ 1,088 | \$ 2,375 | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 5,549 | \$ 12,110 | \$ - | \$ - | \$ - |
| Administration | | | | | | |
| Staff Costs | | \$ 8,343 | \$ 3,739 | \$ 5,946 | | |
| Administrative Costs | | \$ 2,035 | \$ 912 | \$ 1,450 | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 10,378 | \$ 4,651 | \$ 7,396 | \$ - | \$ - |
| Analysis | | | | | | |
| Staff Costs | | \$ 3,883 | | \$ 5,946 | | |
| Administrative Costs | | \$ 947 | | \$ 1,450 | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 4,830 | \$ - | \$ 7,396 | \$ - | \$ - |
| Provider Focus Groups | | | | | | |
| Instrument Design | | | | | | |
| Staff Costs | | | | | | |
| Administrative Costs | | | | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administration | | | | | | |
| Staff Costs | | | | | | |
| Administrative Costs | | | | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Analysis | | | | | | |
| Staff Costs | | | | | | |
| Administrative Costs | | | | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

| Evaluation Area/Task | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|---|-----------|------------|------------|------------|------------|-----------|
| Measure Calculation and Analysis | | | | | | |
| Data Collection/Validation | | | | | | |
| Staff Costs | | \$ 26,601 | | \$ 35,485 | | |
| Administrative Costs | | \$ 6,488 | | \$ 8,655 | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 33,089 | \$ - | \$ 44,140 | \$ - | \$ - |
| Code Development/Execution | | | | | | |
| Staff Costs | | \$ 25,576 | | | \$ 5,173 | |
| Administrative Costs | | \$ 6,238 | | | \$ 1,262 | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 31,814 | \$ - | \$ - | \$ 6,435 | \$ - |
| Statistical Analysis | | | | | | |
| Staff Costs | | \$ 34,358 | | | \$ 50,907 | |
| Administrative Costs | | \$ 8,380 | | | \$ 12,417 | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 42,738 | \$ - | \$ - | \$ 63,324 | \$ - |
| EHR Measure Calculation and Analysis | | | | | | |
| Data Collection/Validation | | | | | | |
| Staff Costs | | | | | | |
| Administrative Costs | | | | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Code Development/Execution | | | | | | |
| Staff Costs | | | | | | |
| Administrative Costs | | | | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Reporting | | | | | | |
| Interim Evaluation Report | | | | | | |
| Staff Costs | | \$ 26,210 | \$ 11,400 | | | |
| Administrative Costs | | \$ 6,393 | \$ 2,781 | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 32,603 | \$ 14,181 | \$ - | \$ - | \$ - |
| Summative Evaluation Report | | | | | | |
| Staff Costs | | | | | \$ 42,707 | \$ 25,920 |
| Administrative Costs | | | | | \$ 10,416 | \$ 6,321 |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ 53,123 | \$ 32,241 |
| Total | \$ 68,625 | \$ 188,149 | \$ 107,397 | \$ 115,519 | \$ 142,390 | \$ 33,040 |

Table B-4—Comprehensive Health Plan (CHP) Cost Estimate

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|--|-----------------|------------------|------------------|------------------|------------------|------------------|---------------|
| Project Administration and Monitoring Reports | | | | | | | |
| Staff Costs | \$ 5,019 | \$ 10,673 | \$ 9,547 | \$ 14,446 | \$ 14,516 | \$ 11,553 | \$ 403 |
| Administrative Costs | \$ 1,463 | \$ 3,111 | \$ 2,783 | \$ 4,211 | \$ 4,232 | \$ 3,368 | \$ 117 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ 6,482 | \$ 13,784 | \$ 12,330 | \$ 18,657 | \$ 18,748 | \$ 14,921 | \$ 520 |
| Key Informant Interviews | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 2,469 | \$ 4,396 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 720 | \$ 1,282 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 3,189 | \$ 5,678 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 4,015 | \$ 968 | \$ 1,829 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,170 | \$ 282 | \$ 533 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 5,185 | \$ 1,250 | \$ 2,362 | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 1,749 | \$ - | \$ 1,829 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 510 | \$ - | \$ 533 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 2,259 | \$ - | \$ 2,362 | \$ - | \$ - |
| Provider Focus Groups | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 2,469 | \$ 4,396 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 720 | \$ 1,282 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 3,189 | \$ 5,678 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 4,463 | \$ 968 | \$ 2,091 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,301 | \$ 282 | \$ 609 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 5,764 | \$ 1,250 | \$ 2,700 | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 1,973 | \$ - | \$ 2,091 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 575 | \$ - | \$ 609 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 2,548 | \$ - | \$ 2,700 | \$ - | \$ - |
| Member/Beneficiary Surveys | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ 4,299 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 1,253 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 5,552 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ 1,062 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 309 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 1,371 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|---|-----------------|------------------|-------------------|------------------|------------------|------------------|------------------|
| Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 11,467 | \$ - | \$ 19,789 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 3,343 | \$ - | \$ 5,768 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 14,810 | \$ - | \$ 25,557 | \$ - | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 11,376 | \$ - | \$ - | \$ 2,267 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 3,316 | \$ - | \$ - | \$ 661 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 14,692 | \$ - | \$ - | \$ 2,928 | \$ - |
| Statistical Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 18,234 | \$ - | \$ - | \$ 25,367 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 5,315 | \$ - | \$ - | \$ 7,395 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 23,549 | \$ - | \$ - | \$ 32,762 | \$ - |
| EHR Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Reporting | | | | | | | |
| Interim Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 9,800 | \$ 5,003 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,857 | \$ 1,458 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 12,657 | \$ 6,461 | \$ - | \$ - | \$ - |
| Summative Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 17,521 | \$ 10,139 |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 5,108 | \$ 2,956 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 22,629 | \$ 13,095 |
| Total | \$ 6,482 | \$ 20,707 | \$ 100,172 | \$ 38,974 | \$ 54,429 | \$ 73,240 | \$ 13,615 |

Table B-5—KidsCare Cost Estimate

| Evaluation Area/Task | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|--|------------------|------------------|------------------|------------------|------------------|---------------|
| Project Administration and Monitoring Reports | | | | | | |
| Staff Costs | \$ 18,026 | \$ 15,971 | \$ 25,471 | \$ 25,895 | \$ 17,710 | \$ 645 |
| Administrative Costs | \$ 4,763 | \$ 4,220 | \$ 6,729 | \$ 6,842 | \$ 4,679 | \$ 171 |
| Other Costs | | | | | | |
| Total Costs | \$ 22,789 | \$ 20,191 | \$ 32,200 | \$ 32,737 | \$ 22,389 | \$ 816 |
| Member/Beneficiary Surveys | | | | | | |
| Instrument Design | | | | | | |
| Staff Costs | \$ 3,340 | | \$ 3,753 | | | |
| Administrative Costs | \$ 883 | | \$ 992 | | | |
| Other Costs | | | | | | |
| Total Costs | \$ 4,223 | \$ - | \$ 4,745 | \$ - | \$ - | \$ - |
| Administration | | | | | | |
| Staff Costs | \$ 1,706 | | \$ 1,917 | | | |
| Administrative Costs | \$ 451 | | \$ 507 | | | |
| Other Costs | \$ 4,600 | | \$ 4,600 | | | |
| Total Costs | \$ 6,757 | \$ - | \$ 7,024 | \$ - | \$ - | \$ - |
| Analysis | | | | | | |
| Staff Costs | | \$ 7,939 | | \$ 8,920 | | |
| Administrative Costs | | \$ 2,097 | | \$ 2,357 | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 10,036 | \$ - | \$ 11,277 | \$ - | \$ - |
| Key Informant Interviews | | | | | | |
| Instrument Design | | | | | | |
| Staff Costs | | \$ 1,940 | \$ 7,314 | | | |
| Administrative Costs | | \$ 513 | \$ 1,932 | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 2,453 | \$ 9,246 | \$ - | \$ - | \$ - |
| Administration | | | | | | |
| Staff Costs | | \$ 3,378 | \$ 1,644 | \$ 3,484 | | |
| Administrative Costs | | \$ 893 | \$ 434 | \$ 921 | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 4,271 | \$ 2,078 | \$ 4,405 | \$ - | \$ - |
| Analysis | | | | | | |
| Staff Costs | | \$ 1,729 | | \$ 3,484 | | |
| Administrative Costs | | \$ 457 | | \$ 921 | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 2,186 | \$ - | \$ 4,405 | \$ - | \$ - |
| Provider Focus Groups | | | | | | |
| Instrument Design | | | | | | |
| Staff Costs | | | | | | |
| Administrative Costs | | | | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administration | | | | | | |
| Staff Costs | | | | | | |
| Administrative Costs | | | | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Analysis | | | | | | |
| Staff Costs | | | | | | |
| Administrative Costs | | | | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

| Evaluation Area/Task | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|---|-----------|------------|-----------|-----------|------------|-----------|
| Measure Calculation and Analysis | | | | | | |
| Data Collection/Validation | | | | | | |
| Staff Costs | | \$ 20,498 | | \$ 33,870 | | |
| Administrative Costs | | \$ 5,416 | | \$ 8,949 | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 25,914 | \$ - | \$ 42,819 | \$ - | \$ - |
| Code Development/Execution | | | | | | |
| Staff Costs | | \$ 20,432 | | | \$ 3,738 | |
| Administrative Costs | | \$ 5,398 | | | \$ 987 | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 25,830 | \$ - | \$ - | \$ 4,725 | \$ - |
| Statistical Analysis | | | | | | |
| Staff Costs | | \$ 32,446 | | | \$ 43,069 | |
| Administrative Costs | | \$ 8,572 | | | \$ 11,379 | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 41,018 | \$ - | \$ - | \$ 54,448 | \$ - |
| EHR Measure Calculation and Analysis | | | | | | |
| Data Collection/Validation | | | | | | |
| Staff Costs | | | | | | |
| Administrative Costs | | | | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Code Development/Execution | | | | | | |
| Staff Costs | | | | | | |
| Administrative Costs | | | | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Reporting | | | | | | |
| Interim Evaluation Report | | | | | | |
| Staff Costs | | \$ 17,806 | \$ 8,878 | | | |
| Administrative Costs | | \$ 4,704 | \$ 2,346 | | | |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ 22,510 | \$ 11,224 | \$ - | \$ - | \$ - |
| Summative Evaluation Report | | | | | | |
| Staff Costs | | | | | \$ 30,429 | \$ 16,891 |
| Administrative Costs | | | | | \$ 8,039 | \$ 4,463 |
| Other Costs | | | | | | |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ 38,468 | \$ 21,354 |
| Total | \$ 33,769 | \$ 154,409 | \$ 66,517 | \$ 95,643 | \$ 120,030 | \$ 22,170 |

Table B-6—Prior Quarter Coverage (PQC) Waiver Cost Estimate

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|--|------------------|------------------|------------------|------------------|------------------|------------------|---------------|
| Project Administration and Monitoring Reports | | | | | | | |
| Staff Costs | \$ 8,140 | \$ 14,029 | \$ 12,889 | \$ 19,370 | \$ 19,010 | \$ 15,305 | \$ 403 |
| Administrative Costs | \$ 2,373 | \$ 4,090 | \$ 3,757 | \$ 5,646 | \$ 5,542 | \$ 4,462 | \$ 117 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ 10,513 | \$ 18,119 | \$ 16,646 | \$ 25,016 | \$ 24,552 | \$ 19,767 | \$ 520 |
| Key Informant Interviews | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Provider Focus Groups | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 3,704 | \$ 5,653 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,080 | \$ 1,648 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 4,784 | \$ 7,301 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 5,910 | \$ 1,452 | \$ 2,874 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,723 | \$ 423 | \$ 838 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 7,633 | \$ 1,875 | \$ 3,712 | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 2,825 | \$ - | \$ 2,874 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 824 | \$ - | \$ 838 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 3,649 | \$ - | \$ 3,712 | \$ - | \$ - |
| Member/Beneficiary Surveys | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ 6,179 | \$ - | \$ 8,355 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 1,801 | \$ - | \$ 2,436 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 7,980 | \$ - | \$ 10,791 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ 2,061 | \$ - | \$ 4,489 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 601 | \$ - | \$ 1,308 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ 35,310 | \$ - | \$ 36,702 | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 37,972 | \$ - | \$ 42,499 | \$ - | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 6,448 | \$ - | \$ 16,348 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,880 | \$ - | \$ 4,765 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 8,328 | \$ - | \$ 21,113 | \$ - | \$ - |

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|---|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|
| Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 15,566 | \$ - | \$ 26,720 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 4,537 | \$ - | \$ 7,789 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 20,103 | \$ - | \$ 34,509 | \$ - | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 15,312 | \$ - | \$ - | \$ 3,401 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 4,463 | \$ - | \$ - | \$ 991 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 19,775 | \$ - | \$ - | \$ 4,392 | \$ - |
| Statistical Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 24,321 | \$ - | \$ - | \$ 34,256 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 7,090 | \$ - | \$ - | \$ 9,986 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 31,411 | \$ - | \$ - | \$ 44,242 | \$ - |
| EHR Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Reporting | | | | | | | |
| Interim Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 13,106 | \$ 6,830 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 3,820 | \$ 1,991 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 16,926 | \$ 8,821 | \$ - | \$ - | \$ - |
| Summative Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 24,301 | \$ 13,100 |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 7,084 | \$ 3,819 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 31,385 | \$ 16,919 |
| Total | \$ 10,513 | \$ 64,071 | \$ 129,255 | \$ 96,303 | \$ 87,598 | \$ 99,786 | \$ 17,439 |

Table B-7—Tribal Dental Authority Cost Estimate

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|--|-----------------|------------------|-----------------|------------------|------------------|------------------|---------------|
| Project Administration and Monitoring Reports | | | | | | | |
| Staff Costs | \$ 4,326 | \$ 7,801 | \$ 7,692 | \$ 11,588 | \$ 10,776 | \$ 8,015 | \$ 300 |
| Administrative Costs | \$ 1,261 | \$ 2,274 | \$ 2,242 | \$ 3,378 | \$ 3,141 | \$ 2,336 | \$ 88 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ 5,587 | \$ 10,075 | \$ 9,934 | \$ 14,966 | \$ 13,917 | \$ 10,351 | \$ 388 |
| Key Informant Interviews | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 1,741 | \$ 3,768 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 508 | \$ 1,099 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 2,249 | \$ 4,867 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 2,791 | \$ 726 | \$ 1,568 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 814 | \$ 212 | \$ 457 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 3,605 | \$ 938 | \$ 2,025 | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 1,525 | \$ - | \$ 1,568 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 444 | \$ - | \$ 457 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 1,969 | \$ - | \$ 2,025 | \$ - | \$ - |
| Provider Focus Groups | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Member/Beneficiary Surveys | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ 3,700 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 1,078 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 4,778 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ 826 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 241 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 1,067 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|---|-----------------|------------------|------------------|------------------|------------------|------------------|-----------------|
| Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 8,794 | \$ - | \$ 15,115 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,563 | \$ - | \$ 4,406 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 11,357 | \$ - | \$ 19,521 | \$ - | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 8,674 | \$ - | \$ - | \$ 1,700 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,529 | \$ - | \$ - | \$ 496 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 11,203 | \$ - | \$ - | \$ 2,196 | \$ - |
| Statistical Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 13,752 | \$ - | \$ - | \$ 19,112 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 4,009 | \$ - | \$ - | \$ 5,571 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 17,761 | \$ - | \$ - | \$ 24,683 | \$ - |
| EHR Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Reporting | | | | | | | |
| Interim Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 7,545 | \$ 4,458 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,200 | \$ 1,300 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 9,745 | \$ 5,758 | \$ - | \$ - | \$ - |
| Summative Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 13,472 | \$ 7,298 |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 3,927 | \$ 2,127 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 17,399 | \$ 9,425 |
| Total | \$ 5,587 | \$ 15,920 | \$ 67,823 | \$ 26,529 | \$ 37,488 | \$ 54,629 | \$ 9,813 |

Appendix C. Timeline and Major Milestones

The following project timeline, presented in Figure C-1 has been prepared for the Section 1115 Arizona Health Care Cost Containment System (AHCCCS) Demonstration Waiver (the Waiver). This timeline is preliminary and subject to change based on approval of the evaluation design and implementation of the Waiver programs.

Figure C-1—Preliminary Project Timeline

| Task | SFY2024 | | | | SFY2025 | | | | SFY2026 | | | | SFY2027 | | | | SFY2028 | | | | SFY2029 | | | |
|---|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|
| | CY2024 | | | | CY2025 | | | | CY2026 | | | | CY2027 | | | | CY2028 | | | | CY2029 | | | |
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Prepare and Implement Study Design | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct kick-off meeting | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare analysis workplan | | | | | | | | | | | | | | | | | | | | | | | | |
| Data Collection | | | | | | | | | | | | | | | | | | | | | | | | |
| Obtain Arizona Medicaid claims/encounters | | | | | | | | | | | | | | | | | | | | | | | | |
| Obtain Arizona Medicaid member, provider, and eligibility/enrollment data | | | | | | | | | | | | | | | | | | | | | | | | |
| Obtain financial data | | | | | | | | | | | | | | | | | | | | | | | | |
| Integrate data; generate analytic dataset | | | | | | | | | | | | | | | | | | | | | | | | |
| Obtain EHR data | | | | | | | | | | | | | | | | | | | | | | | | |
| Integrate EHR data into processes | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct Analysis | | | | | | | | | | | | | | | | | | | | | | | | |
| Key Informant Interviews and Focus Groups | | | | | | | | | | | | | | | | | | | | | | | | |
| Develop protocols | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct interviews and focus groups | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct analyses | | | | | | | | | | | | | | | | | | | | | | | | |
| Non-Survey Analyses | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare and calculate metrics | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct statistical testing and comparison | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct NCI measures analysis | | | | | | | | | | | | | | | | | | | | | | | | |
| Survey Analyses | | | | | | | | | | | | | | | | | | | | | | | | |
| Develop survey instrument | | | | | | | | | | | | | | | | | | | | | | | | |
| Field survey; collect satisfaction data | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct survey analyses | | | | | | | | | | | | | | | | | | | | | | | | |
| Reporting | | | | | | | | | | | | | | | | | | | | | | | | |
| Draft Interim Evaluation Report | | | | | | | | | | | | | | | | | | | | | | | | |
| Final Interim Evaluation Report | | | | | | | | | | | | | | | | | | | | | | | | |
| Draft Summative Evaluation Report | | | | | | | | | | | | | | | | | | | | | | | | |
| Final Summative Evaluation Report | | | | | | | | | | | | | | | | | | | | | | | | |

Note: CY: calendar year; EHR: electronic health record; NCI: National Core Indicators; SFY: state fiscal year; Q: quarter

Appendix D. Proposed Measure Specifications

The tables in this section provide the detailed measure specifications for the Section 1115 Arizona Health Care Cost Containment System (AHCCCS) Demonstration Waiver (the Waiver) evaluation.

ACC

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

Research Question 1.1: What care coordination strategies or activities have AHCCCS Complete Care (ACC) plans been conducting during the renewal period?

| Health plans' reported evolution of care coordination activities and continued barriers during the renewal period (Measure 1-1) | |
|---|------------------------------------|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 1.2: What care coordination strategies or activities have providers been conducting during the renewal period?

| Providers' reported evolution of care coordination since the integration period and remaining barriers during the renewal period (Measure 1-2) | |
|--|------------------------------------|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Provider focus groups |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 1.3: Did care coordination strategies improve or maintain patient engagement and follow up care after an inpatient (IP) stay or emergency department (ED) visit during the renewal period?

| Percentage of members with follow-up after an ED visit for members with multiple high-risk chronic conditions (Measure 1-3) | |
|---|---|
| Numerator/Denominator | Numerator: Number of members with a follow-up service within 7 days after the ED visit. Denominator: Number of members 18 years of age and older who have multiple high-risk chronic conditions with an ED visit who are continuously enrolled for 365 days prior to the ED visit and 7 days after with no more than one gap in enrollment of 45 days. |
| Comparison Population | N/A |
| Measure Steward | National Committee for Quality Assurance (NCQA) |
| Measure Name | Follow-Up After ED Visit for People With Multiple High-Risk Chronic Conditions (FMC) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test Interrupted time series (ITS) |
| Frequency | Annually/Monthly |

Research Question 1.4: Do members perceive their doctors to have better care coordination as a result of ACC renewal?

| Percentage of members who reported their doctor seemed informed about the care they received from other health providers (Measure 1-4) | |
|--|--|
| Numerator/Denominator | Numerator: Number of members indicating their personal doctor seemed informed about the care they received from other health providers in response to Consumer Assessment of Healthcare Providers and Systems (CAHPS®) ^{D-1} Denominator: Number of respondents to survey question regarding whether their doctor seemed informed about the care they received from other health providers |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| CAHPS Question | Child: In the last 6 months, how often did your child's personal doctor seem informed and up to date about the care your child got from these doctors or other health providers? Adult: In the last 6 months, how often did your personal doctor seem informed and up to date about the care you got from these doctors or other health providers? |
| Data Source | <ul style="list-style-type: none"> Beneficiary survey National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national benchmarks Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | N/A |

^{D-1} CAHPS is a registered trademark of the Agency for Healthcare Quality and Research.

Hypothesis 2: Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period.

Research Question 2.1: Do members enrolled in an ACC plan have the same or better access to primary care services compared to prior to the renewal period?

| Percentage of members meeting minimum time/distance network standards (Measure 2-1) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members meeting time/distance network standards for AHCCCS contractors Denominator: Number of members enrolled in ACC plan |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Member/provider data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Subgroup analysis of children and adults Subgroup analysis by county and/or urbanicity ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

| Percentage of adults who accessed preventive/ambulatory health services (Measure 2-2) | |
|---|---|
| Numerator/Denominator | Numerator: Number of members with an ambulatory or preventive care visit Denominator: Number of members 20 years and older continuously enrolled for the measurement year with no more than one gap in enrollment of up to 45 days |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Adults' Access to Preventive/Ambulatory Health Services (AAP) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

| Percentage of members under 21 years of age who received a comprehensive or periodic oral evaluation (Measure 2-3) | |
|--|--|
| Numerator/Denominator | <p>Numerator: Percentage of members under 21 years of age who received a comprehensive or periodic evaluation with a dental provider during the measurement year.</p> <p>Denominator: Members under 21 years of age continuously enrolled during the measurement year with no gaps in enrolment.</p> |
| Comparison Population | N/A |
| Measure Steward | Centers for Medicare & Medicaid Services (CMS) Child Core Set |
| Measure Name | Oral Evaluation, Dental Services (OEV-CH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test Subgroup analysis of children and adults ITS |
| Frequency | Annually/Monthly |

| Percentage of members who had a well-child visit in the first 30 months of life (Measure 2-4) | |
|---|--|
| Numerator/Denominator | <p>Numerator: Number of members with well-child visits on different dates. Two rates are reported:</p> <ul style="list-style-type: none"> Six or more well child visits on different dates of service on or before the 15-month birthday Two or more well child visits on different dates of service between the child's 15-month birthday plus one day and the 30-month birthday. <p>Denominator: Two rates are reported:</p> <ul style="list-style-type: none"> Number of members who turn 15 months old during the measurement year and are continuously enrolled between 31 days and 15 months of age with no more than one gap in enrollment of up to 45 days. Number of members who turn 30 months old during the measurement year and are continuously enrolled between 15 months plus 1 day and 30 months of age with no more than one gap in enrollment of up to 45 days. |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Well-Child Visits in the First 30 Months of Life (W30) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

| Percentage of members 3-21 years of age who had a well-care visit with a PCP or obstetrician gynecologist (OB/GYN) (Measure 2-5) | |
|--|---|
| Numerator/Denominator | Numerator: Members with one or more well-care visits during the measurement year. Denominator: Number of members aged 3-21 years who are continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days. |
| Comparison Population | N/A |
| Measure Steward | CMS Child Core Set |
| Measure Name | Children and Adolescents' Well-Care Visits (WCV) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

| Percentage of members who reported they received care as soon as they needed (Measure 2-6) | |
|--|---|
| Numerator/Denominator | Numerator: Number of members indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | <p>Child: In the last 6 months, when your child needed care right away, how often did your child get care as soon as he or she needed?</p> <p>Adult: In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?</p> |
| Data Source | <ul style="list-style-type: none"> Beneficiary survey National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | N/A |

Percentage of members who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed (Measure 2-7)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members indicating the ability to get an appointment for routine care as soon as they needed Denominator: Number of respondents to getting appointment for routine care survey question |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | Child: In the last 6 months, when you made an appointment for a check-up or routine care for your child at a doctor's office or clinic, how often did you get an appointment as soon as your child needed? Adult: In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed? |
| Data Source | <ul style="list-style-type: none"> Beneficiary survey National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | N/A |

Percentage of members who reported they were able to schedule an appointment with a specialist as soon as they needed (Measure 2-8)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members indicating the ability to get an appointment with a specialist as soon as they needed Denominator: Number of respondents to getting appointment with a specialist survey question |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | Child: In the last six months, how often did you get an appointment for your child to see a specialist as soon as you needed? Adult: In the last six months, how often did you get an appointment to see a specialist as soon as you needed? |
| Data Source | <ul style="list-style-type: none"> Beneficiary survey National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | N/A |

Research Question 2.2: Do members enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to the renewal period?

| Percentage of members who had initiation of substance use disorder (SUD) treatment (Measure 2-9) | |
|--|--|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who had initiation of treatment within 14 days of the index episode</p> <p>Denominator: Number of members aged 13 and over during the measurement year with an alcohol or opioid diagnosis and 194 days continuous enrollment prior to the SUD episode and 47 days after the index episode.</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Initiation and Engagement of SUD Treatment: Initiation of SUD Treatment (IET) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> ITS Comparison to national/regional benchmarks Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | Annually/Monthly |

| Percentage of members who had engagement of SUD treatment (Measure 2-10) | |
|--|---|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who had initiation of treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode</p> <p>Denominator: Number of members aged 13 and over during the measurement year with an alcohol or opioid diagnosis and 194 days continuous enrollment prior to the SUD episode and 47 days after the index episode.</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Initiation and Engagement of SUD Treatment: Engagement of SUD Treatment (IET) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test ITS Subgroup analysis of children and adults |
| Frequency | Annually/Monthly |

Hypothesis 3: Quality of care will be maintained or improved during the renewal period.

Research Question 3.1: Do members enrolled in an ACC plan have the same or higher rates of appropriate immunizations compared to prior to the renewal period?

| Percentage of children 2 years of age with appropriate immunization status (Measure 3-1) | |
|--|---|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who had: four diphtheria, tetanus and acellular pertussis (DtaP); three polio (IPV); one measles, mumps and rubella (MMR); three haemophilus influenza type B (HiB); three hepatitis B (HepB), one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The measure calculates a rate for each vaccine and nine separate combination rates.</p> <p>Denominator: Number of children who turn 2 years of age during the measurement year who were continuously enrolled 12 months prior to the member's 2nd birthday and have no more than one gap in enrollment of up to 45 days during the 12 months prior to the child's second birthday.</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Child Core Set |
| Measure Name | Childhood Immunization Status (CIS) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Arizona State Immunization Information System (ASIIS) Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test |
| Frequency | Annually/Monthly |

| Percentage of adolescents 13 years of age with appropriate immunizations (Measure 3-2) | |
|--|--|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who had: one dose of meningococcal vaccine, one tetanus, diphtheria toxoids and acellular pertussis (Tdap) vaccine, and have completed the human papillomavirus (HPV) vaccine series by their 13th birthday. The measure calculates a rate for each vaccine and two combination rates.</p> <p>Denominator: Number of adolescents 13 years of age who were continuously enrolled 12 months prior to the member's 13th birthday and have no more than one gap in enrollment of up to 45 days during the 12 months prior to the child's 13th birthday.</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Child Core Set |
| Measure Name | Immunizations for Adolescents (IMA) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data ASIIS Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test |
| Frequency | Annually/Monthly |

| Percentage of adult members who reported having a flu shot or nasal flu spray (Measure 3-3) | |
|---|---|
| Numerator/Denominator | Numerator: Number of members stating they had a flu shot or nasal flu spray since July 1 Denominator: Number of respondents to survey question about flu shot or spray |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | Child: N/A Adult: Have you had either a flu shot or flu spray in the nose since July 1, <year>? |
| Data Source | <ul style="list-style-type: none"> Beneficiary survey National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test |
| Frequency | N/A |

Research Question 3.2: Do members enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to the renewal period?

| Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent (Measure 3-4) | |
|---|---|
| Numerator/Denominator | Numerator: Number of members in the denominator who had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year Denominator: Number of members aged 5-64 who were identified as having persistent asthma who were continuously enrolled during the measurement year and the year prior to the measurement year with no more than one gap in enrollment of up to 45 days during the continuous enrollment period |
| Comparison Population | N/A |
| Measure Steward | CMS Child and Adult Core Set |
| Measure Name | Asthma Medication Ratio (AMR) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | Annually/Monthly |

Research Question 3.3: Do members enrolled in an ACC plan have the same or better management of BH conditions compared to prior to the renewal period?

| Percentage of adult members who remained on an antidepressant medication treatment (Measure 3-5) | |
|--|--|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who remained on an antidepressant medication treatment. Two rates are reported:</p> <ul style="list-style-type: none"> Members who remained on antidepressant medication treatment for at least 84 days Members who remained on antidepressant medication treatment for at least 180 days <p>Denominator: Number of members aged 18 and older who were treated with antidepressant medication and had a diagnosis of major depression who were continuously enrolled from 105 days prior to the index prescription start date (IPSD) through 231 days after the IPSD with no more than one gap in enrollment of up to 45 days during the continuous enrollment period</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Antidepressant Medication Management (AMM) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

| Percentage of members with a follow-up visit after hospitalization for mental illness (Measure 3-6) | |
|---|--|
| Numerator/Denominator | <p>Numerator: Number of members with a discharge for mental illness and a follow-up visit with a mental health practitioner within 7 days after discharge</p> <p>Denominator: Number of members 6 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Child & Adult Core Set |
| Measure Name | Follow-Up After Hospitalization for Mental Illness (FUH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | Annually/Monthly |

| Percentage of members with a follow-up visit after an ED visit for mental illness (Measure 3-7) | |
|---|---|
| Numerator/Denominator | <p>Numerator: Number of ED visits in the denominator with a follow-up visit for mental illness within 7 days of the ED visit.</p> <p>Denominator: Number of ED visits for members 6 years of age and older with a principal diagnosis of mental illness or intentional self-harm with continuous enrollment from the date of the ED visit through 30 days after the ED visit.</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Child and Adult Core Set |
| Measure Name | Follow-Up After Emergency Department Visit for Mental Illness (FUM) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | Annually/Monthly |

| Percentage of members with a follow-up visit after an ED visit for SUD (Measure 3-8) | |
|--|---|
| Numerator/Denominator | <p>Numerator: Number of ED visits in the denominator with a follow-up visit for SUD within 7 days of the ED visit.</p> <p>Denominator: Number of ED visits for members 13 years of age and older with a principal diagnosis of SUD and was continuously enrolled from the date of the ED visit through 30 days after the ED visit</p> |
| Comparison Population | National/regional benchmarks |
| Measure Steward | CMS Child and Adult Core Set |
| Measure Name | Follow-Up After ED Visit for SUD (FUA) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | Annually/Monthly |

| Percentage of members diagnosed with a mental health disorder (Measure 3-9) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members 1 year old and older diagnosed with a mental health disorder Denominator: Number of members 1 year old and older who are continuously enrolled with a gap in enrollment no greater than 45 days. |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Diagnosed Mental Health Disorders (DMH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | Annually/Monthly |

Research Question 3.4: Do members enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to the renewal period?

| Percentage of adult members who have a prescription for opioids at high dosage (Measure 3-10) | |
|---|---|
| Numerator/Denominator | Numerator: Number of members in the denominator who received prescriptions for opioids with an average daily dosage greater than or equal to 90 morphine milligram equivalents (MME) over a period of 90 days or more. Denominator: Number of members aged 18 and older with two or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more. |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set/Pharmacy Quality Alliance (PQA) |
| Measure Name | Use of Opioids at High Dosage in Persons Without Cancer |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

| Percentage of adult members with a concurrent use of opioids and benzodiazepines (Measure 3-11) | |
|---|---|
| Numerator/Denominator | Numerator: Number of members in the denominator with concurrent use of prescription opioids and benzodiazepines. Denominator: Number of members aged 18 and older with 2 or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more. |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set/PQA |
| Measure Name | Concurrent Use of Opioids and Benzodiazepines (COB) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Research Question 3.5: Do members enrolled in an ACC plan have equal or lower ED or hospital utilization compared to prior to ACC renewal?

| Number of emergent ED visits per 1,000 member months (Measure 3-12) | |
|---|--|
| Numerator/Denominator | Numerator: Number of ED visits with an emergent diagnosis code among members. Source for emergent diagnosis codes is currently being researched. Denominator: Number of member months among all adult members |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | Annually/Monthly |

| Number of non-emergent ED visits per 1,000 member months (Measure 3-13) | |
|---|--|
| Numerator/Denominator | Numerator: Number of ED visits with a non-emergent diagnosis code among members. Source for non-emergent diagnosis codes is currently being researched. Denominator: Number of member months among all adult members |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | Annually/Monthly |

| Number of IP stays per 1,000 member months (Measure 3-14) | |
|---|---|
| Numerator/Denominator | Numerator: Number of total IP stays. Denominator: Number of member months, divided by 1,000. |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Inpatient Utilization—General Hospital/Acute Care (IPU) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | Annually/Monthly |

| Percentage of adult IP discharges with an unplanned readmission within 30 days (Measure 3-15) | |
|---|---|
| Numerator/Denominator | Numerator: Number of acute IP stays in the denominator followed by an unplanned acute readmission within 30 days. Denominator: Number of acute IP stays for members aged 18 to 64 who were continuously enrolled for 365 days prior to the index discharge date through 30 days after the index discharge date with no more than one gap in enrollment of up to 45 days. |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Plan All-Cause Readmissions (PCR) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Hypothesis 4: Member self-assessed health outcomes will be maintained or improved during the renewal period.

Research Question 4.1: Do members enrolled in an ACC plan have the same or higher overall health rating compared to prior to the renewal period?

| Percentage of members who reported a rating of overall health as very good or excellent (Measure 4-1) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members indicating they had a high rating of overall health Denominator: Number of respondents to survey question regarding overall health |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | Child: In general, how would you rate your child's overall health? Adult: In general, how would you rate your overall health? |
| Data Source | <ul style="list-style-type: none"> Beneficiary survey National/regional benchmarks Behavioral Risk Factor Surveillance System (BRFSS) |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | N/A |

Research Question 4.2: Do members enrolled in an ACC plan have the same or higher overall mental or emotional health rating compared to prior to the renewal period?

| Percentage of members who reported a rating of overall mental or emotional health as very good or excellent (Measure 4-2) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members indicating they had a high rating of mental or emotional health Denominator: Number of respondents to survey question regarding mental or emotional health |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | Child: In general, how would you rate your child's overall mental or emotional health? Adult: In general, how would you rate your overall mental or emotional health? |
| Data Source | <ul style="list-style-type: none"> Beneficiary survey National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | N/A |

Hypothesis 5: Member satisfaction with their healthcare will be maintained or improved during the renewal period.

Research Question 5.1: Are members equally or more satisfied with their healthcare as a result of integrated care during the renewal period?

| Percentage of members who reported a high rating of health plan (8, 9, or 10 out of 10) (Measure 5-1) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members indicating they had a high rating of their health plan Denominator: Number of respondents to survey question regarding satisfaction of health plan |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | Child: Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your child's health plan? Adult: Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan? |
| Data Source | <ul style="list-style-type: none"> Beneficiary survey National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | N/A |

| Percentage of members who reported a high rating of overall healthcare (8, 9, or 10 out of 10) (Measure 5-2) | |
|--|--|
| Numerator/Denominator | Numerator: Number of members indicating they had a high rating of their overall healthcare Denominator: Number of respondents to survey question regarding satisfaction of overall healthcare |
| Comparison Population | National/regional benchmarks |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | Child: Using any number from 0 to 10, where 0 is the worst healthcare possible and 10 is the best healthcare possible, what number would you use to rate all your child's health care in the last 6 months? Adult: Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 6 months? |
| Data Source | <ul style="list-style-type: none"> Beneficiary survey National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | N/A |

ACC-RBHA

Hypothesis 1: Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period.

Research Question 1.1: Do adult members with a serious mental illness (SMI) enrolled in an AHCCCS Complete Care-Regional Behavioral Health Agreement (ACC-RBHA) have the same or increased access to primary care services compared to prior to the waiver renewal?

| Percentage of members meeting minimum time/distance network standards (Measure 1-1) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members meeting time/distance network standards for AHCCCS contractors Denominator: Number of members enrolled in ACC-RBHA plan |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Member and provider data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Subgroup analysis of children and adults Subgroup analysis by county and/or urbanicity ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

| Percentage of adults who accessed preventive/ambulatory health services (Measure 1-2) | |
|---|---|
| Numerator/Denominator | Numerator: Number of members with an ambulatory or preventive care visit Denominator: Number of members 20 years and older continuously enrolled for the measurement year with no more than one gap in enrollment of up to 45 days |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Adults' Access to Preventive/Ambulatory Health Services (AAP) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypotheses |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

| Percentage of members who reported they received care as soon as they needed (Measure 1-3) | |
|--|--|
| Numerator/Denominator | Numerator: Number of members indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | In the last 6 months, when you needed care right away, how often did you get care as soon as you needed? |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | N/A |

| Percentage of members who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed (Measure 1-4) | |
|--|---|
| Numerator/Denominator | Numerator: Number of members indicating the ability to get an appointment for routine care as soon as they needed Denominator: Number of respondents to getting appointment for routine care survey question |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed? |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | N/A |

Percentage of members who reported they were able to schedule an appointment with a specialist as soon as they needed (Measure 1-5)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members indicating the ability to get an appointment with a specialist as soon as they needed Denominator: Number of respondents to getting appointment with a specialist survey question |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | In the last 6 months, how often did you get an appointment to see a specialist as soon as needed? |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | N/A |

Research Question 1.2: Do adult members with an SMI enrolled in an ACC-RBHA have the same or increased access to substance abuse treatment compared to prior to the waiver renewal?

Percentage of members who had initiation of SUD treatment (Measure 1-6)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members in the denominator who had initiation of SUD treatment within 14 days of the index episode Denominator: Number of members aged 13 and over during the measurement year with an SUD diagnosis and 194 days continuous enrollment prior to the episode and 47 days after the index episode. |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Initiation and Engagement of SUD Treatment: Initiation of SUD Treatment (IET) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Percentage of members who had engagement of SUD treatment (Measure 1-7)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members in the denominator who had initiation of SUD treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode Denominator: Number of members aged 13 and over during the measurement year with an SUD diagnosis and 194 days continuous enrollment prior to the episode and 47 days after the index episode |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |

Percentage of members who had engagement of SUD treatment (Measure 1-7)

| | |
|-------------------|--|
| Measure Name | Initiation and Engagement of SUD Treatment: Engagement of SUD Treatment (IET) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Hypothesis 2: Quality of care will be maintained or improved during the renewal period.

Research Question 2.1: Do adult members with an SMI enrolled in an ACC-RBHA have the same or higher rates of appropriate immunizations compared to prior to waiver renewal?

Percentage of members who reported having a flu shot or nasal flu spray (Measure 2-1)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members stating they had a flu shot or nasal flu spray since July 1 Denominator: Number of respondents to survey question about flu shot or spray |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | Have you had either a flu shot or flu spray in the nose since July 1, <year>? |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | N/A |

Research Question 2.2: Do adult members with an SMI enrolled in an ACC-RBHA have the same or better management of chronic conditions compared to prior to the waiver renewal?

Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent (Measure 2-2)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members in the denominator who had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year Denominator: Number of members aged 19-64 who were identified as having persistent asthma who were continuously enrolled during the measurement year and the year prior to the measurement year with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment |
| Comparison Population | N/A |
| Measure Steward | CMS Child and Adult Core Set |
| Measure Name | Asthma Medication Ratio (AMR) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |

Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent (Measure 2-2)

| | |
|-------------------|---|
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Percentage of members with schizophrenia or bipolar disorder using antipsychotic medications who had a diabetes screening test (Measure 2-3)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator with a diabetes screening test</p> <p>Denominator: Number of members aged 18-64 with schizophrenia, schizoaffective disorder or bipolar disorder, who were dispensed an antipsychotic medication and who were continuously enrolled for the measurement year with no more than one gap in enrollment of up to 45 days</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications (SSD) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Percentage of members with schizophrenia who adhered to antipsychotic medications (Measure 2-4)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who remained on an antipsychotic medication for at least 80 percent of their treatment period</p> <p>Denominator: Number of members aged 19 to 64 with schizophrenia or schizoaffective disorder and were dispensed antipsychotic medication and who were continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Research Question 2.3: Do adult members with an SMI enrolled in an ACC-RBHA have the same or better management of BH conditions compared to prior to the waiver renewal?

| Percentage of members who remained on antidepressant medication treatment (Measure 2-5) | |
|---|---|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who remained on an antidepressant medication treatment. Two rates are reported:</p> <p>Members who remained on antidepressant medication treatment for at least 84 days</p> <p>Members who remained on antidepressant medication treatment for at least 180 days</p> <p>Denominator: Number of members aged 18 and older who were treated with antidepressant medication and had a diagnosis of major depression who were continuously enrolled from 105 days prior to the index prescription start date (IPSD) through 231 days after the IPSD with no more than one gap in enrollment of up to 45 days during the continuous enrollment period</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Antidepressant Medication Management (AMM) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

| Percentage of members with a follow-up visit after hospitalization for mental illness (Measure 2-6) | |
|---|---|
| Numerator/Denominator | <p>Numerator: Number of members with a discharge for mental illness and a follow-up visit with a mental health practitioner within 7 days after discharge.</p> <p>Denominator: Number of members 18 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge.</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Follow-Up After Hospitalization for Mental Illness (FUH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Percentage of members with a follow-up visit after an ED visit for mental illness (Measure 2-7)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of ED visits in the denominator with a follow-up visit for mental illness within 7 days of an ED visit for mental illness. Denominator: Number of ED visits for members 18 years of age and older with a principal diagnosis of mental illness or intentional self-harm with continuous enrollment from the date of the ED visit through 30 days after the ED visit |
| Comparison Population | N/A |
| Measure Steward | CMS Child and Adult Core Set |
| Measure Name | Follow-Up After Emergency Department Visit for Mental Illness (FUM) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Percentage of members with a follow-up visit after an ED visit for SUD (Measure 2-8)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of ED visits in the denominator with a follow-up visit for SUD within 7 days of the ED visit. Denominator: Number of ED visits for members 18 years of age and older with a principal diagnosis of SUD and were continuously enrolled from the date of the ED visit through 30 days after the ED visit |
| Comparison Population | N/A |
| Measure Steward | CMS Adult and Child Core Set |
| Measure Name | Follow-Up After ED Visit for SUD (FUA) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Percentage of members diagnosed with a mental health disorder (Measure 2-9)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members 1 year old and older diagnosed with a mental health disorder Denominator: Number of members 1 year old and older who are continuously enrolled with a gap in enrollment no greater than 45 days. |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Diagnosed Mental Health Disorders (DMH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |

Percentage of members diagnosed with a mental health disorder (Measure 2-9)

| | |
|-------------------|---|
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Percentage of members receiving mental health services (total and by IP, IOP or partial hospitalization, OP, ED, or telehealth) (Measure 2-10)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members utilizing mental health services. Stratified by the following services:</p> <ul style="list-style-type: none"> • IP • IOP or partial hospitalization • OP • ED • Telehealth • Any service <p>Denominator: Number of member months, divided by 12</p> |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Mental Health Utilization (MPT) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Research Question 2.4: Do adult members with an SMI enrolled in an ACC-RBHA have the same or better management of opioid prescriptions compared to prior to the waiver renewal?

Percentage of members who have prescriptions for opioids at a high dosages (Measure 2-11)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who received prescriptions for opioids with an average daily dosage greater than or equal to 90 morphine milligram equivalents (MME) over a period of 90 days or more.</p> <p>Denominator: Number of members aged 18 and older with two or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more.</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set / PQA |
| Measure Name | Use of Opioids at High Dosage in Persons Without Cancer (OHD) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |

Percentage of members who have prescriptions for opioids at a high dosages (Measure 2-11)

| | |
|-------------------|---|
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Percentage of members with concurrent use of opioids and benzodiazepines (Measure 2-12)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator with concurrent use of prescription opioids and benzodiazepines.</p> <p>Denominator: Number of members aged 18 and older with 2 or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more.</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set / PQA |
| Measure Name | Concurrent Use of Opioids and Benzodiazepines (COB) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Research Question 2.5: Do adult members with an SMI enrolled in an ACC-RBHA have the same or lower tobacco usage compared to prior to the waiver renewal?

Percentage of members who indicated smoking cigarettes or using tobacco (Measure 2-13)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members indicating they smoked every day or some days</p> <p>Denominator: Number of respondents to smoking and tobacco use survey question</p> |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| CAHPS Question | Do you now smoke cigarettes or use tobacco every day, some days, or not at all? |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | N/A |

Research Question 2.6: Do adult members with an SMI enrolled in an ACC-RBHA have the same or lower hospital utilization compared to prior to the waiver renewal?

| Number of emergent ED visits per 1,000 member months (Measure 2-14) | |
|---|--|
| Numerator/Denominator | Numerator: Number of ED visits with an emergent diagnosis code among members. Source for emergent diagnosis codes is currently being researched. Denominator: Number of member months among all adult members |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

| Number of non-emergent ED visits per 1,000 member months (Measure 2-15) | |
|---|---|
| Numerator/Denominator | Numerator: Number of ED visits with a non-emergent diagnosis code among members. Source for non-emergent diagnosis codes is currently being researched. Denominator: Number of member months among all adult members |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

| Number of IP stays per 1,000 member months (Measure 2-16) | |
|---|--|
| Numerator/Denominator | Numerator: Number of total IP stays. Denominator: Number of member months, divided by 1,000. |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Inpatient Utilization—General Hospital/Acute Care (IPU) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |

Number of IP stays per 1,000 member months (Measure 2-16)

| | |
|-------------------|---|
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Percentage of IP discharges with an unplanned readmission within 30 days (Measure 2-17)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of acute IP stays in the denominator followed by an unplanned acute readmission within 30 days.</p> <p>Denominator: Number of acute IP stays for members aged 18 to 64 who were continuously enrolled for 365 days prior to the index discharge date through 30 days after the index discharge date with no more than one gap in enrollment of up to 45 days.</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Plan All-Cause Readmissions (PCR) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Hypothesis 3: Health outcomes for adult members with an SMI enrolled in an ACC-RBHA will be maintained or improved during the renewal period.

Research Question 3.1: Do adult members with an SMI enrolled in an ACC-RBHA have the same or higher rating of health compared to prior to the waiver renewal?

Percentage of members who reported a rating of overall health as very good or excellent (Measure 3-1)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of members indicating they had a high rating of overall health</p> <p>Denominator: Number of respondents to survey question regarding overall health</p> |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| CAHPS Question | In general, how would you rate your overall health? |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | N/A |

| Percentage of members who reported a rating of overall mental or emotional health as very good or excellent (Measure 3-2) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members indicating they had a high rating of mental or emotional health Denominator: Number of respondents to survey question regarding mental or emotional health |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| CAHPS Question | In general, how would you rate your overall mental or emotional health? |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | N/A |

Hypothesis 4: Adult member satisfaction in ACC-RBHA health plans will be maintained or improved over the renewal period.

Research Question 4.1: Do adult members with an SMI enrolled in an ACC-RBHA have the same or higher satisfaction in their healthcare compared to prior to the waiver renewal?

| Percentage of members who reported a high rating of overall healthcare (8, 9, or 10 out of 10) (Measure 4-1) | |
|--|--|
| Numerator/Denominator | Numerator: Number of members indicating they had a high rating of their healthcare Denominator: Number of respondents to survey question regarding satisfaction of healthcare |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| CAHPS Question | Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 6 months? |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | N/A |

| Percentage of members who reported a high rating of health plan (8, 9, or 10 out of 10) (Measure 4-2) | |
|---|---|
| Numerator/Denominator | Numerator: Number of members indicating they had a high rating of their overall health plan Denominator: Number of respondents to survey question regarding satisfaction of overall plan |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| CAHPS Question | Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan? |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | N/A |

Research Question 4.2: Do adult members with an SMI enrolled in an ACC-RBHA perceive their doctors to have the same or better care coordination compared to prior to the waiver renewal?

| Percentage of members who reported their doctor seemed informed about the care they received from other health providers (Measure 4-3) | |
|--|--|
| Numerator/Denominator | <p>Numerator: Number of members indicating their personal doctor seemed informed about the care they received from other health providers</p> <p>Denominator: Number of respondents to survey question regarding whether their doctor seemed informed about the care they received from other health providers</p> |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| CAHPS Question | In the last 6 months, how often did your personal doctor seem informed and up to date about the care you got from these doctors or other health providers? |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | N/A |

Hypothesis 5: ACC-RBHAs encourage and/or facilitate care coordination among PCPs and BH practitioners.

Research Question 5.1: What care coordination strategies are the ACC-RBHAs conducting for their members with an SMI?

| ACC-RBHAs' reported evolution of care coordination since the integration period and remaining barriers during the renewal period, including challenges from workforce shortages (Measure 5-1) | |
|---|---|
| Numerator/Denominator | <p>Numerator: N/A</p> <p>Denominator: N/A</p> |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

| ACC-RBHA's reported challenges from any workforce shortages (Measure 5-2) | |
|---|---|
| Numerator/Denominator | <p>Numerator: N/A</p> <p>Denominator: N/A</p> |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews |

ACC-RBHA's reported challenges from any workforce shortages (Measure 5-2)

| | |
|-------------------|-----------------------|
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 5.2: Have care coordination strategies for members with an SMI changed as a result of ACC?

Reported changes in health plans' care coordination strategies for members with an SMI, including challenges from workforce shortages (Measure 5-3)

| | |
|-----------------------|------------------------------------|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 5.3: What care coordination strategies is AHCCCS conducting for its members with an SMI?

AHCCCS' reported care coordination strategies and activities for members with an SMI served by the ACC-RBHAs (Measure 5-4)

| | |
|-----------------------|------------------------------------|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

AHCCCS' reported challenges from any workforce shortages (Measure 5-5)

| | |
|-----------------------|------------------------------------|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 5.4: What care coordination strategies and/or activities are providers conducting for their Medicaid patients with an SMI served by the ACC-RBHAs?

| Providers' reported evolution of care coordination since the integration period and remaining barriers during the renewal period (Measure 5-6) | |
|--|------------------------------------|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Provider focus groups |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 5.5: Did care coordination strategies improve or maintain patient engagement and follow up care for substance use and BH conditions during the renewal period?

| Percentage of members with follow-up after an ED visit for members with multiple high-risk chronic conditions (Measure 5-7) | |
|---|---|
| Numerator/Denominator | Numerator: Number of members with a follow-up service within 7 days after the ED visit. Denominator: Number of members 18 years of age and older who have multiple high-risk chronic conditions with an ED visit who are continuously enrolled for 365 days prior to the ED visit and 7 days after with no more than one gap in enrollment of 45 days. |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Follow-Up After Emergency Department Visit for People With Multiple High-Risk Chronic Conditions (FMC) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually/Monthly |

ALTCS

Hypothesis 1: Member access to appropriate care for routine medical conditions will be maintained or improved during the renewal period.

Research Question 1.1: Do members who are elderly, physically disabled, and/or members with a developmental disability (DD) have the same or higher rates of access to care and primary care services compared to prior to waiver renewal?

| Percentage of members meeting minimum time/distance network standards (Measure 1-1) | |
|---|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | All |
| Numerator/Denominator | Numerator: Number of members meeting time/distance network standards for AHCCCS contractors Denominator: Number of members enrolled in Arizona Long Term Care System (ALTCS) plan |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Member/provider data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Subgroup analysis of children and adults Subgroup analysis by county and/or urbanicity ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

| Percentage of members who accessed preventive/ambulatory health services (Measure 1-2) | |
|--|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of members with an ambulatory or preventive care visit Denominator: Number of members 20 years and older continuously enrolled throughout the measurement year with no more than one gap in enrollment of up to 45 days |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Adults' Access to Preventive/Ambulatory Health Services (AAP) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Percentage of members under 21 years of age who received a comprehensive or periodic oral evaluation (Measure 1-3)

| | |
|-----------------------|---|
| Evaluation Population | Members with DD |
| Age Group | Children |
| Numerator/Denominator | Numerator: Percentage of members under 21 years of age who received a comprehensive or period evaluation with a dental provider during the measurement year. Denominator: Members under 21 years of age continuously enrolled during the measurement year with no gaps in enrolment. |
| Comparison Population | N/A |
| Measure Steward | CMS Child Core Set |
| Measure Name | Oral Evaluation, Dental Services (OEV-CH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Percentage of members who had well-child visits in the first 30 months of life (Measure 1-4)

| | |
|-----------------------|---|
| Evaluation Population | Members with DD |
| Age Group | Children |
| Numerator/Denominator | <p>Numerator: Number of members with well-child visits on different dates Two rates are reported:</p> <ul style="list-style-type: none"> Six or more well child visits on different dates of service on or before the 15-month birthday Two or more well child visits on different dates of service between the child's 15-month birthday plus one day and the 30-month birthday. <p>Denominator: Two rates are reported:</p> <ul style="list-style-type: none"> Number of members who turn 15 months old during the measurement year and are continuously enrolled between 31 days and 15 months of age with no more than one gap in enrollment of up to 45 days. Number of members who turn 30 months old during the measurement year and are continuously enrolled between 15 months plus 1 day and 30 months of age with no more than one gap in enrollment of up to 45 days. |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Well-Child Visits in the First 30 Months of Life (W30) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Percentage of members 3–21 years of age who had a well-care visit with a PCP or OB/GYN (Measure 1-5)

| | |
|-----------------------|--|
| Evaluation Population | Members with DD |
| Age Group | Children |
| Numerator/Denominator | Numerator: Members with one or more well-care visit during the measurement year. Denominator: Number of members aged 3-21 years who are continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days. |
| Comparison Population | N/A |
| Measure Steward | CMS Child Core Set |
| Measure Name | Children and Adolescents' Well-Care Visits (WCV) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Research Question 1.2: Do adult members who are elderly, physically disabled, and/or members with DD have the same or improved rates of access to care as a result of the waiver renewal?

Percentage of members who have a primary care doctor or practitioner (Measure 1-6)

| | |
|-----------------------|---|
| Evaluation Population | Members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to National Core Indicator (NCI) survey who indicated they do have a primary care doctor or practitioner Denominator: Number of respondents to NCI survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | Has a primary care doctor or practitioner |
| Survey Prompt | Has a primary care doctor or practitioner |
| Data Source | NCI-IDD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> DiD Pre-test/post-test |
| Frequency | Annually/Bi-annually |

Percentage of members who had a complete physical exam in the past year (Measure 1-7)

| | |
|-----------------------|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to NCI survey who indicated they had a physical exam in the past year Denominator: Number of respondents to NCI survey |

Percentage of members who had a complete physical exam in the past year (Measure 1-7)

| | |
|-----------------------|--|
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | Had a complete physical exam in the past year |
| Survey Prompt | <ul style="list-style-type: none"> NCI-IDD: Had a complete physical exam in the past year NCI-AD: Had a physical exam/wellness visit in the past 12 months |
| Data Source | <ul style="list-style-type: none"> NCI-IDD NCI-AD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> DiD Pre-test/post-test |
| Frequency | Annually/Bi-annually |

Percentage of members who had a dental exam in the past year (Measure 1-8)

| | |
|-----------------------|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to NCI survey who indicated they had a dental exam in the past year Denominator: Number of respondents to NCI survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | Had a dental exam in the past year |
| Survey Prompt | <ul style="list-style-type: none"> NCI-IDD: Had a dental exam in the past year NCI-AD: Had a dental visit in the past 12 months |
| Data Source | <ul style="list-style-type: none"> NCI-IDD NCI-AD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> DiD Pre-test/post-test |
| Frequency | Annually/Bi-annually |

Percentage of members who had an eye exam in the past year (Measure 1-9)

| | |
|-----------------------|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to NCI survey who indicated they had an eye exam in the past year Denominator: Number of respondents to NCI survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |

Percentage of members who had an eye exam in the past year (Measure 1-9)

| | |
|-------------------|--|
| Measure Name | Had an eye exam in the past year |
| Survey Prompt | <ul style="list-style-type: none"> NCI-IDD: Had an eye exam in the past year NCI-AD: Has a vision exam in the past 12 months |
| Data Source | <ul style="list-style-type: none"> NCI-IDD NCI-AD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> DiD Pre-test/post-test |
| Frequency | Annually/Bi-annually |

Percentage of members who had an influenza vaccine in the past year (Measure 1-10)

| | |
|-----------------------|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to NCI survey who indicated they had a flu vaccine in the past year Denominator: Number of respondents to NCI survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | Had a flu vaccine in the past year |
| Survey Prompt | <ul style="list-style-type: none"> NCI-IDD: Had a flu vaccine in the past year NCI-AD: Had a flu shot in the past 12 months |
| Data Source | <ul style="list-style-type: none"> NCI-IDD NCI-AD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> DiD Pre-test/post-test |
| Frequency | Annually/Bi-annually |

Hypothesis 2: Quality of care will be maintained or improved during the renewal period.

Research Question 2.1: Do members who are elderly, physically disabled, and/or members with a DD have the same or higher rates of preventive care compared to prior to waiver renewal?

Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent (Measure 2-1)

| | |
|-----------------------|---|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Children and Adults |
| Numerator/Denominator | Numerator: Number of members in the denominator who had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year Denominator: Number of members aged 5-64 who were identified as having persistent asthma who were continuously enrolled during the measurement year and the year prior to the measurement |

Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent (Measure 2-1)

| | |
|-----------------------|--|
| | year with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment |
| Comparison Population | N/A |
| Measure Steward | CMS Child and Adult Core Sets |
| Measure Name | Asthma Medication Ratio (AMR) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Research Question 2.2: Do members who are elderly, physically disabled, and/or members with a DD have the same or better management of BH conditions compared to prior to waiver renewal?

Percentage of members with a follow-up visit after hospitalization for mental illness (Measure 2-2)

| | |
|-----------------------|---|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Children and Adults |
| Numerator/Denominator | <p>Numerator: Number of members in the denominator and a follow-up visit with a mental health practitioner within 7 days after discharge</p> <p>Denominator: Number of members 6 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Child and Adult Core Sets |
| Measure Name | Follow-Up After Hospitalization for Mental Illness (FUH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Percentage of adult members who remained on an antidepressant medication treatment (Measure 2-3)

| | |
|-----------------------|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who remained on an antidepressant medication treatment. Two rates are reported:</p> <ul style="list-style-type: none"> Members who remained on antidepressant medication treatment for at least 84 days Members who remained on antidepressant medication treatment for at least 180 days |

Percentage of adult members who remained on an antidepressant medication treatment (Measure 2-3)

| | |
|-----------------------|--|
| | Denominator: Number of members aged 18 and older who were treated with antidepressant medication and had a diagnosis of major depression who were continuously enrolled from 105 days prior to the index prescription start date (IPSD) through 231 days after the IPSD with no more than one gap in enrollment of up to 45 days during the continuous enrollment period |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Antidepressant Medication Management (AMM) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Percentage of members with a follow-up visit after an ED visit for SUD (Measure 2-4)

| | |
|-----------------------|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Children and Adults |
| Numerator/Denominator | <p>Numerator: Number of ED visits in the denominator with a follow-up visit for SUD within 7 days of the ED visit.</p> <p>Denominator: Number of ED visits for members 13 years of age and older with a principal diagnosis of SUD and were continuously enrolled from the date of the ED visit through 30 days after ED visit</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Child and Adult Core Set |
| Measure Name | Follow-Up After ED Visit for SUD (FUA) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national/regional benchmarks ITS Pre-test/post-test Subgroup analysis of children and adults |
| Frequency | Annually/Monthly |

Percentage of members diagnosed with a mental health disorder (Measure 2-5)

| | |
|-----------------------|---|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Children and Adults |
| Numerator/Denominator | <p>Numerator: Number of members 1 year old and older diagnosed with a mental health disorder</p> <p>Denominator: Number of members 1 year old and older who are continuously enrolled with a gap in enrollment no greater than 45 days.</p> |

Percentage of members diagnosed with a mental health disorder (Measure 2-5)

| | |
|-----------------------|--|
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Diagnosed Mental Health Disorders (DMH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Research Question 2.3: Do adult members who are elderly, physically disabled have the same or better management of prescriptions compared to prior to waiver renewal?
Percentage of members with dispensing events of high-risk medications (Measure 2-6)

| | |
|-----------------------|---|
| Evaluation Population | Members who are elderly and/or with a physical disability |
| Age Group | Adults |
| Numerator/Denominator | <p>Numerator: Two rates are reported:</p> <ul style="list-style-type: none"> Number of members aged 67 years or older who received at least two dispensing events for high-risk medications from the same drug class. Number of members aged 67 years or older who received at least two dispensing events for high-risk medications from the same drug class except for appropriate diagnosis. <p>Denominator: Number of eligible adults</p> |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Use of High-Risk Medications in Older Adults (DAE) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Percentage of members who know what prescription medications are for (Measure 2-7)

| | |
|-----------------------|---|
| Evaluation Population | Members who are elderly and/or with a physical disability |
| Age Group | Adults |
| Numerator/Denominator | <p>Numerator: Number of respondents to NCI survey who indicated they know what their prescription medications are for</p> <p>Denominator: Number of respondents to NCI survey</p> |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |

Percentage of members who know what prescription medications are for (Measure 2-7)

| | |
|-------------------|---|
| Measure Name | Knowledge of prescription medications |
| Survey Prompt | Knows what prescription medications are for |
| Data Source | NCI-AD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • DiD • Pre-test/post-test |
| Frequency | Annually/Bi-Annually |

Research Question 2.4: Do members who are elderly, physically disabled, and/or members with a DD have the same or higher rates of utilization of care compared to prior to waiver renewal?

Number of emergent ED visits per 1,000 member months (Measure 2-8)

| | |
|-----------------------|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Children and Adults |
| Numerator/Denominator | Numerator: Number of ED visits with an emergent diagnosis code among members. Further research on the source for emergent diagnosis codes will be required by the independent evaluator. Denominator: Number of member months among all adult members |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Number of non-emergent ED visits per 1,000 member months (Measure 2-9)

| | |
|-----------------------|---|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Children and Adults |
| Numerator/Denominator | Numerator: Number of ED visits with a non-emergent diagnosis code among members. Further research on the source for non-emergent diagnosis codes will be required by the independent evaluator. Denominator: Number of member months among all adult members |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | N/A |

Number of non-emergent ED visits per 1,000 member months (Measure 2-9)

| | |
|-------------------|---|
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Number of IP stays per 1,000 member months (Measure 2-10)

| | |
|-----------------------|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Children and Adults |
| Numerator/Denominator | Numerator: Number of total inpatient stays Denominator: Number of member months, divided by 1,000 |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Inpatient Utilization—General Hospital/Acute Care (IPU) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Percentage of adult IP discharges with an unplanned readmission within 30 days (Measure 2-11)

| | |
|-----------------------|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of acute inpatient stays in the denominator followed by an unplanned acute readmission within 30 days Denominator: Number of acute inpatient stays for members aged 18 to 64 who were continuously enrolled for 365 days prior to the index discharge date through 30 days after the index discharge date with no more than one gap in enrollment of up to 45 days. |
| Comparison Population | N/A |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Plan All-Cause Readmissions (PCR) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Hypothesis 3: Quality of life for members will be maintained or improved during the renewal period.

Research Question 3.1: Do members have the same or higher rates of living in their own home as a result of the ALTCS waiver renewal?

| Percentage of members residing in their own home (Measure 3-1) | |
|--|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Children and Adults |
| Numerator/Denominator | Numerator: Number of AHCCCS members who live in their own home Denominator: AHCCCS members |
| Comparison Population | N/A |
| Measure Steward | AHCCCS |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Prepaid Medical Management Information System (PMMIS) Health-e-Arizona Plus (HEAplus) |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> DiD Pre-test/post-test |
| Frequency | Annually |

| Type of residence for adult members with DD (Measure 3-2) | |
|---|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to NCI survey who indicated they reside in their own home Denominator: Number of respondents to NCI survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | Type of Residence |
| Survey Prompt | <ul style="list-style-type: none"> NCI-IDD: Type of Residence NCI-AD: Type of Residence |
| Data Source | <ul style="list-style-type: none"> NCI-IDD NCI-AD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> DiD Pre-test/post-test |
| Frequency | Annually/Bi-Annually |

Research Question 3.2: Do adult members have the same or higher rates of feeling satisfied with their living arrangements as a result of the waiver renewal for members who are elderly, physically disabled, and/or members with DD?

Percentage of members who want to live somewhere else (Measure 3-3)

| | |
|-----------------------|---|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to NCI survey who indicated they want to live somewhere else Denominator: Number of respondents to NCI survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | Wants to live somewhere else |
| Survey Prompt | <ul style="list-style-type: none"> • NCI-IDD: Wants to live somewhere else • NCI-AD: Wants to live somewhere else |
| Data Source | <ul style="list-style-type: none"> • NCI-IDD • NCI-AD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • DiD • Pre-test/post-test |
| Frequency | Annually/Bi-Annually |

Percentage of members who believe services and supports help them live a good life (Measure 3-4)

| | |
|-----------------------|---|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to NCI survey who indicated services and supports help them live a good life Denominator: Number of respondents to NCI survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | Services and supports help the person live a good life |
| Survey Prompt | <ul style="list-style-type: none"> • NCI-IDD: Services and supports help the person live a good life • NCI-AD: Services and supports help the person live a good life |
| Data Source | <ul style="list-style-type: none"> • NCI-IDD • NCI-AD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • DiD • Pre-test/post-test |
| Frequency | Annually/Bi-Annually |

Research Question 3.3: Do adult members have the same or higher rates of feeling engaged as a result of the waiver renewal for members who are elderly, physically disabled and/or members with DD?

| Percentage of members able to go out and do things they like to do in the community (Measure 3-5) | |
|---|---|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to NCI survey who indicated they are able to go out and do things in the community Denominator: Number of respondents to NCI survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | Able to go out and do the things s/he like to do in the community |
| Survey Prompt | <ul style="list-style-type: none"> NCI-IDD: Able to go out and do the things s/he like to do in the community NCI-AD: Are as active in their community as they would like to be |
| Data Source | <ul style="list-style-type: none"> NCI-IDD NCI-AD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> DiD Pre-test/post-test |
| Frequency | Annually/Bi-Annually |

| Percentage of members who have friends who are not staff or family members (Measure 3-6) | |
|--|--|
| Evaluation Population | Members who are elderly and/or with a physical disability and members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to NCI survey who indicated they have friends who are not staff or family members Denominator: Number of respondents to NCI survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | Has friends who are not staff or family members |
| Survey Prompt | <ul style="list-style-type: none"> NCI-IDD: Has friends who are not staff or family members NCI-AD: Has friends or family they do not live with who are a part of their life |
| Data Source | <ul style="list-style-type: none"> NCI-IDD NCI-AD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> DiD Pre-test/post-test |
| Frequency | Annually/Bi-Annually |

Percentage of members who decide or have input in deciding their daily schedule (Measure 3-7)

| | |
|-----------------------|---|
| Evaluation Population | Members with DD |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to NCI survey who indicated they have input in deciding their daily schedule Denominator: Number of respondents to NCI survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | Decides or has input in deciding daily schedule |
| Survey Prompt | Decides or has input in deciding daily schedule |
| Data Source | NCI-IDD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • DiD • Pre-test/post-test |
| Frequency | Annually/Bi-Annually |

Percentage of members who usually like how they spend their time during the day (Measure 3-8)

| | |
|-----------------------|--|
| Evaluation Population | Members who are elderly and/or with a physical disability |
| Age Group | Adults |
| Numerator/Denominator | Numerator: Number of respondents to NCI survey who indicated usually like how they spend their time during the day Denominator: Number of respondents to NCI survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | Enjoyment of day |
| Survey Prompt | Usually likes how they spend their time during the day |
| Data Source | NCI-AD |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • DiD • Pre-test/post-test |
| Frequency | Annually/Bi-Annually |

Hypothesis 4: ALTCS encourages and/or facilitates care coordination among PCPs and BH practitioners.

Research Question 4.1: Did Department of Economic Security/Division of Developmental Disabilities (DES/DDD), ALTCS-EPD, or their contracted plans encounter barriers during the waiver renewal period of care for members with DD or EPD?

DES/DDD and its contracted plans' reported barriers that persisted beyond the initial integration of care (Measure 4-1)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews with AHCCCS, DES/DDD, and plans |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

DES/DDD and its contracted plans' reported challenges from any workforce shortages (Measure 4-2)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews with AHCCCS, DES/DDD, and plans |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

ALTCS-EPD and its contracted plans' reported challenges from any workforce shortages (Measure 4-3)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews with AHCCCS, DES/DDD, and plans |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 4.2: What care coordination strategies did DES/DDD and its contracted plans implement as a result of the waiver renewal?

| DES/DDD's reported evolution of care coordination since the integration period (Measure 4-4) | |
|--|--|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews with AHCCCS, DES/DDD, and plans |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 4.3: Did DES/DDD or its contracted plans encounter barriers to renewal of the waiver for care coordination strategies?

| DES/DDD and its contracted plans' reported barriers to implementing care coordination strategies (Measure 4-5) | |
|--|--|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews with AHCCCS, DES/DDD, and plans |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 4.4: Did AHCCCS encounter barriers related to the waiver renewal for members with DD or EPD?

| AHCCCS' reported barriers during the waiver renewal period (Measure 4-6) | |
|--|--------------------------------------|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews with AHCCCS |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

AHCCCS' reported challenges from any workforce shortages (Measure 4-7)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews with AHCCCS, DES/DDD, and plans |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 4.5: Did providers encounter barriers related to the waiver renewal for members with DD?
Providers' reported evolution of care coordination since the integration period and remaining barriers during the renewal period (Measure 4-8)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key Informant Interviews with AHCCCS, DES/DDD, and plans |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 4.6: Did care coordination strategies improve or maintain patient engagement and follow up care for substance use and BH conditions during the renewal period?
Percentage of members with multiple high-risk chronic conditions who had follow-up after an ED visit (Measure 4-9)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members with a follow-up service within 7 days after the ED visit. Denominator: Number of members 18 years of age and older who have multiple high-risk chronic conditions with an ED visit who are continuously enrolled for 365 days prior to the ED visit and 7 days after with no more than one gap in enrollment of 45 days. |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Follow-Up After Emergency Department Visit for People With Multiple High-Risk Chronic Conditions (FMC) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually/Monthly |

Percentage of members with patient engagement after discharge (Measure 4-10)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members with patient engagement provided within 30 days after discharge. Denominator: Number of members 18 years and older who were discharged and enrolled on the date of discharge through 30 days after. |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Follow-Up After Emergency Department Visit for People With Multiple High-Risk Chronic Conditions (FMC) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually/Monthly |

Hypothesis 5: The PPCG service model and Extended Family Support services will maintain or increase the rate of members being served in the home.

Research Question 5.1: Is the percentage of members receiving services at home the same or higher after the implementation of the PPCG service model or Extended Family Support services?

Percentage of minor members receiving services through the PPCG service model (Measure 5-1)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of ALTCS-enrolled minors receiving PPCG services. Stratified by attendant care and habilitation services. Denominator: Number of ALTCS-enrolled minors eligible for the PPCG service model |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> AHCCCS reports State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually |

Percentage of members receiving Extended Family Support services (Measure 5-2)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of ALTCS members receiving any Extended Family Support services Denominator: Number of ALTCS members eligible for Extended Family Support services |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |

Percentage of members receiving Extended Family Support services (Measure 5-2)

| | |
|-------------------|---|
| Data Source | <ul style="list-style-type: none"> AHCCCS reports |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually |

Research Question 5.2: What is the frequency and types of services provided to ALTCS members receiving services through the PPCG service model or Extended Family Support services at home?

Types and percentage of services provided to minor members by parents (Measure 5-3)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of services provided to minor members (stratified by service type) Denominator: Number of minor members receiving PPCG services |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> AHCCCS reports State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually |

Average number of PPCG services per utilizing member (Measure 5-4)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of services provided to minor members (stratified by service type) Denominator: Number of minor members receiving PPCG services |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> AHCCCS reports State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually |

Average number of Extended Family Support services per utilizing member (Measure 5-5)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of services provided to members (stratified by service type) Denominator: Number of members receiving Extended Family Support services |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> AHCCCS reports State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually |

Hypothesis 6: The PPCG service model will maintain or improve access to quality of health services for the target population.

Research Question 6.1: Did minor members receiving services through the PPCG service model maintain or improve their access to health services?

Percentage of members with well-child visits in the first 30 months of life (Measure 6-1)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of members with well-child visits on different dates</p> <p>Two rates are reported among ALTCS minors receiving services through the PPCG service model:</p> <ul style="list-style-type: none"> Six or more well child visits on different dates of service on or before the 15-month birthday Two or more well child visits on different dates of service between the child's 15-month birthday plus one day and the 30-month birthday. <p>Denominator: Two rates are reported:</p> <ul style="list-style-type: none"> Number of members who turn 15 months old during the measurement year and are continuously enrolled between 31 days and 15 months of age with no more than one gap in enrollment of up to 45 days. Number of members who turn 30 months old during the measurement year and are continuously enrolled between 15 months plus 1 day and 30 months of age with no more than one gap in enrollment of up to 45 days. |
| Comparison Population | <ul style="list-style-type: none"> ALTCS minors who do not receive services at home National Rates |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | W30-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | DiD |
| Frequency | Annually/Monthly |

Percentage of members 3–21 years of age with a well-care visit with a PCP or OB/GYN (Measure 6-2)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Members with one or more well-care visits during the measurement year Denominator: Number of ALTCS minors receiving services through the PPCG service model, aged 3–17 years who are continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days. |
| Comparison Population | <ul style="list-style-type: none"> ALTCS members who are not receiving Extended Family Support services National Rates |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | WCV-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | DiD |
| Frequency | Annually/Monthly |

Diagnosed mental health disorders (Measure 6-3)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members 1 year old and older diagnosed with a mental health disorder Denominator: Number of ALTCS minors receiving services through the PPCG service model 1 year old and older who are continuously enrolled with a gap in enrollment no greater than 45 days. |
| Comparison Population | <ul style="list-style-type: none"> ALTCS minors who do not receive services at home National/regional benchmarks |
| Measure Steward | HEDIS |
| Measure Name | DMH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | DiD |
| Frequency | Annually/monthly |

Research Question 6.2: Did the PPCG service model impact hospital utilization among ALTCS minors?

Number of emergent ED visits per 1,000 member months (Measure 6-4)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of ED visits with an emergent diagnosis code among members. Source for emergent diagnosis codes is currently being researched. Denominator: Number of member months among all ALTCS minors receiving services through the PPCG service model, divided by 1,000 |
| Comparison Population | ALTCS minors who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |

Number of emergent ED visits per 1,000 member months (Measure 6-4)

| | |
|-------------------|------------------|
| Analytic Approach | DiD |
| Frequency | Annually/monthly |

Number of non-emergent ED visits per 1,000 member months (Measure 6-5)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of ED visits with a non-emergent diagnosis code among members. Source for emergent diagnosis codes is currently being researched. Denominator: Number of member months among all ALTCS minors members receiving services through the PPCG service model, divided by 1,000 |
| Comparison Population | ALTCS minors who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | DiD |
| Frequency | Annually/monthly |

Number of IP stays per 1,000 member months (Measure 6-6)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of total inpatient stays Denominator: Number of member months among all ALTCS minors receiving services through the PPCG service model, divided by 1,000 |
| Comparison Population | <ul style="list-style-type: none"> ALTCS minors who do not receive services at home National/regional benchmarks |
| Measure Steward | HEDIS |
| Measure Name | IPU-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | DiD |
| Frequency | Annually/monthly |

Hypothesis 7: The PPCG service model and Extended Family Support services will improve self-assessed health outcomes.

Research Question 7.1: Do members receiving services through the PPCG service model or Extended Family Support services experience improved self-assessed health outcomes?

| Member rating of overall health (Measure 7-1) | |
|---|---|
| Numerator/Denominator | <p>Numerator: Number of members who indicated high overall health rating in response to CAHPS question regarding overall health. Stratified by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services</p> <p>Denominator: Number of respondents to overall health survey question. Stratified by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services</p> |
| Comparison Population | ALTCS minors who do not receive services at home |
| Measure Steward | CAHPS |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rating of overall health supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

| Member rating of overall mental or emotional health (Measure 7-2) | |
|---|---|
| Numerator/Denominator | <p>Numerator: Number of members who indicated high overall mental or emotional health rating in response to CAHPS question regarding overall mental or emotional health. Stratified by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services.</p> <p>Denominator: Number of respondents to overall mental or emotional health survey question. Stratified by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services.</p> |
| Comparison Population | ALTCS minors who do not receive services at home |
| Measure Steward | CAHPS |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rating of overall mental or emotional health supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

Hypothesis 8: The PPCG service model will mitigate the DCW shortage by increasing timely accessibility to care providers.

Research Question 8.1: Did the PPCG service model alleviate the shortage of DCWs and increase timely access to needed care?

Average time from identification of service needs to receipt of service (Measure 8-1)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of days since development of service plan before service is provided to member Denominator: Members with newly identified service need through the PPCG service model. Service need is identified by the day the service plan is developed. ^{D-2} |
| Comparison Population | ALTCS minors who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data Needs assessment |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | DiD |
| Frequency | Annually/Monthly |

Reported challenges from workforce shortages (Measure 8-2)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Key Informant Interviews with stakeholders identified by AHCCCS Supplemental data sources identified by AHCCCS, as available |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Reported changes in recruitment and retention of DCW workforce (Measure 8-3)

| | |
|-----------------------|------------------------------------|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |

^{D-2} As of the development of the Evaluation Design, data to support the calculation of this measure is only expected to be available for the elderly physically disabled population (EPD). If the data becomes available for the developmentally disabled (DD) population, the independent evaluator will include that population in the analysis.

Reported changes in recruitment and retention of DCW workforce (Measure 8-3)

| | |
|-------------------|---|
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Key Informant Interviews with stakeholders identified by AHCCCS Supplemental data sources identified by AHCCCS, as available |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Proportion of parent DCWs of the total DCW population (Measure 8-4)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of parent DCWs Denominator: Number of DCWs in Arizona |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | AHCCCS reports |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually |

Percentage of members receiving respite services (Measure 8-5)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members receiving respite care Denominator: Number of members receiving services through the PPCG service model Note: The results of this measure will be interpreted to provide insight into workforce development changes to determine if the PPCG service model increased the use and availability of respite DCWs. |
| Comparison Population | ALTCS minors who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually |

Number of hours paid weekly to parents providing PPCG services (Measure 8-6)

| | | |
|-----------------------|---|--|
| Numerator/Denominator | Numerator: Number of parents providing care services, stratified by hours worked: | |
| | – 0-10 | |
| | – 1-20 | |
| | – 1-29 | |
| | – 30-39 | |
| | – 40+ | |
| | Denominator: Total number of parent DCWs | |
| Comparison Population | N/A | |
| Measure Steward | N/A | |
| Measure Name | N/A | |
| Data Source | AHCCCS reports | |
| Desired Direction | No desired direction | |
| Analytic Approach | • Pre-test/Post-test | |
| | • ITS | |
| Frequency | Annually | |

Number of weekly hours non-parent DCWs provide services to minors (Measure 8-7)

| | | |
|-----------------------|---|--|
| Numerator/Denominator | Numerator: Number of non-parent DCWs providing care services, stratified by hours worked: | |
| | – 0-10 | |
| | – 1-20 | |
| | – 1-29 | |
| | – 30-39 | |
| | – 40+ | |
| | Denominator: Total number of non-parent DCWs | |
| Comparison Population | N/A | |
| Measure Steward | N/A | |
| Measure Name | N/A | |
| Data Source | AHCCCS reports | |
| Desired Direction | No desired direction | |
| Analytic Approach | • Pre-test/Post-test | |
| | • ITS | |
| Frequency | Annually | |

Hypothesis 9: The PPCG service model will improve ongoing care stability for the target population.

Research Question 9.1: Did the PPCG service model improve or maintain care stability for ALTCS minors?

Average number of DCWs per member per year (Measure 9-1)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: <ul style="list-style-type: none"> Number of case workers per month Number of caseworkers per year Denominator: Number of member months among ALTCS minors receiving services through the PPCG service model |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | AHCCCS reports |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually/Monthly |

Percentage of members or caregivers who reported care stability as good or excellent (Measure 9-2)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of respondents indicating that they had stable care in the past year Denominator: Number of ALTCS minors receiving services through the PPCG service model responding to the survey question |
| Comparison Population | ALTCS minors who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post -implementation trend |
| Frequency | N/A |

DES/DDD/EPD's and providers' reported barriers to care stability (Measure 9-3)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews with DES/DDD/EPD and providers |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Hypothesis 10: The PPCG service model and Extended Family Support services will increase member and family unit stability through increased ability to navigate the healthcare system and decrease stress and burnout.

Research Question 10.1: Has Extended Family Support services restored, enhanced, or maintained family functioning by preserving effective care for members in the home and community?

| Percentage of members or caregivers who reported high levels of stress (Measure 10-1) | |
|---|--|
| Numerator/Denominator | Numerator: Number of respondents indicating high levels of stress Denominator: Number of members or caregivers responding to the survey question who receive Extended Family Support services |
| Comparison Population | ALTCS members who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | Post implementation trend |
| Frequency | N/A |

| Percentage of members or caregivers who reported their ability to navigate the healthcare system as good or excellent (Measure 10-2) | |
|--|--|
| Numerator/Denominator | Numerator: Number of respondents indicating a very good or excellent ability to navigate the healthcare system. Denominator: Number of members or caregivers responding to the survey question who receive Extended Family Support services |
| Comparison Population | ALTCS members who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post implementation trend |
| Frequency | N/A |

| Percentage of members or caregivers who reported their adjustment to disability as good or excellent (Measure 10-3) | |
|---|--|
| Numerator/Denominator | Numerator: Number of respondents indicating a very good or excellent adjustment to disability Denominator: Number of members or caregivers responding to the survey question who receive Extended Family Support services |
| Comparison Population | ALTCS members who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Beneficiary survey |

Percentage of members or caregivers who reported their adjustment to disability as good or excellent (Measure 10-3)

| | |
|-------------------|--|
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post implementation trend |
| Frequency | N/A |

Research Question 10.2: Has the PPCG service model and Extended Family Support services reduced burnout and provided alternate supports for caregivers?

Percentage of caregivers that report high levels of burnout (Measure 10-4)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of respondents indicating high levels of burnout Denominator: Number of caregivers responding to the survey question who care for a member receiving Extended Family Support services |
| Comparison Population | ALTCS members who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | Post implementation trend |
| Frequency | N/A |

Percentage of parent caregivers who utilize respite services (Measure 10-5)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members receiving respite care Denominator: Number of members receiving services through the PPCG service model Note: The results of this measure will be interpreted to provide insight into changes in burnout and stress based on the use and availability of respite DCWs among members participating in the PPCG service model. |
| Comparison Population | ALTCS minors who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually |

Hypothesis 11: The PPCG service model and Extended Family Support services will maintain or improve community integration and well-being for members.

Research Question 11.1: Do members receiving services through the PPCG service model and Extended Family Support services have the same or lower rates of social isolation?

Percentage of members or caregivers who reported low rates of social isolation (Measure 11-1)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members indicating they have high levels of social isolation. Stratified by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services. Denominator: Number of members or caregivers responding to the survey question. Stratified by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services. |
| Comparison Population | ALTCS members who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No desired direction |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

Average time spent outside the home (Measure 11-2)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of reported hours spent outside the home each week. Stratified by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services. Denominator: Number of members responding to the survey question. Stratified by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services. |
| Comparison Population | ALTCS members who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No desired direction |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

Relationships outside of the home (Measure 11-3)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members indicating they have relationships outside of family members and care providers. Stratified by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services. Denominator: Number of members responding to the survey question. Stratified by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services. |
| Comparison Population | ALTCS members who do not receive services at home |
| Measure Steward | N/A |

Relationships outside of the home (Measure 11-3)

| | |
|-------------------|---------------------------|
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No desired direction |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

Socialization outside of the home (Measure 11-4)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Average hours of socialization among members who respond to the survey question. by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services.</p> <p>Denominator: Number of members responding to the survey question. Stratified by ALTCS minors receiving services through the PPCG service model and ALTCS members receiving Family Support services.</p> |
| Measure Question | Of time spent outside the home with individuals who are not family members or caretakers, what percent of time is spent socializing? |
| Comparison Population | ALTCS members who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No desired direction |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

Type of schooling (Measure 11-5)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of members indicating their school type. Stratified by the following:</p> <ul style="list-style-type: none"> - Homeschool - Public School - Specialized School program <p>Denominator: Number of receiving services through the PPCG service model responding to the survey question.</p> |
| Comparison Population | ALTCS minors who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No desired direction |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

Percentage of members engaging with day program services (Measure 11-6)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members engaging with day program services Denominator: Number of ALTCS minors who receive PPCG services through the PPCG service model. |
| Comparison Population | ALTCS minors who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No desired direction |
| Analytic Approach | DiD |
| Frequency | Annually/monthly |

The percentage of respondents who report having friendships with people other than staff or family members (Measure 11-7)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of individuals in the denominator indicating that they have friendships with people other than staff and family members Denominator: Number of adults responding to the survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | N/A |
| Data Source | NCI-DD |
| Desired Direction | No desired direction |
| Analytic Approach | DiD |
| Frequency | Annual |

The percentage of respondents who report that they would like help to meet new people, make new friends, or keep in contact with friends (Measure 11-8)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of individuals in the denominator indicating that they would like more help to meet new people, make new friends, or keep in contact with friends Denominator: Number of adults responding to the survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | N/A |
| Data Source | NCI-DD |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test DiD |
| Frequency | Annual |

The percentage of respondents who report often feeling lonely (Measure 11-9)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of individuals in the denominator indicating that they often feel lonely Denominator: Number of adults responding to the survey |
| Comparison Population | Weighted national average of all other NCI-participating states |
| Measure Steward | NCI |
| Measure Name | N/A |
| Data Source | NCI-DD |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test DiD |
| Frequency | Annual |

Community inclusion scale (Measure 11-10)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of individuals in the denominator indicating that they went out to go shopping, run errands, for entertainment, or eating out in the community Denominator: Number of adults responding to the survey |
| Comparison Population | National rates |
| Measure Steward | NCI |
| Measure Name | N/A |
| Data Source | NCI-DD |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test DiD |
| Frequency | Annual |

Research Question 11.2: Do members receiving services through the PPCG service model have the same or lower rates of reported cases of child maltreatment?
Percentage of members with substantiated cases of abuse or neglect (Measure 11-11)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of with a substantiated case of abuse or neglect Denominator: Number of members receiving services through the PPCG service model |
| Comparison Population | ALTCS minors who do not receive services at home |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | AHCCCS Reports |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annual |

Hypothesis 12: ALTCS provides cost-effective care.

Research Question 12.5: Did utilization of services increase after the introduction of the PPCG service model?

| Number of billed hours for services provided under the PPCG service model (Measure 12-1) | |
|--|--|
| Numerator/Denominator | Numerator: Number of billed hours for services provided under the PPCG service model Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data AHCCCS Reports |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annual |

CHP

Hypothesis 1: Member access to appropriate care for routine medical conditions will be maintained or improved during the integration period.

Research Question 1.1: Do Comprehensive Health Plan (CHP) members have the same or increased access to PCPs and specialists in the remeasurement period as compared to the baseline?

| Percentage of members meeting minimum time/distance network standards (Measure 1-1) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members meeting time/distance network standards for AHCCCS contractors Denominator: Number of members enrolled in CHP plan |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Member/provider data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Subgroup analysis by county and/or urbanicity ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Percentage of members 3–21 years of age who had a well-care visit with a PCP or OB/GYN (Measure 1-2)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Members with one or more well-care visits during the measurement year. Denominator: Number of members aged 3-21 years who are continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days. |
| Comparison Population | N/A |
| Measure Steward | CMS Child Core Set |
| Measure Name | Children and Adolescents' Well-Care Visits (WCV) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • ITS • Pre-test/post-test |
| Frequency | Annually/Monthly |

Percentage of members under 21 years of age who received a comprehensive or periodic oral evaluation (Measure 1-3)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Percentage of members under 21 years of age who received a comprehensive or period evaluation with a dental provider during the measurement year. Denominator: Members under 21 years of age continuously enrolled during the measurement year with no gaps in enrolment. |
| Comparison Population | N/A |
| Measure Steward | CMS Child Core Set |
| Measure Name | Oral Evaluation, Dental Services (OEV-CH) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

| Percentage of members who had well-child visits in the first 30 months of life (Measure 1-4) | |
|--|--|
| Numerator/Denominator | <p>Numerator: Number of members with well-child visits on different dates</p> <p>Two rates are reported:</p> <ul style="list-style-type: none"> Six or more well child visits on different dates of service on or before the 15-month birthday Two or more well child visits on different dates of service between the child's 15-month birthday plus one day and the 30-month birthday. <p>Denominator: Two rates are reported:</p> <ul style="list-style-type: none"> Number of members who turn 15 months old during the measurement year and are continuously enrolled between 31 days and 15 months of age with no more than one gap in enrollment of up to 45 days. Number of members who turn 30 months old during the measurement year and are continuously enrolled between 15 months plus 1 day and 30 months of age with no more than one gap in enrollment of up to 45 days. |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Well-Child Visits in the First 30 Months of Life (W30) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Hypothesis 2: Quality of care will be maintained or improved during the integration period.

Research Question 2.1: Do CHP members have the same or higher rates of appropriate immunizations in the remeasurement period as compared to the baseline?

| Percentage of children 2 years of age with appropriate immunization status (Measure 2-1) | |
|--|--|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who had: four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); three haemophilus influenza type B (HiB); three hepatitis B (HepB), one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The measure calculates a rate for each vaccine and nine separate combination rates.</p> <p>Denominator: Number of children who turn 2 years of age during the measurement year who were continuously enrolled 12 months prior to the member's 2nd birthday and have no more than one gap in enrollment of up to 45 days during the 12 months prior to the child's second birthday.</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Child Core Set |
| Measure Name | Childhood Immunization Status (CIS) |

Percentage of children 2 years of age with appropriate immunization status (Measure 2-1)

| | |
|-------------------|---|
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data ASIIS Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Percentage of adolescents 13 years of age with appropriate immunizations (Measure 2-2)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who had: one dose of meningococcal vaccine, one tetanus, diphtheria toxoids and acellular pertussis (Tdap) vaccine, and have completed the human papillomavirus (HPV) vaccine series by their 13th birthday. The measure calculates a rate for each vaccine and two combination rates.</p> <p>Denominator: Number of adolescents 13 years of age who were continuously enrolled 12 months prior to the member's 13th birthday and have no more than one gap in enrollment of up to 45 days during the 12 months prior to the child's 13th birthday.</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Child Core Set |
| Measure Name | Immunizations for Adolescents (IMA) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data ASIIS Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Research Question 2.2: Do CHP members have the same or better management of chronic conditions in the remeasurement period as compared to the baseline?
Percentage of members ages 5 to 18 years who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year (Measure 2-3)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year</p> <p>Denominator: Number of members aged 5-18 who were identified as having persistent asthma and continuously enrolled during the measurement year and year prior to the measurement year, with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Child and Adult Core Set |
| Measure Name | Asthma Medication Ratio (AMR) |

Percentage of members ages 5 to 18 years who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year (Measure 2-3)

| | |
|-------------------|--|
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Research Question 2.3: Do CHP members have the same or better management of BH conditions in the remeasurement period as compared to the baseline?

Percentage of children and adolescents on antipsychotics with metabolic monitoring (Measure 2-4)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of children and adolescents 1 – 17 years of age who had two or more antipsychotic prescriptions and had metabolic testing</p> <p>Denominator: Number of members aged 1 to 17 with at least two antipsychotic medication dispensing events of the same or different medications, on different dates of service during the measurement year, and continuous enrollment during the measurement year with no more than one gap in enrollment of up to 45 days</p> |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Metabolic Monitoring for Children and Adolescents on Antipsychotics (APM) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Percentage of members diagnosed with a mental health disorder (Measure 2-5)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of members 1 year old and older diagnosed with a mental health disorder</p> <p>Denominator: Number of members 1 year old and older who are continuously enrolled with a gap in enrollment no greater than 45 days.</p> |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Diagnosed Mental Health Disorders (DMH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | N/A |

Percentage of members diagnosed with a mental health disorder (Measure 2-5)

| | |
|-------------------|---|
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Percentage of members with follow-up after an ED visit for mental illness (Measure 2-6)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of ED visits in the denominator with a follow-up visit for mental illness within 7 days of the ED visit.</p> <p>Denominator: Number of ED visits for members 6 years of age and older with a principal diagnosis of mental illness or intentional self-harm with continuous enrollment from the date of the ED visit through 30 days after the ED visit</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Child and Adult Core Set |
| Measure Name | Follow-Up After Emergency Department Visit for Mental Illness (FUM) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Percentage of members with follow-up after hospitalization for mental illness (Measure 2-7)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members with a discharge for mental illness and a follow-up visit with a mental health practitioner within 7 days after discharge</p> <p>Denominator: Number of members 6 to 17 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge</p> |
| Comparison Population | N/A |
| Measure Steward | CMS Child Core Set |
| Measure Name | Follow-Up After Hospitalization for Mental Illness (FUH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Percentage of members with a follow-up visit after an ED visit for substance use disorder (Measure 2-8)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of ED visits in the denominator with a follow-up visit for SUD within 7 days of the ED visit. Denominator: Number of ED visits for members 13 years of age and older with a principal diagnosis of SUD and was continuously enrolled from the date of the ED visit through 30 days after the ED visit |
| Comparison Population | N/A |
| Measure Steward | CMS Adult and Child Core Set |
| Measure Name | Follow-up after emergency department visit for SUD (FUA) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Research Question 2.4: Do CHP members have the same or lower hospital utilization in the remeasurement period as compared to the baseline?
Number of emergent ED visits per 1,000 member months (Measure 2-9)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of ED visits with an emergent diagnosis code among members. Further research on the source for emergent diagnosis codes will be required by the independent evaluator. Denominator: Number of member months among all adult members |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Number of non-emergent ED visits per 1,000 member months (Measure 2-10)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of ED visits with a non-emergent diagnosis code among members. Further research on the source for non-emergent diagnosis codes will be required by the independent evaluator. Denominator: Number of member months among all adult members |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |

Number of non-emergent ED visits per 1,000 member months (Measure 2-10)

| | |
|-------------------|--|
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Number of IP stays per 1,000 member months (Measure 2-11)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of total inpatient stays Denominator: Number of member months, divided by 1,000 |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | Inpatient Utilization—General Hospital/Acute Care (IPU) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data National/regional benchmarks |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test |
| Frequency | Annually/Monthly |

Hypothesis 3: CHP encourages and/or facilitates care coordination among PCPs and BH practitioners.

Research Question 3.1: What barriers did Mercy Care DCS CHP anticipate/encounter during the integration?

Mercy Care DCS CHP's anticipated/reported barriers during transition, including any workforce shortages (Measure 3-1)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Key informant interviews Provider focus groups |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Mercy Care DCS CHP's reported challenges from any workforce shortages (Measure 3-2)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Key informant interviews Provider focus groups |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 3.2: What care coordination strategies did Mercy Care DCS CHP plan/implement during integration?

Mercy Care DCS CHP's planned/reported care coordination activities (Measure 3-3)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Key informant interviews Provider focus groups |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 3.3: What barriers to implementing care coordination strategies did Mercy Care DCS CHP anticipate/encounter?

Mercy Care DCS CHP's anticipated/reported barriers in implementing care coordination strategies (Measure 3-4)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Key informant interviews Provider focus groups |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

KidsCare

Hypothesis 1: Expanding KidsCare eligibility will increase the number of members eligible for and enrolled in KidsCare and reduce the number of children losing eligibility for procedural reasons.

Research Question 1.1: Did expanding KidsCare eligibility increase the number of members enrolled in KidsCare?

| Number of members enrolled in the KidsCare program (Measure 1-1) | |
|--|---|
| Numerator/Denominator | Numerator: Number of members enrolled in KidsCare program Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> AHCCCS reports State eligibility and enrollment data |
| Desired Direction | No change or an increase in the number supports the hypothesis |
| Analytic Approach | Descriptive analysis |
| Frequency | Annual |

| Percentage of KidsCare members out of estimated children eligible for KidsCare (Measure 1-2) | |
|--|--|
| Numerator/Denominator | Numerator: Number of members enrolled in KidsCare program Denominator: Number of children likely eligible for KidsCare based on IPUMS survey data on family income (FTOTINC), number of own children in household (NCHILD) and disability (DIFFREM, DIFFCARE, DIFFPHYS, DIFFMOB, DIFFSENS). Re-weighted to represent full Arizona population. |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> IPUMS ACS AHCCCS reports State eligibility and enrollment data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annual |

Research Question 1.2: Did expanding KidsCare eligibility reduce the number of uninsured children?

| Number of uninsured children in Arizona (Measure 1-3) | |
|---|--|
| Numerator/Denominator | Numerator: Number of uninsured children in Arizona Denominator: N/A |
| Comparison Population | National rates |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | American Community Survey (ACS) |

Number of uninsured children in Arizona (Measure 1-3)

| | |
|-------------------|---|
| Desired Direction | No change or a decrease in the number supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS |
| Frequency | Annually |

Research Question 1.3: Does the KidsCare program promote continuity of care for its members?

Average number of months enrolled (Measure 1-4)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of full months with KidsCare coverage Denominator: Number of KidsCare members |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State eligibility and enrollment data |
| Desired Direction | No change or an increase in the number supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annual |

Percentage of KidsCare members who re-enroll after a gap of up to six months (Measure 1-5)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members who re-enrolled in KidsCare during the evaluation period after a gap of up to 6 months Denominator: Number of members who disenrolled from KidsCare during the first six months of evaluation period |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State eligibility and enrollment data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annual |

Average number of gaps in Medicaid coverage for KidsCare members who re-enroll after a gap of up to six months (Measure 1-6)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of gaps in coverage for KidsCare members. A gap is defined as one day or more without KidsCare enrollment Denominator: Number of members who re-enrolled in KidsCare during the evaluation period after a gap of up to 6 months |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State eligibility and enrollment data |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |

Average number of gaps in Medicaid coverage for KidsCare members who re-enroll after a gap of up to six months (Measure 1-6)

| | |
|-------------------|---------------------------|
| Analytic Approach | Post-implementation trend |
| Frequency | Annual |

Average number of days per gap in Medicaid coverage for KidsCare members who re-enroll after a gap of up to six months (Measure 1-7)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of gap days in coverage for KidsCare members Denominator: Number of members who re-enrolled in KidsCare during the evaluation period after a gap of up to 6 months |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State eligibility and enrollment data |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annual |

Percentage of KidsCare members due for renewal who complete the renewal process (Measure 1-8)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of KidsCare members who complete the renewal process Denominator: Number of KidsCare members due for renewal |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Health-e-Arizona Plus (HEAplus) |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Post-implementation trend ITS |
| Frequency | Monthly |

Hypothesis 2: Expanding KidsCare eligibility will improve access to care and increase primary care service utilization for CHIP members.

Research Question 2.1: Did expanding KidsCare eligibility improve access to healthcare for CHIP members?

Percentage of members meeting minimum time/distance network standards (Measure 2-1)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members meeting time/distance network standards for AHCCCS contractors Denominator: Number of members enrolled in KidsCare plan |
| Comparison Population | KidsCare members under 200 percent of the federal poverty line (FPL) |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Member and provider data |

Percentage of members meeting minimum time/distance network standards (Measure 2-1)

| | |
|-------------------|--|
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Post-implementation trend Subgroup analysis by county and/or urbanicity |
| Frequency | Annually |

Research Question 2.2: Did expanding KidsCare eligibility maintain or increase the utilization of primary care and preventative health services?

Percentage of children two years of age with appropriate immunization status (Measure 2-2)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who had: four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); three haemophiles influenza type B (HiB); three hepatitis B (HepB), one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The measure calculates a rate for each vaccine and nine separate combination rates.</p> <p>Denominator: Number of children who turn 2 years of age during the measurement year who were continuously enrolled 12 months prior to the member's 2nd birthday and have no more than one gap in enrollment of up to 45 days during the 12 months prior to the child's second birthday.</p> |
| Comparison Population | KidsCare members under 200 percent of the FPL |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | CIS-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data ASIIS Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually |

Percentage of adolescents 13 years of age with appropriate immunizations (Measure 2-3)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator who had: one dose of meningococcal vaccine, one tetanus, diphtheria toxoids and acellular pertussis (Tdap) vaccine, and have completed the human papillomavirus (HPV) vaccine series by their 13th birthday. The measure calculates a rate for each vaccine and two combination rates.</p> <p>Denominator: Number of adolescents 13 years of age who were continuously enrolled 12 months prior to the member's 13th birthday and have no more than one gap in enrollment of up to 45 days during the 12 months prior to the child's 13th birthday.</p> |
| Comparison Population | KidsCare members under 200 percent of the FPL |
| Measure Steward | Medicaid Child Sore Set |
| Measure Name | IMA-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data ASIIS Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |

Percentage of adolescents 13 years of age with appropriate immunizations (Measure 2-3)

| | |
|-------------------|---------------------------|
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Percentage of members with well-child visits in the first 30 months of life (Measure 2-4)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members with well-child visits on different dates</p> <p>Two rates are reported:</p> <ul style="list-style-type: none"> – Six or more well child visits on different dates of service on or before the 15-month birthday – Two or more well child visits on different dates of service between the child's 15-month birthday plus one day and the 30-month birthday. <p>Denominator: Two rates are reported:</p> <ul style="list-style-type: none"> – Number of members who turn 15 months old during the measurement year and are continuously enrolled between 31 days and 15 months of age with no more than one gap in enrollment of up to 45 days. – Number of members who turn 30 months old during the measurement year and are continuously enrolled between 15 months plus 1 day and 30 months of age with no more than one gap in enrollment of up to 45 days. |
| Comparison Population | <ul style="list-style-type: none"> • KidsCare members under 200 percent of the FPL • National/regional benchmarks |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | W30-CH |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Percentage of members 3-18 years of age with a well-care visit with a PCP or OB/GYN (Measure 2-5)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Members with one or more well-care visits during the measurement year</p> <p>Denominator: Number of members aged 3-18 years who are continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days.</p> |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | WCV-CH |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Percentage of children who received any medical care in the past 12 months (Measure 2-6)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of children in the denominator who had a medical visit in the past 12 months Denominator: Number of children receiving healthcare through a government plan in Arizona. Number of uninsured children in Arizona |
| Comparison Population | <ul style="list-style-type: none"> Uninsured children National rates |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | National Survey of Children's Health |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS Post-implementation trend |
| Frequency | Annually/monthly |

Percentage of children who did not receive needed healthcare in the past 12 months (Measure 2-7)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of children in the denominator who reported that they did not receive needed health care in the past 12 months Denominator: Number of children receiving healthcare through a government plan in Arizona. Number of uninsured children in Arizona |
| Comparison Population | <ul style="list-style-type: none"> Uninsured children National rates |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | National Survey of Children's Health |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/Post-test ITS Post-implementation trend |
| Frequency | Annually/monthly |

Percentage of children who did not receive needed healthcare due to cost in the past 12 months (Measure 2-8)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of children in the denominator who reported that they did not receive needed health care due to cost in the past 12 months Denominator: Number of children receiving healthcare through a government plan in Arizona. Number of uninsured children in Arizona |
| Comparison Population | <ul style="list-style-type: none"> Uninsured children National rates |
| Measure Steward | N/A |
| Measure Name | N/A |

Percentage of children who did not receive needed healthcare due to cost in the past 12 months (Measure 2-8)

| | |
|-------------------|--|
| Data Source | National Survey of Children's Health |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/Post-test • ITS • Post-implementation trend |
| Frequency | Annually/monthly |

Percentage of children screened for risk of developmental, behavioral, and social delays in the 12 months prior to third birthday (Measure 2-9)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members screened for risk of developmental, behavioral, and social delays using a standardized screening tool in the 12 months preceding or on their first, second, or third birthday</p> <p>Denominator: Number of members aged 1-3 years who are continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days.</p> |
| Comparison Population | <ul style="list-style-type: none"> • KidsCare members under 200 percent of the FPL • National/Regional benchmarks |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | DEV-CH |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Percentage of children who had an outpatient visit with a PCP who received a weight assessment or nutrition counseling (Measure 2-10)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: "Number of members who had an outpatient visit with a PCP or OB/GYN and who had evidence of the following:</p> <ul style="list-style-type: none"> – Body Mass Index percentile documentation – Counseling for nutrition – Counseling for physical activity <p>Denominator: Number of members aged 3-17 years who are continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days.</p> |
| Comparison Population | <ul style="list-style-type: none"> • KidsCare members under 200 percent of the FPL • National/Regional benchmarks |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | WCC-CH |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |

Percentage of children who had an outpatient visit with a PCP who received a weight assessment or nutrition counseling (Measure 2-10)

| | |
|-------------------|---------------------------|
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Research Question 2.3: Did expanding KidsCare eligibility improve access to dental care for CHIP members?

Percentage of members under 21 who received a comprehensive or periodic oral evaluation (Measure 2-11)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Percentage of members under 19 years of age who received a comprehensive or period evaluation with a dental provider during the measurement year.</p> <p>Denominator: Members under 19 years of age continuously enrolled during the measurement year with no gaps in enrolment.</p> |
| Comparison Population | <ul style="list-style-type: none"> KidsCare members under 200 percent of the FPL National/Regional benchmarks |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | OEV-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Percentage of members under 21 who received a topical fluoride application (Measure 2-12)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members who received at least two topical fluoride applications within the measurement year</p> <p>Denominator: Members aged 1-18 continuously enrolled during the measurement year with no gaps in enrolment.</p> |
| Comparison Population | <ul style="list-style-type: none"> KidsCare members under 200 percent of the FPL National/Regional benchmarks |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | TFL-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Hypothesis 3: Expanding KidsCare eligibility will improve member care satisfaction.

Research Question 3.1: Did expanding KidsCare eligibility improve member satisfaction with the care received?

| Member rating of personal doctor (Measure 3-1) | |
|--|--|
| Numerator/Denominator | Numerator: Number of members indicating they had a high rating of their personal doctor Denominator: Number of respondents to rating of their personal doctor survey question |
| Comparison Population | N/A |
| Measure Steward | CAHPS |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

| Member response to getting needed care right away (Measure 3-2) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question |
| Comparison Population | N/A |
| Measure Steward | CAHPS Child Survey |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

| Member response to getting an appointment for a check-up or routine care at a doctor's office or clinic (Measure 3-3) | |
|---|---|
| Numerator/Denominator | Numerator: Number of members indicating the ability to get an appointment for routine care as soon as they needed Denominator: Number of respondents to getting appointment for routine care survey question |
| Comparison Population | N/A |
| Measure Steward | CAHPS Child Survey |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

Hypothesis 4: Expanding KidsCare eligibility will improve quality of care for members.

Research Question 4.1: Did expanding KidsCare eligibility improve the management of BH conditions?

| Percentage of children and adolescents on antipsychotics with metabolic monitoring (Measure 4-1) | |
|--|--|
| Numerator/Denominator | <p>Numerator: Number of children and adolescents 1 – 17 years of age who had two or more antipsychotic prescriptions and had metabolic testing</p> <p>Denominator: Number of members aged 1 to 17 with at least two antipsychotic medication dispensing events of the same or different medications, on different dates of service during the measurement year, and continuous enrollment during the measurement year with no more than one gap in enrollment of up to 45 days</p> |
| Comparison Population | <ul style="list-style-type: none"> KidsCare members under 200 percent of the FPL National/Regional benchmarks |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | APM-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

| Percentage of children on ADHD medication with a follow up during the 30-day initiation phase and the 210-day continuation phase (Measure 4-2) | |
|--|--|
| Numerator/Denominator | <p>Numerator: Number of members who had at least three follow up care visits within a 10 month period, one of which within 30 days of when the first ADHD medication was dispensed. Two rates are reported:</p> <ul style="list-style-type: none"> Initiation - One follow up visit with a practitioner with prescribing authority during the 30-day initiation phase Continuation and Maintenance - Children who remained on the medication for at least 210 day, who met the initiation criteria, and had at least two follow up visits with a practitioner within 270 days after the initiation phase ended <p>Denominator: Number of members aged 6-12 newly prescribed ADHD medication and continuous enrollment during the measurement year with no more than one gap in enrollment of up to 45 days</p> |
| Comparison Population | <ul style="list-style-type: none"> KidsCare members under 200 percent of the FPL National/Regional benchmarks |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | ADD-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Follow up after ED visit for substance use (Measure 4-3)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of ED visits in the denominator with a follow-up visit for SUD within 7 days of the ED visit.</p> <p>Denominator: Number of ED visits for members 13-18 years of age with a principal diagnosis of SUD and was continuously enrolled from the date of the ED visit through 30 days after the ED visit</p> |
| Comparison Population | <ul style="list-style-type: none"> KidsCare members under 200 percent of the FPL National/Regional benchmarks |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | FUA-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Follow up after hospitalization for mental illness (Measure 4-4)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members with a discharge for mental illness and a follow-up visit with a mental health practitioner within 7 days after discharge</p> <p>Denominator: Number of members 6 to 17 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge</p> |
| Comparison Population | <ul style="list-style-type: none"> KidsCare members under 200 percent of the FPL National/Regional benchmarks |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | FUH-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Follow-up after ED visit for mental illness (Measure 4-5)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of ED visits in the denominator with a follow-up visit for mental illness within 7 days of the ED visit.</p> <p>Denominator: Number of ED visits for members 6-18 years of age with a principal diagnosis of mental illness or intentional self-harm with continuous enrollment from the date of the ED visit through 30 days after the ED visit</p> |
| Comparison Population | <ul style="list-style-type: none"> KidsCare members under 200 percent of the FPL National/Regional benchmarks |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | FUM-CH |

Follow-up after ED visit for mental illness (Measure 4-5)

| | |
|-------------------|--|
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Diagnosed mental health disorders (Measure 4-6)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of members 1 year old and older diagnosed with a mental health disorder</p> <p>Denominator: Number of members 1 – 18 years old who are continuously enrolled with a gap in enrollment no greater than 45 days.</p> |
| Comparison Population | <ul style="list-style-type: none"> KidsCare members under 200 percent of the FPL National/Regional benchmarks |
| Measure Steward | HEDIS |
| Measure Name | DMH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Research Question 4.2: Did expanding KidsCare eligibility impact hospital utilization?

Number of emergent ED visits per 1,000 member months (Measure 4-7)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of ED visits with an emergent diagnosis code among members. Source for emergent diagnosis codes is currently being researched.</p> <p>Denominator: Number of member months among all KidsCare members</p> |
| Comparison Population | KidsCare members under 200 percent of the FPL |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Number of non-emergent ED visits per 1,000 member months (Measure 4-8)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of ED visits with a non-emergent diagnosis code among members. Source for emergent diagnosis codes is currently being researched.</p> <p>Denominator: Number of member months among all KidsCare members</p> |
| Comparison Population | KidsCare members under 200 percent of the FPL |

Number of non-emergent ED visits per 1,000 member months (Measure 4-8)

| | |
|-------------------|--|
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Number of IP stays per 1,000 member months (Measure 4-9)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of total inpatient stays Denominator: Number of member months, divided by 1,000 |
| Comparison Population | <ul style="list-style-type: none"> KidsCare members under 200 percent of the FPL National/Regional benchmarks |
| Measure Steward | HEDIS |
| Measure Name | IPU-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Research Question 4.3: Did expanding KidsCare eligibility maintain or improve the management of chronic conditions for members?

Percentage of members ages 5 to 18 who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year (Measure 4-10)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members in the denominator who had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year Denominator: Number of members aged 5-18 who were identified as having persistent asthma and continuously enrolled during the measurement year and year prior to the measurement year, with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment |
| Comparison Population | <ul style="list-style-type: none"> KidsCare members under 200 percent of the FPL National/Regional benchmarks |
| Measure Steward | Medicaid Child Core Set |
| Measure Name | AMR-CH |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Number of children hospitalized for asthma conditions (Measure 4-11)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of children admitted to the hospital with a principal diagnosis relating to an asthma condition Denominator: Number of children enrolled in KidsCare |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No desired direction |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Number of children diagnosed with diabetes (Measure 4-12)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of children with a diagnosis of diabetes Denominator: Number of children enrolled in KidsCare |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No desired direction |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Number of hospitalizations or ED visits for diabetes (Measure 4-13)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of children enrolled in KidsCare Denominator: N/A |
| Comparison Population | Children not enrolled in AHCCCS |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Arizona Department of Health Services/Bureau of Public Health Statistics hospital discharge data State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No desired direction |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually/monthly |

Percentage of children with diabetes whose lab tests indicate control of their conditions (Measure 4-14)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of children in the denominator who tested positive on a diabetes-related lab screening. Stratified by the following lab results:</p> <ul style="list-style-type: none"> – Hemoglobin A1c (HbA1c control <7.0%) – Fasting Plasma Glucose (FPG control <100 mg/dL) – Negative result on Urinalysis (Glucosuria and Ketonuria) <p>Denominator: Number of children enrolled in KidsCare with a diagnosis of diabetes</p> |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • The independent evaluator will work with AHCCCS to determine if laboratory data will be available |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annually |

Research Question 4.4: Did expanding KidsCare eligibility improve parental understanding of their child's care?

Parent understanding of their child's health (Measure 4-15)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Survey responses indicating that their child's doctor explained things about their child's health in a way that was easy to understand</p> <p>Denominator: Parents of children enrolled in KidsCare that responded to the survey</p> |
| Measure Question | In the last 6 months, how often did your child's personal doctor explain things about your child's health in a way that was easy to understand? |
| Comparison Population | N/A |
| Measure Steward | CAHPS |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rating supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

Parent understanding of their child's care needs (Measure 4-16)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of parents who responded to the survey question indicating that they understand their child's daily care needs.</p> <p>Denominator: Parents of children with specific health care needs enrolled in KidsCare that responded to the survey</p> |
| Measure Question | Special health care needs refer to serious and chronic physical, developmental, or behavioral conditions requiring medically necessary health and related services of a type or amount beyond that required by members generally; that last or are expected to last one year or longer and may require ongoing care not generally provided by a primary care provider. Do you understand your child's special health care needs? |
| Comparison Population | N/A |

Parent understanding of their child's care needs (Measure 4-16)

| | |
|-------------------|--|
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rating supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

Parent knowledge of when to seek care for their child (Measure 4-17)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of parents who responded to the survey question indicating their level of confidence in knowing when to take their child to see a health care provider. Denominator: Parents of children enrolled in KidsCare that responded to the survey |
| Measure Question | How confident are you in knowing when to take your child to see a health care provider for any reason? |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rating supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

Hypothesis 5: Expanding KidsCare will improve self-assessed health outcomes.

Research Question 5.1: Did expanding KidsCare improve member perception of health outcomes?

Percentage of members who reported a rating of overall health as very good or excellent (Measure 5-1)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members who indicated high overall health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall health survey question |
| Comparison Population | N/A |
| Measure Steward | CAHPS |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rating of overall health supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

| Percentage of members who reported a rating of overall mental or emotional health as very good or excellent (Measure 5-2) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members who indicated high overall mental or emotional health rating in response to CAHPS question regarding overall mental or emotional health Denominator: Number of respondents to overall mental or emotional health survey question |
| Comparison Population | N/A |
| Measure Steward | CAHPS |
| Measure Name | N/A |
| Data Source | Beneficiary survey |
| Desired Direction | No change or an increase in the rating of overall mental or emotional health supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | N/A |

Hypothesis 6: Expanding KidsCare will yield cost-effective care for members.

Research Question 6.1: Did the KidsCare program provide cost-effective care for members?

| Total cost of care for KidsCare expansion members and KidsCare members under 200 percent of the FPL (Measure 6-1) | |
|---|--|
| Numerator/Denominator | Numerator: Cost of care for non-expansion KidsCare members Denominator: N/A |
| Comparison Population | KidsCare members under 200 percent of the FPL |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No desired direction |
| Analytic Approach | Post-implementation trend |
| Frequency | Annual |

| Change in reported medical debt (Measure 6-2) | |
|---|--|
| Numerator/Denominator | <u>Beneficiary survey</u> Numerator 1: Number of respondents that reported medical debt for their child Denominator 1: Number of respondents to the survey |
| | <u>SIPP data</u> Numerator 1: Number of respondents that reported medical debt Denominator 1: Number of respondents between 15 and 19 years of age |
| Comparison Population | <u>Beneficiary survey</u> N/A |
| | <u>SIPP data</u> National rates |
| Measure Steward | N/A |

Change in reported medical debt (Measure 6-2)

| | |
|-------------------|---|
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Survey of Income and Program Participation (SIPP) Beneficiary survey |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | Post-implementation trend |
| Frequency | Annual |

PQC

Hypothesis 1: Eliminating prior quarter coverage (PQC) will increase the likelihood and continuity of enrollment.

Research Question 1.1: Do eligible people without PQC enroll in Medicaid at the same rates as other eligible people with PQC?

Percentage of Medicaid enrollees per month by eligibility group out of estimated eligible Medicaid recipients (Measure 1-1)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of members covered by Medicaid (HINCAID).</p> <p>Denominator: Number of individuals likely eligible for Medicaid last year based on IPUMS survey data on family income (FTOTINC), number of own children in household (NCHILD) and disability (DIFFREM, DIFFCARE, DIFFPHYS, DIFFMOB, DIFFSENS,).</p> |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Integrated Public Use Microdata Series (IPUMS) American Community Surveys (ACS) |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | Annually |

Percentage of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage out of estimated eligible Medicaid recipients (Measure 1-2)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of members beginning enrollment in Medicaid.</p> <p>Denominator: Number of individuals likely eligible for Medicaid based on IPUMS survey data on family income (FTOTINC), number of own children in household (NCHILD) and disability (DIFFREM, DIFFCARE, DIFFPHYS, DIFFMOB, DIFFSENS). Re-weighted to represent full Arizona population.</p> |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data IPUMS ACS |

Percentage of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage out of estimated eligible Medicaid recipients (Measure 1-2)

| | |
|-------------------|---|
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annually/Monthly |

Number of Medicaid enrollees per month by eligibility group and/or per-capita of State (Measure 1-3)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members beginning enrollment in Medicaid Denominator: Estimated current year population of Arizona |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data State of Arizona Office of Economic Opportunity |
| Desired Direction | N/A |
| Analytic Approach | Rapid-cycle reporting—Statistical process control chart |
| Frequency | Annually |

Number of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage (Measure 1-4)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members beginning enrollment in Medicaid who did not have Medicaid coverage for at least six months prior Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State eligibility and enrollment data |
| Desired Direction | N/A |
| Analytic Approach | Rapid-cycle reporting—Statistical process control chart |
| Frequency | Annually |

Research Question 1.2: What is the likelihood of enrollment continuity for those without PQC compared to other Medicaid members with PQC?
Percentage of Medicaid members due for renewal who complete the renewal process (Measure 1-5)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Members completing the renewal process Denominator: Members enrolled in Medicaid who were due for renewal during previous 12 months |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State eligibility and enrollment data |

Percentage of Medicaid members due for renewal who complete the renewal process (Measure 1-5)

| | |
|-------------------|---|
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Average number of months with Medicaid coverage (Measure 1-6)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of full months with Medicaid coverage Denominator: Number of Medicaid members |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State eligibility and enrollment data |
| Desired Direction | An increase in the number of months supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Research Question 1.3: Do members without PQC who disenroll from Medicaid have shorter enrollment gaps than other members with PQC?

Percentage of Medicaid members who re-enroll after a gap of up to six months (Measure 1-7)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members who re-enrolled in Medicaid during evaluation period after a gap of up to 6 months Denominator: Number of members who disenrolled from Medicaid during the first six months of evaluation period |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State eligibility and enrollment data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Average number of months without Medicaid coverage for members who re-enroll after a gap of up to six months (Measure 1-8)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of months without Medicaid coverage after disenrolling Denominator: Number of members who disenrolled from Medicaid during the first six months of evaluation period and subsequently re-enrolled |
| Comparison Population | N/A |
| Measure Steward | N/A |

Average number of months without Medicaid coverage for members who re-enroll after a gap of up to six months (Measure 1-8)

| | |
|-------------------|---|
| Measure Name | N/A |
| Data Source | State eligibility and enrollment data |
| Desired Direction | A decrease in the number of months without coverage supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annually/Monthly |

Average number of gaps in Medicaid coverage for members who re-enroll after a gap of up to six months (Measure 1-9)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of gaps in Medicaid coverage. A gap is defined as one day or more without Medicaid enrollment.</p> <p>Denominator: Number of members who disenrolled from Medicaid during the first six months of evaluation period and subsequently re-enrolled</p> |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State eligibility and enrollment data |
| Desired Direction | A decrease in the number of gaps supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | Annually |

Average number of days per gap in Medicaid coverage for members who re-enroll after a gap of up to six months (Measure 1-10)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of gap days in Medicaid coverage</p> <p>Denominator: Number of gaps in coverage for members who disenrolled from Medicaid during the first six months of evaluation period and subsequently re-enrolled. A gap is defined as one day or more without Medicaid enrollment</p> |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State eligibility and enrollment data |
| Desired Direction | No change or a decrease in the number of days per gap supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | Annually |

Hypothesis 2: Eliminating PQC will increase enrollment of eligible people when they are healthy.

Research Question 2.1: Do newly enrolled members without PQC have higher self-assessed health status?

| Member reported rating of overall health (Measure 2-1) | |
|--|---|
| Numerator/Denominator | Numerator: Number of members who indicated high overall health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall health survey question among members who have not had Medicaid coverage for the first six months of evaluation period |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State beneficiary survey |
| Desired Direction | No change or an increase in the rating of overall health supports the hypothesis |
| Analytic Approach | Chi-square |
| Frequency | N/A |

| Member reported rating of overall mental or emotional health (Measure 2-2) | |
|--|---|
| Numerator/Denominator | Numerator: Number of members who indicated high overall mental or emotional health rating in response to CAHPS question regarding overall mental or emotional health Denominator: Number of respondents to overall mental or emotional health survey question among members who have not had Medicaid coverage for the first six months of evaluation period |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State beneficiary survey |
| Desired Direction | No change or an increase in the rating of overall mental or emotional health supports the hypothesis |
| Analytic Approach | Chi-Square |
| Frequency | N/A |

| Percentage of members who reported prior year ED visit (Measure 2-3) | |
|--|--|
| Numerator/Denominator | Numerator: Number of members who reported any ED visits during previous 12 months Denominator: Number of respondents to ED visit survey question among members who have not had Medicaid coverage for the first six months of evaluation period |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State beneficiary survey |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | Chi-square |
| Frequency | N/A |

Percentage of members who reported prior year hospital admission (Measure 2-4)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members who reported any overnight hospital stays during previous 12 months Denominator: Number of respondents to overnight hospital stay survey question among members who have not had Medicaid coverage for the first six months of evaluation period |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State beneficiary survey |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | Chi-Square |
| Frequency | N/A |

Percentage of members who reported getting healthcare three or more times for the same condition or problem (Measure 2-5)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members who received healthcare services three or more times for the same condition Denominator: Number of respondents to multiple services for same condition survey question among members who have not had Medicaid coverage for the first six months of evaluation period |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State beneficiary survey |
| Desired Direction | A decrease in the rate supports the hypothesis |
| Analytic Approach | Chi-Square |
| Frequency | N/A |

Hypothesis 3: Health outcomes will be better for those without PQC compared to Medicaid members with PQC.

Research Question 3.1: Do members without PQC have better health outcomes when compared to outcomes prior to the renewal period rates and out-of-state outcomes for those with PQC?

Member reported rating of overall health for all members (Measure 3-1)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members who indicated high overall health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall health survey question |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State beneficiary survey BRFSS |
| Desired Direction | No change or an increase in the rating of overall health supports the hypothesis |

Member reported rating of overall health for all members (Measure 3-1)

| | |
|-------------------|---|
| Analytic Approach | <ul style="list-style-type: none"> • Comparison to national benchmarks • Pre-test/post-test |
| Frequency | N/A |

Member reported rating of overall mental or emotional health for all members (Measure 3-2)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members who indicated high overall mental or emotional health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall mental or emotional health survey question |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | State beneficiary survey |
| Desired Direction | No change or an increase in the rating of overall mental or emotional health supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> • Comparison to national benchmarks • Pre-test/post-test |
| Frequency | N/A |

Hypothesis 4: Eliminating PQC will not have adverse financial impacts on consumers.

Research Question 4.1: Does the PQC waiver lead to changes in the incidence of member medical debt?

Percentage of members who reported medical debt (Measure 4-1)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members indicating outstanding medical debt or difficulty paying medical bills Denominator: Number of respondents to outstanding medical debt or difficulty paying medical bills survey question |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> • State beneficiary survey • BRFSS |
| Desired Direction | No change or a decrease in the rate supports the hypothesis |
| Analytic Approach | Comparison to other states |
| Frequency | N/A |

Hypothesis 5: Eliminating PQC will not adversely affect access to appropriate care for routine medical conditions.

Research Question 5.1: Do members without PQC have the same or higher rates of office visits compared to members with PQC?

| Member response to getting needed care right away (Measure 5-1) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| Data Source | State beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national benchmarks Pre-test/post-test |
| Frequency | N/A |

| Member response to getting an appointment for a check-up or routine care at a doctor's office or clinic (Measure 5-2) | |
|---|---|
| Numerator/Denominator | Numerator: Number of members indicating the ability to get an appointment for a check-up or routine care at a doctor's office or clinic Denominator: Number of respondents to get an appointment for a check-up or routine care at a doctor's office or clinic survey question |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| Data Source | State beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national benchmarks Pre-test/post-test |
| Frequency | N/A |

Research Question 5.2: Do members without PQC have the same or higher rates of service and facility utilization compared to rates prior to waiver renewal with PQC?

| Percentage of members with a visit to a specialist (e.g., eye doctor, otolaryngologist [ENT], cardiologist) (Measure 5-3) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members with a visit to a specialist during previous 12 months Denominator: Number of members enrolled in Medicaid during previous 12 months |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |

Percentage of members with a visit to a specialist (e.g., eye doctor, otolaryngologist [ENT], cardiologist) (Measure 5-3)

| | |
|-------------------|--|
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Comparison to national benchmarks Pre-test/post-test |
| Frequency | N/A |

Hypothesis 6: Eliminating PQC will not result in reduced member satisfaction.

Research Question 6.1: Do members without PQC have the same or higher satisfaction with their healthcare compared to prior to waiver renewal with PQC?

Member rating of overall healthcare (Measure 6-1)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of members reporting a high-level of satisfaction with overall healthcare</p> <p>Denominator: Number of respondents to overall healthcare satisfaction survey question</p> |
| Comparison Population | N/A |
| Measure Steward | NCQA |
| Measure Name | N/A |
| Data Source | State beneficiary survey |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | Pre-test/post-test |
| Frequency | N/A |

Hypothesis 7: Eliminating PQC will generate cost savings over the term of the waiver.

Research Question 7.3: Do costs to non-AHCCCS entities stay the same or decrease after implementation of the waiver compared to before?

Reported costs for uninsured and/or likely eligible Medicaid recipients among potentially impacted providers and/or provider networks (Measure 7-1)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Total reported uncompensated care costs among likely Medicaid population, including Medicaid shortfalls.</p> <p>Denominator: Total number of facilities reporting uncompensated care costs.</p> |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Healthcare Cost Report Information System (HCRIS) Healthcare Cost and Utilization Project State Inpatient Database (HCUP-SID) Provider Focus Groups |
| Desired Direction | No change or a decrease in rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> ITS Qualitative synthesis |
| Frequency | N/A |

Tribal Dental Authority

Hypothesis 1: Member access to appropriate, routine dental care will be maintained or improved during the renewal period.

Research Question 1.1: Did the waiver result in an increased number of dental providers practicing in Indian Health Service (IHS) and 638 facilities?

| Percentage of members meeting minimum time/distance network standards (Measure 1-1) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members meeting time/distance network standards for AHCCCS contractors Denominator: Number of members enrolled in the Tribal Dental Authority program |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Member/provider data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> Subgroup analysis by county and/or urbanicity ITS Pre-test/post-test Post-implementation trend analysis |
| Frequency | Annually/Monthly |

| Number of dental providers practicing in IHS facilities (Measure 1-2) | |
|---|---|
| Numerator/Denominator | Numerator: Number of dental providers practicing in IHS facilities Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Member/provider data |
| Desired Direction | No change or an increase in the rate supports the hypothesis |
| Analytic Approach | <ul style="list-style-type: none"> ITS Pre-test/post-test Post-implementation trend analysis |
| Frequency | Annually/Monthly |

| IHS/Tribal 638 staff's reported change in practicing dental providers after the implementation of the expanded tribal dental benefit (Measure 1-3) | |
|--|------------------------------------|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |

IHS/Tribal 638 staff's reported change in practicing dental providers after the implementation of the expanded tribal dental benefit (Measure 1-3)

| | |
|-------------------|--------------------------|
| Data Source | Key informant interviews |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

IHS/Tribal 638 staff's reported barriers before, during, and shortly following the implementation of the expanded tribal dental benefit (Measure 1-4)

| | |
|-----------------------|------------------------------------|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

IHS/Tribal 638 staff's reported changes in quality of care and access to care for tribal members after the implementation of the tribal dental benefit (Measure 1-5)

| | |
|-----------------------|------------------------------------|
| Numerator/Denominator | Numerator: N/A Denominator: N/A |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews |
| Desired Direction | N/A |
| Analytic Approach | Qualitative synthesis |
| Frequency | N/A |

Research Question 1.2: Do members have the same or better access to routine, preventative dental services compared to prior to the demonstration?

Percentage of adult members who received a comprehensive or periodic oral evaluation (Measure 1-6)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members aged 21 or older who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year Denominator: Number of members aged 21 or older who are eligible for the Tribal Dental Benefit in the plan year and are continuously enrolled for the measurement year with a gap of no more than 45 days. Note: This measure is a modified version of the DOE measure |
| Comparison Population | N/A |
| Measure Steward | Dental Quality Alliance (DQA) |

Percentage of adult members who received a comprehensive or periodic oral evaluation (Measure 1-6)

| | |
|-------------------|---|
| Measure Name | Adapted Oral Evaluation for Adults (DOE) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Number of adult members receiving any covered service in the plan year (Measure 1-7)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members 21 or older who received any covered dental service Denominator: Number of members aged 21 or older eligible for the Tribal Dental Benefit |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Hypothesis 2: Quality of care will be maintained or improved during the renewal period.

Research Question 2.1: Do members have the same or better management of chronic dental conditions compared to prior to the demonstration?

Percentage of adult members with diabetes who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year (Measure 2-1)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members aged 21 or older with diabetes who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year. Denominator: Number of members aged 21 or older eligible for the Tribal Dental Benefit and are continuously enrolled for the measurement year with a gap of no more than 31 days. |
| Comparison Population | N/A |
| Measure Steward | DQA |
| Measure Name | Oral Evaluation for Adults With Diabetes (DOE) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |

Percentage of adult members with diabetes who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year (Measure 2-1)

| | |
|-------------------|--------------------------------------|
| Analytic Approach | • Pre-test/post-test |
| | • ITS |
| | • Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Percentage of enrolled adults ages 30 years and older with a history of periodontitis who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year (Measure 2-2)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members ages 30 or older who were treated for periodontitis and received an oral prophylaxis OR scaling/root planning OR periodontal maintenance visit at least two times. Denominator: Number of members aged 30 or older eligible for the Tribal Dental Benefit with a history of periodontitis. Note: A three-year lookback period is needed to identify prior diagnosis of periodontitis. |
| Comparison Population | N/A |
| Measure Steward | DQA |
| Measure Name | Non-Surgical Ongoing Periodontal Care for Adults With Periodontitis (POC) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | • Pre-test/post-test |
| | • ITS |
| | • Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Percentage of enrolled adults ages 30 years and older with a history of periodontitis who received an oral prophylaxis or scaling/root planing or periodontal maintenance visit at least two times within the reporting year (Measure 2-3)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members ages 30 or older who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation Denominator: Number of members ages 30 or older eligible for the Tribal Dental Benefit with a history of periodontitis and are continuously enrolled for 180 days. Note: A three-year lookback period is needed to identify prior diagnosis of periodontitis. |
| Comparison Population | N/A |
| Measure Steward | DQA |
| Measure Name | Periodontal Evaluation in Adults with Periodontitis (PEV) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | N/A |

Percentage of enrolled adults ages 30 years and older with a history of periodontitis who received an oral prophylaxis or scaling/root planing or periodontal maintenance visit at least two times within the reporting year (Measure 2-3)

| | |
|-------------------|--------------------------------------|
| Analytic Approach | • Pre-test/post-test |
| | • ITS |
| | • Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Percentage of enrolled adults ages 18 years and older who are at “elevated” risk (i.e., “moderate” or “high”) and received at least two topical fluoride applications within the reporting year (Measure 2-4)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members aged 21 and older at elevated caries risk who received at least two topical fluoride applications Denominator: Number of members aged 21 or older at elevated caries risk who are eligible for the Tribal Dental Benefit and are continuously enrolled for the measurement year with a gap of no more than 31 days. |
| Comparison Population | N/A |
| Measure Steward | DQA |
| Measure Name | Oral Evaluation for Adults (TFL) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | • Pre-test/post-test |
| | • ITS |
| | • Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Research Question 2.2: Do members have equal or lower ED or hospital utilization compared to prior to the demonstration?

Number of ED visits for ambulatory care sensitive dental conditions (Measure 2-5)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of ED visits among adults 21 or older with an ambulatory care sensitive non-traumatic dental condition Denominator: Member months for adults 21 or older eligible for the Tribal Dental Benefit. |
| Comparison Population | N/A |
| Measure Steward | DQA |
| Measure Name | Ambulatory Care Sensitive ED Visits for Non-Traumatic Dental Conditions in Adults (EDV) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | • Pre-test/post-test |
| | • ITS |
| | • Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Percentage of ambulatory care sensitive dental condition ED visits among adults who visited a dentist after an ED visit (Measure 2-6)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator: Number of ambulatory care sensitive non-traumatic dental condition ED visits in the reporting period, where the member visited a dentist within</p> <ul style="list-style-type: none"> Rate 1: 7 days of the ED visit Rate 2: 30 days of the ED visit <p>Denominator: Number of ambulatory care sensitive non-traumatic dental condition ED visits</p> |
| Comparison Population | N/A |
| Measure Steward | DQA |
| Measure Name | Follow-up after ED visits for non-traumatic dental conditions in adults (EDF) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Hypothesis 3: Member oral health outcomes will be maintained or improved during the renewal period.

Research Question 3.1: Do members have the same or better oral health outcomes compared to prior to the demonstration?

Percentage of members with permanent tooth loss (Measure 3-1)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of members who responded to the survey, stratified by tooth loss</p> <ul style="list-style-type: none"> Rate 1: 1-5 teeth lost Rate 2: 6 or more, but not all, teeth lost Rate 3: All teeth lost Rate 4: No teeth lost <p>Denominator: Number of American Indian/Alaska Native (AI/AN), Medicaid members in Arizona that responded to the survey</p> |
| Comparison Population | AI/AN Medicaid members responding to the BRFSS survey from all other states that participated |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> BRFSS |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test DiD Post-implementation trend analysis |
| Frequency | Annually |

Percentage of members with risk of dental caries (Measure 3-2)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members identified as having a medium or high caries risk Denominator: Adults 21 or older eligible for the Tribal Dental Benefit |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Percentage of members with periodontitis (Measure 3-3)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members diagnosed with periodontitis in the year prior to the measurement year Denominator: Adults 21 or older eligible for the Tribal Dental Benefit in the year prior to the measurement year |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Percentage of members with oral cancer (Measure 3-4)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members diagnosed with oral cancer in the year prior to the measurement year Denominator: Adults 21 or older eligible for the Tribal Dental Benefit in the year prior to the measurement year |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |

Percentage of members with oral cancer (Measure 3-4)

| | |
|-------------------|---|
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS • Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Research Question 3.2: Has the rate of emergency dental services decreased following implementation of the waiver?

Percentage/Number of members that utilized an emergency dental service (Measure 3-5)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members who utilized an emergency dental service Denominator: Adults 21 or older eligible for the Tribal Dental Benefit |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS • Post-implementation trend analysis |
| Frequency | Annually/Monthly |

Appendix E. August 2021 Interim Evaluation Report Executive Summary

Appendix E contains the Executive Summary of the Centers for Medicare & Medicaid Services (CMS)-approved Interim Evaluation Report for the Arizona Health Care Cost Containment System (AHCCCS) Section 1115 Demonstration Waiver.^{E-1}

^{E-1} Centers for Medicare & Medicaid Services. Approved Interim Evaluation Report. Available at: <https://www.medicaid.gov/sites/default/files/2022-10/ahcccs-interim-eval-rprt.pdf>. Accessed on: Jan 25, 2024.

Executive Summary

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

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

Demonstration Overview

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

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

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

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

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

² NORC. *Supportive Service Expansion for Individuals with Serious Mental Illness: A Case Study of Mercy Maricopa Integrated Care*. August 18, 2017. Available at: <https://es.mercycareaz.org/assets/pdf/news/NORC-MercyMaricopa-CaseStudy.pdf>. Accessed on: June 8, 2021.

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

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

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

ACC

Through the ACC program, AHCCCS streamlined services for 1.5 million beneficiaries by transitioning them to seven new ACC managed care organizations (MCOs) that provide integrated physical and behavioral health care services on October 1, 2018. Specifically, the ACC plans serve the following AHCCCS populations: adults without an SMI, children (including those with special health care needs) not enrolled with DES/DDD and DCS/CMDP, and beneficiaries with an SMI who opt out and transfer to an ACC for the provision of their physical health services. The ACC contract was awarded to seven health plans across three geographical service areas (GSAs): Northern Arizona, Central Arizona, and Southern Arizona. As a part of the ACC contract, the seven health plans are expected to "develop specific strategies to promote the integration of physical and behavioral health care service delivery and care integration activities."⁴ Strategies include implementing best practices in care coordination and care management for physical and behavioral health care, proactively identifying beneficiaries for engagement in care management, providing an appropriate level of care

³ Snyder, J. AHCCCS Targeted Investments Program Sustainability Plan. March 29, 2019. Available at: <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-target-stability-plan-20190812.pdf>. Accessed on: June 8, 2021.

⁴ AHCCCS Complete Care Contract #YH19-0001, Section D. Available at: https://www.azahcccs.gov/PlansProviders/Downloads/RFPInfo/YH19/ACC_RFP_11022017.pdf. Accessed on: June 8, 2021.

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

ALTCS

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

CMDP

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

RBHA

As part of the RBHA, adult AHCCCS beneficiaries with SMI continue to receive acute care and behavioral health services through a geographically designated RBHA contracted with AHCCCS. Historically, the RBHA provided coverage for behavioral health services for all AHCCCS beneficiaries with a few exceptions, notably beneficiaries enrolled in ALTCS-EPD. RBHA plans have provided integrated medical and behavioral health care for their beneficiaries with SMI through the Mercy Maricopa Integrated Care (MMIC) plan since April 2014 and expanded statewide in October 2015 through the Cienpatito Integrated Care and Health Choice Integrated Care health plans. The RBHA’s goals are to streamline, monitor, and adjust care plans based on progress and outcomes; reduce hospital admissions and unnecessary emergency department (ED) and crisis service use; and provide beneficiaries with tools to self-manage their care to promote health and wellness by improving the quality of care.

⁵ Arizona’s Section 1115 Waiver Demonstration Annual Report. Available at: <https://www.azahcccs.gov/Resources/Downloads/FY2017AnnualReportCMS.pdf>. Accessed on: June 4, 2021.

PQC Waiver

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

TI Program

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

Research Hypotheses

To comprehensively evaluate the six programs, 35 hypotheses were tested in total. Tab1 lists the hypotheses that were evaluated for each program. Each hypothesis may be represented by more than one research question that could be evaluated by more than one measure. A complete list of evaluation hypotheses and research questions is provided in the "Evaluation Questions and Hypotheses" section. Appendix A also provides additional details on the methods, data sources, and associated measures for each of the research questions presented below.

⁶ Snyder J. *Targeted Investments Program Sustainability Plan*. March 29, 2019. Available at: <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-target-stability-plan-20190812.pdf>. Accessed on: June 8, 2021.

⁷ Vikki Wachino. AHCCCS. CMS Approval email message, Jan 18, 2017. Available at: https://www.azahcccs.gov/Resources/Downloads/CMSApprovalLetter_01-18-2017.pdf. Accessed on: June 8, 2021.

⁸ Snyder J. *Targeted Investments Program Sustainability Plan*. March 29, 2019. Available at: <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-target-stability-plan-20190812.pdf>. Accessed on: June 8, 2021.

Table 1: Waiver Program Hypotheses

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

Results

The Interim Evaluation Report presents results for all performance measures with available data,⁹ beneficiary surveys, key informant interviews, and provider focus groups across all six programs during the baseline period and most of the evaluation period. In total, this report addresses all 35 hypotheses. Among the hypotheses tested, 22 involve statistical testing of quantitative performance measure rates, beneficiary survey data, and national survey data. Six hypotheses relate to descriptive reporting and synthesis from qualitative data collection—one for each program. Six hypotheses relate to assessing the cost-effectiveness of each program, and one hypothesis related to TI provides a descriptive analysis of quantitative data (H5). Due to limitations in the data available for this interim report, the cost-effectiveness analysis does not split out all programs.

The COVID-19 pandemic impacted the health care industry and the entire population on a global scale, requiring substantial changes to the processes used in the delivery of health care. In Arizona, as in other locations, health care utilization was significantly reduced in 2020, and the impact on performance measure rates is evident in this Interim Evaluation Report. Because the COVID-19 pandemic generally led to a reduction in routine care and elective procedures,¹⁰ measures that included all Medicaid beneficiaries regardless of diagnosis or service utilization experienced the largest impact (e.g., Annual Dental Visits or Adults' Access to Preventive/Ambulatory Health Services) compared to measures that required specific diagnosis or service to qualify for the denominator (e.g., Plan All-Cause Readmissions, or Follow-up After Hospitalization for Mental Illness).

Table 2–Table 7 presents a summary of results from statistical testing for performance measures and beneficiary surveys.¹¹ Most measures have a defined desired direction, where an increase in rates indicates a favorable change or for other measures a decrease in rates may indicate a favorable change. Certain measures, however, are dependent on context and do not necessarily have a favorable direction such as emergency department visits (a higher rate may indicate unnecessary utilization while a low rate may indicate inadequate access to care). For a measure to have improved it must have demonstrated a statistically significant change in the desired direction between the baseline and evaluation period. Similarly, for a measure to have worsened, it must have demonstrated a statistically significant change opposite to the desired direction between the baseline and evaluation period.¹²

The results in Table 2–Table 7 indicate that of 126 measures with a defined desired direction, about one third (32 percent) improved, one in five (21 percent) worsened, and nearly half (48 percent) did not change by a statistically significant amount.

⁹ Immunization data were not available at time of analysis.

¹⁰ See, e.g., Moynihan, R., et al., Impact of COVID-19 pandemic on utilisation of healthcare services: a systematic review, *BMJ Open*. 2021 Mar 16;11(3):e045343. doi: 10.1136/bmjopen-2020-045343. PMID: 33727273; PMCID: PMC7969768; available at <https://pubmed.ncbi.nlm.nih.gov/33727273/>

¹¹ Three hypotheses for ALTCS are separated by program and appear twice in Table 3.

¹² Statistical significance was determined based on the traditional confidence level of 95 percent.

ACC

Table 2: Summary of Measure Rate Changes Between Baseline and Evaluation Periods for ACC

| Hypothesis | Improving | No Significant Difference | Worsening | No Desired Direction |
|---|-----------|---------------------------|-----------|----------------------|
| ACC Hypothesis 1: Health plans encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners. | 0 | 1 | 0 | 0 |
| ACC Hypothesis 2: Access to care will maintain or improve as a result of the integration of behavioral and physical care. | 2 | 3 | 3 | 0 |
| ACC Hypothesis 3: Quality of care will maintain or improve as a result of the integration of behavioral and physical care. | 5 | 3 | 5 | 3 |
| ACC Hypothesis 4: Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care | 0 | 2 | 0 | 0 |
| ACC Hypothesis 5: Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care | 0 | 2 | 0 | 0 |
| Total | 7 | 11 | 8 | 3 |

Results show that measures related to substance abuse treatment, management of opioid prescriptions, and management of chronic conditions improved during the evaluation period compared to baseline. Although eight of the 39 measures with defined direction exhibited a worsening during the evaluation period, five of these measures are related to preventive services or well-care visits, which declined sharply following the COVID-19 pandemic in 2020. Three measures related to medication adherence and follow-up visits did not significantly improve or worsen between the baseline and evaluation period.

ALTCS

Table 3: Summary of Measure Rate Changes Between Baseline and Evaluation Periods for ALTCS

| Hypothesis | Improving | No Significant Difference | Worsening | No Desired Direction |
|--|-----------|---------------------------|-----------|----------------------|
| ALTCS-DD Hypothesis 1: Access to care will maintain or improve over the waiver demonstration period. | 2 | 5 | 1 | 0 |
| ALTCS-DD Hypothesis 2: Quality of care will maintain or improve over the waiver demonstration period. | 5 | 6 | 1 | 3 |
| ALTCS-DD Hypothesis 3: Quality of life for beneficiaries will maintain or improve over the waiver demonstration period. | 1 | 3 | 3 | 0 |
| ALTCS-EPD Hypothesis 1: Access to care will maintain or improve over the waiver demonstration period. | 1 | 0 | 0 | 0 |
| ALTCS-EPD Hypothesis 2: Quality of care will maintain or improve over the waiver demonstration period. | 5 | 3 | 2 | 3 |
| ALTCS-EPD Hypothesis 3: Quality of life for beneficiaries will maintain or improve over the waiver demonstration period. | 0 | 0 | 1 | 0 |
| Total | 14 | 17 | 8 | 6 |

Overall, results tended toward improvement for the ALTCS-DD and EPD populations. Generally, rates improved for preventive measures, such as adolescent well-care and well-child visits for the ALTCS-DD population and breast and cervical cancer screenings for the EPD population. Measures related to management of prescription opioids also improved for the ALTCS-EPD population, whereas these rates tended to have no change for the ALTCS-DD population.

CMDP

Table 4: Summary of Measure Rate Changes Between Baseline and Evaluation Periods for CMDP

| Hypothesis | Improving | No Significant Difference | Worsening | No Desired Direction |
|---|-----------|---------------------------|-----------|----------------------|
| CMDP Hypothesis 1: Access to care will be maintained or increase during the demonstration. | 1 | 0 | 1 | 0 |
| CMDP Hypothesis 2: Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration. | 3 | 3 | 0 | 3 |
| Total | 4 | 3 | 1 | 3 |

Following the demonstration renewal for CMDP, children and adolescents generally had higher rates of visits for preventive or wellness services, follow-up visits, and improved management of behavioral health conditions, increasing across four measures. Rates of annual dental visits increased during the evaluation period, and although rates of children and adolescents with access to primary care practitioners (PCPs) decreased during the evaluation period, this decrease was not clinically substantive and largely driven by the COVID-19 pandemic in 2020.

RBHA

Table 5: Summary of Measure Rate Changes Between Baseline and Evaluation Periods for RBHA

| Hypothesis | Improving | No Significant Difference | Worsening | No Desired Direction |
|---|-----------|---------------------------|-----------|----------------------|
| RBHA Hypothesis 1: Access to care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or increase during the demonstration. | 2 | 3 | 1 | 0 |
| RBHA Hypothesis 2: Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration. | 4 | 5 | 4 | 3 |
| RBHA Hypothesis 3: Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration. | 0 | 2 | 0 | 0 |
| RBHA Hypothesis 4: Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration period. | 1 | 2 | 0 | 0 |
| Total | 7 | 12 | 5 | 3 |

Following integration of care for beneficiaries with SMI, rates improved for six measures across three general domains: (1) access to primary care services, (2) follow-up visits after hospital or ED stays for mental illness, and (3) opioid prescription management, and another measure improved regarding rating of health plan. Although rates for measures of chronic condition management fell on average between the baseline and evaluation period,

two of the three measures that worsened trended upwards in recent years. Results from beneficiary surveys indicated a greater proportion of beneficiaries reported a high rating of health plan in 2021 compared to the beginning of the demonstration renewal period.

PQC

Table 6: Summary of Measure Rate Changes Between Baseline and Evaluation Periods for PQC

| Hypothesis | Improving | No Significant Difference | Worsening | No Desired Direction |
|---|-----------|---------------------------|-----------|----------------------|
| PQC Hypothesis 1: Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment. | 5 | 0 | 3 | 2 |
| PQC Hypothesis 5: Eliminating prior quarter coverage will not adversely affect access to care. | 0 | 0 | 1 | 0 |
| Total | 5 | 0 | 4 | 2 |

Results show that following the implementation of the PQC waiver, there were improvements in measures related to timely re-enrollment of beneficiaries who experienced a gap in coverage and shorter enrollment gaps among those beneficiaries. Three measures worsened, related to the percentage of estimated Medicaid-eligible population enrolled in Medicaid, beneficiaries completing the renewal process, and beneficiaries with visits to a specialist which was adversely impacted during the evaluation period due to the COVID-19 pandemic.

TI

Table 7: Summary of Measure Rate Changes Between Baseline and Evaluation Periods for TI

| Hypothesis | Evaluation Year | Improving | No Significant Difference | Worsening | No Desired Direction |
|--|-----------------|-----------|---------------------------|-----------|----------------------|
| TI Hypothesis 1: The TI program will improve physical and behavioral health care integration for children. | 2019 | 0 | 3 | 0 | 0 |
| | 2020 | 1 | 4 | 0 | 0 |
| TI Hypothesis 2: The TI program will improve physical and behavioral health care integration for adults. | 2019 | 3 | 2 | 0 | 2 |
| | 2020 | 2 | 5 | 0 | 2 |
| TI Hypothesis 3: The TI program will improve care coordination for AHCCCS enrolled adults released from criminal justice facilities. | 2019 | 0 | 6 | 0 | 2 |
| | 2020 | 0 | 8 | 0 | 2 |
| Total | 2019 | 3 | 11 | 0 | 4 |
| | 2020 | 3 | 17 | 0 | 4 |

Note: Results from 2021 CAHPS survey questions are included in total counts for 2020.

Two difference-in-differences (DiD) analyses were conducted for the TI program. Once between the baseline and ramp-up period (FFY 2019) and a second between the baseline and evaluation period (FFY 2020). The ramp-up DiD was conducted to assess preliminary impact of the TI program prior to potentially confounding effects from the COVID-19 Public Health Emergency (PHE) in 2020. Results demonstrate that after implementation in 2020

the TI program led to an improvement in the number of adolescents with well-care visits; adults with engagement of treatment for alcohol, opioid, or other drug abuse; and medication assisted treatment. During the ramp-up period in 2019, the TI program led to an improvement in adults with initiation and engagement of treatment for alcohol, opioid, or other drug abuse, and medication assisted treatment. While some findings suggested a marked improvement, such as measures related to management of opioid prescriptions among beneficiaries transitioning from the criminal justice system, sample sizes primarily within the comparison group were too small to yield statistically significant results. Providers across all areas of concentration (excluding criminal justice) generally increased their self-assessed integration status between demonstration years 2 and 3. At the end of year 2, there were 203 participating sites at the lowest integration level while by the end of year 3, there were only 53 such providers. Furthermore, 118 additional provider locations attested to meeting criteria for the top two levels of integration by the end of year 3 compared to year 2.

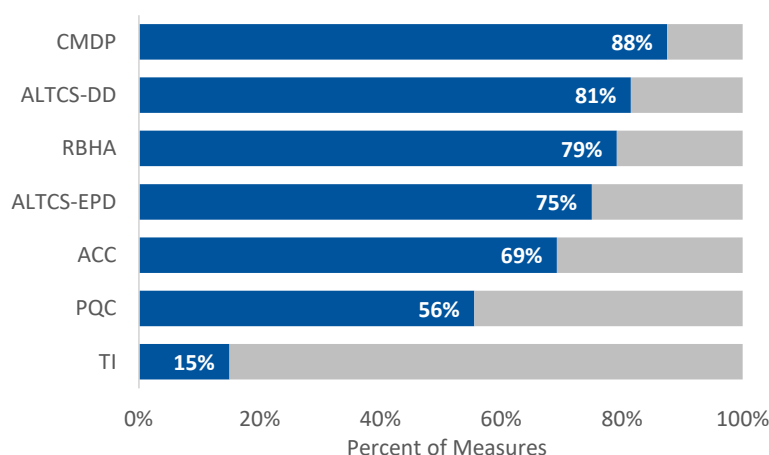
Conclusions

Quantitative Findings

The results from the statistical analysis of performance measure rate changes between baseline and evaluation periods are mixed, but with a tendency toward overall improvement. Of the 126 measures with a desired direction of change defined, 40 indicators exhibited improvements, while 26 exhibited worsening in the evaluation period. It is important to note that a decline among many service-based measures was driven by the COVID-19 public health emergency (PHE) in Federal Fiscal Year (FFY) 2020, which may have contributed to an observed decline or worsening in the rates. Among the hypotheses tested, 13 represent expectations that the AHCCCS demonstration programs will either maintain or improve care and outcomes for beneficiaries.¹³ After adding measures exhibiting no significant difference in rates between the baseline and evaluation period to those that improved for these hypotheses, the number of measures that are consistent with the evaluation hypotheses increases to 83 out of 126.

The AHCCCS programs evaluated also demonstrate substantial variability in the proportion of measures consistent with research hypotheses, as illustrated in Figure 1.

Figure 1: Percentage of Measures Consistent with Research Hypothesis



¹³ Three hypotheses for ALTCS are separated by program and appear twice in Table 3, and three hypotheses for TI assert the program will improve care.

- Analysis of the **CMDP** program data showed the largest percentage of measure results consistent with the tested hypotheses at 88 percent. All measures related to quality of care for beneficiaries supported the hypothesis and results were generally favorable for the access to care hypothesis considering these measures saw substantive impact from the COVID-19 pandemic.
- Among the 81 percent of measures supporting the tested hypotheses among the **ALTCS-DD** population, results suggest overall maintenance or improvement in the access to care and quality of care domains while results for quality of life were mixed for this population. Of the three hypotheses tested for the **ALTCS-EPD** population, the results suggested overall maintenance or improvement in access to care and the quality of care for the **ALTCS-EPD** population, and worsening in the quality of life hypothesis.
- Four hypotheses were tested for the **RBHA** program. Results for two hypotheses related to health outcomes (self-assessed health status) and beneficiary satisfaction showed measure rates were maintained or improved during the demonstration renewal period.
- For the hypotheses tested for the **ACC** program, the results were generally mixed. Two measures related to access to care improved while three worsened, and five measures related to quality of care improved but five others worsened. Measures related to self-assessed health outcomes and satisfaction overall did not have significant changes.
- Analysis of the **PQC** waiver shows 56 percent of measures were consistent with their hypothesis, primarily regarding improvement in the likelihood and continuity of beneficiary enrollment; however, results showed a worsening in access to care.
- Statistical analysis of the **TI** program shows results that were consistent with the tested hypotheses for 15 percent of the measures evaluated for the first year following implementation. No measures indicated a worsening for the **TI** population, with most measures showing favorable changes that were not statistically significant.

While the results of the statistical analysis can be interpreted as being consistent or inconsistent with the evaluation hypotheses, one limitation of the majority of analyses is an inability to explain why performance measure rates increased or decreased. The analyses in this Interim Evaluation Report do not include a comparison group for any of the demonstration programs except for the Targeted Investment (TI) program. A comparison group of similarly situated Medicaid beneficiaries who have not received the programming changes delivered by AHCCCS is critical for obtaining a proper counterfactual comparison. The evaluation design plan proposed the use of either the Transformed Medicaid Statistical Information System (T-MSIS) data from CMS, or data obtained from other states to form a counterfactual comparison group for AHCCCS' statewide programs. However, T-MSIS data were unavailable to be used in this report for the time periods covered, and data could not be obtained from another state with similar population characteristics and Medicaid policies and procedures in place. Consequently, a comparison group was not feasible, and the counterfactual comparison used in this report is the comparison of performance measure rates across the baseline and evaluation periods of the demonstration. The results indicate whether the performance measure rates increased or decreased, and whether the results represented statistically significant changes in performance. As the pre-post analyses did not include a comparison group, the results do not allow for drawing any direct causal conclusions regarding program impact.

Qualitative Findings

Qualitative analysis of transcripts from key informant interviews and limited focus group data provides critical pieces of context about the implementation of the AHCCCS demonstrations when interpreting the results. Two main points have emerged from the qualitative analysis that are important for this Interim Evaluation Report. First, there is general consensus that during the planning and development phases of the demonstration, AHCCCS provided stakeholders with excellent information and communication, maintaining transparency about what each

program would do and what issues would need to be addressed. AHCCCS also facilitated collaboration amongst all stakeholders, encouraging the MCOs to collaborate in developing resolutions for data sharing.

The second main theme to emerge was obtained from focus group participants for the ACC program, who indicated that operational differences across MCOs have created challenges that impact all providers, and may be particularly detrimental to smaller provider organizations. Specifically, focus group participants indicated that a greater level of statewide standardization with respect to beneficiary attribution, performance measure reporting, prior authorization processes, and value-based contracts would make navigating and coordinating operations across the increased number of MCOs easier to accomplish. While providers generally indicated agreement that increased competition was beneficial in the marketplace, the operational differences and flexibility provided by the MCO contracts for the ACC program have created an administrative burden among providers that may have shifted resources for some providers away from the intended goals of improved integration and care coordination.

The results presented in this Interim Evaluation Report are not the final results for the AHCCCS Medicaid 1115 Waiver Demonstration programs. The Summative Evaluation Report will include additional years of data, as well as additional qualitative data. If data for appropriate comparison groups are identified, the Summative Evaluation Report may also present results from more robust analyses for measures beyond the TI program.

Arizona Health Care Cost Containment System



Arizona Section 1115 Waiver Evaluation

Housing and Health Opportunities Evaluation Design

August 2024



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1. Background

The Centers for Medicare & Medicaid Services (CMS) and federal law set standards for the minimum care states must provide Medicaid-eligible populations, while also giving states an opportunity to design and test their own strategies for funding and providing healthcare services. Section 1115 of the Social Security Act permits states to test innovative demonstration projects and evaluate state-specific policy changes to increase efficiency and reduce costs. On October 14, 2022, CMS approved Arizona's request to extend its Section 1115 Arizona Health Care Cost Containment System (AHCCCS) Demonstration Waiver (the Waiver). The extension was approved for an additional five years effective October 14, 2022, through September 30, 2027.¹⁻¹ The following eight Waiver programs were implemented or extended:¹⁻²

- AHCCCS Complete Care (ACC)
- AHCCCS Complete Care–Regional Behavioral Health Agreement (ACC-RBHA)
- Arizona Long Term Care System (ALTCS)
- Comprehensive Health Plan (CHP)
- Housing and Health Opportunities (H2O)
- Prior Quarter Coverage (PQC) Waiver
- Targeted Investments (TI) 2.0
- Tribal Dental Authority

H2O Program Background

Arizona's pre-existing housing programs follow a permanent supportive housing (PSH) model to address and improve health outcomes for individuals experiencing homelessness, including those with a serious mental illness (SMI), physical health (PH) conditions, or substance use disorder (SUD). Housing subsidies and the integration of individual wraparound services and housing/tenancy supports ensure members can secure and maintain housing while simultaneously addressing their health and service needs. In state fiscal year (SFY) 2020, AHCCCS determined that the PSH model decreased emergency department (ED) visits, inpatient (IP) admissions, and behavioral health (BH) residential facility admissions, in addition to a reduction in per-member per-month (PMPM) costs. Prior to the H2O program, AHCCCS housing funds were administered through three Regional Behavioral Health Authority (RBHA) managed care organizations (MCOs) responsible for specific geographic service areas (GSAs).

On May 26, 2021, AHCCCS applied for the H2O amendment to the Waiver to address continuing gaps in the AHCCCS' housing delivery system, including increasing PSH availability and expanding services.¹⁻³ On October

¹⁻¹ Centers for Medicare & Medicaid Services. AHCCCS Demonstration Extension and Housing & Health Opportunities Amendment Approval. Available at: <https://www.medicaid.gov/medicaid/section-1115-demonstrations/downloads/az-hccc-ca-10142022.pdf>. Accessed on: Nov 8, 2023.

¹⁻² The evaluation design for ACC, ACC-RBHA, ALTCS, CHP, and Tribal Dental Authority was submitted to CMS on September 29, 2023. This document presents the evaluation design for the H2O program only. A separate evaluation design will be submitted for TI 2.0.

¹⁻³ Centers for Medicare and Medicaid Services. Amendment Application – Housing and Health Opportunities Amendment. Available at: <https://www.medicaid.gov/medicaid/section-1115-demonstrations/downloads/az-hccc-pa9.pdf>. Accessed on: Nov 8, 2023.

14, 2022, CMS approved the H2O amendment to the Waiver, effective October 14, 2022, through September 30, 2027. The program will be officially implemented on October 1, 2024. H2O will enhance and expand housing services and interventions for AHCCCS members with an SMI, a chronic health condition, and who are homeless or at risk of becoming homeless to ensure members attain safe housing and integrated services. The H2O program intends to achieve its goals through three core strategies:

1. Strengthening homeless outreach and service engagement.
2. Securing housing funding for members who are homeless or at-risk of homelessness.
3. Enhancing wraparound services and supports to ensure housing stability for improved health outcomes, reduced recidivism, and reduced decompensation.

Under the H2O program, housing administrative functions are subcontracted to a single statewide H2O-Program Administrator (H2O-PA). The clinical assessments for PSH eligibility and need, care coordination, and delivery of wraparound services will remain under the control of the MCOs. Services covered under H2O include outreach and education services, transitional housing services, one-time transition and moving costs, and housing pre-tenancy and tenancy services. AHCCCS' strategy will seek to utilize evidence based PSH practices to increase positive health outcomes for target members; reduce cost of care for housed members; reduce homelessness; improve skills to maintain housing stability; and integrate, support, and leverage existing AHCCCS and community initiatives, programs, and expertise to ensure a full continuum of services and supports.

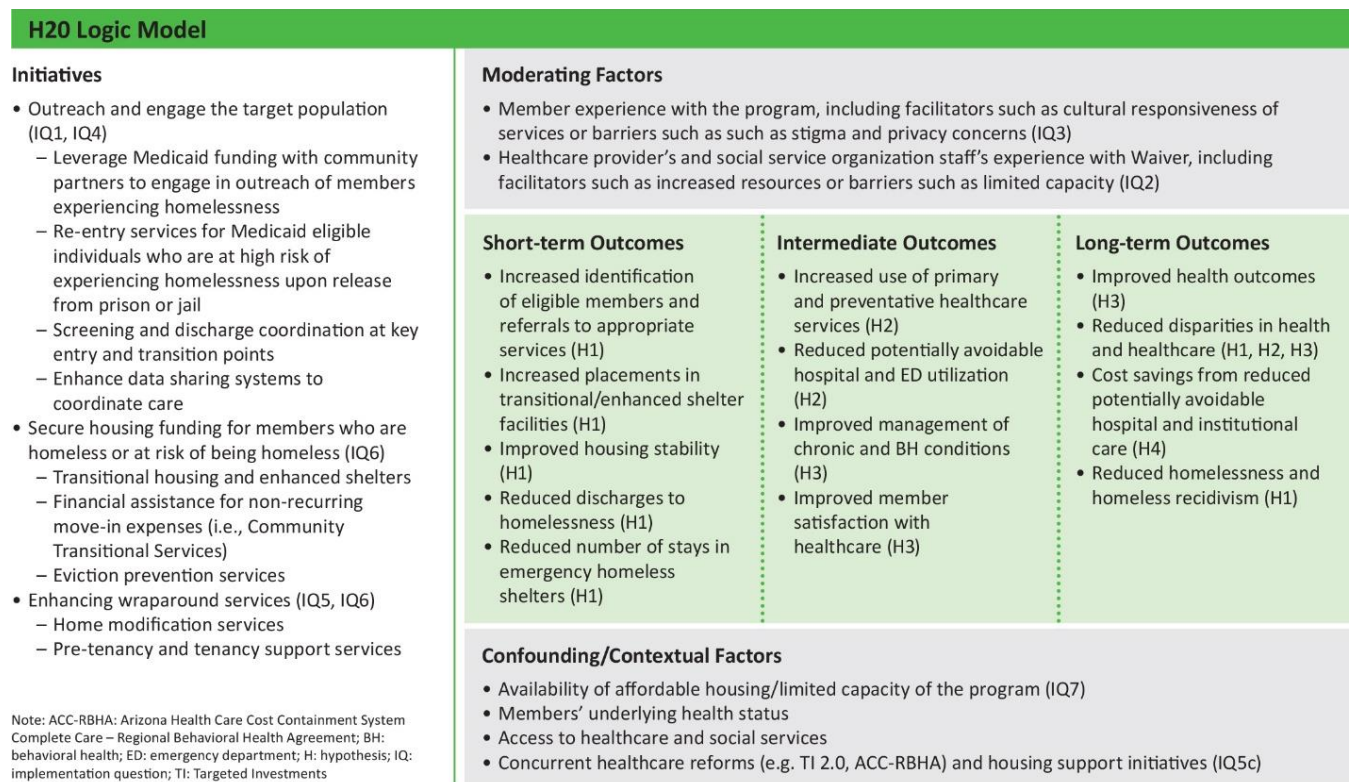
2. Evaluation Questions and Hypotheses

This section provides the logic model, hypotheses, and research questions, which focus on evaluating the impact of the Housing and Health Opportunities (H2O) program of Arizona’s Section 1115 Arizona Health Care Cost Containment System’s (AHCCCS’) Demonstration Waiver (the Waiver).

Logic Model

Figure 2-1 illustrates that, given funding for the H2O demonstration, outreach and engagement will increase the identification of eligible members and referrals to appropriate services. By securing housing funding for members who are homeless or at risk of being homeless and enhancing wrap around services, the number of stays in emergency homeless shelters and discharges to homelessness should be reduced as housing stability improves. Members will increase their use of primary and preventive services, reducing avoidable emergency department (ED) visits, improving the management of chronic and behavioral health (BH) conditions, and increasing member satisfaction with their care. In the long term, this is expected to improve health outcomes, reduce disparities in health and healthcare, save costs, and reduce homelessness and homeless recidivism.

Figure 2-1—H2O Logic Model



Hypotheses and Research Questions

To comprehensively evaluate H2O, four hypotheses will be tested using twenty research questions. Table 2-1 lists the hypotheses.

Table 2-1—H2O Hypotheses

| H2O Hypotheses | |
|----------------|---|
| 1 | The demonstration will meet or reduce the severity of HRSN for members overall and among subpopulations who experience disparities in HRSN. |
| 2 | By meeting or reducing the severity of HRSN, the demonstration will increase members' use of preventive and routine care and reduce their use of potentially avoidable hospital and institutional care (ED visits, inpatient [IP] care, and nursing facilities), leading to reduced healthcare spending over time. Impacts will be realized overall and among subpopulations who experience disparities in hospital and institutional care use. |
| 3 | By meeting or reducing HRSN, the demonstration will improve physical and mental health outcomes among members overall and among subpopulations who experience disparities in physical and mental health outcomes. |
| 4 | The H2O demonstration will reduce cost of care for members who utilize H2O services. |

Hypothesis 1 seeks to assess whether H2O will meet or reduce the severity of HRSN for members participating in the program. The research questions and associated measures for Hypothesis 1 are presented in Table 2-2.

Table 2-2—Hypothesis 1 Research Questions and Measures

| Hypothesis 1: The demonstration will meet or reduce the severity of HRSN for members overall and among subpopulations who experience disparities in HRSN | |
|--|---|
| Research Question 1.1: How does the H2O demonstration impact the use of HRSN services? | |
| 1-1 | Percentage of members experiencing homelessness who were contacted |
| 1-2 | Percentage of members participating in H2O who completed an intake and received a service within seven days of enrollment |
| 1-3 | Percentage of members eligible for H2O, who are participating in the H2O program |
| 1-4 | Percentage of members participating in H2O who completed an assessment who established a housing care plan |
| | Percentage of members participating in H2O, who are receiving H2O services (any service and by service category) |
| | <ul style="list-style-type: none"> • Outreach and education services • Enhanced shelter |
| 1-5 | <ul style="list-style-type: none"> • Short term rental assistance • One-time transition and move-in costs • Housing pre-tenancy and tenancy services • Medically necessary home accessibility modifications and remediation |
| 1-6 | Number of members on the AHCCCS Housing Program (AHP) waitlist who are also H2O eligible |
| 1-7 | Percentage of members referred to receive short term rental assistance who locate housing within 120 days |
| 1-8 | Number of enhanced shelter bed inventory statewide |
| Research Question 1.2: How do State and local government investments in housing supports change in relation to H2O demonstration funding? | |
| 1-9 | Change in investment of housing interventions outside of the demonstration |

Hypothesis 1: The demonstration will meet or reduce the severity of HRSN for members overall and among subpopulations who experience disparities in HRSN
Research Question 1.3: How does the H2O demonstration impact rates of HRSN and their severities?

| | |
|------|---|
| 1-10 | Percentage of members who participated in H2O services that received an HRSN/social determinants of health (SDOH) screening with the Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE) screening tool or other appropriate screening tool |
| 1-11 | Percentage of members who participated in H2O services that had an HRSN identified, among those who received an HRSN/SDOH screening |
| 1-12 | Percentage of members who had a housing-related need identified, among those who received an HRSN/SDOH screening |
| 1-13 | <p>Number of unique H2O referrals sent to providers by the H2O-PA (any referral and referral type)</p> <ul style="list-style-type: none"> • Outreach and education services • Enhanced shelter • Short term rental assistance • One-time transition and move-in costs • Housing pre-tenancy and tenancy services • Medically necessary home accessibility modifications and remediation |
| 1-14 | Percentage of members participating in H2O who were connected to a Regional Behavioral Health Agreement (RBHA) permanent supportive housing (PSH) provider for ongoing supportive services |
| 1-15 | Percent of members with substance use disorder (SUD) diagnosis participating in H2O who connect to outpatient (OP) SUD/recovery services |
| 1-16 | Percent of members indicating they were not able to pay mortgage, rent or utility bills in the last three months |
| 1-17 | Percent of members indicating that a utility company threatened to shut off services in the past three months |
| 1-18 | Percent of members participating in H2O who are enrolled in the Supplemental Nutrition Assistance Program (SNAP) or the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) |

Research Question 1.4: How does the H2O demonstration impact members' use of HRSN services reflecting crisis events, such as stays in emergency homeless shelters?

| | |
|------|---|
| 1-19 | Number of stays in an emergency shelter per 1,000 members |
| 1-20 | Number of days in an emergency shelter or state of unsheltered homelessness per 1,000 members |
| 1-21 | Percentage of members reporting they used an emergency shelter in the last six months |
| 1-22 | Percentage of members reporting they slept in a place not meant for human habitation in the last six months |

Research Question 1.5: Is the H2O demonstration associated with increased positive health and wellbeing outcomes?

| | |
|------|---|
| 1-23 | Percentage of members with housing retention, among members participating in H2O who utilize pre-tenancy/tenancy services |
| 1-24 | Percentage of members who exit to permanent housing, among members participating in H2O who utilize enhanced shelter services |
| 1-25 | Percentage of members participating in H2O whose housing condition was upgraded during the past month |
| 1-26 | <p>Percentage of members participating in H2O who are leaving the H2O program, stratified by the following reasons:</p> <ul style="list-style-type: none"> • Positive exit reasons: Completed Program, Voluntary Withdrawal • Negative exit reasons: Abandonment, Failure to Locate Housing, Non-Compliance, Failure to Recertify, Incarcerated, Unknown • Neutral: Higher Level of Care, Deceased |
| 1-27 | Percentage of members participating in H2O who reported employment during engagement |

Hypothesis 1: The demonstration will meet or reduce the severity of HRSN for members overall and among subpopulations who experience disparities in HRSN

- | | |
|------|--|
| 1-28 | Percentage of members participating in H2O who increased employment during past month |
| 1-29 | Change in income among members participating in H2O who utilize pre-tenancy/tenancy services |

Research Question 1.6: How does the H2O demonstration impact disparities in HRSN?

All the above Hypothesis 1 measures for use of HRSN services by key subpopulations

Research Question 1.6.1: Does the H2O demonstration mitigate or reduce HRSN among groups who had high rates at baseline?

All the above Hypothesis 1 measures for use of HRSN services by key subpopulations

Research Question 1.6.2: Do any groups experience increasing or worsening HRSN compared to the baseline with the implementation of the H2O demonstration?

All the above Hypothesis 1 measures for use of HRSN services by key subpopulations

Hypothesis 2 is designed to determine whether H2O will increase members' use of preventive and routine care and reduce their use of potentially avoidable hospital and institutional care, including ED visits, inpatient (IP) admissions, and nursing facilities. This is hypothesized to lead to reduced healthcare spending over time. The research questions and associated measures for Hypothesis 2 are presented in Table 2-3.

Table 2-3—Hypothesis 2 Research Questions and Measures

Hypothesis 2: By meeting or reducing the severity of HRSN, the demonstration will increase members' use of preventive and routine care and reduce their use of potentially avoidable hospital and institutional care (ED visits, IP care, and nursing facilities), leading to reduced healthcare spending over time. Impacts will be realized overall and among subpopulations who experience disparities in hospital and institutional care use.
Research Question 2.1: How does the H2O demonstration impact the use of preventive and routine care?

- | | |
|-----|--|
| 2-1 | Percentage of adults who accessed preventive/ambulatory health services |
| 2-2 | Percentage of members who have a primary care provider (PCP) visit since their intake date, among members participating in H2O who utilize enhanced shelter services |
| 2-3 | Percentage of adults with a flu vaccine |
| 2-4 | Percentage of adult members with a cervical cancer screening |
| 2-5 | Percentage of adult members with a breast cancer screening |
| 2-6 | Percent of adult members with a colorectal cancer screening |
| 2-7 | Percentage of members that were provided a most effective or moderately effective method of contraception |
| 2-8 | Percentage of members that received a prenatal and/or postpartum care visit |
| 2-9 | Percentage of members with a diagnosis of human immunodeficiency virus (HIV) who did not have a medical visit in the last six months of the measurement year |

Research Question 2.2: How does the H2O demonstration impact the use of BH services?

- | | |
|------|--|
| 2-10 | Percentage of members who had initiation of alcohol and other drug abuse or dependence treatment |
| 2-11 | Percentage of members who had engagement of alcohol and other drug abuse or dependence treatment |
| 2-12 | Percentage of members with a follow-up visit after hospitalization for mental illness |
| 2-13 | Percentage of members with a follow-up visit after ED visit for members with multiple high-risk chronic conditions |
| 2-14 | Percentage of members with follow-up after ED visit for alcohol and other drug abuse or dependence |
| 2-15 | Percentage of members who remained on antidepressant medication treatment |

Hypothesis 2: By meeting or reducing the severity of HRSN, the demonstration will increase members' use of preventive and routine care and reduce their use of potentially avoidable hospital and institutional care (ED visits, IP care, and nursing facilities), leading to reduced healthcare spending over time. Impacts will be realized overall and among subpopulations who experience disparities in hospital and institutional care use.

| | |
|------|--|
| 2-16 | Percentage of members with opioid use disorder (OUD) who filled a prescription for or were administered or dispensed a United States Food and Drug Administration (FDA)-approved medication for the disorder |
| 2-17 | Percentage of members with schizophrenia who adhered to antipsychotic medications |
| 2-18 | Percentage of members who reported a substance use problem who experienced improvement on Brief Assessment of Recovery Capital (BARC)-10 |

Research Question 2.3: How does the H2O demonstration impact the use of hospital and institutional care?

| | |
|------|--|
| 2-19 | Number of emergent ED visits per 1,000 member months |
| 2-20 | Number of non-emergent ED visits per 1,000 member months |
| 2-21 | Number of IP stays per 1,000 member months |
| 2-22 | Risk-adjusted ratio of observed to expected acute IP and observation stay discharges |
| 2-23 | Chronic conditions composite |
| 2-24 | Percentage of members with an ED visit for hypoglycemia among older adults with diabetes |
| 2-25 | Percentage of members with admission to an institution from the community |
| 2-26 | Percent of members who were hospitalized for potentially preventable complications |
| 2-27 | Percentage of adult IP discharges with an unplanned readmission within 30 days |

Research Question 2.4: How does the H2O demonstration impact disparities in the use of hospital and institutional care?

All the above Hypothesis 2 measures for hospital and institutional care by key subpopulations

Research Question 2.4.1: Does the demonstration reduce the use of hospital and institutional care among groups who had high rates at baseline?

All the above Hypothesis 2 measures for hospital and institutional care by key subpopulations

Research Question 2.4.2: Do any groups experience increasing use of hospital and institutional care compared to the baseline with the implementation of the HRSN demonstration?

All the above Hypothesis 2 measures for hospital and institutional care by key subpopulations

One of the primary strategies of H2O is enhancing wraparound services and supports to ensure housing stability for improved health outcomes which will be assessed by Hypothesis 3. The research questions and associated measures for Hypothesis 3 are presented in Table 2-4.

Table 2-4—Hypothesis 3 Research Questions and Measures

Hypothesis 3: By meeting or reducing HRSN, the demonstration will improve physical and mental health outcomes among members overall and among subpopulations who experience disparities in physical and mental health outcomes.

Research Question 3.1: How does the H2O demonstration impact members' physical and mental health outcomes?

| | |
|-----|---|
| 3-1 | Percentage of members who reported a rating of overall health as very good or excellent |
| 3-2 | Percentage of members who reported a rating of overall mental or emotional health as very good or excellent |
| 3-3 | Percentage of members who reported a rating of life satisfaction as "Satisfied" or "Very Satisfied" |
| 3-4 | Percentage of members who reported "Always" or "Usually" feeling stressed or anxious |
| 3-5 | Percentage of births with low birth weight |

Hypothesis 3: By meeting or reducing HRSN, the demonstration will improve physical and mental health outcomes among members overall and among subpopulations who experience disparities in physical and mental health outcomes.

Research Question 3.2: How does the H2O demonstration impact members' management of chronic conditions?

- | | |
|-----|---|
| 3-6 | Percentage of members with diabetes with poor hemoglobin control |
| 3-7 | Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent |
| 3-8 | Percentage of members with clinical atherosclerotic cardiovascular disease who received and adhered to statin therapy |

Research Question 3.3: How does the H2O demonstration impact rates of mortality?

- | | |
|------|--------------------------|
| 3-9 | All-cause mortality rate |
| 3-10 | Maternal mortality rate |

Research Question 3.4: How does the H2O demonstration impact the quality and effectiveness of downstream services?

- | | |
|------|---|
| 3-11 | Quality and effectiveness of key downstream services of the H2O program |
|------|---|

Research Question 3.5: How does the H2O demonstration impact disparities in health outcomes?

All the above Hypothesis 3 measures for physical and mental health outcomes by key subpopulations

Research Question 3.5.1: Does the H2O demonstration improve the physical and mental health outcomes of groups who had poor health outcomes at baseline?

All the above Hypothesis 3 measures for physical and mental health outcomes by key subpopulations

Research Question 3.5.2: Do any groups experience worsening physical and mental health outcomes compared to the baseline with the implementation of the H2O demonstration?

All the above Hypothesis 3 measures for physical and mental health outcomes by key subpopulations

Hypothesis 4 is designed to measure the cost of care for members who utilize H2O services. The research questions and associated measures for Hypothesis 4 are presented in Table 2-5.

Table 2-5—Hypothesis 4 Research Questions and Measures

Hypothesis 4: The H2O demonstration will reduce cost of care for members who utilize H2O services.

Research Question 4.1: How does the H2O demonstration impact the total cost of care among H2O members compared to members who are eligible but not participating in the H2O demonstration?

- | | |
|-----|---|
| 4-1 | Total cost of care, stratified by type the following categories: <ul style="list-style-type: none"> • All facility costs • IP facility costs • Professional services costs • Pharmacy costs • Physical health (PH) costs • BH costs |
| 4-2 | Total cost of care by key subpopulations (age, sex, sexual orientation, gender identity, race/ethnicity, English language proficiency, primary language, disability status, geography, eligibility category, HRSN domains, high-cost high-needs) |

3. Methodology

To assess the impact of the Housing and Health Opportunities (H2O) program of the Arizona Health Care Cost Containment System (AHCCCS) Section 1115 Demonstration Waiver (the Waiver), a comparison of outcomes between the intervention group and a valid counterfactual—the intervention group that had not been exposed to the intervention—must be made. The gold standard for experimental design is a randomized controlled trial which would be implemented by first identifying an intervention population, and then randomly assigning individuals to the intervention and the rest to a comparison group, which would serve as the counterfactual. However, random assignment is rarely feasible or desirable in practice, particularly as it relates to healthcare policies.

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

Table 3-1—Sampling of Analytic Approaches

| Analytic Approach | Baseline Data | Comparison Group | Allows Causal Inference | Notes |
|----------------------------------|---------------|------------------|-------------------------|---|
| Descriptive Time Series | | | | Relies on sufficient data points prior to and following implementation |
| Difference-in-Differences | ✓ | ✓ | ✓ | Trends in outcomes should be similar between comparison and intervention groups at baseline |
| Interrupted Time Series | ✓ | | ✓ | Requires sufficient data points prior to and following implementation |
| Pre-Test/Post Test | ✓ | | | |

Note: Descriptions of each analytic approach can be found in the Analytic Methods section below.

Evaluation Design Summary

H2O is scheduled to be implemented on October 1, 2024, and will be available to all adult Medicaid members who meet the eligibility criteria of (1) currently experiencing homelessness, (2) having a serious mental illness (SMI) designation, and (3) having a chronic health condition or currently in a correctional health facility with a scheduled release date. The evaluation period will generally cover October 1, 2024, through the remainder of the demonstration period (September 31, 2027); however, the specific pre- and post-implementation period will vary for the intervention group members.

The intervention group will consist of members participating in H2O. As members may enter the H2O program at various time points following implementation on October 1, 2024, each member will have a unique pre-intervention and post-intervention period. The period prior to their enrollment in the H2O program will be defined as the pre-intervention period. The period occurring after their enrollment in H2O will be defined as the post-intervention period.

Where appropriate, measures will incorporate a comparison group of H2O eligible members who have not participated in H2O, or who are on the AHCCCS Housing Program (AHP) housing waitlist. The evaluation period for comparison group members will cover October 1, 2024, through the remainder of the demonstration period (September 31, 2027), and the baseline period will be defined as the three years prior to the implementation of the H2O program: October 1, 2021, through September 31, 2024. The baseline period allows for several years of pre-implementation data while avoiding much of the coronavirus disease 2019 (COVID-19) public health emergency (PHE) impact in calendar year (CY) 2020 and early CY 2021. Additionally, the evaluator will consider methods to align pre- and post-intervention exposure time such that the amount of time an individual can be assessed for outcomes is similar between the intervention and comparison groups.

If there is sufficient sample size, then propensity score matching may be used to further identify members in the comparison group with demographic and health characteristics that are similar to those in the H2O program. The independent evaluator may consider including variables such as age, sex, race, ethnicity, language, and the Chronic Illness and Disability Payment System (CDPS) risk score, among others, in the propensity score model.

For measures that are calculated on an annual basis, the primary analytic approach will be a difference-in-differences (DiD) analysis comparing the H2O program members with a comparison group of H2O eligible members who are not participating in H2O or on the AHP waitlist. For measures that may be calculated on a quarterly or monthly basis, the evaluator will consider a comparative interrupted time series (ITS) approach.

Intervention and Comparison Populations

The intervention population will consist of members participating in H2O. The independent evaluator will work with AHCCCS to identify the best method for identifying the intervention group. This may include utilizing exception codes on members' records, in combination with utilization of H2O service codes. To be included in the intervention group, members will need to have at least one full quarter of Medicaid enrollment data in the pre-intervention and post-intervention periods.

The comparison population will consist of H2O eligible members who have not participated in H2O, or who are on the AHP waitlist. If there is a sufficient sample size of comparison individuals, then further refinement of the comparison group may utilize propensity-score matching to identify a suitable comparison member for each H2O member. Members in the comparison will need to have at least one full quarter of Medicaid enrollment in the pre-intervention and post-intervention periods to be included.

Evaluation Periods

Table 3-2 presents the baseline and evaluation periods of H2O for the intervention and comparison populations.

Table 3-2—H2O Evaluation Periods

| Evaluation Periods | Time Frame |
|--------------------|--|
| Baseline | Intervention: The three years prior to enrollment in H2O |
| | Comparison: October 1, 2021–September 31, 2024 |
| Evaluation | Intervention: The period following enrollment in H2O through September 31, 2027 |
| | Comparison: October 1, 2024–September 31, 2027 |

Evaluation Measures

Table 3-3 presents the evaluation measures along with the respective hypotheses, research questions, comparison groups, data sources, and analytic approaches for H2O.

Table 3-3—H2O Evaluation Measures

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---------------------|---|-------------------------|
| Hypothesis 1: The demonstration will meet or reduce the severity of HRSN for members overall and among subpopulations who experience disparities in HRSN. | | | | |
| Research Question 1.1: How does the H2O demonstration impact the use of HRSN services? | 1-1: Percentage of members experiencing homelessness who were contacted | N/A | Deliverable submitted to AHCCCS by the H2O-PA | Descriptive time series |
| | 1-2: Percentage of members participating in H2O who completed an intake and received a service within seven days of enrollment | N/A | Deliverable submitted to AHCCCS by the H2O-PA | Descriptive time series |
| | 1-3: Percentage of members eligible for H2O, who are participating in the H2O program | N/A | Claims/encounter data | Descriptive time series |
| | 1-4: Percentage of members participating in H2O who completed an assessment who established a housing care plan | N/A | Deliverable submitted to AHCCCS by the H2O-PA | Descriptive time series |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---------------------|---|---|
| | 1-5: Percentage of members participating in H2O, who are receiving H2O services (any service and by service category) <ul style="list-style-type: none"> • Outreach and education services • Enhanced shelter • Short term rental assistance • One-time transition and move-in costs • Housing pre-tenancy and tenancy services • Medically necessary home accessibility modifications and remediation | N/A | <ul style="list-style-type: none"> - AHCCCS/H2O list of members receiving services - Claims/encounter data - Outreach is through provider invoicing process | Descriptive time series |
| | 1-6: Number of members on the AHP waitlist who are also H2O eligible | N/A | AHP housing waitlist | Descriptive time series |
| | 1-7: Percentage of members referred to receive short term rental assistance who locate housing within 120 days | N/A | Deliverable submitted to AHCCCS by the H2O-PA | Descriptive time series |
| | 1-8: Number of enhanced shelter bed inventory statewide | N/A | HUD HDX HIC and PIT data | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |
| Research Question 1.2: How do State and local government investments in housing supports change in relation to H2O demonstration funding? | 1-9: Change in investment of housing interventions outside of the demonstration | N/A | <ul style="list-style-type: none"> - Key informant interviews - AHCCCS reports | <ul style="list-style-type: none"> - Qualitative synthesis - Descriptive analysis |
| Research Question 1.3: How does the H2O demonstration impact rates of HRSN and their severities? | 1-10: Percentage of members who participated in H2O services that received an HRSN/SDOH screening with the PRAPARE screening tool or other appropriate screening tool | N/A | <ul style="list-style-type: none"> - Claims/encounter data (G codes, Z codes, and HCPCS codes) - CLRS - Other standardized screening tools - Supplemental data from AHCCCS as appropriate | <ul style="list-style-type: none"> - Repeated cross-sectional design - Descriptive time series - ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|-------------------|--|---------------------|---|---|
| | 1-11: Percentage of members who participated in H2O services that had an HRSN identified, among those who received an HRSN/SDOH screening | N/A | <ul style="list-style-type: none"> - Claims/encounter data (G codes, Z codes, and HCPCS codes) - CLRS - Other standardized screening tools - Supplemental data from AHCCCS as appropriate | <ul style="list-style-type: none"> - Repeated cross-sectional design - Descriptive time series - ITS |
| | 1-12: Percentage of members who had a housing-related need identified, among those who received an HRSN/SDOH screening | N/A | <ul style="list-style-type: none"> - Claims/encounter data (G codes, Z codes, and HCPCS codes) - CLRS - Other standardized screening tools - Supplemental data from AHCCCS as appropriate | <ul style="list-style-type: none"> - Repeated cross-sectional design - Descriptive time series - ITS |
| | 1-13: Number of unique H2O referrals sent to providers by H2O-PA (any referral and referral type) <ul style="list-style-type: none"> • Outreach and education services • Enhanced shelter • Short term rental assistance • One-time transition and move-in costs • Housing pre-tenancy and tenancy services • Medically necessary home accessibility modifications and remediation | N/A | <ul style="list-style-type: none"> - H2O referral lists (H2O-PA) - CLRS - Supplemental data from AHCCCS as appropriate | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |
| | 1-14: Percentage of members participating in H2O who were connected to a RBHA PSH provider for ongoing supportive services | N/A | Deliverable submitted to AHCCCS by the H2O-PA | <ul style="list-style-type: none"> - Pre-test/post-test - ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|--|--|--|---------------------------------------|
| | 1-15: Percent of members with SUD diagnosis participating in H2O who connect to OP SUD/recovery services | N/A | - Deliverable submitted to AHCCCS by the H2O-PA - Claims/encounter data | - Pre-test/post-test - ITS |
| | 1-16: Percent of members indicating they were not able to pay mortgage, rent or utility bills in the last three months | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | Beneficiary survey | - Chi-square - Comparison of means |
| | 1-17: Percent of members indicating that a utility company threatened to shut off services in the past three months | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | Beneficiary survey | - Chi-square - Comparison of means |
| | 1-18: Percent of members who are enrolled in SNAP or WIC | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - ADHS and DES SNAP and WIC data - Claims/encounter data | Repeated cross-sectional design |
| Research Question 1.4: How does the H2O demonstration impact members' use of HRSN services reflecting crisis events, such as stays in emergency homeless shelters? | 1-19: Number of stays in an emergency shelter per 1,000 members | N/A | - HUD HDX HIC and PIT data - Data from COCs | - Pre-test/post-test - ITS |
| | 1-20: Number of days in an emergency shelter or state of unsheltered homelessness per 1,000 members | N/A | HUD HDX HIC and PIT data | - Pre-test/post-test - ITS |
| | 1-21: Percentage of members reporting they used an emergency shelter in the last six months | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - Beneficiary survey - Deliverable submitted to AHCCCS by the H2O-PA | - Chi-square - Comparison of means |
| | 1-22: Percentage of members reporting they slept in a place not meant for human habitation in the last six months | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | Beneficiary survey | - Chi-square - Comparison of means |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|---------------------|---|-------------------------------|
| Research Question 1.5: Is the H2O demonstration associated with increased positive health and wellbeing outcomes? | 1-23: Percentage of members with housing retention, among members participating in H2O who utilize pre-tenancy/tenancy services | N/A | Deliverable submitted to AHCCCS by the H2O-PA | - Pre-test/post-test - ITS |
| | 1-24: Percentage of members who exit to permanent housing, among members participating in H2O who utilize enhanced shelter services | N/A | Deliverable submitted to AHCCCS by the H2O-PA | - Pre-test/post-test - ITS |
| | 1-25: Percentage of members participating in H2O whose housing condition was upgraded during the past month | N/A | Deliverable submitted to AHCCCS by the H2O-PA | - Pre-test/post-test - ITS |
| | 1-26: Percentage of members participating in H2O who are leaving the H2O program, stratified by the following reasons: <ul style="list-style-type: none"> Positive exit reasons: Completed Program, Voluntary Withdrawal Negative exit reasons: Abandonment, Failure to Locate Housing, Non-Compliance, Failure to Recertify, Incarcerated, Unknown Neutral: Higher Level of Care, Deceased | N/A | Deliverable submitted to AHCCCS by the H2O-PA | - Pre-test/post-test - ITS |
| | 1-27: Percentage of members participating in H2O who reported employment during engagement | N/A | Deliverable submitted to AHCCCS by the H2O-PA | - Pre-test/post-test - ITS |
| | 1-28: Percentage of members participating in H2O who increased employment during past month | N/A | Deliverable submitted to AHCCCS by the H2O-PA | - Pre-test/post-test - ITS |
| | 1-29: Change in income among members participating in H2O who utilize pre-tenancy/tenancy services | N/A | Deliverable submitted to AHCCCS by the H2O-PA | - Pre-test/post-test - ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|---|--|--|--|
| Research Question 1.6: How does the H2O demonstration impact disparities in HRSN? | | | | |
| Research Question 1.6.1: Does the H2O demonstration mitigate or reduce HRSN among groups who had high rates at baseline? | All the above Hypothesis 1 measures for use of HRSN services by key subpopulations | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | <ul style="list-style-type: none">- State eligibility and enrollment data- Claims/encounter data- Contexture race and ethnicity data | Health equity analysis |
| Research Question 1.6.2: Do any groups experience increasing or worsening HRSN compared to the baseline with the implementation of the H2O demonstration? | | | | |
| Hypothesis 2: By meeting or reducing the severity of HRSN, the demonstration will increase members’ use of preventive and routine care and reduce their use of potentially avoidable hospital and institutional care (ED visits, IP care, and nursing facilities), leading to reduced healthcare spending over time. Impacts will be realized overall and among subpopulations who experience disparities in hospital and institutional care use. | | | | |
| Research Question 2.1: How does the H2O demonstration impact the use of preventive and routine care? | 2-1: Percentage of adults who accessed preventive/ambulatory health services | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | <ul style="list-style-type: none">- State eligibility and enrollment data- Claims/encounter data | <ul style="list-style-type: none">- Pre-test/post-test- ITS- DiD |
| | 2-2: Percentage of members who have a PCP visit since their intake date, among members participating in H2O who utilize enhanced shelter services | N/A | Deliverable submitted to AHCCCS by the H2O-PA | <ul style="list-style-type: none">- Pre-test/post-test- ITS |
| | 2-3: Percentage of adults with a flu vaccine | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | Beneficiary survey | <ul style="list-style-type: none">- Chi-square- Comparison of means |
| | 2-4: Percentage of adult members with a cervical cancer screening | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | <ul style="list-style-type: none">- State eligibility and enrollment data- Claims/encounter data | <ul style="list-style-type: none">- Pre-test/post-test- ITS- DiD |
| | 2-5: Percentage of adult members with a breast cancer screening | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | <ul style="list-style-type: none">- State eligibility and enrollment data- Claims/encounter data | <ul style="list-style-type: none">- Pre-test/post-test- ITS- DiD |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|--|--|--|--|
| | 2-6: Percent of adult members with a colorectal cancer screening | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-7: Percentage of members that were provided a most effective or moderately effective method of contraception | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-8: Percentage of members that received a prenatal and/or postpartum care visit | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-9: Percentage of members with a diagnosis of HIV who did not have a medical visit in the last six months of the measurement year | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| Research Question 2.2: How does the H2O demonstration impact the use of BH services? | 2-10: Percentage of members who had initiation of alcohol and other drug abuse or dependence treatment | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-11: Percentage of members who had engagement of alcohol and other drug abuse or dependence treatment | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-12: Percentage of members with a follow-up visit after hospitalization for mental illness | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|--|--|--|--|
| | 2-13: Percentage of members with a follow-up visit after ED visit for members with multiple high-risk chronic conditions | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-14: Percentage of members with follow-up after ED visit for alcohol and other drug abuse or dependence | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-15: Percentage of members who remained on antidepressant medication treatment | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-16: Percentage of members with OUD who filled a prescription for or were administered or dispensed an FDA-approved medication for the disorder | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-17: Percentage of members with schizophrenia who adhered to antipsychotic medications | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-18: Percentage of members who reported a substance use problem who experienced improvement on BARC-10 | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | Deliverable from RBHA | - Pre-test/post-test - ITS |
| Research Question 2.3: How does the H2O demonstration impact the use of hospital and institutional care? | 2-19: Number of emergent ED visits per 1,000 member months | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|-------------------|--|--|--|--|
| | 2-20: Number of non-emergent ED visits per 1,000 member months | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-21: Number of IP stays per 1,000 member months | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-22: Risk-adjusted ratio of observed to expected acute IP and observation stay discharges | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-23: Chronic conditions composite | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-24: Percentage of members with an ED visit for hypoglycemia among older adults with diabetes | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-25: Percentage of members with admission to an institution from the community | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 2-26: Percent of members who were hospitalized for potentially preventable complications | N/A | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 2-27: Percentage of adult IP discharges with an unplanned readmission within 30 days | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|--|--|--|--|--|
| Research Question 2.4: How does the H2O demonstration impact disparities in the use of hospital and institutional care? | All the above Hypothesis 2 measures for hospital and institutional care by key subpopulations | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | <ul style="list-style-type: none">- State eligibility and enrollment data- Claims/encounter data- Contexture race and ethnicity data | Health equity analysis |
| Research Question 2.4.1: Does the demonstration reduce the use of hospital and institutional care among groups who had high rates at baseline? | | | | |
| Research Question 2.4.2: Do any groups experience increasing use of hospital and institutional care compared to the baseline with the implementation of the HRSN demonstration? | | | | |
| Hypothesis 3: By meeting or reducing HRSN, the demonstration will improve physical and mental health outcomes among members overall and among subpopulations who experience disparities in physical and mental health outcomes. | | | | |
| Research Question 3.1: How does the H2O demonstration impact members’ physical and mental health outcomes? | 3-1: Percentage of members who reported a rating of overall health as very good or excellent | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | Beneficiary survey | <ul style="list-style-type: none">- Chi-square- Comparison of means |
| | 3-2: Percentage of members who reported a rating of overall mental or emotional health as very good or excellent | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | Beneficiary survey | <ul style="list-style-type: none">- Chi-square- Comparison of means |
| | 3-3: Percentage of members who reported a rating of life satisfaction as “Satisfied” or “Very Satisfied” | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | Beneficiary survey | <ul style="list-style-type: none">- Chi-square- Comparison of means |
| | 3-4: Percentage of members who reported “Always” or “Usually” feeling stressed or anxious | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | Beneficiary survey | <ul style="list-style-type: none">- Chi-square- Comparison of means |
| | 3-5: Percentage of births with low birth weight | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | <ul style="list-style-type: none">- State eligibility and enrollment data- Vital records | <ul style="list-style-type: none">- Pre-test/post-test- ITS |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|--|--|--|---|
| Research Question 3.2: How does the H2O demonstration impact members' management of chronic conditions? | 3-6: Percentage of members with diabetes with poor hemoglobin control | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 3-7: Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| | 3-8: Percentage of members with clinical atherosclerotic cardiovascular disease who received and adhered to statin therapy | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS |
| Research Question 3.3: How does the H2O demonstration impact rates of mortality among members with SMI? | 3-9: All-cause mortality rate among AHCCCS members with SMI | N/A | - State eligibility and enrollment data - Vital records | ITS |
| | 3-10: Maternal mortality rate among AHCCCS members with SMI | N/A | - State eligibility and enrollment data - Medicaid administrative - Vital records | ITS |
| Research Question 3.4: How does the H2O demonstration impact the quality and effectiveness of downstream services? | 3-11: Quality and effectiveness of key downstream services of the H2O program | N/A | - Key informant interviews with care coordinators, case managers, and members - AHCCCS reports | - Qualitative synthesis - Descriptive analysis |
| Research Question 3.5: How does the H2O demonstration impact disparities in health outcomes? | | | | |
| Research Question 3.5.1: Does the H2O demonstration improve the physical and mental health outcomes of groups who had poor health outcomes at baseline? | All the above Hypothesis 3 measures for physical and mental health outcomes by key subpopulations | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data - Contexture race and ethnicity data - Beneficiary survey | Health equity analysis |
| Research Question 3.5.2: Do any groups experience worsening physical and mental health outcomes compared to the baseline with the implementation of the H2O demonstration? | | | | |

| Research Question | Measure(s) | Comparison Group(s) | Data Source(s) | Analytic Approach |
|---|---|--|--|--|
| Hypothesis 4: The H2O demonstration will reduce cost of care for members who utilize H2O services. | | | | |
| Research Question 4.1: How does the H2O demonstration impact the total cost of care among H2O members compared to members who are eligible but not participating in the H2O demonstration? | 4-1: Total cost of care, stratified by the following categories: <ul style="list-style-type: none"> • All facility costs • IP facility costs • Professional services costs • Pharmacy costs • PH costs • BH costs | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |
| | 4-2: Total cost of care by key subpopulations (age, sex, sexual orientation, gender identity, race/ethnicity, English language proficiency, primary language, disability status, geography, eligibility category, HRSN domains, high-cost high-needs) | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist | - State eligibility and enrollment data - Claims/encounter data | - Pre-test/post-test - ITS - DiD |

Note: ADHS: Arizona Department of Health Services; AHCCCS: Arizona Health Care Cost Containment System; AHP: AHCCCS Housing Program; BARC: Brief Assessment of Recovery Capital; BH: behavioral health; CLRS: closed loop referral system; COC: Continuum of Care; DES: Department of Economic Security; DiD: difference-in-differences; ED: emergency department; FDA: United States Food and Drug Administration; IP: inpatient; ITS: interrupted time series; HCPCS: Healthcare Common Procedure Coding System; HDX: Homelessness Data Exchange; HIC: housing inventory count; HIV: human immunodeficiency virus; HRSN: health-related social needs; HUD: United States Department of Housing and Urban Development; H2O: Housing and Health Opportunities; H2O-PA: H2O Program Administrator; IQ: implementation question; OP: outpatient; OUD: opioid use disorder; PIT: point-in-time count; PCP: primary care provider; PH: physical health; PRAPARE: Protocol for Responding to and Assessing Patients' Assets Risks, and Experiences; PSH: permanent supportive housing; RBHA: Regional Behavioral Health Agreement; SDOH: social determinants of health; SMI: serious mental illness; SNAP: Supplemental Nutrition Assistance Program; SUD: substance use disorder; WIC: Special Supplemental Nutrition Program for Women, Infants, and Children

Data Sources

Multiple data sources will be used to evaluate the H2O program:

- Administrative data
- State beneficiary surveys
- Key informant interviews
- Additional data sources

Administrative Data

Administrative data extracted from the Pre-paid Medical Management Information System (PMMIS) will be used to calculate most measures proposed in this evaluation design. These data include administrative claims/encounter data, member eligibility, enrollment, and demographic data. Provider data will also be utilized as necessary to identify provider type and member attribution.

Use of fee-for-service (FFS) claims, and managed care encounters will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded from all evaluations because these types of records introduce a level of uncertainty (from matching adjustments and third-party liabilities to the index claims) that can impact reported rates and cost calculations.

State Beneficiary Surveys

State beneficiary surveys will be used to assess members' satisfaction and experience with healthcare, and self-reported inability to pay mortgage, rent or utility. Consumer Assessment of Healthcare Providers and Systems (CAHPS®)³⁻¹ surveys are often used to assess satisfaction with provided healthcare services and are adapted to elicit information addressing the research hypotheses related to members' continuity of healthcare coverage, and overall health status and utilization. Beneficiary surveys will adapt existing CAHPS questions to assess ratings of overall health and overall mental or emotional health. Additional questions to assess housing and utility insecurity and use of emergency shelters will be adapted from the Behavioral Health Risk Factor Surveillance System (BRFSS) Social Determinants and Health Equity Module:

- MSDHE.01—In general, how satisfied are you with your life?
- MSDHE.07—During the last 12 months, was there a time when you were not able to pay your mortgage, rent or utility bills?
- MSDHE.08—During the last 12 months was there a time when an electric, gas, oil, or water company threatened to shut off services?
- MSDHE.10—Stress means a situation in which a person feels tense, restless, nervous or anxious or is unable to sleep at night because their mind is troubled all the time. Within the last 30 days, how often have you felt this kind of stress?

Results will be compared against national benchmarks for measures in which survey questions share identical language. The sampling frame for the survey will be identified through eligibility and enrollment data, with specific enrollment requirements being finalized upon inspection of the data. Typically, members are drawn from those enrolled continuously during the last six months of the measurement period, with no more than a one-month gap in enrollment.

To the extent possible, the independent evaluator will align multiple surveys to be distributed at the same time to increase response rates across all programs with overlapping populations. A range of sampling protocols will be considered including simple random samples; stratified random samples; multistage stratifications (i.e., cluster); and targeted oversamples.

Measures utilizing the beneficiary surveys will be based on standardized CAHPS and BRFSS questions, however unlike traditional CAHPS surveys, the beneficiary survey will not require that members are enrolled for at least five of the past six months. Instead, the sampling frame will be adjusted to include a sample of members who have been enrolled within the past month to capture those who have newly enrolled into Medicaid and subsequently H2O. All members in the intervention and comparison groups will be eligible to be surveyed. Adult members in the H2O and comparison groups will be randomly sampled to provide a statistically valid estimate. The estimate will provide sufficient statistical power to detect a difference in a rate of at least 10 percentage

³⁻¹ CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

points with 95 percent confidence and 80 percent power. Assuming a response rate of approximately 15 percent with a 10 percent oversample, the maximum number of surveys to be sent is 2,845.

It is expected that two rounds of cross-sectional surveys will be conducted: once during 2025 and once during 2027. Since these surveys will be conducted following the implementation of the H2O program, historical data for these questions will not be available during the baseline period. As such, this survey will not allow for causal inferences to be drawn regarding the impact of the H2O program. The survey results will provide a comparison of the intervention group relative to the comparison group across two time points in the evaluation period. Because evaluations for several concurrent programs are planned, the State and its independent evaluator will seek to streamline survey administration across evaluations to minimize the number of separate survey rounds required, thereby minimizing the burden on members, and maximizing the response rate. Therefore, the sampling strategy described above may be revised based on enrollment across waivers. To maximize response rates, a mixed-mode methodology (e.g., mail and web-based) for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to members has been shown to increase response rates and will be incorporated into survey administration.

Lastly, the questions assessing housing insecurity, such as “During the last 12 months, was there a time when you were not able to pay your mortgage, rent or utility bills?” may be added to the statewide CAHPS survey. As such, it may be possible to identify housing insecurity across all AHCCCS populations and the independent evaluator will explore methods to incorporate this information within the evaluation reports. As these populations may fall outside the scope of the target population for this evaluation, this component will not be included as part of the formal evaluation of the H2O program’s impact.

Key Informant Interviews

To better understand the implementation of H2O and provide context for progress toward meeting the Waiver’s goals, the State will administer key informant interviews with stakeholders and entities including the H2O-Program Administrator (H2O-PA), H2O providers, member health homes, and community-based organizations (CBOs). Interview questions will be adapted from the implementation questions recommended in the Center for Medicare & Medicaid Services’ (CMS’) technical guidance for health-related social needs (HRSN) demonstrations. The exact wording of the questions may change during the key informant interviews.

Table 3-4 lists the implementation questions that will be assessed. Key informant interviews will be conducted through a semi-structured interview protocol, transcribed, and imported into MAXQDA where the data will be coded to permit qualitative analysis. The transcripts, coding methodologies, and coded data will be used to answer the appropriate research questions and provide background on the implementation of the H2O program.

Table 3-4—Implementation Questions

| HRSN Implementation Questions | |
|-------------------------------|---|
| 1 | Which key entities are collaborating to implement and operationalize the demonstration, and what are their main roles? How and why have the roles or participation of those key entities changed during the demonstration? |
| 2 | What are barriers for key entities implementing the demonstration, and what strategies have key entities used to overcome barriers? What are facilitators for key entities implementing the demonstration? What suggestions do key entities have for improving the demonstration? |
| 3 | What facilitators and barriers to participation do members experience, and what does this information suggest about the need for refinements to member and provider outreach as well as demonstration implementation or design more broadly? |

| HRSN Implementation Questions | |
|-------------------------------|---|
| 4 | What strategies and tools do key entities use to identify members with social risk factors and facilitate member participation in the demonstration? How, if at all, and why have key entities adapted these strategies? What did the state learn about promising practices for identifying and engaging members? |
| 5 | How are key entities implementing HRSN case management and providing HRSN services through the demonstration? What did the state learn about promising practices for delivering services to address members' HRSNs? |
| 5a | How, if at all, did the demonstration establish a process to share and receive screening results among key entities? How, if at all, have healthcare providers modified their clinical practice in response to this information? |
| 5b | How do key entities form and maintain organizational partnerships to promote integration of health and HRSN services? |
| 5c | To what extent is the state integrating the demonstration with its existing programs and infrastructure? What did the state learn about promising practices to support this integration? |
| 6 | What infrastructure are key entities developing or acquiring using demonstration funds? What did the state learn about promising practices to build infrastructure to support HRSN screening, case management, and service delivery? |
| 7 | How is the local availability of and investment in social services outside of the demonstration (such as housing supports) changing during the demonstration? (Research Question 1.2) |

Additional Data Sources

ADHS

Vital records data from the Arizona Department of Health Services (ADHS) will be used to calculate measures pertaining to low birth weight, all-cause mortality, and maternal mortality. In addition, race and ethnicity data from the ADHS vital records data may be used to supplement the demographic data provided in enrollment data from AHCCCS.

ADHS and DES SNAP and WIC

Enrollment and eligibility data relating to the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) collected from ADHS and the Department of Economic Security (DES) will be used to calculate Measure 1-18, which refers to the percentage of members enrolled in SNAP/WIC.

AHCCCS Reports

Data from the Maintenance of Effort (MOE) report provided by AHCCCS will be utilized to determine changes in state/local investments in social services related to housing transition supports. In addition, data relating to downstream services and or State/local investments in social services will be utilized as available to provide context alongside key informant interview responses.

AHP Waitlists

The independent evaluator will work with AHCCCS to obtain AHP waitlists at regular intervals. This data will be utilized to identify a potential comparison group of members who are eligible for H2O but have not yet participated in the program.

BRFSS

BRFSS is a health-focused telephone survey developed by the Centers for Disease Control and Prevention (CDC) that collects data from approximately 400,000 adults annually across all 50 states, Washington D.C., and three territories.³⁻² The questionnaire generally consists of two components: a core component and an optional component. Optional components are chosen by the individual state and can vary year to year. In 2020, Arizona elected to include the Social Determinants and Health Equity module on their BRFSS questionnaire, which included questions to assess a broad range of social, structural, and contextual experiences that impact health. It is unknown if Arizona will continue to include the optional Social Determinants and Health Equity model in future BRFSS surveys, but should the State elect to include this module in future evaluation years, those results may be used to provide additional context. As the H2O beneficiary survey questions will mimic several BRFSS questions (listed under the State Beneficiary Surveys section), statewide rates may serve as a reference to provide context to the beneficiary survey results, but will not serve as a comparison group, as the H2O program is intended to target a much more specific population than the overall Medicaid population captured by BRFSS.

CLRS

Data from the statewide closed-loop referral system (CLRS), CommunityCares will be used to assess whether members with unmet health-related social needs (HRSNs) are receiving referrals to community services. Data may also be used to confirm if the referral was received by the community-based organization.

The Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences (PRAPARE) screening tool is the default tool within the CLRS. Providers may use the PRAPARE tool or any HRSN screening tool as long as it covers homelessness/housing instability, food insecurity, transportation assistance, employment instability, utility assistance, interpersonal safety, justice/legal involvement, and social isolation/social support.³⁻³ The independent evaluator will work with AHCCCS to obtain data from the PRAPARE screening tool or other AHCCCS-approved HRSN assessment tools to assess members who have been screened for an HRSN and had a need identified.

Contexture

Data provided from Arizona's health information exchange (HIE), Contexture, may be used to supplement race and/or ethnicity data provided in AHCCCS' enrollment data.

HUD HDX HIC and PIT

The United States Department of Housing and Urban Development (HUD) Homelessness Data Exchange (HDX) maintains a data platform that tracks point-in-time (PIT) counts of sheltered and unsheltered people experiencing homelessness on a single night in January of each year.³⁻⁴ The Housing Inventory Count (HIC) is a point-in-time inventory of provider programs within a Continuum of Care (CoC) that provide beds and units to serve people

³⁻² Centers for Disease Control and Prevention. About BRFSS. Available at: <https://www.cdc.gov/brfss/about/index.htm>. Accessed on: Dec 20, 2023.

³⁻³ Arizona Health Care Cost Containment System. Protocol for Assessment of Beneficiary Eligibility and Needs, Infrastructure Planning, and Provider Qualifications for H2O Services. Available at: <https://www.azahcccs.gov/Resources/Downloads/HousingWaiverRequest/FINALH2OProtocol.pdf>. Accessed on: Dec 20, 2023.

³⁻⁴ HUD Exchange. Point-in-Time Count and Housing Inventory Count. Available at: <https://www.hudexchange.info/programs/hdx/pit-hic/#2024-pit-count-and-hic-guidance-and-training>. Accessed on: Dec 5, 2023.

experiencing homelessness. The HIC is categorized by five program types: Emergency Shelter, Transitional Housing, Rapid Re-Housing, Safe Haven, and Permanent Supportive Housing (PSH). Aggregate data from the HUD HDX will be used to assess how H2O has impacted statewide use of HRSN services reflecting crisis events, such as stays in emergency homeless shelters.

Deliverable Submitted to AHCCCS by the H2O-PA

AHCCCS will utilize a third-party, known as the H2O-Program Administrator (H2O-PA), to facilitate housing administrative functions and data collection. Specifically, the H2O-PA will verify member eligibility for H2O services and monitor and track H2O service utilization data.³⁻⁵ This data will be submitted to AHCCCS by the H2O-PA. It is anticipated that member-level data provided by the H2O-PA will include member identifiers to link H2O participants to AHCCCS administrative data.

Supplemental Data from AHCCCS

Data from Accountable Care Organizations (ACOs) and Clinically Integrated Networks (CINs) provided by AHCCCS may be utilized, where appropriate, for further context regarding patient screenings, referral lists, and connecting patients to services.

Analytic Methods

Multiple analytic techniques were used depending on the type of data and the availability of the data.

Chi Square Analysis

A Chi-square test of independence allows for comparison between two groups that have a categorical outcome, such as survey results, to determine if there is an association between the two variables. A chi-square test statistic is calculated that compares the observed counts to the expected counts under a null hypothesis of independence between the two variables. The test statistic is compared to a critical value from a chi-square distribution for a given degree of freedom and a p-value is obtained.

Comparison of Means

A comparison of means will be used to compare the means between two groups for continuous outcomes to determine if the two groups are different from one another. Two sample t-tests or analysis of variance (ANOVA) for multiple comparison will be considered.

Descriptive Time Series

Measures for the H2O program will rely on program data critical to determining the success of the program on both immediate outcomes, such as the percentage of members receiving an H2O service, the percentage of members who had an HRSN identified from a screening assessment, as well as long-term outcomes like housing retention or change in income through access to benefits or employment. The evaluation of these measures in

³⁻⁵ Arizona Health Care Cost Containment System. AHCCCS Housing and Health Opportunities Implementation Plan. Available at: https://azahcccs.gov/Resources/Downloads/HousingWaiverRequest/H2O_ImplementationPlan.pdf. Accessed on: Jan 10, 2024.

which there are insufficient data points for a robust ITS analysis, or no viable comparison group for DiD testing, will center on a descriptive analysis of data from various sources such as the closed-loop referral system and H2O provider reporting.

DiD

The DiD approach will compare the changes in outcome rates between the baseline period and the evaluation period, across the intervention and comparison groups. For the DiD analysis to be valid, the comparison group must accurately represent the change in outcomes that would have been experienced by the intervention group in the absence of the program. The DiD analysis will be conducted with member-level rates, using a logistic regression model for measures with binary outcomes.

The logistic regression form of the DiD model is:

$$\ln \left(\frac{Y_{it}}{1 - Y_{it}} \right) = \beta_0 + \beta_1 T + \beta_2 post + \beta_3 (post \times T) + \gamma \mathbf{D}'_{it} + \varepsilon$$

where Y is the probability of an outcome for group i in year t , T is a binary indicator of the intervention group, $post$ is a binary indicator for the evaluation period, the vector \mathbf{D}' represents any observed confounding variables that may account for differences between the intervention and comparison groups (described in additional detail below), γ is a coefficient vector, and ε is an error term. The intercept β_0 represents the log-odds of the outcome for the comparison group during the baseline. The coefficient β_1 identifies the difference in log-odds of the outcome between the groups during the baseline period prior to the implementation of the Waiver. The coefficient β_2 captures the change in log-odds of the outcome between the baseline and evaluation time periods for the non-intervention group. The coefficient on the interaction term β_3 represents the DiD estimate of interest in this evaluation. In other words, it is the difference in the change in log-odds of the outcome between the baseline and evaluation time periods for the intervention group, compared to the change in log-odds of the outcome between the baseline and evaluation time period for the non-intervention group.

Where feasible, DiD analyses utilizing member-level data will include adjustment for demographic characteristics such as age, sex, sexual orientation, gender identity, race/ethnicity, and geography, as well as additional possible confounders such as CDPS risk score, dual eligibility status, duration of Medicaid enrollment, etc.

The DiD approach will be used where possible, as it controls for any factors external to the program that are applied equally to both groups, such as the COVID-19 PHE. However, the method is still susceptible to external factors that may have differentially impacted one group and not the other. If sufficient pre-intervention data are available, it is possible to test if external factors are applied equally to the intervention and comparison groups by visually verifying that both groups exhibit parallel trends in the baseline period. In the absence of treatment, the intervention and comparison groups used in DiD should experience similar changes, manifested as parallel lines during the baseline period. If the parallel trend assumption does not hold, the two-period DiD may still be useful as data during the baseline and evaluation periods will be aggregated into a single pre-intervention and post-intervention average, respectively. Furthermore, the DiD model proposed estimates a single average treatment effect, under the assumption that any heterogeneity in the treatment effect is due to random variation. This assumption is explicit in the model set-up as the DiD treatment effect is represented by a single coefficient (β_3), and therefore any heterogeneity in treatment effects between individuals cannot be modeled. The independent evaluator recognizes the limitations of this approach and will therefore consider estimating additional models such as panel data models, fixed and random effects models, or hierarchical models. Results from adjusted models will be presented and interpreted keeping in mind the limitations of each approach.

Propensity Score Methods

For measures in which a comparison group of members is viable and a DiD approach is planned, propensity score matching may be employed to construct the most appropriate comparison group for the H2O population. A logistic regression model will be used to predict the probability that each member participates in the H2O program, conditional on their observed baseline characteristics (i.e., the propensity score). These characteristics will include variables that impact an individual's participation such as sex, age, race/ethnicity, geography, a CDPS risk score, etc.

If the sample size of the propensity-score matched comparison group is too small, then inverse probability of treatment weight (IPTW) using the propensity score may be considered to create weights based on the propensity score and create a sample in which the distribution of baseline covariates is independent of treatment assignment.³⁻⁶

ITS

When a suitable comparison group cannot be found and data can be collected at multiple points in time before and after the implementation of the program, an ITS methodology can be used. This analysis is quasi-experimental in design and will compare a trend in outcomes between the baseline period and the evaluation period for those who were subject to the program.

In ITS, the measurements taken before a demonstration was initiated are used to predict the outcome if the demonstration did not occur. The measurements collected after the demonstration are then compared to the predicted outcome to evaluate the impact the demonstration had on the outcome. The generic ITS model is:

$$Y_t = \beta_0 + \beta_1 \text{time} + \beta_2 \text{post} + \beta_3 \text{time} \times \text{post} + \gamma \mathbf{D}'_{it} + \varepsilon$$

where Y_t is the outcome of interest for the time period t , time represents a linear time trend, post is a dummy variable to indicate the time periods post-implementation, $\text{time} \times \text{post}$ is the interaction term between time and post, the vector \mathbf{D}' represents any observed confounding variables that may account for differences between the intervention and comparison groups, and γ is a coefficient vector. The intercept, β_0 , identifies the average outcome Y at the beginning of the data series, β_1 is the slope of the outcome between the measurements before the program, β_2 is the change in the outcome when the program began, β_3 is the change in the slope for the measurements after the program, and ε is the error term.

Assuming that the measurements taken after the implementation of the Waiver would have been equal to the expectation predicted from the measurements taken before the Waiver in the absence of the intervention, any changes in the observed rates after implementation can be attributed to the program. However, as the ITS approach relies on a pre- and post-period, it is unable to differentiate between mechanisms that may have impacted observed changes; it is possible that external events could have occurred simultaneously with the Waiver and influenced the outcomes of interest. The independent evaluator will rely on best practices to mitigate the potentially confounding effect of simultaneously occurring confounding events such as the COVID-19 PHE as well as post-pandemic Medicaid “unwinding” by including the use of dummy variables for each time period. To

³⁻⁶ Austin, P. An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies US National Library of Medicine National Institutes of Health, Multivariate Behavioral Health Research. 2011 May; 46(3): 399-424. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/>. Accessed on: Apr 9, 2024.

account for the impact of the COVID-19 PHE, ITS models will incorporate dummy variables to adjust for the confounding effects if sufficient data is available. An indicator variable for quarter 2 (Q2) 2020 will represent the initial wave of the COVID-19 PHE-related shutdowns and stay-at-home orders, and a separate indicator variable for Q3 2020 through the end of Q1 2021 will reflect subsequent Arizona-specific public health orders. For measures calculated annually, an indicator variable for 2020 will be included in the model to adjust for the COVID-19 PHE. Furthermore, the independent evaluator will consider several sensitivity analyses to test the robustness of the main model results. As the Waiver overlaps with the COVID-19 PHE as well as post-pandemic Medicaid “unwinding”, the independent evaluator will explore how the results change when excluding the years most impacted by these external events, or when estimating program effects separately by each year, rather than aggregating baseline years and evaluation years. A similar approach will be taken to account for the “unwinding” period in which the Medicaid continuous enrollment condition authorized ended and AHCCCS began redeterminations of eligibility.

A second assumption of the proposed ITS model is that a linear model can appropriately characterize the relationship between independent variables and the response variable. The independent evaluator will test this assumption by examining error autocorrelation; if subsequent error terms are highly correlated, then parameter estimates and variance obtained from the model may be biased, resulting in misleading conclusions. During analyses, the independent evaluator will take steps to test for autocorrelation and assess the model fit. If the linear model is a poor fit for the data, additional procedures will be explored such as transformation of the model to remove autocorrelation or estimating an autoregressive model.

A limitation of ITS is the need for sufficient data points both before and after program implementation.^{3-7, 3-8, 3-9} To facilitate this methodology, the independent evaluator may consider additional baseline data points using prior year calculations, and/or calculating quarterly rates where feasible, if multiple years both pre-and post-implementation are available to control for seasonality.

For measures where DiD and ITS approaches are listed, a DiD or comparative approach will be utilized if there are sufficient pre-implementation and post-implementation data points for both the intervention and comparison groups and the sample size is sufficient to construct a comparison group. For measures in which there are many pre-implementation and post-implementation data points for both intervention and comparison groups, a comparative ITS will be utilized. For measures in which few data points either pre-implementation or post-implementation are available for both groups, a DiD will be utilized. In cases where the data does not meet these criteria, a single group ITS approach will be utilized.

Health Equity Analysis

To address research questions focused on exploring the impact that the H2O demonstration has on health disparities in HRSN, a health equity analysis will be conducted. A detailed assessment of changes in health disparities across time will be the primary analytic approach for assessing health equity. Outcome measures for

³⁻⁷ Baicker, K., and Svoronos, T., (2019) “Testing the Validity of the Single ITS Design,” NBER Working Paper 26080. Available at: <https://www.nber.org/papers/w26080.pdf>. Accessed on: Dec 1, 2023

³⁻⁸ Bernal, J.L., Cummins, S., Gasparrini, A. (2017) “Interrupted time series regression for the evaluation of public health interventions: a tutorial,” *International Journal of Epidemiology*, 46(1): 348-355. Available at: <https://doi.org/10.1093/ije/dyw098>. Accessed on: Dec 1, 2023

³⁻⁹ Penfold, R. B., Zhang, F. (2013) “Use of Interrupted Time Series Analysis in Evaluating Health Care Quality Improvements,” *Academic Pediatrics*, 13(6): S38 - S44. Available at: <https://doi.org/10.1016/j.acap.2013.08.002>. Accessed on: Dec 1, 2023.

relevant demographic subgroups (e.g., age, sex, sexual orientation, gender identity, race/ethnicity, geography, disability status, primary language, eligibility group, high-cost high-needs, etc.) will be compared to a reference group and assessed for statistically significant differences as well as clinically meaningful differences in relative percentages and effect sizes. A two-tailed t-test will be conducted to determine the statistical significance between the reference and comparison groups. Clinically meaningful outcomes will be assessed through effect sizes and relative percentage point differences between the groups of interest.

Cohen's h will be utilized to determine the effect size between comparison and reference group rates. Effect sizes can fall into small, medium, or large categories.³⁻¹⁰ This method is applicable to measures where the rate is bound between 0 and 1. The formula for Cohen's h is given by:

$$h = (2 * \arcsin\sqrt{P_1}) - (2 * \arcsin\sqrt{P_2})$$

where P_1 is the annual rate for the comparison group and P_2 is the annual rate for the reference group.

For measures where the rates are not bound between 0 and 1, the relative percent difference between each demographic stratification and reference category will be calculated by subtracting the reference group rate from the comparison group rate, then dividing by the reference group rate.

Rates will be compared across reference and comparison demographic groups where data is available, accurate, and relevant for measures with data supporting a health equity analysis. The independent evaluator may limit reporting to groups with either statistically significant or clinically meaningful differences, with the full results presented in the appendix. Demographic data is anticipated to be available for age, sex, sexual orientation, gender identity, race/ethnicity, primary language, geography, and HRSN domains. The independent evaluator will work with the State to develop a method for identifying and reporting results by additional stratifications, such as disability status and high-cost high needs. The measure specifications in Appendix D identify the demographic stratification groups for each measure, based on the anticipated available demographic data fields. Rates involving numerators smaller than five members and denominators smaller than 30 members will be suppressed due to potentially unreliable rate calculation and to ensure anonymity.

Pre-test/post-test

For measures with consistent specifications over time for which national or regional benchmarks are not available, and which have too few observations to support an ITS analysis, rates will be calculated and compared both before and after program integration.³⁻¹¹ As the rates pre- and post- implementation may represent a slightly different group of Medicaid members over time (due to churn of individuals enrolling and dis-enrolling from Medicaid), statistical testing will be conducted through a Chi-square analysis. Additional information can be found in the Chi-Square Analysis section.

Repeated Cross-Sectional Design

A repeated cross-sectional design will be employed for measures in which the same group of individuals cannot be tracked longitudinally across time, such as measures related to mortality rate. Measures employing this design

³⁻¹⁰ Cohen, J. Statistical Power Analysis for the Behavioral Sciences, 2nd Ed. Hillsdale, N.J.: L. Erlbaum Associates; 1988:25

³⁻¹¹ Because measures are calculated on an annual reporting period, the post-implementation period during the current demonstration approval period of three years is insufficient to support an ITS analysis.

will be calculated at various points in time across the entire study period but will represent a different sample or “cross-section” of the population at each time point. For instance, if pre-implementation data is not available for Measures 1-10, 1-11, and 1-12, the independent evaluator will assess rates of screening and positive identification of HRSN among H2O members at intake and regular frequencies thereafter to assess changes in screening severities (semi-annually, annually). At the time of developing this evaluation design, screening data is only available for AHCCCS members participating in H2O. If screening data for the broader AHCCCS population becomes available, the independent evaluator will explore calculating screening measures with the total AHCCCS population as a comparison group.

Measure 1-18 relating to SNAP/WIC enrollment among members will utilize a repeated cross-sectional design and compare H2O members to comparison group members at the start of the H2O program and at regular intervals thereafter.

Cost Analysis

The cost analysis is designed to analyze the differences between total costs for the H2O population compared to the comparison group of H2O eligible individuals who have not participated in the program or members on the AHP housing waitlist. Note that the cost analyses do not refer to or attempt to replicate the formal Budget Neutrality test required for Section 1115 Demonstration Waivers, which sets a fixed target under which Waiver expenditures must fall that was set at the time the Waiver was approved.

Cost of care for H2O members based on the H2O HRSN Medicaid Expenditure Group (MEG) will be calculated for each member in each month. Similarly, costs of care for comparison group members will also be calculated for each member monthly. To identify the source of treatment cost drivers for members, total costs will be stratified by the categories of service presented in

Table 3-5 as well as further divided into PH and BH costs. Data will be aggregated across both intervention and comparison group members in order to calculate per-member per-month (PMPM) costs for each month pre- and post-implementation of the H2O program.³⁻¹² DiD or comparative ITS models with adjustment for seasonal effects and other potential confounders will be conducted for total cost of care, as well as for each level of cost stratification mentioned above.

Table 3-5—Categories of Service

| Categories of Service |
|-----------------------|
| IP |
| OP (ED and Non-ED) |
| LTC |
| Professional |
| Pharmacy |

Note: ED: emergency department; IP: Inpatient; LTC: long-term care; OP: outpatient

³⁻¹² CMS guidance describes constructing an ITS with member-level controls. However, due to a low prevalence of costs for most members—especially when stratified by category of service—robust statistical analysis at the member-level may not be feasible. CMS guidance references literature on evaluating healthcare expenditures using a two-part model as one mechanism to account for this issue; however, the method described in the literature is not applied in an ITS framework, which relies on assessing trends in costs. Given the frequency of months in which members will not incur any costs and the unbalanced nature of the panel dataset, member-level trends may not be reliably estimated.

Descriptive Analysis

Descriptive analyses will be utilized when reviewing supplemental documentation from AHCCCS, including, but not limited to, MOE reports and data on downstream services provided to H2O members. This approach may include comparing the availability of services and budget changes annually, depending on data availability.

Qualitative Synthesis

To evaluate the implementation questions and Research Questions 1-2 and 3-4, key informant interviews with key stakeholders will be conducted. A qualitative synthesis will be utilized to evaluate the H2O demonstration.

Key informant interviewees will be recruited from nominees identified by AHCCCS. These interviewees may include health home staff, care coordinators, or case managers. Interviews will invite input from representatives of the H2O program and appropriate individuals identified by AHCCCS as having experience and subject matter expertise regarding the development and implementation of strategies regarding downstream services and State and local housing supports.

AHCCCS will be asked to provide the names of individuals from pertinent organizations most familiar with the implementation activities performed by the State, including AHCCCS. Each of these individuals will be requested to participate in a 60 to 90-minute interview session to provide insights into the implementation of the Waiver. A limited number of key informant interviews should be sufficient because there will be a limited number of staff at the agency with a working knowledge of the activities associated with the Waiver, and the challenges and successes that accompanied the implementation.

A flexible protocol will be developed for the key informant interviews to be conducted with a sample of subjects with knowledge of the specific strategies developed and implemented as a result of the Waiver, the barriers encountered during the implementation, and members' connection to broader services, including downstream services and State and local housing supports. Interview questions will be developed to seek information about the plans' strategies to service delivery and care integration activities as well as any barriers encountered, including:

- Organizational structures and operational systems.
- Program design and implementation.
- Member engagement and communication.
- Broader waiver context, including State and local funding and service provision.

Early interviews will inform the development and choice of topics and help inform the selection of additional interview subjects to round out the list of individuals to be interviewed for this project. In both formats, open-ended questions will be used to maximize the diversity and richness of responses and ensure a more holistic understanding of the subject's experience. Probing follow-up questions will be used as appropriate to elicit additional detail and understanding of critical points, terminology, and perspectives. The sessions will be recorded and transcribed with participant consent.

The information obtained from these interviews will be synthesized with the results from other quantitative data analyses providing an in-depth discussion of each of the domains/objectives to be considered. As the key informant interviews are being conducted, the independent evaluator will perform ongoing and iterative review of the interview responses and notes to identify overall themes and common response patterns. Unique responses that are substantively interesting and informative will also be noted and may be used to develop probing questions

for future interviews. The results of these preliminary analyses will be used to document the emergent and overarching themes related to each research question. The documentation of emergent themes will be reviewed iteratively to determine if responses to interview questions are continuing to provide new perspectives and answers, or if the responses are converging on a common set of response patterns indicating saturation on a particular interview question. As additional interview data are collected, the categories, themes, and relationships will be adjusted to reflect the broader set of concepts and different types of relationships identified. The documentation of emergent themes will also be used as an initial starting point for organizing the analysis of the interview data once all interviews are completed.

Following the completion of the key informant interviews, the interview notes and transcripts will be reviewed using standard qualitative analysis techniques. The data will first be examined through open coding to identify key concepts and themes that may not have been captured as emergent themes during previous analyses. After identifying key concepts, axial coding techniques will be used to develop a more complete understanding of the relationships among categories identified by respondents in the data. The open and axial coding will be performed with a focus on identifying the dimensionality and breadth of responses to the research questions posed for the overall project. Interviewee responses will be identified through the analysis to illustrate and contextualize the conclusions drawn from the research and will be used to support the development of the final report.

Disentangling Confounding Events

Factors outside of the H2O program, such as other programs and initiatives that target the same population, may influence outcomes studied. The Targeted Investments (TI) 2.0 program seeks to extend the original TI program and emphasizes AHCCCS' goal of improving quality and health equity through comprehensively addressing HRSN and providing whole person care. The TI 2.0 program began October 1, 2022, with two years of onboarding and establishment of new systems and processes. Implementation and evaluation of system processes will occur from October 1, 2024, through September 30, 2027. As this implementation coincides with the start of the H2O program, there is a possibility for confounding effects of the TI 2.0 program to impact the evaluation of the H2O program. There is a strong potential for overlap between the H2O population and TI 2.0 populations as the TI 2.0 program justice component specifically targets individuals transitioning from the criminal justice system. It is possible that some TI 2.0 activities related to focus areas of identifying the HRSN needs of the patient populations and coordinating early reach-in activities may have a confounding impact on H2O outcomes. Similar to the plans to mitigate the potential confounding effects of the COVID-19 PHE described in the Analytic Methods subsection, the independent evaluation will follow best practices to address the confounding impact of the TI 2.0 program. The independent evaluator will collaborate with AHCCCS and the independent evaluator of the TI 2.0 program to identify a list of members participating in the TI 2.0 program each year. These member-years will be flagged, and statistical controls utilized to assess the effect of H2O program net of the TI 2.0 program.

The COVID-19 PHE widely impacted the healthcare system and socioeconomic conditions more broadly beginning in approximately March 2020 with the COVID-19 PHE ending in May 2023.³⁻¹³ The COVID-19 PHE has already exerted an arguably substantial force on the State of Arizona, its healthcare system, and its Medicaid population. Increases in Medicaid enrollment during the COVID-19 PHE are tied to substantial shifts in the disease conditions and comorbidities of the Medicaid population and may impact aggregate spending by

³⁻¹³ Centers for Disease Control and Prevention. End of the Federal COVID-19 Public Health Emergency (PHE) Declaration. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/your-health/end-of-phe.html>. Accessed on: Dec 1, 2023.

AHCCCS. Social distancing efforts and stay-at-home orders interrupted routine care visits and effectively reduced the demand for many healthcare services to near zero. In an ideal evaluation, the independent evaluator would be able to control for many of these issues during the analysis. The ability to do so in the current context of the Waiver evaluation will depend on the availability of data and control variables.

Methods that allow for the disentanglement of AHCCCS program impacts from results driven by COVID-19 or the policy response within Arizona and other states have been described further in the Analytic Methods subsection.

4. Methodological Limitations

There are several key limitations to the evaluation of the Housing and Health Opportunities (H2O) program. The primary limitation is the selection of a suitable comparison group for H2O participating members. The most appropriate comparison group for H2O members would be Medicaid members with similar demographic and health characteristics, who did not enroll in the H2O program. The proposed comparison group of H2O eligible members who did not enroll in the program or who are on the Arizona Health Care Cost Containment System (AHCCCS) Housing Program (AHP) housing waitlist is a close approximation for the ideal comparison group. However, to the extent that individuals are selected into the program and prioritized off of the housing waitlist based on severity of serious mental illness (SMI), chronic health conditions or housing need, it is possible that a difference in need persists across H2O members and comparison group members that could therefore impact the results. However, use of propensity-score matching methods that are meant to account for inherent differences in the groups may limit the impact of this bias.

A second limitation relates to the health equity analysis. The independent evaluator recognizes that health equity is a complex subject and that there have been many significant discussions around the topic of measuring health equity among the broader scientific community. There is no single approach to evaluating health equity that is without limitations and thus, this evaluation utilizes multiple methods to address health equity related research questions. The proposed health equity analysis is designed to provide an overview of how health disparities have changed during the H2O study period but acknowledges the primary limitation that any changes in disparities identified cannot be causally attributed to the H2O program, as co-occurring external factors may impact the measured outcomes. Finally, the availability of stratifications will vary by year and data source. AHCCCS plans to improve data collection for race/ethnicity, sexual orientation, and gender identity over the course of the evaluation period. The independent evaluator will stratify results by key fields where data is available and accurate.

Appendix A. Independent Evaluator

The Arizona Health Care Cost Containment System (AHCCCS) will select an independent evaluator with experience and expertise to conduct a scientific and rigorous Medicaid Section 1115 waiver evaluation meeting all the requirements specified in the Special Terms and Conditions (STCs). The independent evaluator will be required to have the following qualifications:

- Knowledge of public health programs and policy.
- Experience in healthcare research and evaluation.
- Understanding of AHCCCS programs and populations.
- Expertise with conducting complex program evaluations.
- Relevant work experience.
- Skills in data management and analytic capacity.
- Medicaid experience and technical knowledge.

Based on State protocols, AHCCCS will follow established policies and procedures to acquire an independent entity or entities to conduct the waiver evaluation. In addition, AHCCCS will ensure that the selected independent evaluator does not have any conflicts of interest and will require the independent evaluator to sign a “No Conflict of Interest” statement.

Appendix B. Evaluation Budget

Due to the complexity and resource requirements of Arizona's Section 1115 Arizona Health Care Cost Containment System Demonstration Waiver (the Waiver), AHCCCS will need to conduct a competitive procurement to obtain the services of an independent evaluator to perform the services outlined in this evaluation design. Upon selection of an evaluation vendor, a final budget will be prepared in collaboration with the selected independent evaluator. Table B-1 displays the proposed budget that will be used for submitting total costs for the evaluation of the Housing and Health Opportunities (H2O) program.

Table B-1—Proposed Budget

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|--|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|
| Project Administration and Monitoring Reports | | | | | | | |
| Staff Costs | \$ 12,405 | \$ 8,639 | \$ 17,046 | \$ 25,935 | \$ 28,446 | \$ 19,452 | \$ 3,689 |
| Administrative Costs | \$ 3,278 | \$ 3,725 | \$ 4,504 | \$ 8,552 | \$ 7,516 | \$ 5,139 | \$ 975 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ 15,683 | \$ 12,364 | \$ 21,550 | \$ 34,487 | \$ 35,962 | \$ 24,591 | \$ 4,664 |
| Key Informant Interviews | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 16,315 | \$ 9,025 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 4,310 | \$ 2,976 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 20,625 | \$ 12,001 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 21,493 | \$ 2,469 | \$ 24,599 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 5,679 | \$ 814 | \$ 6,499 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 27,172 | \$ 3,283 | \$ 31,098 | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 10,969 | \$ - | \$ 19,874 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,898 | \$ - | \$ 5,251 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 13,867 | \$ - | \$ 25,125 | \$ - | \$ - |
| Provider Focus Groups | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 10,876 | \$ 10,745 | \$ 14,123 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,874 | \$ 3,543 | \$ 3,731 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 13,750 | \$ 14,288 | \$ 17,854 | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 14,328 | \$ 2,340 | \$ 11,173 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 3,786 | \$ 772 | \$ 2,952 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 18,114 | \$ 3,112 | \$ 14,125 | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 7,164 | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 1,893 | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 9,057 | \$ - | \$ - | \$ - | \$ - |

| Evaluation Area/Task | SFY 24 | SFY 25 | SFY 26 | SFY 27 | SFY 28 | SFY 29 | SFY 30 |
|---|-----------|-----------|------------|------------|------------|------------|------------|
| Member/Beneficiary Surveys | | | | | | | |
| Instrument Design | | | | | | | |
| Staff Costs | \$ - | \$ 16,060 | \$ - | \$ 18,530 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 6,924 | \$ - | \$ 6,110 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 22,984 | \$ - | \$ 24,640 | \$ - | \$ - | \$ - |
| Administration | | | | | | | |
| Staff Costs | \$ - | \$ 16,724 | \$ - | \$ 19,305 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ 7,211 | \$ - | \$ 6,366 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ 34,799 | \$ - | \$ 34,799 | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ 58,734 | \$ - | \$ 60,470 | \$ - | \$ - | \$ - |
| Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 7,701 | \$ - | \$ 32,023 | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 2,035 | \$ - | \$ 8,460 | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 9,736 | \$ - | \$ 40,483 | \$ - | \$ - |
| Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 27,500 | \$ - | \$ 44,504 | \$ 48,109 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 7,265 | \$ - | \$ 11,758 | \$ 12,711 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 34,765 | \$ - | \$ 56,262 | \$ 60,820 | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 39,112 | \$ - | \$ - | \$ 85,387 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 10,333 | \$ - | \$ - | \$ 22,559 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 49,445 | \$ - | \$ - | \$ 107,946 | \$ - |
| Statistical Analysis | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 27,536 | \$ - | \$ - | \$ 92,985 | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 7,275 | \$ - | \$ - | \$ 24,567 | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 34,811 | \$ - | \$ - | \$ 117,552 | \$ - |
| EHR Measure Calculation and Analysis | | | | | | | |
| Data Collection/Validation | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Code Development/Execution | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Reporting | | | | | | | |
| Interim Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ 33,155 | \$ 17,136 | \$ - | \$ - | \$ - |
| Administrative Costs | \$ - | \$ - | \$ 8,759 | \$ 5,651 | \$ - | \$ - | \$ - |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ 41,914 | \$ 22,787 | \$ - | \$ - | \$ - |
| Summative Evaluation Report | | | | | | | |
| Staff Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 117,413 | \$ 88,858 |
| Administrative Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 31,021 | \$ 23,477 |
| Other Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 148,434 | \$ 112,335 |
| Total | \$ 15,683 | \$ 94,082 | \$ 294,806 | \$ 175,068 | \$ 220,909 | \$ 459,343 | \$ 116,999 |

Appendix C. Timeline and Major Milestones

The following project timeline, presented in Figure C-1 has been prepared for the Housing and Health Opportunities (H2O) program of the Section 1115 Arizona Health Care Cost Containment System (AHCCCS) Demonstration Waiver (the Waiver). This timeline is preliminary and subject to change based on approval of the evaluation design and implementation of the Waiver programs.

Figure C-1—Preliminary Project Timeline

| Task | SFY2024 | | | | SFY2025 | | | | SFY2026 | | | | SFY2027 | | | | SFY2028 | | | | SFY2029 | |
|---|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|--|
| | CY2024 | | | | CY2025 | | | | CY2026 | | | | CY2027 | | | | CY2028 | | | | CY2029 | |
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | |
| Prepare and Implement Study Design | | | | | | | | | | | | | | | | | | | | | | |
| Conduct kick-off meeting | | | | | | | | | | | | | | | | | | | | | | |
| Prepare analysis workplan | | | | | | | | | | | | | | | | | | | | | | |
| Data Collection | | | | | | | | | | | | | | | | | | | | | | |
| Obtain Arizona Medicaid claims/encounters | | | | | | | | | | | | | | | | | | | | | | |
| Obtain Arizona Medicaid member, provider, and eligibility/enrollment data | | | | | | | | | | | | | | | | | | | | | | |
| Obtain financial data | | | | | | | | | | | | | | | | | | | | | | |
| Integrate data; generate analytic dataset | | | | | | | | | | | | | | | | | | | | | | |
| Obtain EHR data | | | | | | | | | | | | | | | | | | | | | | |
| Integrate EHR data into processes | | | | | | | | | | | | | | | | | | | | | | |
| Conduct Analysis | | | | | | | | | | | | | | | | | | | | | | |
| Non-Survey Analyses | | | | | | | | | | | | | | | | | | | | | | |
| Prepare and calculate metrics | | | | | | | | | | | | | | | | | | | | | | |
| Conduct statistical testing and comparison | | | | | | | | | | | | | | | | | | | | | | |
| Survey Analyses | | | | | | | | | | | | | | | | | | | | | | |
| Develop survey instrument | | | | | | | | | | | | | | | | | | | | | | |
| Field survey; collect satisfaction data | | | | | | | | | | | | | | | | | | | | | | |
| Conduct survey analyses | | | | | | | | | | | | | | | | | | | | | | |
| Reporting | | | | | | | | | | | | | | | | | | | | | | |
| Draft Interim Evaluation Report | | | | | | | | | | | | | | | | | | | | | | |
| Final Interim Evaluation Report | | | | | | | | | | | | | | | | | | | | | | |
| Draft Summative Evaluation Report | | | | | | | | | | | | | | | | | | | | | | |
| Final Summative Evaluation Report | | | | | | | | | | | | | | | | | | | | | | |

Note: CY: calendar year; EHR: electronic health record; NCI: National Core Indicators; SFY: state fiscal year; Q: quarter

Appendix D. Proposed Measure Specifications

The tables in this section provide the detailed measure specifications for the Housing and Health Opportunities (H2O) program of the Section 1115 Arizona Health Care Cost Containment System (AHCCCS) Demonstration Waiver (the Waiver) evaluation.

Hypothesis 1: The demonstration will meet or reduce the severity of health-related social needs (HRSN) for members overall and among subpopulations who experience disparities in HRSN.

Research Question 1.1: How does the H2O demonstration impact the use of HRSN services?

| Percentage of members experiencing homelessness who were contacted (Measure 1-1) | |
|--|--|
| Numerator/Denominator | Numerator: Number of members in the denominator who were contacted Denominator: Number of members experiencing homelessness |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, primary language, geography, and HRSN domains ^{D-1} |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-Program Administrator (H2O-PA) |
| Desired Direction | Higher is better |
| Analytic Approach | Descriptive time series |
| Frequency | Annual |

| Percentage of members participating in H2O who completed an intake and received a service within seven days of enrollment (Measure 1-2) | |
|---|--|
| Numerator/Denominator | Numerator: Number of members in the denominator who received a service within seven days of enrollment in H2O Denominator: Number of members participating in H2O who completed an intake |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, primary language, geography, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | Higher is better |
| Analytic Approach | Descriptive time series |
| Frequency | Annual |

^{D-1} Stratifications for measures are based on the best available data. The independent evaluator will review the data provided by AHCCCS and work with AHCCCS to identify appropriate and feasible stratifications.

Percentage of members eligible for H2O, who are participating in the H2O program (Measure 1-3)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members in the denominator who are participating in H2O Denominator: Number of members eligible for H2O |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, primary language, geography, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | Descriptive time series |
| Frequency | Annual |

Percentage of members participating in H2O who completed an assessment who established a housing care plan (Measure 1-4)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members in the denominator who established a housing care plan Denominator: Number of members participating in H2O who completed an assessment |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, primary language, geography, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | Higher is better |
| Analytic Approach | Descriptive time series |
| Frequency | Annual |

Percentage of members participating in H2O, who are receiving H2O services (any service and by service category) (Measure 1-5)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members in the denominator receiving each service: <ul style="list-style-type: none"> • Outreach and education services • Enhanced shelter • Short term rental assistance • One-time transition and move-in costs • Housing pre-tenancy and tenancy services • Medically necessary home accessibility modifications and remediation Denominator: Number of members participating in H2O |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, primary language, geography, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |

Percentage of members participating in H2O, who are receiving H2O services (any service and by service category) (Measure 1-5)

| | |
|-------------|--|
| Data Source | • AHCCCS/H2O list of members receiving services |
| | • Claims/encounter data |
| | • Outreach is through provider invoicing process |

| | |
|-------------------|------------------|
| Desired Direction | Higher is better |
|-------------------|------------------|

| | |
|-------------------|-------------------------|
| Analytic Approach | Descriptive time series |
|-------------------|-------------------------|

| | |
|-----------|--------|
| Frequency | Annual |
|-----------|--------|

Number of members on the AHCCCS Housing Program (AHP) waitlist who are also H2O eligible (Measure 1-6)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members on the AHP waitlist who are also H2O eligible Denominator: N/A |
|-----------------------|--|

| | |
|-----------------------|-----|
| Comparison Population | N/A |
|-----------------------|-----|

| | |
|----------------|--|
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, primary language, geography, and HRSN domains |
|----------------|--|

| | |
|-----------------|-----|
| Measure Steward | N/A |
|-----------------|-----|

| | |
|--------------|-----|
| Measure Name | N/A |
|--------------|-----|

| | |
|-------------|--------------|
| Data Source | AHP waitlist |
|-------------|--------------|

| | |
|-------------------|-----------------|
| Desired Direction | Lower is better |
|-------------------|-----------------|

| | |
|-------------------|-------------------------|
| Analytic Approach | Descriptive time series |
|-------------------|-------------------------|

| | |
|-----------|--------|
| Frequency | Annual |
|-----------|--------|

Percentage of members referred to receive short term rental assistance who locate housing within 120 days (Measure 1-7)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members in the denominator who locate housing within 120 days Denominator: Number of members referred to receive short term rental assistance |
|-----------------------|---|

| | |
|-----------------------|-----|
| Comparison Population | N/A |
|-----------------------|-----|

| | |
|----------------|--|
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
|----------------|--|

| | |
|-----------------|-----|
| Measure Steward | N/A |
|-----------------|-----|

| | |
|--------------|-----|
| Measure Name | N/A |
|--------------|-----|

| | |
|-------------|---|
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
|-------------|---|

| | |
|-------------------|------------------|
| Desired Direction | Higher is better |
|-------------------|------------------|

| | |
|-------------------|-------------------------|
| Analytic Approach | Descriptive time series |
|-------------------|-------------------------|

| | |
|-----------|--------|
| Frequency | Annual |
|-----------|--------|

Number of enhanced shelter bed inventory statewide (Measure 1-8)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of available enhanced shelter bed inventory statewide Denominator: N/A |
|-----------------------|---|

| | |
|-----------------------|-----|
| Comparison Population | N/A |
|-----------------------|-----|

| | |
|----------------|-----|
| Stratification | N/A |
|----------------|-----|

| | |
|-----------------|-----|
| Measure Steward | N/A |
|-----------------|-----|

Number of enhanced shelter bed inventory statewide (Measure 1-8)

| | |
|-------------------|---|
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> U.S. Department of Housing and Urban Development (HUD) Homelessness Data Exchange (HDX) Point in Time Count (PIT) HUD HDX Housing Inventory Count (HIC) data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test Interrupted time series (ITS) |
| Frequency | Annual/Monthly |

Research Question 1.2: How do State and local government investments in housing supports change in relation to H2O demonstration funding?
Change in investment of housing interventions outside of the demonstration (Measure 1-9)

| | |
|-----------------------|--|
| Numerator/Denominator | N/A |
| Comparison Population | N/A |
| Stratification | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Key Informant Interviews (Implementation Question 7) AHCCCS Reports |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Qualitative Synthesis Descriptive Analysis |
| Frequency | Annually |

Research Question 1.3: How does the H2O demonstration impact rates of HRSN and their severities?
Percentage of members who participated in H2O services that received a HRSN/social determinants of health (SDOH) screening with the Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences (PRAPARE) screening tool or other appropriate screening tool (Measure 1-10)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of H2O participating members in the denominator who received an HRSN/SDOH screening. Denominator: Number of members participating in H2O. |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, primary language, geography, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |

Percentage of members who participated in H2O services that received a HRSN/social determinants of health (SDOH) screening with the Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences (PRAPARE) screening tool or other appropriate screening tool (Measure 1-10)

| | |
|-------------------|---|
| Data Source | <ul style="list-style-type: none"> Claims/encounter data (G codes, Z codes, and Healthcare Common Procedure Coding System [HCPCS] codes) Closed loop referral system (CLRS) Other standardized screening tools Supplemental data from AHCCCS as appropriate |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Repeated cross-sectional design Descriptive time series ITS |
| Frequency | Semi-Annually/Annually |

Percentage of members who participated in H2O services that had an HRSN identified, among those who received an HRSN/SDOH screening (Measure 1-11)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator: Number of members participating in H2O who had an HRSN identified during an HRSN/SDOH screening.</p> <p>Denominator: Number of members participating in H2O who received an HRSN/SDOH screening.</p> |
| Comparison Population | N/A |
| Stratification | N/A ^{D-2} |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Claims/encounter data (G codes, Z codes, and HCPCS codes) CLRS Other standardized screening tools Supplemental data from AHCCCS as appropriate |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Repeated cross-sectional design Descriptive time series ITS |
| Frequency | Semi-Annually/Annually |

^{D-2} AHCCCS will receive aggregate data for Measures 1-11 and 1-12. As a result, individual level data will not be available for stratifications.

Percentage of members who had a housing-related need identified, among those who received an HRSN/SDOH screening (Measure 1-12)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members participating in H2O who had a housing-related need identified during an HRSN/SDOH screening. Denominator: Number of members participating in H2O who received an HRSN/SDOH screening. |
| Comparison Population | N/A |
| Stratification | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Claims/encounter data (G codes, Z codes, and HCPCS codes) CLRS Other standardized screening tools Supplemental data from AHCCCS as appropriate |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Repeated cross-sectional design Descriptive time series ITS |
| Frequency | Semi-Annually/Annually |

Number of unique H2O referrals sent to providers by H2O-PA (H2O-Program Administrator) (any referral and referral type) (Measure 1-13)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of unique H2O referrals sent to providers by the H2O-PA: <ul style="list-style-type: none"> Outreach and education services Enhanced shelter Short term rental assistance One-time transition and move-in costs Housing pre-tenancy and tenancy services Medically necessary home accessibility modifications and remediation Denominator: N/A |
| Comparison Population | N/A |
| Stratification | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> H2O referral lists (H2O-PA) CLRS Supplemental data from AHCCCS as appropriate |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Percentage of members participating in H2O who were connected to a Regional Behavioral Health Agreement (RBHA) permanent supportive housing (PSH) provider for ongoing supportive services (Measure 1-14)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members in the denominator who were connected to RBHA PSH provider for ongoing supportive services Denominator: Number of members participating in H2O |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, primary language, geography, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual |

Percent of members with substance use disorder (SUD) diagnosis participating in H2O who connect to outpatient (OP) SUD/recovery services (Measure 1-15)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members in the denominator who were connected to OP SUD/recovery services Denominator: Number of members participating in H2O with SUD diagnosis |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, primary language, geography, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Deliverable submitted to AHCCCS by the H2O-PA Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual |

| Percent of members indicating they were not able to pay mortgage, rent, or utility bills in the last three months (Measure 1-16) | |
|--|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of members participating in H2O indicating they experienced housing insecurity.</p> <p><u>Comparison group</u>: Number of comparison group respondents indicating they experienced housing insecurity.</p> <p>Denominator:</p> <p><u>Intervention group</u>: Number of respondents participating in H2O who answered the survey question</p> <p><u>Comparison group</u>: Number of comparison group respondents who answered the survey question</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, and race/ethnicity ^{D-3} |
| Measure Steward | Modified Behavioral Health Risk Factor Surveillance System (BRFSS) |
| Survey Question | During the last three months, was there a time when you were not able to pay your mortgage, rent or utility bills? |
| Data Source | Beneficiary Survey |
| Desired Direction | Lower is better |
| Analytic Approach | <ul style="list-style-type: none"> • Chi-square • Comparison of means |
| Frequency | Annual |

| Percent of members indicating that a utility company threatened to shut off services in the past three months (Measure 1-17) | |
|--|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of H2O respondents indicating they experienced utility insecurity.</p> <p><u>Comparison group</u>: Number of comparison group respondents indicating they experienced utility insecurity.</p> <p>Denominator:</p> <p><u>Intervention group</u>: Number of H2O responses to the survey question</p> <p><u>Comparison group</u>: Number of comparison group responses to the survey question</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, and race/ethnicity |
| Measure Steward | Modified BRFSS |
| Survey Question | During the last three months was there a time when an electric, gas, oil, or water company threatened to shut off services? |
| Data Source | Beneficiary Survey |
| Desired Direction | Lower is better |

^{D-3} Stratifications for survey measures will be limited to age, sex, sexual orientation, gender identity and race/ethnicity to reduce response burden and to ensure a large enough sample size for accurate and anonymous reporting.

Percent of members indicating that a utility company threatened to shut off services in the past three months (Measure 1-17)

| | |
|-------------------|---|
| Analytic Approach | <ul style="list-style-type: none"> Chi-square Comparison of means |
| Frequency | Annual |

Percent of members participating in H2O who are enrolled in the Supplemental Nutrition Assistance Program (SNAP) or the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) (Measure 1-18)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members in the denominator who are enrolled in SNAP or WIC, stratified by program enrollment. Denominator: Number of members participating in H2O |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> Arizona Department of Health Services (ADHS) and Department of Economic Security (DES) SNAP and WIC data Claims/Encounter data |
| Desired Direction | No desired direction |
| Analytic Approach | Repeated cross-sectional design |
| Frequency | Annual/Monthly |

Research Question 1.4: How does the H2O demonstration impact members' use of HRSN services reflecting crisis events, such as stays in emergency homeless shelters?
Number of stays in an emergency shelter per 1,000 members (Measure 1-19)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of stays in an emergency shelter Denominator: N/A |
| Comparison Population | N/A |
| Stratification | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> HUD HDX PIT and HIC Data from Continuum of Care (CoC) programs |
| Desired Direction | Lower is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Number of days in an emergency shelter or state of unsheltered homelessness per 1,000 members (Measure 1-20)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of days in an emergency shelter or state of unsheltered homelessness Denominator: N/A |
| Comparison Population | N/A |
| Stratification | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | HUD HDX PIT and HIC |
| Desired Direction | Lower is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Percentage of members reporting they used an emergency shelter in the last six months (Measure 1-21)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: <u>Intervention group</u> : Number of members participating in H2O who reported using an emergency shelter in the past six months. <u>Comparison group</u> : Number of comparison group respondents who reported using an emergency shelter in the past six months. Denominator: <u>Intervention group</u> : Number of respondents participating in H2O who answered the survey question. <u>Comparison group</u> : Number of comparison group respondents who answered the survey question. |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, and race/ethnicity |
| Measure Steward | N/A |
| Survey Question | Survey question in development |
| Data Source | <ul style="list-style-type: none"> Beneficiary Survey Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Chi-square Comparison of means |
| Frequency | Annual |

| Percentage of members reporting they slept in a place not meant for human habitation in the last six months (Measure 1-22) | |
|--|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of members participating in H2O who reported sleeping in a place not meant for human habitation in the last six months.</p> <p><u>Comparison group</u>: Number of comparison group respondents who reported sleeping in a place not meant for human habitation in the last six months.</p> <p>Denominator:</p> <p><u>Intervention group</u>: Number of respondents participating in H2O who answered the survey question.</p> <p><u>Comparison group</u>: Number of comparison group respondents who answered the survey question.</p> |
| Comparison Population | Members eligible for H2O who are not participating in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, and race/ethnicity |
| Measure Steward | N/A |
| Survey Question | Survey question in development |
| Data Source | Beneficiary Survey |
| Desired Direction | Lower is better |
| Analytic Approach | <ul style="list-style-type: none"> • Chi-square • Comparison of means |
| Frequency | Annually |

Research Question 1.5: Is the H2O demonstration associated with increased positive health and wellbeing outcomes?

| Percentage of members with housing retention, among members participating in H2O who utilize pre-tenancy/tenancy services (Measure 1-23) | |
|--|---|
| Numerator/Denominator | <p>Numerator: Number of members in the denominator with housing retention</p> <p>Denominator: Number of members participating in H2O who utilize pre-tenancy/tenancy services</p> |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains ^{D-4} |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS |
| Frequency | Annual/Monthly |

^{D-4} Measures 1-23 and 1-24 are reported by program enrollment type. As such, the enrollment counts after stratifying by key subgroups may be too small to report. In this case, the independent evaluator will limit reporting to when the data has sufficient numerator and denominator counts.

Percentage of members who exit to permanent housing, among members participating in H2O who utilize enhanced shelter services (Measure 1-24)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members in the denominator who exit to permanent housing Denominator: Number of members participating in H2O who utilize enhanced shelter services |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Percentage of members participating in H2O whose housing condition was upgraded during the past month (Measure 1-25)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members in the denominator whose housing condition was upgraded during the past month Denominator: Number of members participating in H2O |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Percentage of members participating in H2O who are leaving the H2O program (Measure 1-26)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members in the denominator who left the H2O program due to: <ul style="list-style-type: none"> Positive exit reasons: Completed Program, Voluntary Withdrawal Negative exit reasons: Abandonment, Failure to Locate Housing, Non-Compliance, Failure to Recertify, Incarcerated, Unknown Neutral: Higher Level of Care, Deceased Denominator: Number of members participating in H2O |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |

Percentage of members participating in H2O who are leaving the H2O program (Measure 1-26)

| | |
|-------------------|---|
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Percentage of members participating in H2O who reported employment during engagement (Measure 1-27)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members in the denominator who reported employment during engagement Denominator: Number of members participating in H2O |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Percentage of members participating in H2O who increased employment during past month (Measure 1-28)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members in the denominator who increased employment during the past month Denominator: Number of members participating in H2O |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Change in income among members participating in H2O who utilize pre-tenancy/tenancy services (Measure 1-29)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: Number of members with a change in income Denominator: Number of members participating in H2O who utilize enhanced shelter services |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Research Question 1.6: How does the H2O demonstration impact disparities in HRSN?

All the above Hypothesis 1 measures for use of HRSN services by key subpopulations

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: All positive numerator hits among members participating in H2O separated by each key subpopulation group, by measure.</p> <p><u>Comparison group</u>: All positive numerator hits among comparison group members separated by each key subpopulation group, by measure.</p> <p>Denominator:</p> <p><u>Intervention group</u>: All members participating in H2O in each key subpopulation category, by measure.</p> <p><u>Comparison group</u>: All comparison group members in each key subpopulation category, by measure.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist, as applicable |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data Contexture race and ethnicity data |
| Desired Direction | N/A |
| Analytic Approach | Health equity analysis |
| Frequency | Annual/Monthly, as applicable |

Research Question 1.6.1: Does the H2O demonstration mitigate or reduce HRSN among groups who had high rates at baseline?

| All the above Hypothesis 1 measures for use of HRSN services by key subpopulations | |
|--|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: All positive numerator hits among members participating in H2O separated by each key subpopulation group, by measure.</p> <p><u>Comparison group</u>: All positive numerator hits among comparison group members separated by each key subpopulation group, by measure.</p> <p>Denominator:</p> <p><u>Intervention group</u>: All members participating in H2O in each key subpopulation category, by measure.</p> <p><u>Comparison group</u>: All comparison group members in each key subpopulation category, by measure.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist, as applicable |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data Contexture race and ethnicity data |
| Desired Direction | N/A |
| Analytic Approach | Health equity analysis |
| Frequency | Annual/Monthly, as applicable |

Research Question 1.6.2: Do any groups experience increasing or worsening HRSN compared to the baseline with the implementation of the H2O demonstration?

| All the above Hypothesis 1 measures for use of HRSN services by key subpopulations | |
|--|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: All positive numerator hits among members participating in H2O separated by each key subpopulation group, by measure.</p> <p><u>Comparison group</u>: All positive numerator hits among comparison group members separated by each key subpopulation group, by measure.</p> <p>Denominator:</p> <p><u>Intervention group</u>: All members participating in H2O in each key subpopulation category, by measure.</p> <p><u>Comparison group</u>: All comparison group members in each key subpopulation category, by measure.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist, as applicable |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |

All the above Hypothesis 1 measures for use of HRSN services by key subpopulations

| | |
|-------------------|--|
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data Contexture race and ethnicity data |
| Desired Direction | N/A |
| Analytic Approach | Health equity analysis |
| Frequency | Annual/Monthly, as applicable |

Hypothesis 2: By meeting or reducing the severity of HRSN, the demonstration will increase members' use of preventive and routine care and reduce their use of potentially avoidable hospital and institutional care (emergency department [ED] visits, inpatient [IP] care, and nursing facilities), leading to reduced healthcare spending over time. Impacts will be realized overall and among subpopulations who experience disparities in hospital and institutional care use.

Research Question 2.1: How does the H2O demonstration impact the use of preventive and routine care?

Percentage of adults who accessed preventive/ambulatory health services (Measure 2-1)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of members participating in H2O with an ambulatory or preventive care visit.</p> <p><u>Comparison group</u>: Number of comparison group members with an ambulatory or preventive care visit.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The total number of members participating in H2O 20 years and older.</p> <p><u>Comparison group</u>: The total number of comparison group members 20 years and older.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | National Committee for Quality Assurance (NCQA) |
| Measure Name | Adults' Access to Preventive/Ambulatory Health Services (AAP) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

Percentage of members who have a primary care provider (PCP) visit since their intake date, among members participating in H2O who utilize enhanced shelter services (Measure 2-2)

| | |
|-----------------------|--|
| Numerator/Denominator | Numerator: Number of members in the denominator who had a PCP visit in the first year since their intake date Denominator: Number of members participating in H2O who utilize enhanced shelter services |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Comparison Population | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable submitted to AHCCCS by the H2O-PA |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Percentage of adults with a flu vaccine (Measure 2-3)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: <u>Intervention group:</u> Number of members participating in H2O stating they had a flu shot or nasal flu spray since July 1, <year> <u>Comparison group:</u> Number of comparison group members stating they had a flu shot or nasal flu spray since July 1, <year> Denominator: <u>Intervention group:</u> Number of respondents to survey question about flu shot or spray among members participating in H2O. <u>Comparison group:</u> Number of respondents to survey question about flu shot or spray among comparison group members |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, gender identity, sexual orientation, and race/ethnicity |
| Measure Steward | NCQA |
| Survey Question | Have you had a flu shot since July 1 of the prior year? |
| Data Source | Beneficiary Survey |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Chi-square Comparison of means |
| Frequency | Annual |

| Percentage of adult members with a cervical cancer screening (Measure 2-4) | |
|--|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group:</u> Number of women participating in H2O ages 21–64 who were screened for cervical cancer.</p> <p><u>Comparison group:</u> Number of women in the comparison group ages 21–64 who were screened for cervical cancer.</p> <p>Three rates are reported:</p> <ul style="list-style-type: none"> Women 21–64 years of age who had cervical cytology performed within the last three years. Women 30–64 years of age who had cervical high-risk human papillomavirus testing performed within the last five years. Women 30–64 years of age who had cervical cytology/high-risk human papillomavirus co-testing within the last five years. <p>Denominator:</p> <p><u>Intervention group:</u> The total number of women participating in H2O between 21 and 64 years old.</p> <p><u>Comparison group:</u> The total number of women in the comparison group between 21 and 64 years old</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, gender identity, sexual orientation, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Cervical Cancer Screening (CCS-AD) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

| Percentage of adult members with a breast cancer screening (Measure 2-5) | |
|--|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group:</u> Number of women participating in H2O 50–74 years of age who had a mammogram to screen for breast cancer.</p> <p><u>Comparison group:</u> Number of women in the comparison group 50–74 years of age who had a mammogram to screen for breast cancer.</p> <p>Denominator:</p> <p><u>Intervention group:</u> The total number of women participating in H2O between 50 and 74 years of age.</p> <p><u>Comparison group:</u> The total number of women in the comparison group between 50 and 74 years of age</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |

Percentage of adult members with a breast cancer screening (Measure 2-5)

| | |
|-------------------|--|
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Breast Cancer Screening (BCS-AD) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

Percent of adult members with a colorectal cancer screening (Measure 2-6)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group:</u> Number of members participating in H2O, 45–74 years of age who had appropriate screening for colorectal cancer.</p> <p><u>Comparison group:</u> Number of members in the comparison group 45–74 years of age who had appropriate screening for colorectal cancer.</p> <p>Denominator:</p> <p><u>Intervention group:</u> The total number of members participating in H2O 45–74 years of age.</p> <p><u>Comparison group:</u> The total number of members 45–74 years of age in the comparison group</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Colorectal Cancer Screening (COL-AD) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

| Percentage of members that were provided a most effective or moderately effective method of contraception (Measure 2-7) | |
|---|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group:</u> Members participating in H2O 15–44 years of age at risk of unintended pregnancy who received contraception.</p> <p><u>Comparison group:</u> Members in the comparison group 15–44 years of age at risk of unintended pregnancy who received contraception.</p> <p>Two rates are reported:</p> <ul style="list-style-type: none"> Members who were provided a most effective or moderately effective method of contraception. Members who were provided a long-acting reversible method of contraception. <p>Denominator:</p> <p><u>Intervention group:</u> The total number of members participating in H2O 15–44 years of age.</p> <p><u>Comparison group:</u> The total number of comparison group members 15–44 years of age.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | OPA |
| Measure Name | Contraceptive Care – All Women (CCW-AD) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

| Percentage of members that received a prenatal and/or postpartum care visit (Measure 2-8) | |
|---|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group:</u> Number of deliveries of live births members participating in H2O.</p> <p><u>Comparison group:</u> Number of deliveries of live births among comparison group members.</p> <p>Two rates are reported:</p> <ul style="list-style-type: none"> Number of deliveries that received a prenatal care visit in the first trimester, on or before the enrollment start date or within 42 days of enrollment in the organization Number of deliveries that had a postpartum visit on or between seven and 84 days after delivery <p>Denominator:</p> <p><u>Intervention group:</u> The total number of members participating in H2O with a delivery.</p> <p><u>Comparison group:</u> The total number of comparison group members with a delivery.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |

Percentage of members that received a prenatal and/or postpartum care visit (Measure 2-8)

| | |
|-------------------|--|
| Measure Name | Postpartum Care (PPC) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

Percentage of members with a diagnosis of human immunodeficiency virus (HIV) who did not have a medical visit in the last six months of the measurement year (Measure 2-9)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group:</u> Number of members participating in H2O in the denominator who did not have a medical visit in the last 6 months of the measurement year.</p> <p><u>Comparison group:</u> Number of comparison group members in the denominator who did not have a medical visit in the last 6 months of the measurement year.</p> <p>Denominator:</p> <p><u>Intervention group:</u> The total number of members participating in H2O with a diagnosis of HIV who had at least one medical visit in the first six months of the measurement year.</p> <p><u>Comparison group:</u> The total number of members in the comparison group with a diagnosis of HIV who had at least one medical visit in the first six months of the measurement year</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | Health Resources and Services Administration (HRSA) |
| Measure Name | Gap in HIV Medical Visits |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

Research Question 2.2: How does the H2O demonstration impact the use of behavioral health (BH) services?

| Percentage of members who had initiation of alcohol and other drug abuse or dependence treatment (Measure 2-10) | |
|---|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of members participating in H2O in the denominator who had initiation of treatment within 14 days of the index episode.</p> <p><u>Comparison group</u>: Number of comparison group members in the denominator who had initiation of treatment within 14 days of the index episode.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The number of members participating in H2O aged 13 and over during the measurement year with an alcohol or opioid diagnosis.</p> <p><u>Comparison group</u>: The number of comparison group members aged 13 and over during the measurement year with an alcohol or opioid diagnosis.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Initiation and Engagement of SUD Treatment: Initiation of SUD Treatment (IET) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

| Percentage of members who had engagement of alcohol and other drug abuse or dependence treatment (Measure 2-11) | |
|---|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of members participating in H2O who had initiation of treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode.</p> <p><u>Comparison group</u>: Number of comparison group members who had initiation of treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The number of members participating in H2O aged 13 and over during the measurement year with an alcohol or opioid diagnosis.</p> <p><u>Comparison group</u>: The number of comparison group members aged 13 and over during the measurement year with an alcohol or opioid diagnosis.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |

Percentage of members who had engagement of alcohol and other drug abuse or dependence treatment (Measure 2-11)

| | |
|-------------------|--|
| Measure Name | Initiation and Engagement of SUD Treatment: Initiation of SUD Treatment (IET) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

Percentage of members with a follow-up visit after hospitalization for mental illness (Measure 2-12)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Of the IP discharges identified among members participating in H2O in the denominator, the number that resulted in follow-up care with a mental health provider within seven and 30 days.</p> <p><u>Comparison group</u>: Of the IP discharges identified among comparison group members in the denominator, the number that resulted in follow-up care with a mental health provider within seven and 30 days.</p> <p>Denominator:</p> <p><u>Intervention group</u>: Intervention group: The number of IP discharges with a diagnosis of mental illness or intentional self-harm among members participating in H2O six years and older.</p> <p><u>Comparison group</u>: The number of IP discharges with a diagnosis of mental illness or intentional self-harm among members in the comparison group six years and older</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Follow-Up After Hospitalization for Mental Illness (FUH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

| Percentage of members with a follow-up visit after ED visit for members with multiple high-risk chronic conditions (Measure 2-13) | |
|---|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Of the ED visits identified among members participating in H2O in the denominator, the number that resulted in a follow-up visit within seven days.</p> <p><u>Comparison group</u>: Of the ED visits identified among comparison group members in the denominator, the number that resulted in a follow-up visit within seven days.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The number of ED visits where the member had a chronic condition prior to the ED visit among members participating in H2O 18 years and older.</p> <p><u>Comparison group</u>: The number of ED visits where the member had a chronic condition prior to the ED visit among comparison group members 18 years and older.</p> <p>Chronic conditions include:</p> <ul style="list-style-type: none"> • Chronic obstructive pulmonary disease and asthma • Alzheimer’s disease and related disorders • Chronic kidney disease • Depression • Acute myocardial infraction • Atrial fibrillation • Stroke and ischemic attack |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Follow-Up After Emergency Department Visit for People with Multiple High-Risk Chronic Conditions (FMC) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS • DiD |
| Frequency | Annual/Monthly |

Percentage of members with follow-up after ED visit for alcohol and other drug abuse or dependence (Measure 2-14)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Of the ED visit identified among members participating in H2O in the denominator, the number that had a follow-up visit for alcohol and other drug abuse or dependence within eight and 31 days.</p> <p><u>Comparison group</u>: Of the ED visit identified among comparison group members in the denominator, the number that had a follow-up visit for AOD within eight and 31 days.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The number of ED visits with a principal diagnosis of SUD, or any diagnosis of drug overdose among members participating in H2O, 13 years and older.</p> <p><u>Comparison group</u>: The number of ED visits with a principal diagnosis of SUD, or any diagnosis of drug overdose among members in the comparison group, 13 years and older</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Follow-Up After ED Visit for SUD (FUA) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

Percentage of members who remained on antidepressant medication treatment (Measure 2-15)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of members participating in H2O who remained on an antidepressant medication treatment.</p> <p><u>Comparison group</u>: Number of members in the comparison group who remained on an antidepressant medication treatment.</p> <p>Two rates are reported:</p> <ul style="list-style-type: none"> Members who remained on antidepressant medication treatment for at least 84 days Members who remained on antidepressant medication treatment for at least 180 days <p>Denominator:</p> <p><u>Intervention group</u>: The number of members participating in H2O aged 18 and older who were treated with antidepressant medication and had a diagnosis of major depression.</p> <p><u>Comparison group</u>: The number of comparison group members aged 18 and older who were treated with antidepressant medication and had a diagnosis of major depression</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |

Percentage of members who remained on antidepressant medication treatment (Measure 2-15)

| | |
|-------------------|--|
| Measure Steward | NCQA |
| Measure Name | Antidepressant Medication Management (AMM) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

Percentage of members with opioid use disorder (OUD) who filled a prescription for or were administered or dispensed a United States Food and Drug Administration (FDA)-approved medication for the disorder (Measure 2-16)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: The number of OUD members participating in H2O with evidence of at least one prescription filled, or who were administered or dispensed an FDA-approved medication for OUD, by medication cohort.</p> <p><u>Comparison group</u>: The number of OUD members in the comparison group with evidence of at least one prescription filled, or who were administered or dispensed an FDA-approved medication for OUD, by medication cohort.</p> <p>Medication cohorts are stratified by the following:</p> <ul style="list-style-type: none"> Total Buprenorphine Oral naltrexone Long-acting, injectable naltrexone Methadone <p>Denominator:</p> <p><u>Intervention group</u>: The number of members participating in H2O 18 to 64 years of age who had at least one encounter with a diagnosis of opioid abuse, dependence, or remission.</p> <p><u>Comparison group</u>: The number of members in the comparison group 18 to 64 years of age who had at least one encounter with a diagnosis of opioid abuse, dependence, or remission.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | CMS Adult Core Set |
| Measure Name | Use of Pharmacotherapy for Opioid Use Disorder (OUD-AD) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |

Percentage of members with opioid use disorder (OUD) who filled a prescription for or were administered or dispensed a United States Food and Drug Administration (FDA)-approved medication for the disorder (Measure 2-16)

| | |
|-------------------|----------------------|
| Analytic Approach | • Pre-test/post-test |
| | • ITS |
| | • DiD |
| Frequency | Annual/Monthly |

Percentage of members with schizophrenia who adhered to antipsychotic medications (Measure 2-17)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of members participating in H2O in the denominator who remained on an antipsychotic medication for at least 80 percent of their treatment period.</p> <p><u>Comparison group</u>: Number of comparison group members in the denominator who remained on an antipsychotic medication for at least 80 percent of their treatment period.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The number of members participating in H2O aged 19 to 64 with schizophrenia or schizoaffective disorder and were dispensed antipsychotic medication.</p> <p><u>Comparison group</u>: The number of comparison group members aged 19 to 64 with schizophrenia or schizoaffective disorder and were dispensed antipsychotic medication</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS • DiD |
| Frequency | Annual/Monthly |

Percentage of members who reported a substance use problem who experienced improvement on Brief Assessment of Recovery Capital (BARC)-10 (Measure 2-18)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: The number of members participating in H2O in the denominator who experienced improvement on BARC-10.</p> <p><u>Comparison group</u>: The number of members in the comparison group in the denominator who experienced improvement on BARC-10.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The total number of members participating in H2O who reported a substance use problem.</p> <p><u>Comparison group</u>: The total number of members in the comparison group who reported a substance use problem.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP waitlist |
| Stratification | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Deliverable from RBHA |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Research Question 2.3: How does the H2O demonstration impact the use of hospital and institutional care?

Number of emergent ED visits per 1,000 member months (Measure 2-19)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of ED visits with an emergent diagnosis code among members participating in H2O. Source for emergent diagnosis codes is currently being researched.</p> <p><u>Comparison group</u>: Number of ED visits with an emergent diagnosis code among members in the comparison group. Source for emergent diagnosis codes is currently being researched.</p> <p>Denominator:</p> <p><u>Intervention group</u>: Number of member months among all adult members participating in H2O.</p> <p><u>Comparison group</u>: Number of member months among all adult members in the comparison group.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No desired direction |

Number of emergent ED visits per 1,000 member months (Measure 2-19)

| | |
|-------------------|----------------------|
| Analytic Approach | • Pre-test/post-test |
| | • ITS |
| | • DiD |
| Frequency | Annual/Monthly |

Number of non-emergent ED visits per 1,000 member months (Measure 2-20)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of ED visits with a non-emergent diagnosis code among members participating in H2O. Source for non-emergent diagnosis codes is currently being researched.</p> <p><u>Comparison group</u>: Number of ED visits with a non-emergent diagnosis code among members in the comparison group. Source for non-emergent diagnosis codes is currently being researched.</p> <p>Denominator:</p> <p><u>Intervention group</u>: Number of member months among all adult members participating in H2O.</p> <p><u>Comparison group</u>: Number of member months among all adult members in the comparison group.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS • DiD |
| Frequency | Annual/Monthly |

Number of IP stays per 1,000 member months (Measure 2-21)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of IP stays among members participating in H2O.</p> <p><u>Comparison group</u>: Number of IP stays among comparison group members.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The total number of members participating in H2O.</p> <p><u>Comparison group</u>: The total number of comparison group members.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | IP Utilization—General Hospital/Acute Care (IPU) |

Number of IP stays per 1,000 member months (Measure 2-21)

| | |
|-------------------|--|
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | No desired direction |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

Risk-adjusted ratio of observed to expected acute IP and observation stay discharges (Measure 2-22)

| | |
|-----------------------|--|
| Numerator/Denominator | Measure calculations will follow the technical specifications for NCQA measure Acute Hospital Utilization (AHU-HH) |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | Acute Hospital Utilization (AHU) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Lower is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

| Chronic conditions composite (PQI-92) (Measure 2-23) | |
|--|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of discharges among members participating in H2O 18 years of age and older for the chronic conditions listed below.</p> <p><u>Comparison group</u>: Number of discharges among comparison group members 18 years of age and older for the chronic conditions listed below.</p> <p>Chronic conditions:</p> <ul style="list-style-type: none"> • Diabetes with short-term complications • Diabetes with long-term complications • Uncontrolled diabetes without complications • Diabetes with lower-extremity amputation • Chronic obstructive pulmonary disease • Asthma • Hypertension • Heart failure without a cardiac procedure <p>Denominator:</p> <p><u>Intervention group</u>: The number of members participating in H2O 18 years and older.</p> <p><u>Comparison group</u>: The number of comparison group members 18 years and older.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | AHRQ |
| Measure Name | Chronic Conditions Composite (PQI 92) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | Lower is better |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS • DiD |
| Frequency | Annual/Monthly |

| Percentage of members with an ED visit for hypoglycemia in older adults with diabetes (Measure 2-24) | |
|--|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number members participating in H2O 67 years of age and older with diabetes (types 1 and 2).</p> <p><u>Comparison group</u>: Number of comparison group members 67 years of age and older with diabetes (types 1 and 2) with the observed conditions below. Two rates are reported:</p> <ul style="list-style-type: none"> Observed ED visits for hypoglycemia. For a subset of members who had at least one dispensing event of insulin within each 6-month treatment period from July 1 of the year prior to the measurement year through December 31 of the measurement year, the observed ED visits for hypoglycemia, stratified by dual eligibility. <p>Denominator:</p> <p><u>Intervention group</u>: The number of expected members participating in H2O 67 years of age and older with diabetes.</p> <p><u>Comparison group</u>: The number of expected comparison group members 67 years of age and older with diabetes.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual identity, gender orientation, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Emergency Department Visits for Hypoglycemia in Older Adults with Diabetes (EDH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Lower is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

Percentage of members with admission to an institution from the community (Measure 2-25)

| | |
|-----------------------|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: The number of institutional facility admissions from a community residence between August 1 of the year prior to the measurement year and July 31 of the measurement year, among members participating in H2O.</p> <p><u>Comparison group</u>: The number of institutional facility admissions from a community residence between August 1 of the year prior to the measurement year and July 31 of the measurement year, among comparison group members.</p> <p>Three rates are reported:</p> <ul style="list-style-type: none"> • Short stays, from 1 to 20 days • Medium stays, from 21 to 100 days • Long-term stays, from 101 days or more <p>Denominator:</p> <p><u>Intervention group</u>: The total number of member months during which the member resided in the community for at least one day of the month, among members participating in H2O.</p> <p><u>Comparison group</u>: The total number of member months during which the member resided in the community for at least one day of the month, among comparison group members.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | Centers for Medicare & Medicaid Services (CMS) |
| Measure Name | Admission to an institution from the community (AIF-HH) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | Lower is better |
| Analytic Approach | <ul style="list-style-type: none"> • Pre-test/post-test • ITS • DiD |
| Frequency | Annual/Monthly |

Percent of members who were hospitalized for potentially preventable complications (Measure 2-26)

| | |
|-----------------------|--|
| Numerator/Denominator | Measure calculations will follow the technical specifications for NCQA measure Hospitalization for Potentially Preventable Complications (HPC) |
| Comparison Population | N/A |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Hospitalization for Potentially Preventable Complications (HPC) |
| Data Source | <ul style="list-style-type: none"> • State eligibility and enrollment data • Claims/encounter data |
| Desired Direction | Lower is better |

Percent of members who were hospitalized for potentially preventable complications (Measure 2-26)

| | |
|-------------------|----------------------|
| Analytic Approach | • Pre-test/post-test |
| | • ITS |

| | |
|-----------|----------------|
| Frequency | Annual/Monthly |
|-----------|----------------|

Percentage of adult IP discharges with an unplanned readmission within 30 days (Measure 2-27)

| | |
|-----------------------|---|
| Numerator/Denominator | Numerator: |
| | <u>Intervention group</u> : Of the acute IP and observation stays identified in the denominator among members participating in H2O, the number that were followed by an unplanned acute readmission for any diagnosis within 30 days. |
| | <u>Comparison group</u> : Of the acute IP and observation stays identified in the denominator among comparison group members, the number that were followed by an unplanned acute readmission for any diagnosis within 30 days. |
| | Denominator: |
| | <u>Intervention group</u> : The number of members participating in H2O aged 18–64 with an acute IP and observation stay during the measurement year. |
| | <u>Comparison group</u> : The number of comparison group members aged 18–64 with an acute IP and observation stay during the measurement year. |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Plan All-Cause Readmissions (PCR) |
| Data Source | • State eligibility and enrollment data |
| | • Claims/encounter data |
| Desired Direction | Lower is better |
| Analytic Approach | • Pre-test/post-test |
| | • ITS |
| | • DiD |
| Frequency | Annual/Monthly |

Research Question 2.4.1: How does the H2O demonstration impact disparities in the use of hospital and institutional care?

| All the above Hypothesis 2 measures for hospital and institutional care by key subpopulations | |
|---|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: All positive numerator hits among members participating in H2O separated by each key subpopulation group, by measure.</p> <p><u>Comparison group</u>: All positive numerator hits among comparison group members separated by each key subpopulation group, by measure.</p> <p>Denominator:</p> <p><u>Intervention group</u>: All members participating in H2O in each key subpopulation category, by measure.</p> <p><u>Comparison group</u>: All comparison group members in each key subpopulation category, by measure.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist, as applicable |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data Contexture race and ethnicity data |
| Desired Direction | N/A |
| Analytic Approach | Health equity analysis |
| Frequency | Annual/Monthly, as applicable |

Research Question 2.4.1: Does the demonstration reduce the use of hospital and institutional care among groups who had high rates at baseline?

| All the above Hypothesis 2 measures for hospital and institutional care by key subpopulations | |
|---|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: All positive numerator hits among members participating in H2O separated by each key subpopulation group, by measure.</p> <p><u>Comparison group</u>: All positive numerator hits among comparison group members separated by each key subpopulation group, by measure.</p> <p>Denominator:</p> <p><u>Intervention group</u>: All members participating in H2O in each key subpopulation category, by measure.</p> <p><u>Comparison group</u>: All comparison group members in each key subpopulation category, by measure.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP waitlist, as applicable |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |

All the above Hypothesis 2 measures for hospital and institutional care by key subpopulations

| | |
|-------------------|--|
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data Contexture race and ethnicity data |
| Desired Direction | N/A |
| Analytic Approach | Health equity analysis |
| Frequency | Annual/Monthly, as applicable |

Research Question 2.4.2: Do any groups experience increasing use of hospital and institutional care compared to the baseline with the implementation of the HRSN demonstration?

All the above Hypothesis 2 measures for hospital and institutional care by key subpopulations

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: All positive numerator hits among members participating in H2O separated by each key subpopulation group, by measure.</p> <p><u>Comparison group</u>: All positive numerator hits among comparison group members separated by each key subpopulation group, by measure.</p> <p>Denominator:</p> <p><u>Intervention group</u>: All members participating in H2O in each key subpopulation category, by measure.</p> <p><u>Comparison group</u>: All comparison group members in each key subpopulation category, by measure.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist, as applicable |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data Contexture race and ethnicity data |
| Desired Direction | N/A |
| Analytic Approach | Health equity analysis |
| Frequency | Annual/Monthly, as applicable |

Hypothesis 3: By meeting or reducing HRSN, the demonstration will improve physical and mental health outcomes among members overall and among subpopulations who experience disparities in physical and mental health outcomes.

Research Question 3.1: How does the H2O demonstration impact members' physical and mental health outcomes?

| Percentage of members who reported a rating of overall health as very good or excellent (Measure 3-1) | |
|---|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of respondents participating in H2O who indicated a high rating of overall health (Very Good or Excellent).</p> <p><u>Comparison group</u>: Number of comparison group respondents who indicated a high rating of overall health (Very Good or Excellent).</p> <p>Denominator:</p> <p><u>Intervention group</u>: Number of respondents participating in H2O who answered the survey question.</p> <p><u>Comparison group</u>: Number of respondents in the comparison group who answered the survey question.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, and race/ethnicity |
| Measure Steward | Consumer Assessment of Healthcare Providers and Systems (CAHPS®) ^{D-5} |
| Survey Question | In general, how would you rate your overall health? |
| Data Source | Beneficiary Survey |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> • Chi-square • Comparison of means |
| Frequency | Annual |

| Percentage of members who reported a rating of overall mental or emotional health as very good or excellent (Measure 3-2) | |
|---|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of respondents participating in H2O who indicated a high rating of overall mental or emotional health (Very Good or Excellent).</p> <p><u>Comparison group</u>: Number of comparison group respondents who indicated a high rating of overall mental or emotional health (Very Good or Excellent).</p> <p>Denominator:</p> <p><u>Intervention group</u>: Number of respondents participating in H2O who answered the survey question.</p> <p><u>Comparison group</u>: Number of respondents in the comparison group who answered the survey question.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, and race/ethnicity |
| Measure Steward | CAHPS |

^{D-5} CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

Percentage of members who reported a rating of overall mental or emotional health as very good or excellent (Measure 3-2)

| | |
|-------------------|---|
| Survey Question | In general, how would you rate your overall mental or emotional health? |
| Data Source | Beneficiary Survey |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> • Chi-square • Comparison of means |
| Frequency | Annual |

Percentage of members who reported a rating of life satisfaction as “Satisfied” or “Very Satisfied” (Measure 3-3)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of respondents participating in H2O who indicated life satisfaction of “satisfied” or “very satisfied”.</p> <p><u>Comparison group</u>: Number of respondents in the comparison group who indicated life satisfaction of “satisfied” or “very satisfied”.</p> <p>Denominator:</p> <p><u>Intervention group</u>: Number of respondents participating in H2O who answered the survey question.</p> <p><u>Comparison group</u>: Number of respondents in the comparison group who answered the survey question.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, and race/ethnicity |
| Measure Steward | BRFSS |
| Survey Question | In general, how satisfied are you with your life? |
| Data Source | Beneficiary Survey |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> • Chi-square • Comparison of means |
| Frequency | Annual |

Percentage of members who reported “Always” or “Usually” feeling stressed or anxious (Measure 3-4)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of respondents participating in H2O who indicated a high rating of always or usually feeling stressed or anxious (Usually or Always).</p> <p><u>Comparison group</u>: Number of respondents in the comparison group who indicated a high rating of always or usually feeling stressed or anxious (Usually or Always).</p> <p>Denominator:</p> <p><u>Intervention group</u>: Number of respondents participating in H2O who answered the survey question.</p> <p><u>Comparison group</u>: Number of respondents in the comparison group who answered the survey question.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, and race/ethnicity |

Percentage of members who reported “Always” or “Usually” feeling stressed or anxious (Measure 3-4)

| | |
|-------------------|--|
| Measure Steward | BRFSS |
| Survey Question | Stress means a situation in which a person feels tense, restless, nervous or anxious or is unable to sleep at night because their mind is troubled all the time. Within the last 30 days, how often have you felt this kind of stress? |
| Data Source | Beneficiary Survey |
| Desired Direction | Lower is better |
| Analytic Approach | <ul style="list-style-type: none"> Chi-square Comparison of means |
| Frequency | Annual |

Percentage of births with low birth weight (Measure 3-5)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: The number of resident live births in the intervention group denominator weighing less than 2,500 grams at birth.</p> <p><u>Comparison group</u>: The number of resident live births in the comparison group denominator weighing less than 2,500 grams at birth.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The number of resident live births among participating in H2O in the reporting period who had a delivery on or after their first program enrollment date.</p> <p><u>Comparison group</u>: The number of resident live births among comparison group members in the reporting period who had a delivery on or after their first program enrollment date.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | CMS Child Core Set |
| Measure Name | Low Birth Weight (LBW-CH) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Vital Records |
| Desired Direction | Lower is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Research Question 3.2: How does the H2O demonstration impact members' management of chronic conditions?

| Percentage of members with diabetes with poor hemoglobin control (Measure 3-6) | |
|--|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of members participating in H2O in the denominator whose hemoglobin A1c was at the following levels during the measurement year.</p> <p><u>Comparison group</u>: Number of comparison group members in the denominator whose hemoglobin A1c was at the following levels during the measurement year.</p> <p>Two rates are reported:</p> <ul style="list-style-type: none"> Members with HbA1c Control (<8.0 percent) Members with HbA1c Poor Control (<9.0 percent) <p>Denominator:</p> <p><u>Intervention group</u>: The number of members participating in H2O 18 to 75 years of age with diabetes.</p> <p><u>Comparison group</u>: The number of comparison group members 18 to 75 years of age with diabetes.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Hemoglobin A1c Control for Patients with Diabetes (HBD) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Lower is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

| Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent (Measure 3-7) | |
|---|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of members participating in H2O who had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year.</p> <p><u>Comparison group</u>: Number of members in the comparison group who had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The number of members participating in H2O aged 5-64 who were identified as having persistent asthma.</p> <p><u>Comparison group</u>: The number of comparison group members aged 5-64 who were identified as having persistent asthma.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |

Percentage of members with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent (Measure 3-7)

| | |
|-------------------|--|
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Asthma Medication Ratio (AMR) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Percentage of members with clinical atherosclerotic cardiovascular disease who received and adhered to statin therapy (Measure 3-8)

| | |
|-----------------------|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: The percentage of members participating in H2O who received statin therapy.</p> <p><u>Comparison group</u>: The percentage of members in the comparison group who received statin therapy.</p> <p>The following rates are reported:</p> <ul style="list-style-type: none"> Members who were dispensed at least one high-intensity or moderate-intensity statin medication Members who remained on a high-intensity or moderate-intensity statin medication for at least 80 percent of the treatment period <p>Denominator:</p> <p><u>Intervention group</u>: All adult members participating in H2O program (males 21–75 years of age and females 40–75 years of age) who were identified as having clinical atherosclerotic cardiovascular disease (ASCVD).</p> <p><u>Comparison group</u>: All adult members in the comparison group (males 21–75 years of age and females 40–75 years of age) who were identified as having clinical atherosclerotic cardiovascular disease (ASCVD).</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | NCQA |
| Measure Name | Statin Therapy for Patients with Cardiovascular Disease (SPC) |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data |
| Desired Direction | Higher is better |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS |
| Frequency | Annual/Monthly |

Research Question 3.3: How does the H2O demonstration impact rates of mortality?

| All-cause mortality rate (Measure 3-9) | |
|--|--|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of deaths from any cause among members participating in H2O during the measurement year.</p> <p><u>Comparison group</u>: Number of deaths from any cause among comparison group members during the measurement year.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The total number of members participating in H2O for a given year.</p> <p><u>Comparison group</u>: The total number of members in the comparison group for a given year.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Vital records |
| Desired Direction | Lower is better |
| Analytic Approach | ITS |
| Frequency | Annual |

| Maternal mortality rate (Measure 3-10) | |
|--|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: Number of maternal deaths among members participating in H2O during the measurement year.</p> <p><u>Comparison group</u>: Number of maternal deaths among comparison group members during the measurement year.</p> <p>Denominator:</p> <p><u>Intervention group</u>: The number of women participating in H2O of reproductive age (ages 15–49).</p> <p><u>Comparison group</u>: The number of comparison group women of reproductive age (ages 15–49).</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Vital records |
| Desired Direction | Lower is better |
| Analytic Approach | ITS |
| Frequency | Annual |

Research Question 3.4: How does the H2O demonstration impact the quality and effectiveness of downstream services?

| Quality and effectiveness of key downstream services of the H2O program (Measure 3-11) | |
|--|---|
| Numerator/Denominator | The independent evaluator will conduct key informant interviews with subject matter experts identified by AHCCCS. These interviews aim to determine which downstream services were key to the H2O program and the effectiveness of these services. Available data to measure the key downstream services identified through key informant interviews will be utilized to quantify the interview findings. |
| Comparison Population | N/A |
| Stratification | N/A |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | Key informant interviews with care coordinators, case managers, and members AHCCCS Reports |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Qualitative Synthesis Descriptive Analysis |
| Frequency | Annual |

Research Question 3.5: How does the H2O demonstration impact disparities in health outcomes?

| All the above Hypothesis 3 measures for physical and mental health outcomes by key subpopulations | |
|---|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: All positive numerator hits among members participating in H2O separated by each key subpopulation group, by measure.</p> <p><u>Comparison group</u>: All positive numerator hits among comparison group members separated by each key subpopulation group, by measure.</p> <p>Denominator:</p> <p><u>Intervention group</u>: All members participating in H2O in each key subpopulation category, by measure.</p> <p><u>Comparison group</u>: All comparison group members in each key subpopulation category, by measure.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist, as applicable |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data Contexture race and ethnicity data Beneficiary survey |
| Desired Direction | N/A |
| Analytic Approach | Health equity analysis |
| Frequency | Annual/Monthly, as applicable |

Research Question 3.5.1: Does the H2O demonstration improve the physical and mental health outcomes of groups who had poor health outcomes at baseline?

| All the above Hypothesis 3 measures for physical and mental health outcomes by key subpopulations | |
|---|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: All positive numerator hits among members participating in H2O separated by each key subpopulation group, by measure.</p> <p><u>Comparison group</u>: All positive numerator hits among comparison group members separated by each key subpopulation group, by measure.</p> <p>Denominator:</p> <p><u>Intervention group</u>: All members participating in H2O in each key subpopulation category, by measure.</p> <p><u>Comparison group</u>: All comparison group members in each key subpopulation category, by measure.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist, as applicable |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data Contexture race and ethnicity data Beneficiary survey |
| Desired Direction | N/A |
| Analytic Approach | Health equity analysis |
| Frequency | Annual/Monthly, as applicable |

Research Question 3.5.2: Do any groups experience worsening physical and mental health outcomes compared to the baseline with the implementation of the H2O demonstration??

| All the above Hypothesis 3 measures for physical and mental health outcomes by key subpopulations | |
|---|---|
| Numerator/Denominator | <p>Numerator:</p> <p><u>Intervention group</u>: All positive numerator hits among members participating in H2O separated by each key subpopulation group, by measure.</p> <p><u>Comparison group</u>: All positive numerator hits among comparison group members separated by each key subpopulation group, by measure.</p> <p>Denominator:</p> <p><u>Intervention group</u>: All members participating in H2O in each key subpopulation category, by measure.</p> <p><u>Comparison group</u>: All comparison group members in each key subpopulation category, by measure.</p> |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP housing waitlist, as applicable |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, primary language, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |

All the above Hypothesis 3 measures for physical and mental health outcomes by key subpopulations

| | |
|-------------------|--|
| Data Source | <ul style="list-style-type: none"> State eligibility and enrollment data Claims/encounter data Contexture race and ethnicity data Beneficiary survey |
| Desired Direction | N/A |
| Analytic Approach | Health equity analysis |
| Frequency | Annual/Monthly, as applicable |

Hypothesis 4: The H2O demonstration will reduce cost of care for members who utilize H2O services.

Research Question 4.1: How does the H2O demonstration impact the total cost of care among H2O members compared to members who are eligible but not participating in the H2O demonstration?

Total cost of care, stratified by type (Measure 4-1)

| | |
|-----------------------|--|
| Numerator/Denominator | Total cost of care, stratified by the following categories: <ul style="list-style-type: none"> All facility costs IP facility costs Professional services costs Pharmacy costs Physical health (PH) costs BH costs |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP waitlist |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | N/A |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |

Total cost of care, stratified by key subpopulations (Measure 4-2)

| | |
|-----------------------|--|
| Numerator/Denominator | Total cost of care by key subpopulations (age, sex, sexual orientation, gender identity, race/ethnicity, English language proficiency, primary language, disability status, geography, eligibility category, HRSN domains, high-cost high-needs) |
| Comparison Population | Members eligible for H2O who did not participate in the program or members on the AHP waitlist |
| Stratification | Age, sex, sexual orientation, gender identity, race/ethnicity, geography, and HRSN domains |
| Measure Steward | N/A |
| Measure Name | N/A |
| Data Source | N/A |
| Desired Direction | N/A |
| Analytic Approach | <ul style="list-style-type: none"> Pre-test/post-test ITS DiD |
| Frequency | Annual/Monthly |