DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop S2-25-26
Baltimore, Maryland 21244-1850

State Demonstrations Group

September 27, 2022

Jami Snyder
Director
Arizona Health Care Cost Containment System
801 East Jefferson Street
Phoenix, Arizona 85034

Dear Ms. Snyder:

This letter is to inform you that the Centers for Medicare & Medicaid Services (CMS) has approved a temporary extension of the state's section 1115 demonstration, entitled "Arizona Health Care Cost Containment System (AHCCCS)" (Project Number 11-W-00275/9), in order to allow the state and CMS to continue negotiations over the state's extension application. This demonstration will now expire October 28, 2022.

CMS's approval is conditioned upon the state's continued compliance with the special terms and conditions (STC) defining the nature, character, and extent of anticipated federal involvement in the project. The current STCs and expenditure authorities will continue to apply during the temporary extension period of this demonstration. The state's current budget neutrality agreement and per member per month amounts will continue to apply as described in the STCs, until October 28, 2022 or until the demonstration is extended, whichever is sooner.

For this temporary extension period, the state must continue to monitor its demonstration as stipulated in the current STCs. In addition, the state is required to include the temporary extension period in its demonstration's evaluation. As indicated in the temporary extension approved on September 30, 2021, the state may include this temporary extension period within its summative evaluation for the demonstration approval period from October 1, 2016 through September 30, 2021. In this case, the Summative Evaluation Report is due 18 months after the end of the temporary extension period. Alternatively, if CMS approves an extension beyond October 14, 2022, the state may include this and the prior temporary extension periods in the Evaluation Design and activities of the next full demonstration approval period. In this case, the Summative Evaluation Report for the current demonstration approval period from October 1, 2016 through September 30, 2021 will still be due to CMS no later than March 31, 2023 and will be developed in alignment with the Evaluation Design approved on November 19. 2020. In the event that the state does not obtain an extension beyond October 28, 2022, the state must include the temporary extension period in its Summative Evaluation Report.

Your CMS project officer for this demonstration is Ms. Kelsey Smyth. She is available to answer any questions concerning your section 1115 demonstration. Ms. Smyth can be reached at kelsey.smyth@cms.hhs.gov.

Sincerely,

Judith Cash
Director

Enclosure

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

CENTERS FOR MEDICARE & MEDICAID SERVICES
WAIVER LIST

NUMBERS: **11-W-00275/09**
21-W-00064/9

TITLE: **Arizona Medicaid Section 1115 Demonstration**
AWARDEE: **Arizona Health Care Cost Containment System (AHCCCS)**

All Medicaid and Children's Health Insurance Program requirements expressed in law, regulation, and policy statement not expressly waived or identified as not applicable in this list, shall apply to the demonstration project beginning October 1, 2016 through September 30, 2022, unless otherwise specified. In addition, these waivers may only be implemented consistent with the approved Special Terms and Conditions (STCs).

1. Proper and Efficient Administration **Section 1902(a)(4)**
(42 CFR 438.52, 438.56)

To the extent necessary to permit the state to limit choice of managed care plans for Arizona Long Term Care System (ALTCS) Department of Economic Security/Division of Developmental Disabilities (DES/DDD) enrollees determined to have a qualifying Children's Rehabilitative Services (CSR) condition to a single Managed Care Organization (MCO) – the Children's Rehabilitative Services Program (CRS) Contractor – for the treatment of CRS and behavioral health conditions, and to a single MCO for the treatment of physical health care conditions.

To the extent necessary to permit the state to limit choice of managed care plans to a single MCO for individuals enrolled in the ALTCS and Comprehensive Medical and Dental Program (CMDP) programs so long as enrollees in such plans have a choice of at least two primary care providers, and may request change of primary care provider at least at the times described in 42 CFR 438.56(c). Notwithstanding this authority, the state must offer a choice of at least two MCOs to elderly and physically disabled individuals in Maricopa County.

To the extent necessary to permit the State to limit choice of managed care plans to a single Regional Behavioral Health Authority (RBHA) contracted with AHCCCS for the treatment of physical and behavioral (as well as CRS where applicable) health conditions for AHCCCS Acute Care Program (AACP) enrollees who have been determined to have a Serious Mental Illness (SMI).

To the extent necessary to permit the state to restrict beneficiary disenrollment based on 42 CFR 438.56(d)(2)(v), which provides for disenrollment for causes including but not limited to, poor quality of care, lack of access to services covered under the contract, or lack of access to providers experienced in dealing with the enrollee's health care needs.

2. Eligibility Based on Institutional Status **Section 1902(a)(10)(A)(ii)(V) (42 CFR 435.217 and 435.236)**

To the extent necessary to relieve the State of the obligation to make eligible individuals who meet the statutory definition of this eligibility group because they are in an acute care hospital for greater than 30 days but who do not meet the level of care standard for long term care services.

3. Amount, Duration, Scope of Services **Section 1902(a)(10)(B) (42 CFR 440.240 and 440.230)**

To the extent necessary to enable the State to offer different or additional services to some categorically eligible individuals, than to other eligible individuals, based on differing care arrangements in the Spouses as Paid Caregivers Program.

To the extent necessary to permit the State to offer coverage through managed care organizations (MCOs) that provide additional or different benefits to enrollees, than those otherwise available other eligible individuals.

4. Disproportionate Share Hospital (DSH) Requirements **Section 1902(a)(13) insofar as it incorporates section 1923**

To the extent necessary to relieve the State from the obligation to make DSH payments under the authority of a state plan amendment. DSH payments are authorized under the authority of the demonstration and its STCs. Beginning October 1, 2017 the state will make DSH payments under the authority of the Medicaid state plan.

5. Estate Recovery **Section 1902(a)(18) (42 CFR 433.36)**

To the extent necessary to enable the State to exempt from estate recovery as required by section 1917(b), the estates of acute care enrollees age 55 or older who receive long-term care services.

6. Freedom of Choice **Section 1902(a)(23)(A) (42 CFR 431.51)**

To the extent necessary to enable the State to restrict freedom of choice of providers through mandatory enrollment of eligible individuals in managed care organizations that do not meet the requirements of section 1932 of the Act. No waiver of freedom of

choice is authorized for family planning providers.

To the extent necessary to enable the State to impose a limitation on providers on charges associated with non-covered activities.

7. Drug Utilization Review **Section 1902(a) (54) insofar as it incorporates section 1927(g) (42 CFR 456.700 through 456.725 and 438.3(s) (4) and (5))**

To the extent necessary to relieve the State from the requirements of section 1927(g) of the Act pertaining to drug use review.

8. Retroactive Eligibility **Section 1902(a)(10) and (a)(34)**

Effective no sooner than April 1, 2019, to the extent necessary to enable the state to not provide medical assistance for any month prior to the month in which a beneficiary's Medicaid application is filed. The waiver of retroactive eligibility does not apply to applicants who would have been eligible at any point within the three month period immediately preceding the month in which an application was received, as a pregnant woman (including during the 60-day period beginning on the last day of the pregnancy), an infant under age 1, or a child under age 19.

CENTERS FOR MEDICARE & MEDICAID SERVICES
EXPENDITURE AUTHORITY

NUMBERS: **11-W-00275/09**
21-W-00064/9

TITLE: **Arizona Medicaid Section 1115 Demonstration AWARDEE: Arizona Health Care Cost Containment System (AHCCCS)**

Medicaid Costs Not Otherwise Matchable

Under the authority of section 1115(a)(2) of the Social Security Act (the Act), expenditures made by the state for the items identified below (which would not otherwise be included as matchable expenditures under section 1903 of the Act) shall, for the period beginning October 1, 2016, through September 30, 2022, unless otherwise specified, be regarded as matchable expenditures under the state's Medicaid state plan.

The expenditure authorities listed below promote the objectives of title XIX by: increasing overall coverage of low-income individuals in the state, improving health outcomes for Medicaid and other low-income populations in the state, and increasing access to, stabilizing, and strengthening the availability of provider and provider networks to serve Medicaid and low-income individuals in the state.

The following expenditure authorities shall enable Arizona to implement the AHCCCS section 1115 demonstration:

I. Expenditures Related to Administrative Simplification and Delivery Systems

1. Expenditures under contracts with managed care entities that do not meet the requirements in 1903(m)(2)(A) and 1932(a) of the Act in so far as they incorporate 42 CFC 438.52(a) to the extent necessary to allow the state to operate only one managed care plan in urban areas:

a) For AHCCCS Acute Care Program (AACP) members with a serious mental illness; and

b) Outside of Maricopa County to permit the state to limit choice of managed care plans to a single MCO for individuals enrolled in ALTCS and Comprehensive Medical and Dental Program (CMDP) programs, so long as enrollees in such plans have a choice of at least two primary care providers, and may request change of primary care provider at least at the times described in 42 CFR 438.56(c). Notwithstanding this authority, the state must offer a choice of at least two MCOs to elderly and physically disabled individuals in Maricopa County.

2. Expenditures under contracts with managed care entities that do not meet the

requirements in section 1903(m)(2)(A) of the Act specified below. AHCCCS's managed care plans participating in the demonstration will have to meet all the requirements of section 1903(m) except the following:

a) Section 1903(m)(2)(A)(vi) of the Act insofar as it requires compliance with requirements in section 1932(a)(4) of the Act and 42 CFR 438.56(v)(2)(i) that enrollees be permitted an initial period after enrollment that would be longer than 30 days to disenroll without cause. Beginning October 1, 2017, the state must allow disenrollment without cause up to 90 days after enrollment into a managed care plan.

b) Section 1903(m)(2)(H) of the Act and 42 CFR 438.56(g), but only insofar as to allow the state to automatically reenroll an individual who loses Medicaid eligibility for a period of 90 days or less in the same managed care plan from which the individual was previously enrolled.

3. Expenditures under contracts with managed care entities that do not provide for payment for Indian health care providers as specified in section 1932(h) of the Act, when such services are not included within the scope of the managed care contract. Expenditures for direct payments made to IHS or Tribal 638 providers by the state, which are offset from the managed care capitation rate.

4. Expenditures for outpatient drugs which are not otherwise allowable under section 1903(i)(10) of the Act that have not undergone a drug utilization review.

5. Expenditures for direct payments to Critical Access Hospitals (CAH) for services provided to AHCCCS enrollees in the Acute Care and ALTCS managed care programs that are not consistent with the requirements of 42 CFR 438.60.

6. Expenditures for items and services provided to AHCCCS fee-for-service beneficiaries that exceed the amounts allowable under section 1902(a)(30)(A) of the Act and the upper payment limitation and actual cost requirements of (42 CFR 447.250 through 447.280 (regarding payments for inpatient hospital and long-term care facility services), 447.300 through 447.321 (regarding payment methods for other institutional and non-institutional services) and 447.512 through 447.518(b) regarding payment for drugs) so long as those expenditures are in accordance with Special Term and Condition (STC) 77 entitled "Applicability of Fee-for-Service Upper Payment Limit."

7. Expenditures for inpatient hospital services that take into account the situation of hospitals with a disproportionate share of low-income patients but are not allowable under sections 1902(a)(13)(A) and 1923 of the Act, but are in accordance with the provisions for disproportionate share hospital (DSH) payments that are described in the STCs.

8. Expenditures for medical assistance including Home and Community Based Services furnished through ALTCS for individuals over age 18 who reside in Alternative Residential Settings classified as residential Behavioral Health Facilities.

II. Expenditures Related to Expansion of Existing Eligibility Groups based on Eligibility Simplification

9. Expenditures related to:

a) Medical assistance furnished to ALTCS enrollees who are eligible only as a result of the disregard from eligibility of income currently excluded under section 1612(b) of the Act, and medical assistance that would not be allowable for some of those enrollees but for the disregard of such income from post-eligibility calculations.

b) Medical assistance furnished to ALTCS enrollees who are financially eligible with income equal to or less than 300 percent of the Federal Benefit Rate and who are eligible for ALTCS based on the functional, medical, nursing, and social needs of the individual.

c) Medical assistance furnished to some dependent children or spouses who qualify for ALTCS based on a disregard of income and resources of legally responsible relatives or spouses during the month of separation from those relatives or spouses.

d) Medical assistance furnished to individuals who are eligible as Qualified Medicare Beneficiary (QMB), Special Low Income Beneficiary (SLMB), Qualified Individuals-1(QI-1), or Supplemental Security Income Medical Assistance Only (SSI MAO) beneficiaries based only on a disregard of in-kind support and maintenance (ISM).

e) Medical assistance furnished to individuals who are eligible based only on an alternate budget calculation for ALTCS and SSI-MAO income eligibility determinations when spousal impoverishment requirements of section 1924 of the Act do not apply or when the applicant/recipient is living with a minor dependent child.

f) Medical assistance furnished to individuals who are eligible only based on the disregard of interest and dividend from resources, and are in the following eligibility groups:

i. The Pickle Amendment Group under 42 CFR 435.135;
ii. The Disabled Adult Child under section 1634(c) of the Act;
iii. Disabled Children under section 1902(a)(10)(A)(i)(II) of the Act; and
iv. The Disabled Widow/Widower group under section 1634(d) of the Act.

g) Medical assistance furnished to ALTCS enrollees under the eligibility group described in section 1902(a)(10)(A)(ii)(V) of the Act that exceeds the amount that would be allowable except for a disregard of interest and dividend from the post-eligibility calculations.

h) Medical assistance provided to individuals who would be eligible but for excess resources under the "Pickle Amendment," section 503 of Public Law 94-566; section 1634(c) of the Act (disabled adult children); or section 1634(b) of the Act (disabled widows and widowers).

i) Medical assistance that would not be allowable but for the disregard of quarterly income totaling less than $20 from the post-eligibility determination.

10. Expenditures to extend eligibility past the timeframes specific in 42 CFR §435.1003 for demonstration participants who lose SSI eligibility for a period of up to 2-months from the SSI termination effective date.

11. Expenditures to provide Medicare Part B premiums on behalf of individuals enrolled in ALTCS with income up to 300 percent of the FBR who are also eligible for Medicare, but do not qualify as a QMB, SLMB or QI; are eligible for Medicaid under a mandatory or optional Title XIX coverage group for the aged, blind, or disabled (SSI-MAO); are eligible for continued coverage under 42 CFR 435.1003; or are in the guaranteed enrollment period described in 42 CFR 435.212 and the State was paying their Part B premium before eligibility terminated.

12. Expenditures to extend ALTCS eligibility to individuals under the age of 65 who meet the applicable financial criteria but are not disabled, but who are found to be at risk of needing nursing facility services based on medical illness or intellectual disability on the preadmission screening instrument.

13. Expenditures associated with the provision of Home & Community-Based Services (HCBS) to individuals enrolled in the Arizona Long Term Care system with income levels up to 300 percent of the SSI income level, as well as individuals enrolled in the ALTCS Transitional program.

14. Expenditures for demonstration caregiver services provided by spouses of the demonstration participants.

15. Expenditures to provide certain dental services up to a cost of $1,000 per person annually to individuals age 21 or older enrolled in the Arizona Long Term Care System.

The following expenditure (which would not otherwise be included as matchable expenditures under section 1903 of the Act) shall be regarded as matchable

expenditures under the state's Medicaid state plan:

16. Subject to the availability of and the overall cap on Safety Net Care Pool (SNCP) funds, expenditures for payments to Phoenix Children's Hospital reflecting uncompensated care costs incurred by Phoenix Children's Hospital for medical services that are within the scope of the definition of "medical assistance" under 1905(a) of the Act, that are provided to Medicaid eligible or uninsured individuals and that exceed the amounts paid to the hospital pursuant to section 1923 of the Act. The state may claim federal financial participation (FFP) for these payments only if they reflect uncompensated care costs that are incurred by Phoenix Children's Hospital on or before December 31, 2017, and only in accordance with paragraph 25.

17. Expenditures for all state plan and demonstration covered services for pregnant women during their hospital presumptive eligibility period.

18. Expenditures for payments to participating IHS and tribal 638 facilities for categories of care that were previously covered under the State Medicaid plan, furnished in or by such facilities.

19. Expenditures under contracts with managed care entities that pay incentive payments to providers that meet targets specified in the contract as described in the STCs. Total incentive payments will be limited to the amounts established in paragraph 46 and payments will be limited to those providers who participate in integrated care activities established under the Targeted Investments Program.

20. Expenditures for the approved Designated State Health Programs (DSHP) specified in these STCs, not to exceed the amounts specified in paragraph 48. This expenditure authority will not be renewed or extended after September 30, 2022.

SPECIAL TERMS AND CONDITIONS
ARIZONA HEALTH CARE COST CONTAINMENT SYSTEM
(AHCCCS) MEDICAID SECTION 1115 DEMONSTRATION

NUMBER: 11-W-00275/9
21-W-00064/9

TITLE: Arizona Health Care Cost Containment System -- AHCCCS, A Statewide Approach of Cost Effective Health Care Financing

AWARDEE: Arizona Health Care Cost Containment System

I. PREFACE

The following are the Special Terms and Conditions (STCs) for the "Arizona Health Care Cost Containment System (AHCCCS)" section 1115(a) Medicaid and CHIP demonstration (hereinafter "demonstration") to enable Arizona (state) to operate this demonstration. The Centers for Medicare & Medicaid Services (CMS) has granted the state waivers of requirements under section 1902(a) of the Social Security Act (Act), and expenditure authorities authorizing federal matching of demonstration costs that are not otherwise matchable, and which are separately enumerated. These STCs set forth in detail the nature, character, and extent of federal involvement in the demonstration and the state's obligations to CMS related to this demonstration. The AHCCCS demonstration will be statewide, and is approved from October 1, 2016, through September 30, 2022, with implementation of the waiver of retroactive eligibility no sooner than April 1, 2019.

The STCs have been arranged into the following subject areas:

Attachment C	AHCCCS Disproportionate Share Hospital Program (DSH)
Attachment D	Reimbursement for Critical Access Hospitals
Attachment E	Safety Net Care Pool Claiming Protocol
Attachment F	IHS and 638 Facilities Uncompensated Care Payment Methodology
Attachment G	Targeted Investments Program DSHP Claiming Protocol
Attachment H	Monitoring Protocol
Attachment I	Approved Appendix K
Attachment J	Approved Evaluation Design

II. PROGRAM OVERVIEW AND HISTORICAL CONTEXT

Until 1982, Arizona was the only state that did not have a Medicaid program under title XIX of the Social Security Act. In October 1982, Arizona implemented the AHCCCS in the state's first section 1115 demonstration project. AHCCCS initially covered only acute care services, however, by 1989, the program was expanded to include the Arizona Long Term Care System (ALTCS), the state's capitated long term care program for the elderly and physically disabled (EPD) and the developmentally disabled (DD) populations. In 2000, the state also expanded coverage to adults without dependent children with family income up to and including 100 percent of the federal poverty level (FPL) as well as established the Medical Expense Deduction (MED) program for adults with income in excess of 100 percent of the FPL who have qualifying healthcare costs that reduce their income at or below 40 percent of the FPL. On March 31, 2011, Arizona requested to eliminate the MED program and implement an enrollment freeze on the adults without dependent children population. On April 30, 2011, and July 1, 2011, CMS approved the state's required phase-out plans for the MED program and the adults without dependent children population, respectively. Arizona amended its State Plan, effective January 1, 2014, to provide coverage under section 1902(a)(10)(A)(i)(VIII) for certain persons with income not exceeding 133 percent of the FPL.

The demonstration provides health care services through a prepaid, capitated managed care delivery model that operates statewide for both Medicaid state plan groups as well as demonstration expansion groups. It affects coverage for certain specified mandatory state plan eligibles by requiring enrollment in coordinated, cost effective, health care delivery systems. In this way, the demonstration will test the use of managed care entities to provide cost effective care coordination, including the effect of integrating behavioral and physical health services for most AHCCCS members. In addition, the demonstration will provide for payments to IHS and tribal 638 facilities to address the fiscal burden for certain services not covered under the state plan and provided in or by such facilities. This authority will enable the state to evaluate how this approach impacts the financial viability of IHS and 638 facilities and ensures the continued availability of a robust health care delivery network for current and future Medicaid beneficiaries. As part of the extension of the demonstration in 2016, based on CMS clarifying its policy for claiming 100 percent federal matching for services received through IHS and 638 facilities, the state can transition from the current uncompensated care reimbursement methodology to service-based claiming.

On January 18, 2017, an amendment was approved which established the "Targeted Investments Program." The state directs its managed care plans to make specific payments to certain providers pursuant to 42 CFR 438.6(c), with such payments incorporated into the actuarially sound capitation rates, to incentivize providers to improve performance. Specifically, providers are paid incentive payments for increasing physical and behavioral health care integration and coordination for individuals with behavioral health needs.

The Targeted Investments Program is expected to:

- Reduce fragmentation that occurs between acute care and behavioral health care,
- Increase efficiencies in service delivery for members with behavioral health needs, and
- Improve health outcomes for the affected populations.

On January 18, 2019, CMS approved two amendments for AHCCCS. Under the first amendment, beginning no sooner than April 1, 2019, Arizona will not provide retroactive eligibility for beneficiaries enrolled in AHCCCS (with exceptions for pregnant women, women who are 60 days or less postpartum, infants under age 1, and children under age 19).

On September 30, 2021, CMS approved a temporary extension through September 30, 2022. This temporary extension included a temporary, one-year extension of the Targeted Investments program. The AHCCCS Choice Accountability Responsibility Engagement (CARE) program was not extended in the temporary extension, and the authority for that program has been removed from the STCs.

III. GENERAL PROGRAM REQUIREMENTS

1. **Compliance with Federal Non-Discrimination Laws.** The state must comply with applicable federal civil rights laws relating to non-discrimination in services and benefits in its programs and activities. These include, but are not limited to, the Americans with Disabilities Act of 1990 (ADA), Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973 (Section 504), the Age Discrimination Act of 1975, and Section 1557 of the Affordable Care Act (Section 1557).

2. **Compliance with Medicaid and Children's Health Insurance Program (CHIP) Law, Regulation, and Policy.** All requirements of the Medicaid and CHIP programs, expressed in federal law, regulation, and written policy, not expressly waived or identified as not applicable in the waiver and expenditure authority documents (of which these terms and conditions are part), apply to the demonstration.

3. **Changes in Medicaid and CHIP Law, Regulation, and Policy.** The state must, within the timeframes specified in federal law, regulation, or written policy, come into compliance with any changes in federal law, regulation, or written policy affecting the

Medicaid and/or CHIP programs that occur during this demonstration approval period, unless the provision being changed is expressly waived or identified as not applicable. In addition, CMS reserves the right to amend the STCs to reflect such changes and/or changes of an operational nature without requiring the state to submit an amendment to the demonstration under STC 7. CMS will notify the state 30 calendar days in advance of the expected approval date of the amended STCs to allow the state to provide comment.

4. **Impact on Demonstration of Changes in Federal Law, Regulation, and Policy.**

    a) To the extent that a change in federal law, regulation, or written policy requires either a reduction or an increase in federal financial participation (FFP) for expenditures made under this demonstration, the state must adopt, subject to CMS approval, a modified budget neutrality agreement for the demonstration, as well as a modified CHIP allotment neutrality worksheet if applicable, to comply with such change. Further, the state may seek an amendment to the demonstration (as per STC 7 of this section) as a result of the change in FFP. The trend rates for the budget neutrality agreement are not subject to change under this subparagraph.

    b) If mandated changes in the federal law require state legislation, unless otherwise prescribed by the terms of the federal law, the changes must take effect on the day such state legislation becomes effective, or on the last day such legislation was required to be in effect under federal law, whichever is sooner.

5. **State Plan Amendments.** The state will not be required to submit title XIX or title XXI state plan amendments (SPAs) for changes affecting any populations made eligible solely through the demonstration. If a population eligible through the Medicaid or CHIP state plan is affected by a change to the demonstration, a conforming amendment to the appropriate state plan may be required, except as otherwise noted in these STCs. In all such instances, the Medicaid and CHIP state plans govern.

6. **Changes Subject to the Amendment Process.** If not otherwise specified in these STCs, changes related to eligibility, enrollment, benefits, beneficiary rights, delivery systems, cost sharing, sources of non-federal share of funding, budget neutrality, and other comparable program elements must be submitted to CMS as amendments to the demonstration. All amendment requests are subject to approval at the discretion of the Secretary in accordance with section 1115 of the Act. The state must not implement changes to these elements without prior approval by CMS either through an approved amendment to the Medicaid or CHIP state plan or amendment to the demonstration. Amendments to the demonstration are not retroactive and no FFP of any kind, including for administrative or medical assistance expenditures, will be available under changes to the demonstration that have not been approved through the

amendment process set forth in STC 7, except as provided in STC 3.

7. **Amendment Process.** Requests to amend the demonstration must be submitted to CMS for approval no later than 120 calendar days prior to the planned date of implementation of the change and may not be implemented until approved. CMS reserves the right to deny or delay approval of a demonstration amendment based on non-compliance with these STCs, including but not limited to failure by the state to submit required elements of a complete amendment request as described in this STC, and failure by the state to submit reports required in the approved STCs and other deliverables in a timely fashion according to the deadlines specified herein. Amendment requests must include, but are not limited to, the following:

    a) A detailed description of the amendment including impact on beneficiaries, with sufficient supporting documentation;

    b) A data analysis worksheet which identifies the specific "with waiver" impact of the proposed amendment on the current budget neutrality agreement. Such analysis shall include total computable "with waiver" and "without waiver" status on both a summary and detailed level through the current approval period using the most recent actual expenditures, as well as summary and detail projections of the change in the "with waiver" expenditure total as a result of the proposed amendment, which isolates (by Eligibility Group) the impact of the amendment;

    c) An up-to-date CHIP allotment neutrality worksheet, if necessary;

    d) An explanation of the public process used by the state consistent with the requirements of STC 13; and,

    e) If applicable, a description of how the evaluation design will be modified to incorporate the amendment provisions.

8. **Extension of the Demonstration.** States that intend to request a demonstration extension under sections 1115(e) or 1115(f) of the Act must submit extension applications in accordance with the timelines contained in statute. Otherwise, no later than twelve months prior to the expiration date of the demonstration, the Governor or Chief Executive Officer of the state must submit to CMS either a demonstration extension request that meets federal requirements at 42 CFR 431.412(c) or a transition and phase-out plan consistent with the requirements of STC 9.

9. **Demonstration Phase-Out.** The state may only suspend or terminate this demonstration in whole, or in part, consistent with the following requirements:

    a) Notification of Suspension or Termination. The state must promptly notify CMS in writing of the reason(s) for the suspension or termination, together

with the effective date and a transition and phase-out plan. The state must submit a notification letter and a draft transition and phase-out plan to CMS no less than six months before the effective date of the demonstration's suspension or termination. Prior to submitting the draft transition and phase-out plan to CMS, the state must publish on its website the draft transition and phase-out plan for a 30-day public comment period. In addition, the state must conduct tribal consultation in accordance with STC 13, if applicable. Once the 30-day public comment period has ended, the state must provide a summary of the issues raised by the public during the comment period and how the state considered the comments received when developing the revised transition and phase-out plan.

b) Transition and Phase-out Plan Requirements. The state must include, at a minimum, in its transition and phase-out plan the process by which it will notify affected beneficiaries, the content of said notices (including information on the beneficiary's appeal rights), the process by which the state will conduct administrative reviews of Medicaid or CHIP eligibility prior to the termination of the demonstration for the affected beneficiaries, and ensure ongoing coverage for eligible beneficiaries, as well as any community outreach activities the state will undertake to notify affected beneficiaries, including community resources that are available.

c) Transition and Phase-out Plan Approval. The state must obtain CMS approval of the transition and phase-out plan prior to the implementation of transition and phase-out activities. Implementation of transition and phase-out activities must begin no sooner than 14 calendar days after CMS approval of the transition and phase-out plan.

d) Transition and Phase-out Procedures. The state must comply with all applicable notice requirements found in 42 CFR, part 431 subpart E, including sections 431.206, 431.210, 431.211, and 431.213. In addition, the state must assure all applicable appeal and hearing rights are afforded to beneficiaries in the demonstration as outlined in 42 CFR, part 431 subpart E, including sections 431.220 and 431.221. If a beneficiary in the demonstration requests a hearing before the date of action, the state must maintain benefits as required in 42 CFR 431.230. In addition, the state must conduct administrative renewals for all affected beneficiaries in order to determine if they qualify for Medicaid or CHIP eligibility under a different eligibility category prior to termination as discussed in October 1, 2010, State Health Official Letter #10-008 and as required under 42 C.F.R. 435.916(f)(1). For individuals determined ineligible for Medicaid, the state must determine potential eligibility for other insurance affordability programs and comply with the procedures set forth in 42 CFR 435.1200(e).

e) Exemption from Public Notice Procedures, 42 CFR Section 431.416(g).

CMS may expedite the federal and state public notice requirements under circumstances described in 42 CFR 431.416(g).

f) Enrollment Limitation during Demonstration Phase-Out. If the state elects to suspend, terminate, or not extend this demonstration, during the last six months of the demonstration, enrollment of new individuals into the demonstration must be suspended. The limitation of enrollment into the demonstration does not impact the state's obligation to determine Medicaid eligibility in accordance with the approved Medicaid state plan.

g) Federal Financial Participation (FFP). FFP will be limited to normal closeout costs associated with the termination or expiration of the demonstration including services, continued benefits as a result of beneficiaries' appeals, and administrative costs of disenrolling beneficiaries.

10. Expiring Demonstration Authority. For demonstration authority that expires prior to the demonstration's expiration date, the state must submit a demonstration authority expiration plan to CMS no later than six months prior to the applicable demonstration authority's expiration date, consistent with the following requirements:

a) Expiration Requirements. The state must include, at a minimum, in its demonstration authority expiration plan the process by which it will notify affected beneficiaries, the content of said notices (including information on the beneficiary's appeal rights), the process by which the state will conduct administrative reviews of Medicaid or CHIP eligibility prior to the termination of the demonstration authority for the affected beneficiaries, and ensure ongoing coverage for eligible beneficiaries, as well as any community outreach activities.

b) Expiration Procedures. The state must comply with all applicable notice requirements found in 42 CFR, part 431 subpart E, including sections 431.206, 431.210, 431.211, and 431.213. In addition, the state must assure all applicable appeal and hearing rights are afforded to beneficiaries in the demonstration as outlined in 42 CFR, part 431 subpart E, including sections 431.220 and 431.221. If a beneficiary in the demonstration requests a hearing before the date of action, the state must maintain benefits as required in 42 CFR 431.230. In addition, the state must conduct administrative renewals for all affected beneficiaries in order to determine if they qualify for Medicaid or CHIP eligibility under a different eligibility category prior to termination as discussed in October 1, 2010, State Health Official Letter #10-008 and as required under 42 CFR 435.916(f)(1). For individuals determined ineligible for Medicaid, the state must determine potential eligibility for other insurance affordability programs and comply with the procedures set forth in 42 CFR 435.1200(e).

c) Federal Public Notice. CMS will conduct a 30-day federal public comment period consistent with the process outlined in 42 CFR 431.416 in order to solicit public input on the state's demonstration authority expiration plan. CMS will consider comments received during the 30-day period during its review of the state's demonstration authority expiration plan. The state must obtain CMS approval of the demonstration authority expiration plan prior to the implementation of the expiration activities. Implementation of expiration activities must begin no sooner than fourteen (14) calendar days after CMS approval of the demonstration authority expiration plan.

d) Federal Financial Participation (FFP). FFP will be limited to normal closeout costs associated with the expiration of the demonstration authority including services, continued benefits as a result of beneficiaries' appeals, and administrative costs of disenrolling beneficiaries.

11. **Withdrawal of Waiver or Expenditure Authority.** CMS reserves the right to withdraw waivers and/or expenditure authorities at any time it determines that continuing the waivers or expenditure authorities would no longer be in the public interest or promote the objectives of title XIX or title XXI. CMS must promptly notify the state in writing of the determination and the reasons for the withdrawal, together with the effective date, and afford the state an opportunity to request a hearing to challenge CMS' determination prior to the effective date. If a waiver or expenditure authority is withdrawn, FFP is limited to normal closeout costs associated with terminating the waiver or expenditure authority, including services, continued benefits as a result of beneficiary appeals, and administrative costs of disenrolling beneficiaries.

12. **Adequacy of Infrastructure.** The state must ensure the availability of adequate resources for implementation and monitoring of the demonstration, including education, outreach, and enrollment; maintaining eligibility systems; compliance with cost sharing requirements; and reporting on financial and other demonstration components.

13. **Public Notice, Tribal Consultation, and Consultation with Interested Parties.** The state must comply with the state notice procedures as required in 42 CFR 431.408 prior to submitting an application to extend the demonstration. For applications to amend the demonstration, the state must comply with the state notice procedures set forth in 59 Fed. Reg. 49249 (September 27, 1994) prior to submitting such request.

    The state must also comply with tribal and Indian Health Program/Urban Indian Health Organization consultation requirements at section 1902(a)(73) of the Act, 42 CFR 431.408(b), State Medicaid Director Letter #01-024, or as contained in the state's approved Medicaid State Plan, when any program changes to the demonstration, either through amendment as set out in STC 7 or extension, are proposed by the state.

The state must also comply with the Public Notice Procedures set forth in 42 CFR 447.205 for changes in statewide methods and standards for setting payment rates.

14. **Federal Financial Participation (FFP).** No federal matching for state expenditures under this demonstration, including for administrative and medical assistance expenditures, will be available until the effective date identified in the demonstration approval letter, or if later, as expressly stated within these STCs.

15. **Common Rule Exemption**. The state shall ensure that the only involvement of human subjects in research activities that may be authorized and/or required by this demonstration is for projects which are conducted by or subject to the approval of CMS, and that are designed to study, evaluate, or otherwise examine the Medicaid or CHIP program – including procedures for obtaining Medicaid or CHIP benefits or services, possible changes in or alternatives to Medicaid or CHIP programs and procedures, or possible changes in methods or levels of payment for Medicaid benefits or services. The Secretary has determined that this demonstration as represented in these approved STCs meets the requirements for exemption from the human subject research provisions of the Common Rule set forth in 45 CFR 46.101(b)(5).

IV. ELIGIBILITY

16. **Eligibility.** The demonstration affects all of the mandatory Medicaid eligibility groups set forth in Arizona's approved state plan and optional groups set forth in the state plan made eligible under this demonstration. Mandatory and optional state plan groups described below are subject to all applicable Medicaid laws and regulations except as expressly waived. Any Medicaid state plan amendments to the eligibility standards and methodologies for these eligibility groups, including the conversion to a modified adjusted gross income (MAGI) standard January 1, 2014, apply to this demonstration. Expansion populations are defined as those groups made eligible by virtue of the expenditure authorities expressly granted in this demonstration and are subject to Medicaid and CHIP laws or regulations except as specified in the STCs and waiver and expenditure authorities for this demonstration. These cited documents generally provide that all requirements of Medicaid and CHIP laws and regulations do apply, except to the extent waived or specified as not applicable. The criteria for Arizona eligibility groups are as follows (Table 1):

Table 1 – State Plan and Expansion Populations Affected by the Demonstration

Description	Program	Social Security Act Cite	42 CFR Cite
STATE PLAN MANDATORY TITLE XIX COVERAGE GROUPS **Families and Children**			

1931 (Title IVA program that was **i**n place in July 1996) including: • pregnant women with no other eligible children (coverage for third trimester) • persons 18 years of age, if a full-time student • family with unemployed parent	AACP	1902(a)(10)(A)(i)(I)	435.110
Twelve months continued coverage (transitional medical assistance) 1931 ineligible due to increase in income from employment or work hours or loss of "income disregard."	AACP	1902(a)(52) 1902(e)(l) 1925(a)(b)(c)	435.112
1931 Extension-Extension of MA when child or spousal support collection results in 1931 ineligibility. (4 months continued coverage)	AACP	408(a)(11)(B) 1902 (a) (10) (A) (i) (I) 1931 (c)	435.115
STATE PLAN MANDATORY TITLE XIX COVERAGE GROUPS Pregnant Women, Children, and Newborns			
Qualified pregnant women who: • would be AFDC eligible if child were born and • meet AFDC income & resource criteria	AACP	1902(a)(10)(A)(i)III 1905(n)	435.116

"S.O.B.R.A. WOMEN & INFANTS" Pregnant women & infants under age 1 with incomes less than or equal to 133% FPL. (optional group extends coverage up to 140% FPL for infants under age 1)	AACP ALTCS	1902(a)(10)(A)(i)(IV) 1902(l)(1)(A)	
"S.O.B.R.A. CHILDREN" Children age 1+ but not yet 6 with incomes at or below 133% FPL.	AACP ALTCS	1902(a)(10)(A)(i)(VI) 1902(l)(1)(C)	
"S.O.B.R.A. CHILDREN" Children age 6+ but not yet 19, born after 9-30-83, with income less than or equal to 133% FPL.	AACP ALTCS	1902(a)(10)(A)(i)(VII) 1902(l)(1)(D)	
"DEEMED CATEGORICAL NEWBORNS" Children born to a woman who was eligible and received Medicaid on the date of the child's birth. Children living with their mothers are eligible for 1 year as long as mothers are eligible or would be eligible if pregnant.*	AACP	1902(e)(4)	435.117
STATE PLAN MANDATORY TITLE XIX COVERAGE GROUPS Qualified Family Members			
Qualified members of family with unemployed principal wage earner (persons who would be eligible if state did not limit number of months AFDC-UP cash was available).	AACP	1902(a)(10)(A)(i) 1905(m)(l)	435.119
STATE PLAN MANDATORY TITLE XIX COVERAGE GROUPS Aged, Blind, and Disabled			
All SSI cash recipients: aged, blind or disabled persons	AACP ALTCS	1902(a)(10)(A)(i)(II)	435.120
Qualified severely impaired working blind or disabled persons < 65 who were: a) receiving Title XIX, SSI or state supplement under 1619(a); or b) eligible for Medicaid under 1619(b) in 6/87	AACP	1902(a)(10)(A)(i)(II) 1905(q)	435.120

"DAC" Disabled adult child (age 18+) who lost SSI by becoming Old Age, Survivor and Disability Insurance (OASDI) eligible (i.e., due to blindness or disability that began before age 22) or due to increase in amount of child's benefits.	AACP	1634(c)	
SSI cash or state supplement ineligible for reasons prohibited by Title XIX.	AACP ALTCS		435.122
SSA Beneficiaries who lost SSI or state supplement cash benefits due to cost of living adjustment (COLA) increase in Title II benefits	AACP		435.135
Disabled widow/widower who lost SSI or state supplement due to 1984 increase in OASDI caused by elimination of reduction factor in PL 98-21. (person must apply for this by 7/88)	AACP	1634(b)	435.137
Disabled widow/widower (age 60-64 and ineligible for Medicare Part A) who lost SSI or state supplement due to early receipt of Social Security benefits.	AACP	1634(d)	435.138
"DC Children" Children under the age of 18 who were receiving SSI Cash on 8/26/96 and would continue to be eligible for SSI Cash if their disability met the childhood definition of disability that was in effect prior to 8/26/96.	AACP	1902(a)(10)(A)(i)(II)	
STATE PLAN MANDATORY TITLE XIX COVERAGE GROUPS Adoption Assistance and Foster Care Children			
Children in adoption subsidy/foster care Title IV-E programs	AACP ALTCS	473(b)(l) 1902(a)(10)(A)(i)(I)	435.145
STATE PLAN MANDATORY TITLE XIX COVERAGE GROUPS Special Groups			
"POSTPARTUM" Title XIX eligible women who apply on or before pregnancy ends, (continuous coverage through the month in which the 60th day postpartum period ends)	AACP	1902(e)(5) 1902(e)(6)	435.170
STATE PLAN MANDATORY TITLE XIX COVERAGE GROUPS New Adult Group			
Individuals age 19 through 64 with incomes at or below 133% FPL	AACP	1902(a)(10)(A)(i)(VIII)	435.119
STATE PLAN OPTIONAL TITLE XIX COVERAGE GROUPS			
"210 GROUP" Persons who meet AFDC, SSI or state supplement income & resource criteria.	AACP ALTCS Case Management	1902(a)(10)(A)(ii)(I)	435.210
"211 GROUP" Persons who would be eligible for cash assistance except for their institutional status.	ALTCS	1902(a)(10)(A)(ii)(IV)	435.211
"GUARANTEED ENROLLMENT" Continuous coverage for persons enrolled in AHCCCS Health Plans who lose categorical eligibility prior to 6 months from enrollment. (5 full months plus month of enrollment)	AACP	1902(e)(2)	435.212
"S.O.B.R.A. Infants" infants with incomes between the 133% FPL mandatory group maximum and a 140% FPL optional state maximum.	AACP ALTCS	1902(a)(10)(A)(ii)(IX)	

Pregnant women, including postpartum, who maintain eligibility without regard to changes in income.	AACP	1902(e)(6)	
"HCBS GROUP" Persons receiving HCBS under a waiver with incomes < or equal to 300% of the federal benefit rate (FBR).	ALTCS	1902(a)(10)(A)(ii)(VI)	435.217
"State Adoption Subsidy" Children who receive a state adoption subsidy payment.	AACP	1902(a)(10)(ii)(VIII)	435.227
"236 GROUP" Persons in medical institutions for 30 consecutive days who meet state-set income level of < or equal to 300% of FBR.	ALTCS	1902(a)(10)(A)(ii)(V)	435.236
"Freedom to Work" Basic Coverage Group – individuals aged 16-64 with a disability who would be eligible, except for earnings, for SSI up to and including 250% of FPL.	AACP ALTCS	1902(a)(10)(A)(ii)(XV)	
"Freedom to Work" Medical Improvement Group – employed individuals aged 16-64 with a medically improved disability up to and including 250% of FPL.	AACP ALTCS	1902(a)(10)(A)(ii)(XVI)	
Women under 65 who need treatment for breast or cervical cancer, and not otherwise eligible for Medicaid.	AACP	1902(a)(10)(A)(ii)(XVIII)	
Children who have aged out of foster care at 18 up to age 26	AACP	1902(a)(10)(A)(ii)(XVII)	
1931 Expansion-Income Greater than 36% FPL and less than or equal to 100% FPL.	AACP		
SSI-MAO Expansion (Optional 210 Group)- aged, blind, or disabled individuals with income greater than 100% FBR and less than or equal to 100% FPL.	AACP	Arizona State Plan	

*Arizona's 1115 demonstration provides the authority to waive some of the provisions.

17. **Waiver of Retroactive Eligibility**. The state will not provide medical assistance for any month prior to the month in which a beneficiary's Medicaid application is filed, except for a pregnant woman (including during the 60-day period beginning on the last day of the pregnancy), an infant under age 1, or a child under age 19. The waiver of retroactive eligibility applies to all populations described in STC 16 who are not pregnant (including during the 60-day period beginning on the last day of the pregnancy), an infant under age 1, or a child under age 19, effective no sooner than April 1, 2019.

    a) The state assures that, through various methods, it will provide outreach and education regarding how to apply for and receive Medicaid coverage to the public and to Medicaid providers, particularly those who serve vulnerable populations that may be impacted by the retroactive eligibility waiver.

V. DEMONSTRATION PROGRAMS

18. **Arizona Acute Care Program (AACP)**. Most AACP enrollees receive integrated physical and behavioral health care services through a single Managed Care Organization (MCO) called an AHCCCS Complete Care (ACC) Plan. AACP

members determined to have a Serious Mental Illness (SMI) receive integrated physical and behavioral health services through a geographically designated Regional Behavioral Health Authority (RBHA).

a) Enrollment**.** The Arizona DES processes applications and determines acute care Medicaid eligibility for children, pregnant women, families and non-disabled adults under the age of 65 years. The Social Security Administration (SSA) determines eligibility for the Supplemental Security Income (SSI) cash-related groups, and AHCCCS determines eligibility for the SSI- related aged and disabled groups, Medicare Savings Programs, women diagnosed with breast or cervical cancer, and Freedom to Work recipients. Individuals determined eligible must then select and enroll in a Health Plan, or they will be auto-assigned by the AHCCCS administration.

b) Benefits. With the exception of the new adult group, benefits for AACP and the expansion population authorized by the 1115 demonstration will consist of all acute care benefits covered under the Medicaid state plan, unless otherwise noted within these STCs. The new adult group will receive benefits for AACP through the state's approved alternative benefit plan (ABP) state plan amendment (SPA).

   i. Notice. The state must include the CMS Central Office when submitting a SPA to the CMS Regional Office that would impact the expansion population authorized by the 1115 demonstration inclusive of:

      a. The proposed date of implementation;

      b. The date the state plans to submit the SPA; and

      c. Revised budget neutrality projections.

   ii. Demonstration Amendment. CMS reserves the right to require the state to submit an amendment if it is determined that it is warranted.

   iii. Behavioral health services are outlined in Table 2 and subject to limitations set forth in the existing state plan.

Table 2 – AACP Behavioral Management

Benefit	Title XIX		Title XXI
Age	< 21 yrs	> 21 yrs	< 19 yrs
Behavioral Management	X	X	X
Case Management	X	X	X
Emergency Behavioral Health Care	X	X	X
Evaluation	X	X	X

Therapeutic Residential Support (in home, excluding room and board)	X	X	X
Inpatient Services			
Inpatient Hospital	X	X	X
Inpatient Psychiatric Facilities	X	X	X
Lab & X – Ray	X	X	X
Medications (Psychotropic)	X	X	X
Medication Adjustment & Monitoring	X	X	X
Methadone / IAAM	X	X	X
Partial Care	X	X	X
Professional Services			
Individual	X	X	X
Group & Family	X	X	X
Psychosocial Rehabilitation	X	X	X
Respite (with limits)	X	X	X
Screening	X	X	X
Transportation – Emergency	X	X	X
Transportation – Non Emergency	X	X	X

c) AACP Cost Sharing. Cost sharing shall be imposed as specified in the Medicaid state plan for all populations.

19. **Children in Foster Care**. Services for Arizona's children in foster care are provided through an MCO contract between AHCCCS and the Arizona Department of Child Safety (DCS) called the Comprehensive Medical and Dental Program (CMDP). Children in foster care who receive acute care services will be enrolled in CMDP instead of other Health Plans. Children in foster care who are eligible for or receive ALTCS will be enrolled or remain with the Program Contractor. Case Management services provided and reimbursed through this contractual relationship must be provided consistent with federal policy, regulations and law. Children in foster care receive behavioral health services through RBHAs.

    a) FFP. FFP will not be available for:
        i. Duplicate payments made to public agencies or private entities under other program authorities for case management services or other Medicaid services for the same purpose; or

        ii. Activities integral to the administration of the foster care program excluding any health care related activities.

20. **Children Rehabilitative Services (CRS)**. Children with qualifying conditions receive CRS specialty care. Most individuals receive care for their CRS conditions as well as behavioral health care and physical health care through an ACC plan. Children enrolled in ALTCS/DCS/DDD who also have a CRS condition receive care for their CRS and behavioral health conditions through the CRS contractor and treatment for physical health conditions through an ALTCS/DES/DDD subcontractor. Children with a CRS condition who are enrolled in CMDP receive treatment for their CRS and physical health care conditions through CMDP and treatment for behavioral health

care conditions through a RBHA..

a) Transition of Care. When individuals transition to the CRS contractor from an AACP health plan, children in active treatment (including but not limited to chemotherapy, pregnancy, drug regime or a scheduled procedure) with a CRS non-participating provider shall be allowed to continue receiving treatment from the non-participating provider through the duration of their prescribed treatment.

b) Choice of Primary Care Physician (PCP). The CRS contractor is required to assure that members have a choice of PCPs. Specifically, beneficiaries will have a choice of at least two primary care providers, and may request change of primary care provider at least at the times described in 42 CFR 438.56(c). In addition, the CRS contractor will offer contracts to primary and specialist physicians who have established relationships with beneficiaries including specialists who may also serve as PCPs to encourage continuity of provider. For children who have an established relationship with a PCP that does not participate in the CRS contractor's provider network, the CRS contractor will provide, at a minimum, a 90-day transition period in which the child may continue to seek care from their established PCP while the child and child's parents and/or guardian, the CRS contractor, and/or case manager finds an alternative PCP within the CRS contractor's provider network.

c) Readiness Review of Health Plan. The state will submit to CMS for review a copy of its readiness review report of the health plan selected to provide the integrated services to the CRS population to ensure the selected health plan's provider network, both in terms of primary and specialty care providers, is adequate and would not result in access to care issues for the affected population.

21. **Individuals with Serious Mental Illness (SMI).** Individuals who are AACP members and who are diagnosed with a serious mental illness will receive integrated physical and behavioral health care services through a separate MCO called a RBHA.

a) Transition Period. When individuals transition to the RBHA for their physical health from a Health Plan, members in active treatment (including but not limited to chemotherapy, pregnancy, drug regime or a scheduled procedure) with a non-participating/non-contracted provider shall be allowed to continue receiving treatment from the non-participating/non-contracted provider through the duration of their prescribed treatment.

b) Choice of Primary Care Physician (PCP). The RBHA is required to assure that members have a choice of PCPs. Specifically, beneficiaries will have a choice of at least two primary care providers, and may request change of primary care provider at least at the times described in 42 CFR 438.56(c). In addition,

the RBHA, will offer contracts to primary and specialist physicians who have established relationships with beneficiaries including specialists who may also serve as PCPs to encourage continuity of provider. For individuals who have an established relationship with a PCP that does not participate in the /RBHA's provider network, the RBHA will provide, at a minimum, a 6-month transition period in which the individual may continue to seek care from their established PCP while the individual, the RBHA and/or case manager finds an alternative PCP within the /RBHA's provider network.

c) Opt out for Cause. Individuals with SMI will have the option to opt-out of the RBHA for acute care services and be transferred to a Health Plan plan under the following conditions only:
    i. Either the beneficiary, beneficiary's guardian, or beneficiary's physician successfully dispute the beneficiary's diagnosis as SMI;

    ii. Network limitations and restrictions, e.g. if a beneficiary's preferred provider is not contracted with a RHBA or there is only one provider in a service area and the provider is not contracted with a RBHA;

    iii. Physician or provider course of care recommendation and subsequent review by the RBHA and the state;

    iv. The member established that due to the enrollment and affiliation with the RBHA as a person with a SMI, and in contrast to persons enrolled with an acute care provider, there is demonstrable evidence to establish actual harm or the potential for discriminatory or disparate treatment in:

        a. The access to, continuity or availability of acute care covered services;

        b. Exercising client choice;

        c. Privacy rights;

        d. Quality of services provided; or

        e. Client rights under Arizona Administrative Code, Title 9, Chapter 21.

d) Under paragraph 21 subparagraph (c)(iv), a beneficiary must either demonstrate that the discriminatory or disparate treatment has already occurred, or establish the plausible potential of such treatment. It is insufficient for a member to establish actual harm or the potential for

discriminatory or disparate treatment solely on the basis that they are enrolled in the RBHA.

e) A transfer requested under paragraph 21 subparagraph (c)(iv) will be clearly documented in the enrollee handbook and any other relevant enrollee notices, and will be processed as follows:

i) The RBHA will take the following actions:

a. Responsibility for reducing to writing the member's assertions of the actual or perceived disparate treatment of individuals as a result of their enrollment in the integrated plan.

b. Responsibility for completing AHCCCS transfer of a RBHA member to an approved Acute Care Contractor Form.

c. Confirmation and documentation that the member is enrolled in SMI RBHA program.

d. Providing documentation of efforts to investigate and resolve member's concern.

e. Inclusion of any evidence provided by the member of actual or reasonable likelihood of discriminatory or disparate treatment.

f. Making a recommendation to approve or decision to deny the request:

1) For making recommendations to approve, forward completed packet to AHCCCS for a determination decision within 7 days of request.

2) For decision to deny, complete packet and provide member with a written denial notice within 10 calendar days of request that includes the reasons for the denial and appeal/hearing rights.

ii) AHCCCS will take the following actions:

a. For recommendations made by the RBHA to approve, review the completed request packets and make a final decision to approve or deny the request.

b. For denials, provide member written notice of the denial within 10 calendar days of the request that includes the reasons for the denial and appeal/hearing rights.

c. If a hearing is requested, the request for hearing will be forwarded to the AHCCCS Administration which will then schedule the matter for hearing with OAH;

d. The AHCCCS Administration will issue a Director's Decision within 30 calendar days of receipt of the ALJ Decision.

f) The state will track the Opt-out for Cause requests detailed in paragraph 21, subparagraph (c) including the number of each type of request; the county of each request; and the final result of the request. This information shall be provided to CMS in the quarterly reports.

g) **Care Coordination for Integrated SMI Program.** The State shall submit to CMS their procedures for ensuring that the integrated RBHAs have sufficient resources and training available to provide the full range of care coordination for individuals with disabilities, multiple and chronic conditions, and individuals who are aging. Care coordination capacity should reflect demonstrated knowledge and capacity to address the unique needs (medical, support and communication) of individuals in the SMI population. The needs may be identified through a risk assessment process. Care shall be coordinated across all settings including services outside the provider network.

22. Arizona Long Term Care System (ALTCS). The ALTCS program is for individuals who are age 65 and over, blind, disabled, or who need ongoing services at a nursing facility or ICF/IDD level of care. ALTCS enrollees do not have to reside in a nursing home and may live in their own homes or an alternative residential setting and receive needed in-home services. The ALTCS package also includes all medical care covered under AACP inclusive of doctor's office visits, hospitalization, prescriptions, lab work, behavioral health services, and rehabilitative services. Rehabilitative services may only be eligible for FFP if these services reduce disability or restore the program enrollee to the best possible level of functionality. Additionally, ALTCS participants age 21 or older receive dental services up to $1,000 per person annually for therapeutic and preventative care, including but not limited to: basic diagnostic services, preventative services, restorative services, periodontics, prosthetic services and oral surgery.

a) **ALTCS Eligibility Groups**. Individuals as defined in Table 1 requiring health care services at a nursing facility or ICF/IID level of care.

b) **ALTCS Financial Eligibility**. Individuals must be financially eligible for ALTCS with income equal to or less than 300 percent of the Federal Benefit Rate (FBR), as used by SSA to determine eligibility for SSI.
   i. The state may disregard income in excess of the FBR for persons with AHCCCS approved income-only trusts.
   ii. The resource (cash, bank accounts, stocks, bonds, etc.) limit is $2,000 for a single individual. Resources, such as a person's home, vehicle, and irrevocable burial plan are not counted toward the resource limit.
   iii. When the applicant has a spouse who resides in the community, the spouse can retain one-half of the couple's resources, up to the federal maximum as specified in section 1924(f)(2) of the Act. Resources, such as a person's home, vehicle, and irrevocable burial plan are not counted toward the resource limit.
   iv. The total gross income for a married couple is combined and divided by 2. The resulting income may not exceed 300 percent of the single FBR. If the resulting income exceeds 300 percent of the single FBR, the income of the applicant only (name on check) is compared to 300 percent of the single FBR.

c) **Pre-Admission Screening (PAS).** Once financial eligibility has been established, a PAS will be conducted by a registered nurse or social worker to determine if the individual is at immediate risk of institutionalization in either a nursing facility or an ICF/IID. The PAS must be used to determine if the applicant is eligible for ALTCS based on functional, medical, nursing, and social needs of the individual.

d) **Written Plan of Care**. An individual written plan of care will be developed by qualified providers for ALTCS enrollees under this demonstration. This plan of care will describe the medical and other services to be furnished, their frequency, and the type of provider who will furnish each. All services will be furnished pursuant to a written plan of care. The plan of care will be subject to the review of AHCCCS.

e) **FFP.** FFP will not be claimed for demonstration services furnished prior to the development of the plan of care. FFP will not be claimed for demonstration services which are not included in the individual written plan of care.

f) **ALTCS Safeguards.** AHCCCS will take the following necessary safeguards to protect the health and welfare of persons receiving HCBS services under the ALTCS program. Those safeguards include:
   i. Adequate standards for all types of providers that furnish services under the ALTCS program;
   ii. Assurance that the standards of any state licensure or certification requirements are met for services or for individuals furnishing services that are provided under the ALTCS program. The state assures that these requirements will be met on the date that the services are

furnished; and

iii. Assurance that all facilities covered by section 1616 (e) of the Social Security Act, in which home and community-based services will be provided, are in compliance with applicable state standards that meet the requirement of 45 CFR Part 1397 for board and care facilities.

iv. A formal quality control system which monitors the health and welfare of members served in the ALTCS program.

a. Monitoring will ensure that all provider standards and health and welfare assurances are continually met, and that plans of care are periodically reviewed to ensure that the services furnished are reasonably consistent with the identified needs of the individuals.

b. The state further assures that all problems identified by this monitoring will be addressed in an appropriate and timely manner, consistent with the severity and nature of the deficiencies.

g) ALTCS Benefits and Services

i. **ALTCS Acute Care.** Enrollees receive the same acute services as defined in paragraph 18(b).

ii. **ALTCS Behavioral Health Care.** Enrollees receive behavioral health care services as defined in paragraph 18(b)(iii).

iii. **ALTCS Limited Dental Benefits.** ALTCS participants age 21 or older receive certain dental services up to $1,000 per person annually.

iv. **Home and Community-Based Services (HCBS).** ALTCS will provide a comprehensive HCBS package to eligible enrollees in the enrollee's home or in an ALTCS approved Alternative Residential Setting.

a. **Alternative Residential Settings include:**

1) Adult foster care, assisted living homes, assisted living centers, adult developmental homes, child developmental homes and group homes, hospices, group homes for traumatic brain injured members, and rural substance abuse transitional agencies.

Behavioral Health Facilities that are licensed to provide behavioral health services in a structured setting with 24-hour supervision. ALTCS covers services, except room and board, that are provided to ALTCS members who have a behavioral health disorder and are residing in one of the following behavioral health facilities:

A. Level II behavioral health facility – Licensed by AHCCCS. A residential behavioral health treatment setting for individuals who do not require the intensity of services or onsite medical

services found in a Level I facility.

B. Level III behavioral health facility - Licensed by AHCCCS. A residential behavioral health treatment setting with 24-hour supervision and supportive, protective oversight. These services are excluded for individuals involuntarily living in the secure custody of law enforcement, judicial, or penal systems.

2) **HCBS and HCBS-like Services.** Services provided to ALTCS enrollees receiving HCBS and HCBS-like services are enumerated in Table 3.

Table 3 – ALTCS HCBS

Service	Title XIX	
	EPD	DD
Acute Hospital Admission	X	X
Adult Day Health Services	X	N/A
Attendant Care	X	X
Behavioral Health Services	X	X
Community Transition Services*	X	X
DME / Medical Supplies	X	X
Emergency Alert	X	X
Habilitation	X	X
Home Delivered Meals	X	n/a
Home Health Agency Services	X	X
Home Modifications	X	X
Home Maker Services	X	X
Hospice Services (HCBS & Institutional)	X	X
ICF / IID	n/a	X
Medical Care Acute Services	X	X
Nursing Facility Services	X	X
Personal Care	X	X
Respite Care (in home)	X	X
Respite Care (Institutional)	X	X
Therapies	X	X
Transportation	X	X

*As Defined in State Medicaid Director Letter #02-008

3) **HCBS Expenditures.** Expenditures for individual members are limited to an amount that does not exceed the cost of providing care to the eligible individual in an institutional setting. Exceptions are permitted including when the need for additional services is due to a change in condition that is not expected to last more than 6 months.

v. **Spouses As Paid Care Givers.** AHCCCS may implement a voluntary program for spouses as paid caregivers. The program will provide reimbursement to spouses who elect to provide needed in-home care for eligible ALTCS enrollees. Spouses providing care to eligible enrollees will be employed by an ALTCS network contractor, or registered with AHCCCS as an ALTCS independent provider when providing services to an ALTCS FFS Native American or developmentally disabled member. In order for the state to receive FFP from CMS for Paid Caregiver Spouses of Medicaid beneficiaries, the personal care service or support must meet the following criteria and monitoring provisions.

a. Services provided by the Spouse as Paid Caregiver must meet the definition of a "service/support" for personal care or similar services that are rendered by a Paid Caregiver when such services are deemed extraordinary care.

1) Personal care or similar services – Is defined as assistance with the Activities of Daily Living (ADLs), or Instrumental Activities of Daily Living (IADLs), whether furnished in the home or the community, including personal assistance, attendant care, and closely related services such as home health aide, homemaker, chore, and companion services which may include improving and maintaining mobility and physical functioning, promoting health and personal safety, preparation with meals and snacks, accessing and using transportation, and participating in community experiences and activities.
2) Extraordinary care - Is defined as care that exceeds the range of activities that a spouse would ordinarily perform in the household on behalf of the recipient spouse, if he/she did not have a disability or chronic illness, and which are necessary to assure the health and welfare of the beneficiary, and avoid institutionalization.

b. The Spouse as Paid Caregiver must be a service/support that is specified in a plan of care prepared on behalf of the enrollee.
c. The enrollee who selects the Spouse as Paid Caregiver is not eligible to receive like services from another attendant caregiver.

The enrollee will remain eligible to receive other HCBS such as skilled/professional type services, home modifications, respite care, and other services that are not within the scope of the personal/attendant care services prescribed in the provider's

plan of care.

d. The services must be provided by a Spouse as Paid Caregiver who meets specified provider qualifications and training standards prepared by the state for a Paid Caregiver.
e. The Spouse as Paid Caregiver must be paid at a rate that does not exceed that which would otherwise be paid to a provider of a similar service and does not exceed what is allowed by the state Medicaid Agency (SMA) for the payment of personal care/attendant services; and
f. The Spouse as Paid Caregiver will comply with the following conditions:
    1) A Spouse as Paid Caregiver may not be paid for more than 40 hours of services in a 7-day period;
    2) The Spouse as Paid Caregiver must maintain and submit time sheets and other required documentation for hours worked/paid;
    3) The Spouse as Paid Caregiver may only submit claims for services that have been authorized by the Program Contractor or ALTCS FFS case manager;
    4) The ALTCS enrollee must be offered a choice of providers, other than his/her spouse. The enrollee's choice of a Paid Caregiver Spouse as provider must be recorded in his/her plan of care, at least annually.

g. AHCCCS and its Program Contractors must comply with the following monitoring requirements:
    1) Require Program Contractors and FFS case managers to make an on-site case management visit at least every 90 days to reassess a beneficiary's need for services, including the health, safety, and welfare status of the beneficiary serviced by the Spouse as Paid Caregiver;
    2) Require Program Contractors to provide quarterly financial statements that include separate authorized hours and expenditure information for Paid Caregiver Spouses; and
    3) Require AHCCCS to perform quarterly financial analysis that includes authorized hours and expenditure information for ALTCS FFS Spouses as Paid Caregivers.

vi. **Institutional Care.** ALTCS will provide institutional care in facilities appropriate to their needs that hold state licenses and Medicaid provider agreements indicating compliance with Medicaid requirements.

h) Other ALTCS Requirements

i. The state of Arizona will continue to provide access to ALTCS services to American Indians on the reservation as it does to other citizens of the state.

ii. The state will not deny acute care Medicaid eligibility for any potentially disabled individual based on using PAS criteria in lieu of the SSI-disability determination. Prior to rendering a final decision of ineligibility for acute care services based on disability, the state will use the SSI criteria as required under section 1902(a)(10) as interpreted through Federal regulations at sections 435.120 and 435.601.

iii. In the absence of a limit, AHCCCS will report annually on current placements and ongoing activities for expanding HCB services and settings. The report will be due by March 31 of each year.

iv. The DES/DDD will comply with all contractual and reporting requirements as specified in the contract between AHCCCS and DES/DDD and in any subsequent amendments. DES/DDD will be sanctioned as specified in the contract if DES/DDD fails to comply with the stated contractual and reporting requirements.

23. ALTCS Transitional Program. AHCCCS will complete a second scoring of the PAS for members who are enrolled in ALTCS, but fail to be at "immediate risk of institutionalization" based on the PAS conducted at the time of the re-determination.

If determined eligible for the ALTCS Transitional Program, AHCCCS will transfer the member to the ALTCS Transitional Program which limits institutional services to 90 days per admission and provides the member with medically necessary acute care services, HCBS, behavioral health services and case management services as prescribed in paragraph 28.

24. Medicare Part B Premiums. The state of Arizona will continue to pay the Medicare Part B premiums on behalf of individuals enrolled in ALTCS with income up to 300 percent of the FBR who are also eligible for Medicare, but do not qualify as a QMB, SLMB or QI; eligible for Medicaid under a mandatory or optional Title XIX coverage group for the aged, blind, or disabled (SSI-MAO); eligible for continued coverage under 42 CFR 435.1003; or are in the guaranteed enrollment period described in 42 CFR 435.212 and the state was paying their Part B premium before eligibility terminated. Once the state has received the Medicare Part B premium invoice, it will automatically make an electronic payment on behalf of the beneficiary.

VI. FUNDING POOLS AND PAYMENTS UNDER THE DEMONSTRATION.

25. Safety Net Care Pool (SNCP). Payments from this pool will assist Phoenix Children's Hospital (PCH), which has high levels of uncompensated care related to medical assistance provided to Medicaid eligibles or to individuals who have no source of third party coverage. For PCH, payments from the SNCP will be distributed to PCH based on its uncompensated care (based on prior period data). Payments to PCH for each CY will be subject to a limit computed in accordance with Attachment F, based on PCH's uncompensated care costs incurred up to December 31, 2017. Specifically, the SNCP for PCH is $110,000,000 for payments based on uncompensated care costs incurred in calendar year 2016; and $90,000,000 for payments based on uncompensated care costs incurred in calendar year 2017. Any unspent cap amount cannot be used to pay for costs incurred in any following CY and will not be available for payments beyond the demonstration period ending September 30, 2021.

a) **SNCP Payments.** Funds may be used to assist PCH with high levels of uncompensated care related to medical services that meet the definition of "medical assistance" contained in section 1905(a) of the Act, that are provided to Medicaid eligible or uninsured individuals incurred by PCH. Expenditures must be claimed in accordance with CMS-approved claiming protocols in Attachment F. For any provider receiving SNCP payments, the total Medicaid payments, Disproportionate Share Hospital (DSH) payments, SNCP payments, and any other payments for medical services furnished to Medicaid eligible and uninsured individuals cannot exceed the actual cost of providing services to Medicaid eligibles and the uninsured as defined in the claiming protocol. SNCP payments will be made directly from the state to Phoenix Children's Hospital for its incurred uncompensated care costs.

b) **Prohibited Use of SNCP Funds.** SNCP funds cannot be used to pay for costs associated with non-emergency services provided to non-qualified aliens. The state must develop a methodology as part of the claiming protocol to exclude such costs from eligible uncompensated care costs.

c) **Uncompensated Care Cost Limit.** For the calendar year 2016, up to $110,000,000 total computable payments to PCH can be paid from the SNCP that are based on uncompensated care costs incurred by PCH in calendar year 2016. For payments based on uncompensated care costs incurred by PCH in calendar year 2017, up to $90,000,000 total computable may be paid from the SNCP. The SNCP payment distributed to each individual provider will not exceed its uncompensated care costs for providing section 1905(a) medical services to Medicaid eligible and uninsured individuals for the applicable period.

To the extent that a provider's cost reporting period does not coincide with the DY (or partial DY or calendar year), the cost protocol will provide for an allocation of uncompensated care costs to the DY (or partial DY or calendar

year).

Any SNCP payments made in excess of the individual provider's uncompensated care cost limit for a demonstration period will be recouped from the provider, and the federal share of the overpayment will be returned to CMS.

d) **Eligible Providers.** Phoenix Children's Hospital, for the uncompensated care costs it incurs from January 1, 2014 through December 31, 2017.

e) **DSH and SNCP.** All applicable inpatient hospital and outpatient hospital SNCP payments received by a hospital provider must be included as offsetting revenue in the state's annual DSH audit reports. Hospitals cannot receive total payments, including DSH and SNCP payments, related to inpatient and outpatient hospital services furnished to Medicaid eligible and uninsured individuals that exceed the hospital's total eligible inpatient hospital and outpatient hospital uncompensated care costs.

f) **Intergovernmental Transfers (IGTs).** The non-federal share of the SNCP payments for PCH will be funded by contributions from eligible governmental entities through IGTs. The state will submit to CMS for review and approval all IGT agreements to ensure compliance with Section 1903(w)(6)(A) of the Act and Part XI of these STCs. Such agreements should specify the source and use of the IGT money. The agreements shall ensure that the IGT is not derived from an impermissible source, including recycled Medicaid payments, federal money precluded from use as state match, impermissible taxes, and non-bona fide provider-related donations. The agreements shall also ensure that providers will retain the SNCP payments.

g) **Annual Reporting Requirements for SNCP Payments**. The state will submit to CMS an annual report specifically related to the amount of payments made from the SNCP per DY. The reporting requirements are as follows:

Within ninety (90) days after the end of each DY, the state shall provide the following information to CMS:

1) Actual SNCP payments to each provider for each DY, including the interim payments and any overpayments resulting from the recomputations of the uncompensated care cost limits in accordance with the protocol in Attachment F;

2) The uncompensated care cost limit computed for each provider for each DY, including the projected uncompensated care costs used for interim payment purposes, the uncompensated care costs based on the as-filed cost reports, and the uncompensated care costs based on the finalized cost reports.

3) To the extent that the SNCP limits in paragraph 25(c) are stated for a period other than a DY, the state should allocate the SNCP payments to each DY proportionately based on the number of months in each DY that the payments cover.

26. Payments to IHS and 638 Facilities. The state is authorized through to make payments to IHS and tribal 638 facilities that take in to account furnishing specified types of care furnished by IHS and tribal 638 facilities to Medicaid-eligible individuals. Facilities must use the methodology discussed in Attachment G.

VII. DELIVERY SYSTEMS

27. Arizona Acute Care Program (AACP). The AACP is a statewide, managed care system, which delivers acute care services through contracts with Managed Care Organizations (MCOs) that AHCCCS calls "Health Plans." Most AACP enrollees receive integrated physical and behavioral health care services through a single ACC Plan, and most individuals with CRS conditions also receive treatment for those conditions through an ACC Plan. AACP members determined to have a SMI receive integrated physical and behavioral health services through a geographically designated RBHA. Physical health care services for Arizona's children in foster care are provided through the CMDP while behavioral health services are provided through RBHAs. Most Health Plan contracts are awarded by Geographic Service Area (GSA), which is a specific county or defined grouping of counties designated by AHCCCS within which a Health Plan provides covered health care services to members enrolled with that Health Plan.

28. Arizona Long Term Care System (ALTCS). ALTCS is administered through a statewide, managed care system which delivers physical, behavioral, long-term care services and supports (including home-and-community based services), and treatment for CRS conditions through contractors with MCOs that AHCCCS calls "Program Contractors." ALTCS members in the Elderly and Physically Disabled (EPD) population, including those determined to have a SMI, receive integrated care through ALTCS/EPD Program Contractors. ALTCS members with a developmental disability (DD) receive physical health care through a MCO subcontracted with the Arizona Department of Economic Security/Division of Developmental Disabilities (DES/DDD), behavioral health care through a RBHA, and long-term services and supports through DES/DDD.

ALTCS/EPD contracts are awarded in the same geographic service areas as the ACC Plans. ALTCS/EPD enrollees in Maricopa and Pima Counties have a choice of Program Contractors, but ALTCS/EPD enrollees in the rest of the state enroll in the Program Contractor for their GSA. The ALTCS contract with the Arizona DES/DDD provides coverage on a statewide basis of the full ALTCS benefit package to all

eligible individuals with developmental disabilities. Under state law, A.R.S. 36-2940, AHCCCS is required to enter into an intergovernmental agreement (IGA) with DES/DDD to serve as the Program Contractor for individuals with developmental disabilities. The DES/DDD ALTCS contract is an at-risk MCO contract that complies with 42 C.F.R. Part 438 and as such is reviewed and approved by CMS. Payments to DES/DDD under the ALTCS contract shall not include any payments other than payments that meet the requirements of 42 CFR 438.3(c) and 438.4 through 438.8 including the requirement that all payments and risk-sharing mechanisms in the contract are actuarially sound. State law, A.R.S. 36-2953, requires DES/DDD to maintain a separate fund to account for all revenues and expenditures under the ALTCS contract and limits use of the fund for the administration of the ALTCS contract.

29. **Children Rehabilitative Services (CRS)**. Most AHCCCS members with a qualifying CRS condition receive integrated care for physical, behavioral, and CRS conditions through an ACC plan. Children in foster care with a qualifying CRS condition receive treatment for CRS and physical health care conditions through the CMDP and treatment for behavioral conditions through a RBHA. ALTCS/DD members with a qualifying CRS condition receive treatment for CRS and behavioral health conditions through the CRS Contractor, treatment for physical conditions through a MCO subcontracted with the DES/DDD, and long-term services and support through DES/DDD.

30. **Regional Behavioral Health Authorities (RBHAs)**. Individuals who are AACP members and who are diagnosed with a serious mental illness will receive their acute care services and behavioral health services through separate MCOs called RBHAs. RBHAs serve as subcontractors of AHCCCS. RBHAs also serve children in foster care and ALTCS/DES/DDD members. All other AACP members will receive their behavioral health services through the RBHA.

31. **American Indians/Alaska Natives (AI/AN).** Medicaid-eligible AI/AN may opt to receive Medicaid benefits through managed care or through Medicaid fee-for-service. AI/AN members electing to receive benefits through fee-for-service are otherwise included in the demonstration.

32. **Contracts.** All contracts and modifications of existing contracts between the state and MCOs must be prior approved by CMS. The state will provide CMS with a minimum of 45 days to review changes.

VIII. GENERAL REPORTING REQUIREMENTS

33. **Deferral for Failure to Submit Timely Demonstration Deliverables.** CMS may issue deferrals in accordance with 42 CFR part 430 subpart C, in the amount of $5,000,000 per deliverable (federal share) when items required by these STCs (e.g., required data elements, analyses, reports, design documents, presentations, and other

items specified in these STCs (hereafter singularly or collectively referred to as "deliverable(s)")) are not submitted timely to CMS or are found to be inconsistent with the requirements approved by CMS. A deferral shall not exceed the value of the federal amount for the demonstration. The state does not relinquish its rights provided under 42 CFR part 430 subpart C to challenge any CMS finding that the state materially failed to comply with the terms of this agreement.

In the event that either (1) the state has not submitted a written request to CMS for approval of an extension, as described below, within thirty (30) days after a deliverable was due, or (2) the state has not submitted a revised submission or a plan for corrective action to CMS within thirty days after CMS has notified the state in writing that a deliverable was not accepted for being inconsistent with the requirements of this agreement including the information needed to bring the deliverable into alignment with CMS requirements; the following process is triggered:

a) CMS will issue a written notification to the state providing advance notification of a pending deferral for late or non-compliant submission of required deliverable(s). For each deliverable, the state may submit to CMS a written request for an extension to submit the required deliverable that includes a supporting rationale for the cause(s) of the delay and the state's anticipated date of submission. Should CMS agree to the state's request, a corresponding extension of the deferral process can be provided.

b) CMS may agree to a corrective action as an interim step before applying the deferral, if corrective action is proposed in the state's written extension request.

c) If CMS agrees to an interim corrective process in accordance with subsection (b), and the state fails to comply with the corrective action steps or still fails to submit the overdue deliverable(s) that meets the terms of this agreement, CMS may proceed with the issuance of a deferral against the next Quarterly Statement of Expenditures reported in Medicaid Budget and Expenditure System/State Children's Health Insurance Program Budget and Expenditure System (MBES/CBES) following a written deferral notification to the state.

d) If the CMS deferral process has been initiated for state non-compliance with the terms of this agreement for submitting deliverable(s), and the state submits the overdue deliverable(s), and such deliverable(s) are accepted by CMS as meeting the standards outlined in these STCs, the deferral(s) will be released.

As the purpose of a section 1115 demonstration is to test new methods of operation or service delivery, a state's failure to submit all required reports, evaluations, and other deliverables will be considered by CMS in reviewing any application for an extension, amendment, or for a new demonstration.

34. Submission of Post-Approval Deliverables. The state must submit all deliverables as stipulated by CMS and within the timeframes outlined within these STCs.

35. Compliance with Federal Systems Updates. As federal systems continue to evolve and incorporate additional 1115 demonstration reporting and analytics functions, the state will work with CMS to:

a) Revise the reporting templates and submission processes to accommodate timely compliance with the requirements of the new systems;
b) Ensure all 1115, T-MSIS, and other data elements that have been agreed to for reporting and analytics are provided by the state; and
c) Submit deliverables to the appropriate system as directed by CMS.

36. Monitoring Protocol. The state must submit to CMS a Monitoring Protocol no later than 210 calendar days after approval of the demonstration. Once approved, the Monitoring Protocol will be incorporated into the STCs, as Attachment J.

At a minimum, the Monitoring Protocol will affirm the state's commitment to conduct quarterly and annual monitoring in accordance with CMS' template. Any proposed deviations from CMS' template should be documented in the Monitoring Protocol. The Monitoring Protocol will describe the quantitative and qualitative elements on which the state will report through quarterly and annual monitoring reports. For quantitative metrics (e.g., performance metrics as described in STC 37(b) below), CMS will provide the state with a set of required metrics, and technical specifications for data collection and analysis covering the key policies being tested under this demonstration, including but not limited to the waiver of retroactive eligibility. The Monitoring Protocol will specify the methods of data collection and timeframes for reporting on the state's progress as part of the quarterly and annual monitoring reports. For the qualitative elements (e.g., operational updates as described in STC 37(a) below), CMS will provide the state with guidance on narrative and descriptive information which will supplement the quantitative metrics on key aspects of the demonstration policies. The quantitative and qualitative elements will comprise the state's quarterly and annual monitoring reports.

37. Monitoring Reports. The state must submit three (3) Quarterly Reports and one (1) Annual Report each DY. The fourth-quarter information that would ordinarily be provided in a separate quarterly report should be reported as distinct information within the Annual Report. The Quarterly Reports are due no later than sixty (60) calendar days following the end of each demonstration quarter. The Annual Report (including the fourth-quarter information) is due no later than ninety (90) calendar days following the end of the DY. The reports will include all required elements as per 42 CFR 431.428, and should not direct readers to links outside the report. Additional links not referenced in the document may be listed in a Reference/Bibliography section. The Monitoring Reports must follow the framework to be provided by CMS, which will be organized by

milestones. The framework is subject to change as monitoring systems are developed/evolve, and will be provided in a structured manner that supports federal tracking and analysis.

a) Operational Updates. The operational updates will focus on progress towards meeting the milestones identified in CMS' framework. Additionally, per 42 CFR 431.428, the Monitoring Reports must document any policy or administrative difficulties in operating the demonstration. The reports shall provide sufficient information to document key challenges, underlying causes of challenges, how challenges are being addressed, as well as key achievements and to what conditions and efforts successes can be attributed. The discussion should also include any issues or complaints identified by beneficiaries; lawsuits or legal actions; unusual or unanticipated trends; legislative updates; and descriptions of any public forums held. The Monitoring Report should also include a summary of all public comments received through post-award public forums regarding the progress of the demonstration.

b) Performance Metrics. The performance metrics will provide data to demonstrate how the state is progressing towards meeting the milestones identified in CMS' framework which includes the following key policies under this demonstration - ALTCS, funding pools, and the waiver of retroactive eligibility. The performance metrics will also reflect all other components of the state's demonstration, including the managed care programs. For example, these metrics will cover enrollment, disenrollment or suspension by specific demographics and reason, access to care, and health outcomes.

   Per 42 CFR 431.428, the Monitoring Reports must document the impact of the demonstration in providing insurance coverage to beneficiaries and the uninsured population, as well as outcomes of care, quality and cost of care, and access to care. This may also include the results of beneficiary satisfaction surveys, if conducted, grievances and appeals.

   The required monitoring and performance metrics must be included in the Monitoring Reports, and will follow the CMS framework provided by CMS to support federal tracking and analysis.

c) Budget Neutrality and Financial Reporting Requirements. Per 42 CFR 431.428, the Monitoring Reports must document the financial performance of the demonstration. The state must provide an updated budget neutrality workbook with every Monitoring Report that meets all the reporting requirements for monitoring budget neutrality set forth in the General Financial Requirements section of these STCs, including the submission of corrected budget neutrality data upon request. In addition, the state must report quarterly and annual expenditures associated with the populations affected by this demonstration on the Form CMS-64. Administrative costs for this demonstration should be reported separately on

the CMS-64.

d) Evaluation Activities and Interim Findings. Per 42 CFR 431.428, the Monitoring Reports must document any results of the demonstration to date per the evaluation hypotheses. Additionally, the state shall include a summary of the progress of evaluation activities, including key milestones accomplished, as well as challenges encountered and how they were addressed.

38. Corrective Action. If monitoring indicates that demonstration features are not likely to assist in promoting the objectives of Medicaid, CMS reserves the right to require the state to submit a corrective action plan to CMS for approval. This may be an interim step to withdrawing waivers or expenditure authorities, as outlined in STC 11.

39. Close Out Report. Within 120 calendar days after the expiration of the demonstration, the state must submit a draft Close Out Report to CMS for comments.

a) The draft report must comply with the most current guidance from CMS.

b) The state will present to and participate in a discussion with CMS on the Close-Out report.

c) The state must take into consideration CMS' comments for incorporation into the final Close Out Report.

d) The final Close Out Report is due to CMS no later than thirty (30) calendar days after receipt of CMS' comments.

e) A delay in submitting the draft or final version of the Close Out Report may subject the state to penalties described in STC 33.

40. Contractor Reviews. The state will forward summaries of the financial and operational reviews that:

f) The Arizona Department of Economic Security/Division of Developmental Disabilities (DES/DDD) performs on its subcontracting MCOs.

g) The state will also forward summaries of the financial and operational reviews that AHCCCS completes on the Children's Rehabilitative Services Program (CRS) contractor; and the Comprehensive Medical and Dental Program (CMDP) at the Arizona DCS.

41. Contractor Quality. AHCCCS will require the same level of quality reporting for DCS/DDD and DCS/CMDP as for Health Plans and Program Contractors, which include RBHAs, subject to the same time lines and penalties.

42. Contractor Disclosure of Ownership. Before contracting with any provider of service, the state will obtain from the provider full disclosure of ownership and control and related party transactions, as specified in sections 1124 and 1902(a)(38) of the Act. No FFP will be available for providers that fail to provide this information.

43. Monitoring Calls. CMS will convene periodic conference calls with the state.

a. The purpose of these calls is to discuss ongoing demonstration operation, to include (but not limited to), any significant actual or anticipated developments affecting the demonstration. Examples include implementation activities, trends in reported data on metrics and associated mid-course adjustments, budget neutrality, and progress on evaluation activities.

b. CMS will provide updates on any pending actions, as well as federal policies and issues that may affect any aspect of the demonstration.

c. The state and CMS will jointly develop the agenda for the calls.

44. Post Award Forum. Pursuant to 42 CFR 431.420(c), within six (6) months of the demonstration's implementation, and annually thereafter, the state shall afford the public with an opportunity to provide meaningful comment on the progress of the demonstration. At least thirty (30) days prior to the date of the planned public forum, the state must publish the date, time, and location of the forum in a prominent location on its website. The state must also post the most recent annual report on its website with the public forum announcement. Pursuant to 42 CFR 431.420(c), the state must include a summary of the comments in the Monitoring Report associated with the quarter in which the forum was held, as well as in its compiled Annual Report.

IX. TARGETED INVESTMENTS PROGRAM

45. Description. Arizona will include directed lump sum payments in its capitation rates paid to managed care entities pursuant to 42 CFR 438.6(c). The managed care entities will be directed to use the funding to make specific incentive payments to certain providers to improve performance and increase physical and behavioral health care integration and coordination for individuals with behavioral health needs. The Targeted Investments Program will:

a. Reduce fragmentation that occurs between acute care and behavioral health care,
b. Create efficiencies in service delivery for members with behavioral health needs, and
c. Improve health outcomes for the affected populations.

46. Funding Limit. Pursuant to 42 CFR 438.6(c), AHCCCS may include in the actuarially sound capitation rates paid to managed care entities up to $350 million total for the period of January 18, 2017, through September 30, 2022, in directed incentive payments to physical and behavioral health care providers that provide integrated services and care to Medicaid beneficiaries and achieve AHCCCS defined targets for performance improvement. In accordance with paragraph 47, the actual payment to the managed care entities may occur after September 30, 2022. The lump sum payments for the Targeted Investments Program will be paid to the managed care entities after the close of the contract period based on provider performance. The final amounts of the targeted payment amounts paid for the contract period must retrospectively be cost allocated across rate cells in an actuarially sound and justified manner and in alignment with the described payment adjustment in the approved template for payments made under 438.6(c). Additionally, the total of all payments under the contract must be actuarially sound and in compliance with part 438. These capitation rates, including the directed incentive payments and any associated taxes and managed care entity administration costs, are eligible for federal financial participation at the state's FMAP for individual rate cells affected by the incentive payments.

Of the total $350 million, the state may expend up to $17.5 million to support the administration, including state level reporting and evaluation of the Targeted Investments Program. These administrative expenses will be eligible for federal financial participation at the administrative match rate of 50 percent.

Pursuant to 42 CFR 438.6(c), AHCCCS will direct payment of the incentive payments to be distributed annually to physical and behavioral health providers based on demonstrated performance improvement and increased integration and coordination of physical and behavioral health across three focus populations: (i) adults, (ii) children, and (iii) adults who have transitioned from a criminal justice facility. Payment of these directed incentive payments will be tied to performance improvement targets (including project milestones).

Table 4 – Estimated Annual Funding Distribution for the Targeted Investments Program

Programs	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Totals
Targeted Investments	$19 m.	$66.5 m.	$85.5 m.	$66.5 m.	$47.5 m.	$47.5 m.	$332.5 m.
Administration	$1m.	$3.5 m.	$4.5 m.	$3.5 m.	$2.5 m.	$2.5 m.	$17.5 m.
Totals	$20 m.	$70 m.	$90 m.	$70 m.	$50 m.	$50 m	$350 m.

47. Provider Payment Criteria. The state shall ensure that the contracts with managed care entities for provider performance payments adhere to the requirements in 42 CFR 438.6 (81 FR 27859-61) and sub-regulatory guidance

unless otherwise explicitly modified by these STCs.

48. Designated State Health Programs (DSHP). Federal funding of DSHPs is to ensure the continuation of vital health care and provider support programs while the state devotes increased state resources during the period of this demonstration for Targeted Investments Program that will positively impact the Medicaid program, and result in savings to the federal government that will exceed the federal financial participation in DSHP funding.

a. To the extent that the state increases its Medicaid expenditures through its Targeted Investments Program, and achieves the measures that are a condition for DSHP payment, the state may claim federal matching funding for certain DSHP expenditures to support the initial investment costs of the Targeted Investments Program. The expectation, which will be addressed in the demonstration evaluation, is that long-term savings achieved through the targeted investment will offset the amount of time-limited federal DSHP funding, and that the state will be able to continue the Targeted Investments Program on a self-sustaining basis after the initial demonstration approval period. DSHP expenditures cannot exceed the amount spent on the Targeted Investments Program and DSHP funding will also be subject to the annual and total DSHP spending limits in Table 5 and the reductions described in paragraph 56 and Table 6. DSHP funding is at-risk at the statewide level based on the state's ability to meet system transformation targets, as described in Table 7. DSHP funding will be phased down over the demonstration period. No payments will be available for DSHP expenditures that are claimed under Medicaid or are reimbursed by third parties. DSHP expenditures may be claimed following procedures and subject to limits as described in the Table 5 below.

b. FFP may be claimed for expenditures made for services provided by the following two state programs beginning January 18, 2017 through September 30, 2022:

i. Division of Developmental Disabilities (DDD), Arizona Early Intervention program (AzEIP)
ii. Services to Individuals with Serious Mental Illness (SMI) under Arizona Revised Statute (A.R.S.) §§ 11-297.

Table 5 – Total Computable Annual DSHP Limits

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DSHP	$6,274,400	$21,137,600	$27,177,000	$21,137,600	$15,098,300	$15,098,300

49. DSHP Claiming Protocol.

a) CMS must approve a DSHP claiming protocol for eligible DSHP expenditures, including identification of fund sources and types of expenditures. The DSHP protocol must be approved by CMS and will be attached to these STCs. The state must comply with the protocol in order to draw down FFP and document expenditures in accordance with the protocol.

b) In order to claim FFP for DSHP expenditures, the state will provide CMS a summary worksheet that identifies DSHP expenditures by program each quarter.

c) For all eligible DSHP expenditures, the state will have available for CMS:

   i. Certification or attestation of expenditures.
   ii. Actual expenditure data from state financial information system or state client sub-system.

d) The protocol will describe the procedures used that ensure that FFP is not claimed for the non-permissible expenditures listed in paragraph 50 below.

e) The state will claim FFP for DSHP quarterly based on actual expenditures.

50. Prohibited DSHP Expenditures. The following types of expenditures are not permissible DSHP expenditures:

a) Grant funding to test new models of care
b) Construction costs (bricks and mortar)
c) Room and board expenditures
d) Animal shelters and animal vaccines
e) School based programs for children
f) Unspecified projects
g) Debt relief and restructuring
h) Costs to close facilities
i) HIT/HIE expenditures
j) Services provided to undocumented individuals
k) Sheltered workshops
l) Research expenditures
m) Rent and/or Utility Subsidies that are normally funded by the United States Department of Housing and Urban Development and United States Department of Agriculture (USDA) or other state/local rental assistance programs
n) Prisons, correctional facilities, services for incarcerated individuals and services provided to individuals who are civilly committed and unable to leave
o) Revolving capital fund
p) Expenditures made to meet a maintenance of effort requirement for any federal grant program
q) Administrative costs

r) Cost of services for which payment was made by Medicaid or CHIP (including from managed care plans)
s) Cost of services for which payment was made by Medicare or Medicare Advantage
t) Funds from other federal grants
u) Needle-exchange programs
v) Abortions that would not be allowable if furnished under Medicaid or CHIP
w) Costs associated with funding federal matching requirements.

51. DSHP Claiming Process.

a. The state will establish standard documentation of each DSHP's expenditures, to be specified in the DSHP Protocol.
b. The state will report all expenditures for DSHP payments to eligible programs on the form CMS-64.9P Waiver under the waiver name "TIP DSHP." Federal funds must be claimed within two years following the calendar quarter in which the state incurs DSHP expenditures for services received during the performance period described above in paragraph 51(b). Claims cannot be submitted for state expenditures generated from services from programs identified in paragraph 51(b) above incurred after September 30, 2022. Sources of non-federal funding must be permitted by section 1903(w) of the Act and any applicable regulations.

52. Evaluation of the Targeted Investments Program. The state shall submit an update to its 1115 demonstration evaluation design no later than 120 days after the approval of the amendment to implement the Targeted Investments Program and in accordance with Section X, Evaluation of the Demonstration.

53. Sustainability of Physical and Behavioral Health Care Integration and Coordination. The Sustainability Plan, as approved by CMS on August 12, 2019, will remain in effect for the approval period of October 1, 2016 through September 30, 2022. The Sustainability Plan describes the scope of behavioral health care integration activities that the state wants to maintain and the strategy to secure resources to maintain the integration activities. Any future modifications for the Sustainability Plan will require CMS approval.

54. Reduction in DSHP Expenditures for Failure to Meet Statewide System Transformation Targets. The DSHP will be reduced in the prospective demonstration year if the state does not meet the targets for TI participating providers for the previous year. Reductions in table 6 will be prorated by focus population: 4 percent for criminal justice, 53 percent for adult and 43 percent for child, in which targets described in paragraph 55 are not met.

Table 6 – Total Computable DSHP Reductions for Each Demonstration Year

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Percentage at Risk	0%	0%	10%	15%	20%	20%
Total Amount at Risk	$0	$0	$2,717,700	$3,170,640	$3,019,660	$3,019,660

55. Statewide Focus Population Measures. The state will submit revised baselines in the 2017 annual report to CMS to update the baseline in Table 8 below. Table 8 below describes the performance measures and targets that the state is required to meet in the previous year in order for the state to qualify for DSHP funding in Years 3 through 5. The state shall report its progress for these measures each year in the annual monitoring report described in STC 37 For Year 6, the metrics, baseline, and performance targets to qualify for DSHP funding will be finalized in collaboration between the state and CMS through an FFY 2022 Targeted Investments Performance Measures and Targets Protocol, a draft of which is due to CMS no later than 90 calendar days after the approval of the demonstration's temporary extension.

Table 8 – Statewide Focus Population Measures and Targets

Child Physical and Behavioral Health Integration Measures			
Year of DSHP	**Proposed Measure**	**Numerator and Denominator Definition**	**Proposed Target**
3	Practice has executed an agreement with Health Currentand routinely receives ADT alerts Baseline: to be calculated during Year 1	numerator: An executed agreement with Health Current and Health Current confirmation of practice routine receipt of ADT alerts denominator: Primary care and behavioral health practices participating in the child integration project	5 points over baseline
4	Well-child visits in the third, fourth, fifth and sixth years of life for children with a behavioral health diagnosis (HEDIS, modified) Baseline: To be calculated during Year 1	numerator: AHCCCS members with a BH diagnosis who are age 3-6 years as of the last calendar day of the measurement year, and are attributed to a primary care provider participating in the child integration project, who have at least one well-child visit with any PCP during the measurement year[1] denominator: AHCCCS members with a BH diagnosis who are age 3–6 years as of	2 points over baseline

[1] Well-care visit as defined in the HEDIS 2017 Well-Care Value Set. The well-child visit must occur with a PCP, but the PCP does not have to be the practitioner assigned to the child or be within the Targeted Investment provider entity.

		the last calendar day of the measurement year and are attributed to a child integration project participating primary care provider	
5	Well-child visits in the third, fourth, fifth and sixth years of life for children with a behavioral health diagnosis (HEDIS, modified) Baseline: To be calculated during Year 1	numerator: AHCCCS members with a BH diagnosis who are age 3-6 years as of the last calendar day of the measurement year, and are attributed to a primary care provider participating in the child integration project, who have at least one well-child visit with any PCP during the measurement year. denominator: AHCCCS members with a BH diagnosis who are age 3–6 years as of the last calendar day of the measurement year and are attributed to a child integration project participating primary care provider	5 points over baseline

Adult Physical and Behavioral Health Integration Measures			
Year of DSHP	**Proposed Measure**	**Numerator and Denominator Definition**	**Proposed Target**
3	Practice has executed an agreement with Health Current and routinely receives ADT alerts Baseline: To be calculated during Year 1	numerator: An executed agreement with Health Current and Health Current confirmation of practice routine receipt of ADT alerts denominator: Adult primary care and behavioral health practices participating in the adult integration project	5 points over baseline
4	Follow-up after hospitalization for mental illness (HEDIS, modified[2]) Baseline: To be calculated during Year 1	numerator: AHCCCS members 18 years of age and older at any time during the measurement period who had a follow-up visit with a mental health practitioner within 7 days after a denominator-qualifying discharge, including visits that occur on the date of discharge.[3] denominator: Acute hospital discharges of AHCCCS members 18 years of age and	2 points over baseline

[2] Modified to apply only to adults, as the HEDIS specifications include those six years and older in the denominator.

[3] The follow-up visit must be with a mental health practitioner as defined by the following NCQA HEDIS value sets: FUH Stand Alone Visits Value Set, (FUH Visits Group 1 Value Set *and* FUH POS Group 1 Value Set), and FUH Visits Group 2 Value Set *and* FUH POS Group 2 Value Set.

		older at any time during the measurement period for treatment of selected mental illness diagnoses[4] for members discharged from an adult integration project participating hospital or attributed to an adult integration project participating primary care or behavioral health provider	
5	Follow-up after hospitalization for mental illness (HEDIS, modified) Baseline: To be calculated during Year 1	numerator: AHCCCS members 18 years of age and older at any time during the measurement period who had a follow-up visit with a mental health practitioner within 7 days after a denominator-qualifying discharge, including visits that occur on the date of discharge. denominator: Acute hospital discharges of AHCCCS members 18 years of age and older at any time during the measurement period for treatment of selected mental illness diagnoses for members discharged from an adult integration project participating hospital or attributed to an adult integration project participating primary care or behavioral health provider	4 points over baseline

Care Coordination Measures for Medicaid Enrolled Released from Criminal Justice Facilities			
Year of DSHP	**Proposed Measure**	**Numerator and Denominator Definition**	**Proposed Target**
3	Practice has executed an agreement with Health Current and routinely receives ADT alerts Baseline: To be calculated during Year 1	numerator: An executed agreement with Health Current and Health Current confirmation of practice routine receipt of ADT alerts denominator: Integrated practices participating in the justice transition	100%
4	Adults access to preventive/ambulatory health services (HEDIS, modified[5])	numerator: AHCCCS members age 20-44 years during the measurement period recently released from a criminal justice	2 points over baseline

[4] A principal diagnosis of mental illness is defined by the NCQA HEDIS Mental Illness Value Set. Inpatient stay is defined by the Inpatient Stay Value Set, but excludes the Nonacute Inpatient Stay Value Set.

[5] Modified to apply to only those AHCCCS members recently released from a criminal justice facility at which a new integrated clinic has been situated. "Recently released" is defined as excluding those individuals released 60 days prior to end of the measurement period.

	Baseline: To be calculated during Year 1	facility and assigned to a probation or parole office at which a new integrated clinic has been situated who had one or more ambulatory or preventive care visits[6] during the measurement year denominator: AHCCCS members age 20-44 years during the measurement period recently released from a criminal justice facility and assigned to a probation or parole office at which a new integrated clinic has been situated	
5	Adults access to preventive/ambulatory health services (HEDIS, modified) Baseline: To be calculated during Year 1	numerator: AHCCCS members age 20-44 years during the measurement period recently released from a criminal justice facility and assigned to a probation or parole office at which a new integrated clinic has been situated who had one or more ambulatory or preventive care visits during the measurement year denominator: AHCCCS members age 20-44 years during the measurement period recently released from a criminal justice facility and assigned to a probation or parole office at which a new integrated clinic has been situated	5 points over baseline

X. EVALUATION OF THE DEMONSTRATION

56. Cooperation with Federal Evaluators. As required under 42 CFR 431.420(f), the state shall cooperate fully and timely with CMS and its contractors in any federal evaluation of the demonstration or any component of the demonstration. This includes, but is not limited to: commenting on design and other federal evaluation documents; providing data and analytic files to CMS; entering into a data use agreement that explains how the data and data files will be exchanged; and providing a technical point of contact to support specification of the data and files to be disclosed, as well as relevant data dictionaries and record layouts. The state shall include in its contracts with entities that collect, produce, or maintain data and files for the demonstration, a requirement that they make data available for the federal evaluation as is required under 42 CFR 431.420(f) to support federal evaluation. The

[6] Visits defined by the following NCQA HEDIS measure sets: Ambulatory Visits Value Set and Other Ambulatory Visits Value Set.

state may claim administrative match for these activities. Failure to comply with this STC may result in a deferral being issued as outlined in STC 33.

57. Independent Evaluator. Upon approval of the demonstration, the state must begin to arrange with an independent party to conduct an evaluation of the demonstration to ensure that the necessary data is collected at the level of detail needed to research the approved hypotheses. The state must require the independent party to sign an agreement that the independent party will conduct the demonstration evaluation in an independent manner in accord with the CMS-approved, Evaluation Design. When conducting analyses and developing the evaluation reports, every effort should be made to follow the approved methodology. However, the state may request, and CMS may agree to, changes in the methodology in appropriate circumstances.

58. Draft Evaluation Design. The state must submit, for CMS comment and approval, a draft Evaluation Design, no later than 180 calendar days after approval of the demonstration.

Any modifications to an existing approved Evaluation Design will not affect previously established requirements and timelines for report submission for the demonstration, if applicable.

The draft Evaluation Design must be developed in accordance with the following CMS guidance (including but not limited to):

a. All applicable Evaluation Design guidance, including guidance about cost-sharing, and the waiver of retroactive eligibility. Hypotheses for cost-sharing will include (but not be limited to): effects on access to care; and health outcomes. Hypotheses for the waiver of retroactive eligibility will include (but not be limited to): the effects of the waiver on enrollment and eligibility continuity (including for different subgroups of individuals, such as individuals who are healthy, individuals with complex medical needs, prospective applicants, and existing beneficiaries in different care settings (including long-term care settings)). Hypotheses applicable to the demonstration as a whole, and to all key policies referenced above, will include (but will not be limited to): the effects of the demonstration on health outcomes; the financial impact of the demonstration (for example, such as an assessment of medical debt and uncompensated care costs); and the effect of the demonstration on Medicaid program sustainability.

b. Attachment A (Developing the Evaluation Design) of these STCs, technical assistance for developing SUD Evaluation Designs (as applicable, and as provided by CMS), and all applicable technical assistance on how to establish comparison groups to develop a Draft Evaluation Design.

c. The evaluation design for the demonstration period beginning October 1, 2016 must include research questions, hypotheses, and proposed measures for the Targeted Investments Program, post-implementation, and a continuation of the state's evaluation of the integration of physical and behavioral health under the RHBAs.

59. **Evaluation Design Approval and Updates.** The state must submit a revised draft Evaluation Design within sixty (60) calendar days after receipt of CMS' comments. Upon CMS approval of the draft Evaluation Design, the document will be included as an attachment to these STCs. Per 42 CFR 431.424(c), the state will publish the approved Evaluation Design within thirty (30) days of CMS approval. The state must implement the Evaluation Design and submit a description of its evaluation implementation progress in each of the Monitoring Reports. Once CMS approves the Evaluation Design, if the state wishes to make changes, the state must submit a revised Evaluation Design to CMS for approval.

60. **Evaluation Questions and Hypotheses.** Consistent with attachments B and C (Developing the Evaluation Design and Preparing the Evaluation Report) of these STCs, the evaluation documents must include a discussion of the evaluation questions and hypotheses that the state intends to test. Each demonstration component should have at least one evaluation question and hypothesis. The hypothesis testing should include, where possible, assessment of both process and outcome measures. Proposed measures should be selected from nationally-recognized sources and national measures sets, where possible. Measures sets could include CMS's Core Set of Health Care Quality Measures for Children in Medicaid and CHIP, CMS's measure sets for eligibility and coverage, Consumer Assessment of Health Care Providers and Systems (CAHPS), the Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults, and/or measures endorsed by National Quality Forum (NQF).

61. **Evaluation Budget.** A budget for the evaluation shall be provided with the draft Evaluation Design. It will include the total estimated cost, as well as a breakdown of estimated staff, administrative, and other costs for all aspects of the evaluation such as any survey and measurement development, quantitative and qualitative data collection and cleaning, analyses, and report generation. A justification of the costs may be required by CMS if the estimates provided do not appear to sufficiently cover the costs of the design or if CMS finds that the design is not sufficiently developed, or if the estimates appear to be excessive.

62. **Interim Evaluation Report.** The state must submit an Interim Evaluation Report for the completed years of the demonstration, and for each subsequent renewal or extension of the demonstration, as outlined in 42 CFR 431.412(c)(2)(vi). When submitting an application for renewal, the Interim Evaluation Report should be posted to the state's website with the application for public comment.

1. The Interim Evaluation Report will discuss evaluation progress and present findings to date as per the approved Evaluation Design.

2. For demonstration authority that expires prior to the overall demonstration's expiration date, the Interim Evaluation Report must include an evaluation of the authority as approved by CMS.

3. If the state is seeking to renew or extend the demonstration, the draft Interim Evaluation Report is due when the application for renewal is submitted. If the state made changes to the demonstration in its application for renewal, the research questions and hypotheses, and how the design was adapted, should be included. If the state is not requesting a renewal for a demonstration, an Interim Evaluation report is due one (1) year prior to the end of the demonstration. For demonstration phase outs prior to the expiration of the approval period, the draft Interim Evaluation Report is due to CMS on the date that will be specified in the notice of termination or suspension.

4. The state must submit the final Interim Evaluation Report within 60 calendar days after receiving CMS comments on the draft Interim Evaluation Report and post the document to the state's website.

5. The Interim Evaluation Report must comply with Attachment C (Preparing the Evaluation Report) of these STCs.

63. Summative Evaluation Report. The draft Summative Evaluation Report must be developed in accordance with Attachment C (Preparing the Evaluation Report) of these STCs. The state must submit a draft Summative Evaluation Report for the demonstration's current approval period within 18 months of the end of the approval period represented by these STCs. The Summative Evaluation Report must include the information in the approved Evaluation Design.

a. Unless otherwise agreed upon in writing by CMS, the state shall submit the final Summative Evaluation Report within 60 calendar days of receiving comments from CMS on the draft.
b. The final Summative Evaluation Report must be posted to the state's Medicaid website within 30 calendar days of approval by CMS.

64. Safety Net Care Pool (SNCP) for Phoenix Children's Hospital. Arizona will conduct an independent evaluation of the use of the SNCP for Phoenix Children's Hospital and submit an evaluation report no later than 90 days after making final payment to PCH. The report will include, but is not limited to the following elements:

a. A detailed analysis of the SNCP payments for PCH for uncompensated care costs incurred through December 31, 2017.
b. A comparison of SNCP payments that are attributed to uninsured children and

children who are Medicaid beneficiaries.

c. An analysis of factors that contributed to the necessity of SNCP payments to PCH including, but not limited to:
    i. Provider and diagnosis payment rates in the state and
    ii. The number of uninsured and Medicaid eligible children in the state.
d. An update on the state's progress for proposals and strategies for PCH and Medicaid payment rate reform and the improved impact on Medicaid shortfall and uncompensated care incurred by PCH.

65. Corrective Action Plan Related to Evaluation. If evaluation findings indicate that demonstration features are not likely to assist in promoting the objectives of Medicaid, CMS reserves the right to require the state to submit a corrective action plan to CMS for approval. These discussions may also occur as part of a renewal process when associated with the state's Interim Evaluation Report. This may be an interim step to withdrawing waivers or expenditure authorities, as outlined in STC 11.

66. State Presentations for CMS. CMS reserves the right to request that the state present and participate in a discussion with CMS on the Evaluation Design, the Interim Evaluation Report, and/or the Summative Evaluation Report.

67. Public Access. The state shall post the final documents (e.g., Monitoring Reports, Close-Out Report, approved Evaluation Design, Interim Evaluation Report, and Summative Evaluation Report) on the state's Medicaid website within 30 calendar days of approval by CMS.

68. Additional Publications and Presentations. For a period of twelve (12) months following CMS approval of the final reports, CMS will be notified prior to presentation of these reports or their findings, including in related publications (including, for example, journal articles), by the state, contractor, or any other third party directly connected to the demonstration over which the state has control. Prior to release of these reports, articles, or other publications, CMS will be provided a copy including any associated press materials. CMS will be given ten (10) business days to review and comment on publications before they are released. CMS may choose to decline to comment or review some or all of these notifications and reviews. This requirement does not apply to the release or presentation of these materials to state or local government officials.

XI. GENERAL FINANCIAL REQUIREMENTS UNDER TITLE XIX

69. Quarterly Expenditure Reports. Effective with the quarter beginning October 1, 2011, the state shall provide quarterly expenditure reports using the Form CMS-64 to report total expenditures for services provided under the Medicaid program, including those provided through the demonstration under section 1115 authority. This project is approved for expenditures applicable to services rendered during the

demonstration period. CMS shall provide FFP for allowable demonstration expenditures only as long as they do not exceed the pre-defined limits on the costs incurred as specified in this Agreement.

70. Reporting Expenditures in the Demonstration. The following describes the reporting of expenditures subject to the budget neutrality cap:

a. **Tracking Expenditures.** In order to track expenditures under this demonstration, Arizona shall report demonstration expenditures through the Medicaid and state Children's Health Insurance Program Budget and Expenditure System (MBES/CBES), following routine CMS-64 reporting instructions outlined in section 2500 of the state Medicaid Manual. All expenditures subject to the budget neutrality cap shall be reported on separate Forms CMS-64.9 Waiver and/or 64.9P Waiver, identified by the demonstration project number assigned by CMS (including the project number extension, which indicates the DY in which services were rendered or for which capitation payments were made). For monitoring purposes, cost settlements must be recorded on Line 10.b, in lieu of Lines 9 or 10.C. For any other cost settlements (i.e., those not attributable to this demonstration), the adjustments should be reported on lines 9 or 10.C through 10.F, as instructed in the state Medicaid Manual. The term, "expenditures subject to the budget neutrality cap," is defined below.

b. **Use of Forms**. For each DY, separate Forms CMS-64.9 Waiver and/or 64.9P Waiver shall be submitted reporting expenditures for individuals enrolled in the demonstration, subject to the budget neutrality cap. The state must complete separate forms for the following categories:

i. AFDC/SOBRA
ii. SSI
iii. Expansion State Adults
iv. MED
v. ALTCS-DD
vi. ALTCS-EPD
vii. Payments to IHS and 638 Facilities
viii. SNCP
ix. DSH and Critical Access Hospital Payments (CAHP)**
x. New Adult Group
xi. TIP – DSHP
xii. TIP

**Critical Access Hospital Payments as defined in Attachment E

c. **Expenditures Subject to the Budget Neutrality Cap**. For purposes of section X, the term “expenditures subject to the budget neutrality cap” shall

include all Medicaid expenditures except those as described below, on behalf of the individuals who are enrolled in this demonstration. Expenditures excluded from this demonstration and the budget neutrality cap are Direct Services Claiming program expenditures for Medicaid in the public schools, Breast and Cervical Cancer Treatment program expenditures, Freedom to Work program expenditures, and all administrative expenditures.

d. **Premium and Cost Sharing Adjustment**. Premiums and other applicable cost sharing contributions from enrollees that are collected by the state from enrollees under the demonstration shall be reported to CMS each quarter on Form CMS-64 Summary Sheet line 9.D, columns A and B. In order to assure that the demonstration is properly credited with premium collections, premium collections (both total computable and Federal share) should also be reported on the CMS-64 Narrative.
The state should include these section 1115 premium collections as a manual adjustment (decrease) to the demonstration's actual expenditures on a quarterly basis.

e. **Administrative Costs.** Administrative costs shall not be included in the budget neutrality limit. All administrative costs shall be identified on the Forms CMS-64.10 Waiver and/or 64.10P Waiver.

f. **Claiming Period**. All claims for expenditures subject to the budget neutrality cap (including any cost settlements) must be made within 2 years after the calendar quarter in which the state made the expenditures. Furthermore, all claims for services during the demonstration period (including any cost settlements) must be made within 2 years after the conclusion or termination of the demonstration. During the latter 2- year period, the state must continue to identify separately net expenditures related to dates of service during the operation of the section 1115 demonstration on the CMS- 64 waiver forms in order to properly account for these expenditures in determining budget neutrality.

g. **Pharmacy Rebates.** The state may propose a methodology for assigning a portion of pharmacy rebates to the demonstration. The proposed methodology must determine, in a way that reasonably reflects actual rebate-eligible pharmacy utilization, the amounts of rebate that are attributable to pharmacy utilization under the demonstration *vs.* outside the demonstration, and appropriate subtotals by EG and DY. The methodology (and any subsequent changes to the methodology) must be approved in advance by the CMS Regional Office prior to use. Rebate amounts assigned to the demonstration must be reported on the appropriate Forms CMS-64.9 or 64.9P Waiver, and not on any other CMS-64.9 form (to avoid double-counting). In the absence of an approved methodology, all pharmacy rebates must be reported on Forms CMS-64.9 or 64.9P Base.

71. Reporting of Member Months. The following describes the reporting of member months in the demonstration. Member months subject to the budget neutrality cap include:

a. For the purpose of calculating the budget neutrality expenditure cap described in this Agreement, the state shall provide to CMS on a quarterly basis the actual number of eligible member months for:

1) Eligibility Group 1:AFDC / SOBRA
2) Eligibility Group 2: SSI
3) Eligibility Group 3: Expansion State Adults
4) Eligibility Group 4 ALTCS-DD
5) Eligibility Group 5: ALTCS–EPD
6) Eligibility Group 6: New Adult Group

b. This information shall be provided to CMS 30 days after the end of each quarter as part of the CMS-64 submission, either under the narrative section of the MBES/CBES or as a stand-alone report.

c. The term "eligible member months" refers to the number of months in which persons are eligible to receive services. For example, a person who is eligible for 3 months contributes three eligible member months to the total. Two individuals who are eligible for 2 months each contribute two eligible member months to the total, for a total of four eligible member months.

d. For the purposes of this demonstration, the term "demonstration eligibles" refers to all individuals covered by Arizona Medicaid with the exception of individuals in the Freedom to Work and Breast and Cervical Cancer Treatment programs

72. Standard Medicaid Funding Process. The standard Medicaid funding process must be used during the demonstration. The state must estimate matchable demonstration expenditures (total computable and Federal share) subject to the budget neutrality expenditure cap and separately report these expenditures by quarter for each Federal fiscal year on the Form CMS-37 for both the Medical Assistance Payments (MAP) and state and Local Administration Costs (ADM). CMS shall make Federal funds available based upon the state's estimate, as approved by CMS. Within 30 days after the end of each quarter, the state must submit the Form CMS-64 quarterly Medicaid expenditure report, showing Medicaid expenditures made in the quarter just ended. CMS shall reconcile expenditures reported on the Form CMS-64 with Federal funding previously made available to the state, and include the reconciling adjustment in the finalization of the grant award to the state.

73. Extent of Federal Financial Participation for the Demonstration. Subject to CMS approval of the source(s) of the non-Federal share of funding, CMS shall provide FFP at the applicable Federal matching rates for the following, subject to the limits described in this Agreement.

a. Administrative costs, including those associated with the administration of the demonstration;
b. Net expenditures and prior period adjustments of the Medicaid program that are paid in accordance with the approved Medicaid state plan; and
c. Net expenditures and prior period adjustments made with dates of service during the operation of the demonstration.

74. Medicare Part D Drugs. No FFP is available for this demonstration for Medicare Part D drugs.

75. Sources of Non-Federal Share. The state certifies that the source of the non-Federal share of funds for the demonstration is state/local monies. The state further certifies that such funds shall not be used as the non-Federal share for any other Federal grant or contract, except as permitted by law. All sources of non-Federal funding must be compliant with Title XIX of the Social Security Act and applicable regulations. In addition, all sources of the non-Federal share of funding are subject to CMS approval.

a. CMS shall review the sources of the non-Federal share of funding for the demonstration at any time. The state agrees that all funding sources deemed unacceptable by CMS shall be addressed within the time frames set by CMS.

b. The state shall provide information to CMS regarding all sources of the non- Federal share of funding for any amendments that impact the financial status of the program.

c. Under all circumstances, health care providers must retain 100 percent of the reimbursement amounts claimed by the state as demonstration expenditures. Moreover, no pre-arranged agreements (contractual or otherwise) may exist between the health care providers and the state and/or local government to return and/or redirect any portion of the Medicaid or demonstration payments. This confirmation of Medicaid and demonstration payment retention is made with the understanding that payments that are the normal operating expenses of conducting business (such as payments related to taxes (including health care provider-related taxes), fees, and business relationships with governments that are unrelated to Medicaid or the demonstration and in which there is no connection to Medicaid or demonstration payments) are not considered returning and/or redirecting a Medicaid or demonstration payment.

76. Certification of Public Expenditures. The state must certify that the following conditions for non-Federal share of demonstration expenditures are met:

a. Units of government, including governmentally operated health care providers, may certify that state or local tax dollars have been expended as the non-Federal share of funds under the demonstration.

b. To the extent the state utilizes certified public expenditures (CPEs) as the funding mechanism for title XIX (or under section 1115 authority) payments, CMS must approve a cost reimbursement methodology. This methodology must include a detailed explanation of the process by which the state would identify those costs eligible under title XIX (or under section 1115 authority) for purposes of certifying public expenditures.

i. To the extent that Arizona institutes the use of CPEs, the requirements of this term and condition fully apply. The state is subject to any policy guidance or regulation released by CMS regarding the use of CPEs.

ii. The disproportionate share hospital (DSH) payment methodology for Arizona State Hospital (ASH) and the Maricopa Medical Center will be cost reimbursement and will utilize CPEs as the funding system. The methodology and the cost identification/reconciliation process, as approved by CMS, are included as an amendment to the DSH methodology in Attachment D.

To the extent the state utilizes CPEs as the funding mechanism to claim Federal match for payments under the demonstration to non-governmental providers, the governmental entity appropriating funds to the provider must certify to the state the amount of such tax revenue (state or local) appropriated to the non-governmental provider used to satisfy demonstration expenditures. The non-governmental provider that incurred the cost must also provide cost documentation to support the state's claim for Federal match.

c. The state may use intergovernmental transfers to the extent that such funds are derived from state or local tax revenues and are transferred by units of government within the state. Any transfers from governmentally operated health care providers must be made in an amount not to exceed the non-Federal share of title XIX payments. Under all circumstances, health care providers must retain 100 percent of the claimed expenditure. Moreover, no pre-arranged agreements (contractual or otherwise) exist between health care providers and state and/or local government to return and/or redirect any portion of the Medicaid payments. This confirmation of Medicaid payment retention is made with the understanding that payments that are the normal

operating expenses of conducting business, such as payments related to taxes, (including health care provider-related taxes), fees, business relationships with governments that are unrelated to Medicaid and in which there is no connection to Medicaid payments, are not considered returning and/or redirecting a Medicaid payment.

77. **Applicability of Fee for Service Upper Payment Limits.** If expenditures (excluding fee for service expenditures for American Indian beneficiaries) for inpatient hospital and long-term care facility services, other institutional and non-institutional services, and drugs provided to AHCCCS fee-for-service beneficiaries equal or exceed 5 percent of the state's total Medical Assistance expenditures, the expenditure authority will be terminated and the state shall submit a demonstration amendment that includes a plan to comply with the administrative requirements of section 1902(a)(30)(A). The state shall submit documentation to CMS on an annual basis that shows the percentage AHCCCS fee-for-service beneficiary expenditures as compared to total Medical Assistance expenditures.

XII. GENERAL FINANCIAL REQUIREMENTS UNDER TITLE XXI

78. **Quarterly CHIP Expenditure Reports.** The state shall provide quarterly expenditure reports using the Form CMS-21 to report total expenditures for services provided to all demonstration populations receiving title XXI funds under section 1115 authority. This project is approved for expenditures applicable to services rendered during the demonstration period. CMS will provide FFP only for allowable demonstration title XXI expenditures that do not exceed the state's available title XXI funding.

79. **Tracking CHIP Expenditures.** In order to track title XXI expenditures under this demonstration, the state will report demonstration expenditures, excluding KidsCare II, through the MBES/CBES, following routine CMS-21 reporting instructions. Title XXI demonstration expenditures will be reported on separate Forms CMS-21 Waiver and/or CMS-21P Waiver identified by the demonstration project number assigned by CMS (including project number extension, which indicates the DY in which services were rendered or for which capitation payments were made). Expenditures for the KidsCare II program will be reported on the CMS-21 with the state plan population in the MBES/CBES. Separate KidsCare II reporting will be provided in the CMS-21 Narrative using a proportion of KidsCare II to the total KidsCare population based on date of payments.

a. **CHIP Claiming.** All claims for expenditures related to the demonstration (including any cost settlements) must be made within 2 years after the calendar quarter in which the state made the expenditures. Furthermore, all claims for services during the demonstration period (including cost settlements) must be made within 2 years after the conclusion or termination of the demonstration. During the latter 2-year period, the state must continue to identify separately net expenditures

related to dates of service during the operation of the demonstration on the Form CMS-21.

b. **Standard CHIP Funding Process.** The standard CHIP funding process will be used during the demonstration. Arizona must estimate matchable CHIP expenditures on the quarterly Form CMS-21B. On a separate CMS-21B, the state shall provide updated estimates of expenditures for the demonstration population. CMS will make Federal funds available based upon the state's estimate, as approved by CMS. Within 30 days after the end of each quarter, the state must submit the Form CMS-21 quarterly CHIP expenditure report. CMS will reconcile expenditures reported on the Form CMS-21 with Federal funding previously made available to the state, and include the reconciling adjustment in the finalization of the grant award to the state.

c. **Sources of CHIP Non-Federal Share.** The state will certify state/local monies used as matching funds for the demonstration and will further certify that such funds will not be used as matching funds for any other Federal grant or contract, except as permitted by Federal law. All sources of non-Federal share of funding and distribution of monies involving Federal match are subject to CMS approval. Upon review of the sources of the non-Federal share of funding and distribution methodologies of funds under the demonstration, all funding sources and distribution methodologies deemed unacceptable by CMS shall be addressed within the timeframes set by CMS. Any amendments that impact the financial status of the program shall require the state to provide information to CMS regarding all sources of the non-Federal share of funding

80. Limit on Title XXI Funding. Arizona will be subject to a limit on the amount of Federal title XXI funding that the state may receive for demonstration expenditures during the demonstration period. Federal title XXI funding available for demonstration expenditures is limited to the state's available allotment, including currently available reallocated funds. Should the state expend its available title XXI Federal funds for the claiming period, no further enhanced Federal matching funds will be available for costs of the demonstration until the next allotment becomes available.

81. Compliance with Federal Rules. All Federal rules shall continue to apply during the period of the demonstration if title XXI Federal funds are not available and the state decides to continue the program.

XIII. MONITORING BUDGET NEUTRALITY

82. Monitoring Demonstration Funding Flows. The state will provide CMS with information to effectively monitor the demonstration, upon request, in a reasonable time frame. These reports must follow the framework provided by CMS, which is subject to change as monitoring systems are developed/evolve, and be provided in

a structured manner that supports federal tracking and analysis.

a. Each year, AHCCCS will monitor and ensure that for each contract year, the DES/DDD have provided the appropriate state match necessary to draw down the FMAP for title XIX services provided, respectively, to ALTCS eligible persons. Specifically, AHCCCS and DES/DDD entered into an Intergovernmental Agreement, effective July 1, 1998, whereby DES/DDD transfers to AHCCCS the total amount appropriated for the state match for title XIX ALTCS expenditures. AHCCCS deposits the monies transferred into an Intergovernmental Fund from which AHCCCS has sole disbursement authority.

b. AHCCCS will report on a comparison of revenues and costs associated with the DES Interagency Agreement, including how any excess revenues are spent. The report will be due by January 15 of each year for the state fiscal year ending the previous June 30.

83. Limit on Title XIX Funding. The state shall be subject to a limit on the amount of Federal title XIX funding that the state may receive on selected Medicaid expenditures during the period of approval of the demonstration. The limit is determined by using a per capita cost method, and budget neutrality expenditure caps are set on a yearly basis with a cumulative budget neutrality expenditure limit for the length of the entire demonstration. The data supplied by the state to CMS to set the annual limits is subject to review and audit, and if found to be inaccurate, will result in a modified budget neutrality expenditure limit.

84. Risk. The state shall be at risk for the per capita cost (as determined by the method described below) for demonstration eligibles under this budget neutrality agreement, but not for the number of demonstration eligibles in each of the groups. By providing FFP for all demonstration eligibles, the state shall not be at risk for changing economic conditions that impact enrollment levels. However, by placing the state at risk for the per capita costs for demonstration eligibles under this agreement, CMS assures that Federal demonstration expenditures do not exceed the level of expenditures that would have occurred had there been no demonstration.

85. Demonstration Populations and Programs Subject to the Budget Neutrality Cap. The following demonstration populations are subject to the budget neutrality cap and are incorporated into the following eligibility groups:

a) Eligibility Group 1: AFDC / SOBRA

b) Eligibility Group 2: SSI

c) Eligibility Group 3: Expansion State Adults

d) Eligibility Group 4: ALTCS-DD

e) Eligibility Group 5: ALTCS–EPD

f) Eligibility Group 6: New Adult Group

g) Program Group 1: DSH

h) Program Group 2: Payments to IHS and Tribal Facilities

i) Program Group 3: SNCP

j) Program Group 4: KidsCare II

86. Budget Neutrality Expenditure Cap: The following describes the method for calculating the budget neutrality expenditure cap for the demonstration:

a. For each year of the budget neutrality agreement an annual budget neutrality expenditure cap is calculated for each eligibility group described in paragraph 85 as follows:

i. An annual eligibility group expenditure cap must be calculated as a product of the number of eligible member months reported by the state under paragraph 71 for each eligibility group, times the appropriate estimated per member per month (PM/PM) costs from the table in subparagraph (iii) below.

ii. The PM/PM costs in subparagraph (iii) below are net of premiums paid by demonstration eligibles.

iii. The PM/PM costs for the calculation of the annual budget neutrality expenditure cap for the eligibility groups subject to the budget neutrality agreement under this demonstration are specified below. The Expansion State Adults population is structured as a "pass-through" or a "hypothetical state plan population". Therefore, the state may not derive savings from these populations.

Eligibility Group	Trend Rate	DY 6	DY 7	DY 8	DY 9	DY 10
		FFY 2017	FFY 2018	FFY 2019	FFY 2020	FFY 2021
AFDC / SOBRA	4.5%	$749.11	$782.82	$818.05	$854.86	$893.33
SSI	4.0%	$1,162.52	$1,209.02	$1,257.38	$1,307.68	$1,359.99
Expansion State Adults*	NA*	$719.12	$728.45	$755.88	$775.75	$796.29

ALTCS - EPD	3.7%	$6,016.98	$6,239.61	$6,470.48	$6,709.89	$6,958.16
ALTCS - DD	4.0%	$6,462.96	$6,721.48	$6,990.34	$7,269.95	$7,560.75

iv. The annual budget neutrality expenditure cap for the demonstration as a whole is the sum of DSH allotment, the uncompensated care payments to IHS and tribal facilities, expenditures for the SNCP and KidsCare II program plus the annual expenditure caps for each eligibility group calculated in subparagraph (a)(i) above.

b. The overall budget neutrality expenditure cap for the 5-year demonstration period is the sum of the annual budget neutrality expenditure caps calculated in subparagraph (a) (iv) above for each of the 5 years. The federal share of the overall budget neutrality expenditure cap represents the maximum amount of FFP that the state may receive for expenditures on behalf of demonstration populations and expenditures described in paragraph 85 during the demonstration period.

c. Apply the effective FMAP, or enhanced 90 percent match for family planning services, that is determined from the MBES/CBES Schedule C report.

87. Monitoring of New Adult Group Spending and Opportunity to Adjust Projections. For each DY, a separate annual budget limit for the new adult group will be calculated as the product of the trended monthly per person cost times the actual number of eligible/member months as reported to CMS by the State under the guidelines set forth in paragraph 71. The trend rates and per capita cost estimates for the new adult group are listed in the table below.

Eligibility Group	Trend Rate	DY 6 FFY 2017	DY 7 FFY 2018	DY 8 FFY 2019	DY 9 FFY 2020	DY 10 FFY 2021
New Adult Group	3.30%	$655.13	$676.75	$699.08	$722.15	$745.98

a) If the State's experience of the take up rate for the new adult group and other factors that affect the costs of this population indicates that the new adult group PMPM limit described above may underestimate the actual costs of medical assistance for the new adult group, the State has the opportunity to submit an adjustment to the PMPM limit, along with detailed expenditure data to justify this, for CMS review without submitting an amendment pursuant to paragraph 7. In order to ensure timely adjustments to the PMPM limit for a demonstration year, the revised projection must be submitted to CMS by no later than the end of the third quarter of the demonstration year for which the adjustment would take effect.

b) The budget limit for the new adult group is calculated by taking the PMPM cost projection for the above group in each DY, times the number of eligible member months for that group and DY, and adding the products together across DYs. The federal share of the budget neutrality cap is obtained by multiplying total computable

budget neutrality cap by the federal share.

c) The State will not be allowed to obtain budget neutrality "savings" from this population.

d) If total FFP reported by the state for the new adult group should exceed the federal share of FFP for the budget limit for the new adult group by more than 3 percent following each demonstration year, the state must submit a corrective action plan to CMS for approval.

88. Enforcement of Budget Neutrality. CMS shall enforce budget neutrality over the life of the demonstration rather than on an annual basis. The budget neutrality test for the demonstration extension will incorporate net savings from the immediately prior demonstration period of October 1, 2011 through September 30, 2016, but not from any earlier approval period.

89. Budget Neutrality Savings Phase-Down. Beginning with the demonstration period that begins on October 1, 2016, the net variance between the without-waiver and actual with-waiver costs will be reduced. The reduced variance, calculated as a percentage of the total variance, is used in place of the total variance to determine overall budget neutrality of the demonstration. The formula for calculating the reduced variance is, reduced variance equals total variance times applicable percentage. The percentages are determined based on how long Medicaid populations have been enrolled in managed care subject to the demonstration. In the case of Arizona, the managed care program will retain 25 percent of the total variance as future savings for the demonstration. Should the state request an extension of its demonstration beyond September 30, 2021, the state must provide actual managed care capitation rate data for AHCCCS enrollees. Budget neutrality will be adjusted again to reflect revised PMPMs based on this data.

90. Exceeding Budget Neutrality. If, at the end of this demonstration period the overall budget neutrality expenditure cap has been exceeded, the excess Federal funds must be returned to CMS. If the demonstration is terminated prior to the end of the budget neutrality agreement, an evaluation of this provision shall be based on the time elapsed through the termination date.

Attachment A
Developing the Evaluation Design

Introduction

For states that are testing new approaches and flexibilities in their Medicaid programs through section 1115 demonstrations, evaluations are crucial to understand and disseminate what is or is not working and why. The evaluations of new initiatives seek to produce new knowledge and direction for programs and inform Medicaid policy for the future. While a narrative about what happened during a demonstration provides important information, the principal focus of the evaluation of a section 1115 demonstration should be obtaining and analyzing data on the process (e.g., whether the demonstration is being implemented as intended), outcomes (e.g., whether the demonstration is having the intended effects on the target population), and impacts of the demonstration (e.g., whether the outcomes observed in the targeted population differ from outcomes in similar populations not affected by the demonstration). Both state and federal governments need rigorous quantitative and qualitative evidence to inform policy decisions.

Expectations for Evaluation Designs

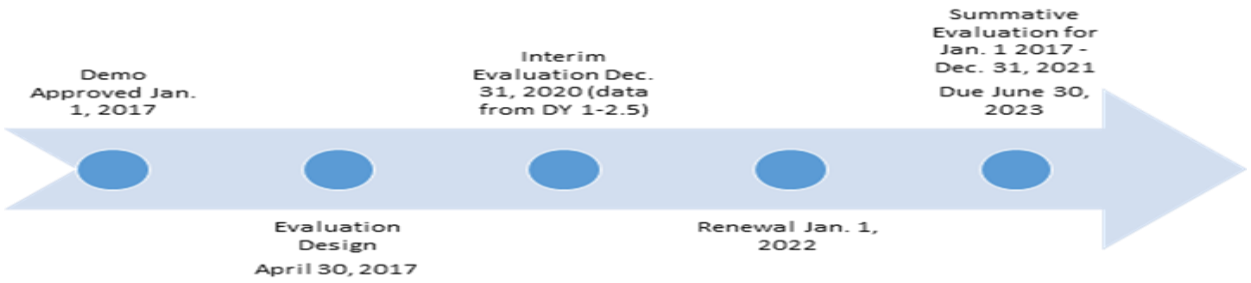
All states with Medicaid section 1115 demonstrations are required to conduct an evaluation, and the Evaluation Design is the roadmap for conducting the evaluation. The roadmap begins with the stated goals for the demonstration followed by the measurable evaluation questions and quantifiable hypotheses, all to support a determination of the extent to which the demonstration has achieved its goals. When conducting analyses and developing the evaluation reports, every effort should be made to follow the approved methodology. However, the state may request, and CMS may agree to, changes in the methodology in appropriate circumstances.

The format for the Evaluation Design is as follows:

A. General Background Information;
B. Evaluation Questions and Hypotheses;
C. Methodology;
D. Methodological Limitations;
E. Attachments.

Submission Timelines

There is a specified timeline for the state's submission of Evaluation Design and Reports. (The graphic below depicts an example of this timeline). In addition, the state should be aware that section 1115 evaluation documents are public records. The state is required to publish the Evaluation Design to the state's website within 30 days of CMS approval, as per 42 CFR 431.424(e). CMS will also publish a copy to the Medicaid.gov website.



Required Core Components of All Evaluation Designs

The Evaluation Design sets the stage for the Interim and Summative Evaluation Reports. It is important that the Evaluation Design explain the goals and objectives of the demonstration, the hypotheses related to the demonstration, and the methodology (and limitations) for the evaluation. A copy of the state's Driver Diagram (described in more detail in paragraph B2 below) should be included with an explanation of the depicted information.

A. General Background Information – In this section, the state should include basic information about the demonstration, such as:

1) The issue/s that the state is trying to address with its section 1115 demonstration and/or expenditure authorities, the potential magnitude of the issue/s, and why the state selected this course of action to address the issue/s (e.g., a narrative on why the state submitted an 1115 demonstration proposal).

2) The name of the demonstration, approval date of the demonstration, and period of time covered by the evaluation;

3) A brief description of the demonstration and history of the implementation, and whether the draft Evaluation Design applies to an amendment, extension, renewal, or expansion of, the demonstration;

4) For renewals, amendments, and major operational changes: A description of any changes to the demonstration during the approval period; the primary reason or reasons for the change; and how the Evaluation Design was altered or augmented to address these changes.

5) Describe the population groups impacted by the demonstration.

B. Evaluation Questions and Hypotheses – In this section, the state should:

1) Describe how the state's demonstration goals are translated into quantifiable targets for improvement, so that the performance of the demonstration in achieving these targets could be measured.

2) Include a Driver Diagram to visually aid readers in understanding the rationale behind the cause and effect of the variants behind the demonstration features and intended outcomes. A driver diagram is a particularly effective modeling tool when working to improve health and health care through specific interventions. The diagram includes information about the goal of the demonstration, and the features of the demonstration. A driver diagram depicts the relationship between the aim, the primary drivers that contribute directly to achieving the aim, and the secondary drivers that are necessary to achieve the primary drivers for the demonstration. For an example and more information on driver diagrams: https://innovation.cms.gov/files/x/hciatwoaimsdrvrs.pdf.

3) Identify the state's hypotheses about the outcomes of the demonstration:
   a. Discuss how the evaluation questions align with the hypotheses and the goals of the demonstration;
   b. Address how the research questions / hypotheses of this demonstration promote the objectives of Titles XIX and/or XXI.

C. Methodology – In this section, the state is to describe in detail the proposed research methodology. The focus is on showing that the evaluation meets the prevailing standards of scientific and academic rigor, and the results are statistically valid and reliable, and that where appropriate it builds upon other published research (use references).

This section provides the evidence that the demonstration evaluation will use the best available data; reports on, controls for, and makes appropriate adjustments for the limitations of the data and their effects on results; and discusses the generalizability of results. This section should provide enough transparency to explain what will be measured and how. Specifically, this section establishes:

1) *Evaluation Design* – Provide information on how the evaluation will be designed. For example, will the evaluation utilize a pre/post comparison? A post-only assessment? Will a comparison group be included?

2) *Target and Comparison Populations* – Describe the characteristics of the target and comparison populations, to include the inclusion and exclusion criteria. Include information about the level of analysis (beneficiary, provider, or program level), and if populations will be stratified into subgroups. Additionally discuss the sampling methodology for the populations, as well as support that a statistically reliable sample size is available.

3) *Evaluation Period* – Describe the time periods for which data will be included.

4) *Evaluation Measures* – List all measures that will be calculated to evaluate the demonstration. Include the measure stewards (i.e., the organization(s) responsible for the evaluation data elements/sets by "owning", defining, validating; securing;

and submitting for endorsement, etc.) Include numerator and denominator information. Additional items to ensure:

a. The measures contain assessments of both process and outcomes to evaluate the effects of the demonstration during the period of approval.
b. Qualitative analysis methods may be used, and must be described in detail.
c. Benchmarking and comparisons to national and state standards, should be used, where appropriate.
d. Proposed health measures could include CMS's Core Set of Health Care Quality Measures for Children in Medicaid and CHIP, Consumer Assessment of Health Care Providers and Systems (CAHPS), the Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults and/or measures endorsed by National Quality Forum (NQF).
e. Proposed performance metrics can be selected from nationally recognized metrics, for example from sets developed by the Center for Medicare and Medicaid Innovation or for meaningful use under Health Information Technology (HIT).
f. Among considerations in selecting the metrics shall be opportunities identified by the state for improving quality of care and health outcomes, and controlling cost of care.

5) *Data Sources* – Explain where the data will be obtained, and efforts to validate and clean the data. Discuss the quality and limitations of the data sources.

If primary data (data collected specifically for the evaluation) – The methods by which the data will be collected, the source of the proposed question/responses, the frequency and timing of data collection, and the method of data collection. (Copies of any proposed surveys must be reviewed with CMS for approval before implementation).

6) *Analytic Methods* – This section includes the details of the selected quantitative and/or qualitative measures to adequately assess the effectiveness of the demonstration. This section should:

a. Identify the specific statistical testing which will be undertaken for each measure (e.g., t-tests, chi-square, odds ratio, ANOVA, regression). Table A is an example of how the state might want to articulate the analytic methods for each research question and measure.
b. Explain how the state will isolate the effects of the demonstration (from other initiatives occurring in the state at the same time) through the use of comparison groups.
c. A discussion of how propensity score matching and difference in differences design may be used to adjust for differences in comparison populations over time (if applicable).
d. The application of sensitivity analyses, as appropriate, should be considered.

7) *Other Additions* – The state may provide any other information pertinent to the Evaluation Design of the demonstration.

Table A. Example Design Table for the Evaluation of the Demonstration

Research Question	Outcome measures used to address the research question	Sample or population subgroups to be compared	Data Sources	Analytic Methods
Hypothesis 1				
Research question 1a	-Measure 1 -Measure 2 -Measure 3	-Sample e.g. All attributed Medicaid beneficiaries -Beneficiaries with diabetes diagnosis	-Medicaid fee-for-service and encounter claims records	-Interrupted time series
Research question 1b	-Measure 1 -Measure 2 -Measure 3 -Measure 4	-sample, e.g., PPS patients who meet survey selection requirements (used services within the last 6 months)	-Patient survey	Descriptive statistics
Hypothesis 2				
Research question 2a	-Measure 1 -Measure 2	-Sample, e.g., PPS administrators	-Key informants	Qualitative analysis of interview material

D. Methodological Limitations – This section provides detailed information on the limitations of the evaluation. This could include the design, the data sources or collection process, or analytic methods. The state should also identify any efforts to minimize the limitations. Additionally, this section should include any information about features of the demonstration that effectively present methodological constraints that the state would like CMS to take into consideration in its review.

E. Special Methodological Considerations – CMS recognizes that there may be certain instances where a state cannot meet the rigor of an evaluation as expected by CMS. In these instances, the state should document for CMS why it is not able to incorporate key components of a rigorous evaluation, including comparison groups and baseline data analyses. Examples of considerations include when the demonstration is considered successful without issues or concerns that would require more regular reporting, such as:

a. Operating smoothly without administrative changes; and
b. No or minimal appeals and grievances; and
c. No state issues with CMS-64 reporting or budget neutrality; and

d. No Corrective Action Plans (CAP) for the demonstration.

F. Attachments

1) **Independent Evaluator.** This includes a discussion of the state's process for obtaining an independent entity to conduct the evaluation, including a description of the qualifications that the selected entity must possess, and how the state will assure no conflict of interest. Explain how the state will assure that the Independent Evaluator will conduct a fair and impartial evaluation, prepare an objective Evaluation Report, and that there would be no conflict of interest. The evaluation design should include a "No Conflict of Interest" statement signed by the independent evaluator.

2) **Evaluation Budget.** A budget for implementing the evaluation shall be provided with the draft Evaluation Design. It will include the total estimated cost, as well as a breakdown of estimated staff, administrative, and other costs for all aspects of the evaluation. Examples include, but are not limited to: the development of all survey and measurement instruments; quantitative and qualitative data collection; data cleaning and analyses; and reports generation. A justification of the costs may be required by CMS if the estimates provided do not appear to sufficiently cover the costs of the draft Evaluation Design or if CMS finds that the draft Evaluation Design is not sufficiently developed.

3) **Timeline and Major Milestones.** Describe the timeline for conducting the various evaluation activities, including dates for evaluation-related milestones, including those related to procurement of an outside contractor, if applicable, and deliverables. The Final Evaluation Design shall incorporate an Interim and Summative Evaluation. Pursuant to 42 CFR 431.424(c)(v), this timeline should also include the date by which the Final Summative Evaluation report is due.

Attachment B
Preparing the Evaluation Report

Introduction

For states that are testing new approaches and flexibilities in their Medicaid programs through section 1115 demonstrations, evaluations are crucial to understand and disseminate what is or is not working and why. The evaluations of new initiatives seek to produce new knowledge and direction for programs and inform Medicaid policy for the future. While a narrative about what happened during a demonstration provides important information, the principal focus of the evaluation of a section 1115 demonstration should be obtaining and analyzing data on the process (e.g., whether the demonstration is being implemented as intended), outcomes (e.g., whether the demonstration is having the intended effects on the target population), and impacts of the demonstration (e.g., whether the outcomes observed in the targeted population differ from outcomes in similar populations not affected by the demonstration). Both state and federal governments need improved quantitative and qualitative evidence to inform policy decisions.

Expectations for Evaluation Reports

Medicaid section 1115 demonstrations are required to conduct an evaluation that is valid (the extent to which the evaluation measures what it is intended to measure), and reliable (the extent to which the evaluation could produce the same results when used repeatedly). To this end, the already approved Evaluation Design is a map that begins with the demonstration goals, then transitions to the evaluation questions, and to the specific hypotheses, which will be used to investigate whether the demonstration has achieved its goals. States should have a well-structured analysis plan for their evaluation. With the following kind of information, states and CMS are best poised to inform and shape Medicaid policy in order to improve the health and welfare of Medicaid beneficiaries for decades to come. When conducting analyses and developing the evaluation reports, every effort should be made to follow the approved methodology. However, the state may request, and CMS may agree to, changes in the methodology in appropriate circumstances. When submitting an application for renewal, the interim evaluation report should be posted on the state's website with the application for public comment. Additionally, the interim evaluation report must be included in its entirety with the application submitted to CMS.

Intent of this Attachment

Title XIX of the Social Security Act (the Act) requires an evaluation of every section 1115 demonstration. In order to fulfill this requirement, the state's submission must provide a comprehensive written presentation of all key components of the demonstration, and include all required elements specified in the approved Evaluation Design. This Attachment is intended to assist states with organizing the required information in a standardized format and understanding the criteria that CMS will use in reviewing the submitted Interim and Summative Evaluation Reports.

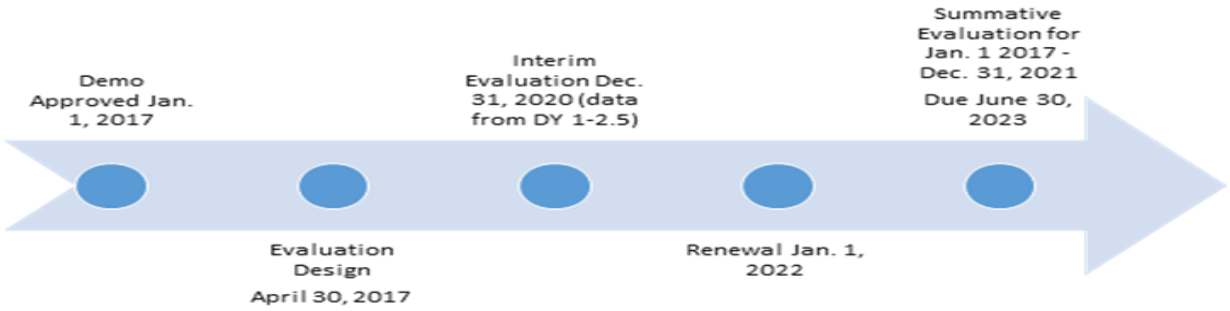
The format for the Interim and Summative Evaluation reports is as follows:

A. Executive Summary;

B. General Background Information;
C. Evaluation Questions and Hypotheses;
D. Methodology;
E. Methodological Limitations;
F. Results;
G. Conclusions;
H. Interpretations, and Policy Implications and Interactions with Other State Initiatives;
I. Lessons Learned and Recommendations; and
J. Attachment(s).

Submission Timelines

There is a specified timeline for the state's submission of Evaluation Designs and Evaluation Reports. These dates are specified in the demonstration Special Terms and Conditions (STCs). (The graphic below depicts an example of this timeline). In addition, the state should be aware that section 1115 evaluation documents are public records. In order to assure the dissemination of the evaluation findings, lessons learned, and recommendations, the state is required to publish the evaluation design and reports to the state's website within 30 days of CMS approval, as per 42 CFR 431.424(d). CMS will also publish a copy to the Medicaid.gov website.



Required Core Components of Interim and Summative Evaluation Reports

The section 1115 Evaluation Report presents the research about the section 1115 Demonstration. It is important that the report incorporate a discussion about the structure of the Evaluation Design to explain the goals and objectives of the demonstration, the hypotheses related to the demonstration, and the methodology for the evaluation. A copy of the state's Driver Diagram (described in the Evaluation Design Attachment) must be included with an explanation of the depicted information. The Evaluation Report should present the relevant data and an interpretation of the findings; assess the outcomes (what worked and what did not work); explain the limitations of the design, data, and analyses; offer recommendations regarding what (in hindsight) the state would further advance, or do differently, and why; and discuss the implications on future Medicaid policy. Therefore, the state's submission must include:

A. Executive Summary – A summary of the demonstration, the principal results, interpretations, and recommendations of the evaluation.

B. General Background Information about the Demonstration – In this section, the state should include basic information about the demonstration, such as:

1) The issues that the state is trying to address with its section 1115 demonstration and/or expenditure authorities, how the state became aware of the issue, the potential magnitude of the issue, and why the state selected this course of action to address the issues.
2) The name of the demonstration, approval date of the demonstration, and period of time covered by the evaluation;
3) A brief description of the demonstration and history of the implementation, and if the evaluation is for an amendment, extension, renewal, or expansion of, the demonstration;
4) For renewals, amendments, and major operational changes: A description of any changes to the demonstration during the approval period; whether the motivation for change was due to political, economic, and fiscal factors at the state and/or federal level; whether the programmatic changes were implemented to improve beneficiary health, provider/health plan performance, or administrative efficiency; and how the Evaluation Design was altered or augmented to address these changes.
5) Describe the population groups impacted by the demonstration.

C. Evaluation Questions and Hypotheses – In this section, the state should:

1) Describe how the state's demonstration goals were translated into quantifiable targets for improvement, so that the performance of the demonstration in achieving these targets could be measured. The inclusion of a Driver Diagram in the Evaluation Report is highly encouraged, as the visual can aid readers in understanding the rationale behind the demonstration features and intended outcomes.
2) Identify the state's hypotheses about the outcomes of the demonstration;
    a. Discuss how the goals of the demonstration align with the evaluation questions and hypotheses;
    b. Explain how this Evaluation Report builds upon and expands earlier demonstration evaluation findings (if applicable); and
    c. Address how the research questions / hypotheses of this demonstration promote the objectives of Titles XIX and XXI.

D. Methodology – In this section, the state is to provide an overview of the research that was conducted to evaluate the section 1115 demonstration consistent with the approved Evaluation Design.

The evaluation Design should also be included as an attachment to the report. The focus is on showing that the evaluation builds upon other published research (use references), and meets the prevailing standards of scientific and academic rigor, and the results are statistically valid and reliable.

An interim report should provide any available data to date, including both quantitative

and qualitative assessments. The Evaluation Design should assure there is appropriate data development and collection in a timely manner to support developing an interim evaluation.

This section provides the evidence that the demonstration evaluation used the best available data and describes why potential alternative data sources were not used; reported on, controlled for, and made appropriate adjustments for the limitations of the data and their effects on results; and discusses the generalizability of results. This section should provide enough transparency to explain what was measured and how. Specifically, this section establishes that the approved Evaluation Design was followed by describing:

1) *Evaluation Design* – Will the evaluation be an assessment of: pre/post, post-only, with or without comparison groups, etc?
2) *Target and Comparison Populations* – Describe the target and comparison populations; include inclusion and exclusion criteria.
3) *Evaluation Period* – Describe the time periods for which data will be collected
4) *Evaluation Measures* – What measures are used to evaluate the demonstration, and who are the measure stewards?
5) *Data Sources* – Explain where the data will be obtained, and efforts to validate and clean the data.
6) *Analytic Methods* – Identify specific statistical testing which will be undertaken for each measure (t-tests, chi-square, odds ratio, ANOVA, regression, etc.).
7) *Other Additions* – The state may provide any other information pertinent to the evaluation of the demonstration.

E. Methodological Limitations

This section provides sufficient information for discerning the strengths and weaknesses of the study design, data sources/collection, and analyses.

F. Results – In this section, the state presents and uses the quantitative and qualitative data to show to whether and to what degree the evaluation questions and hypotheses of the demonstration were achieved. The findings should visually depict the demonstration results (tables, charts, graphs). This section should include information on the statistical tests conducted.

G. Conclusions – In this section, the state will present the conclusions about the evaluation results.

1. In general, did the results show that the demonstration was/was not effective in achieving the goals and objectives established at the beginning of the demonstration?

2. Based on the findings, discuss the outcomes and impacts of the demonstration and identify the opportunities for improvements. Specifically:
   a. If the state did not fully achieve its intended goals, why not? What could be done in the future that would better enable such an effort to more fully achieve those purposes, aims, objectives, and goals?

H. Interpretations, Policy Implications and Interactions with Other State Initiatives – In this section, the state will discuss the section 1115 demonstration within an overall Medicaid context and long range planning. This should include interrelations of the demonstration with other aspects of the state's Medicaid program, interactions with other Medicaid demonstrations, and other federal awards affecting service delivery, health outcomes and the cost of care under Medicaid. This section provides the state with an opportunity to provide interpretation of the data using evaluative reasoning to make judgments about the demonstration. This section should also include a discussion of the implications of the findings at both the state and national levels.

I. Lessons Learned and Recommendations – This section of the Evaluation Report involves the transfer of knowledge. Specifically, the "opportunities" for future or revised demonstrations to inform Medicaid policymakers, advocates, and stakeholders is just as significant as identifying current successful strategies. Based on the evaluation results:

1) What lessons were learned as a result of the demonstration?
2) What would you recommend to other states which may be interested in implementing a similar approach?

J. Attachment

1) Evaluation Design: Provide the CMS-approved Evaluation Design

Attachment C
AHCCCS Disproportionate Share Hospital Program DSH 102

Congress established the Medicaid Disproportionate Share Hospital (DSH) program in 1981 to provide financial support to hospitals that serve a significant number of low-income patients with special needs.

This document sets forth the criteria by which Arizona defines DSH hospitals and the methodology through which DSH payments are calculated and distributed. The document is divided into the following major topics:

- Hospital eligibility requirements
- Data on a State Plan Year Basis
- Timing of eligibility determination
- Medicaid Inpatient Utilization Rate (MIUR) calculation (Overall and Group 1 and 1A eligibility)
- Low Income Utilization Rate (LIUR) calculation (Group 2 and 2A eligibility)
- Governmentally-operated hospitals (Group 4 eligibility)
- Obstetrician Requirements
- Payment
- Group 5 Eligibility Determination
- Aggregate Limits
- Reconciliations
- Certified Public Expenditures (CPEs)
- Grievances and appeals
- Other provisions

Hospital Eligibility Requirements

In order to be considered a DSH hospital in Arizona, a hospital must be located in the state of Arizona, must submit the information required by AHCCCS by the specified due date, must satisfy one (1) of the conditions in Column A, AND must satisfy one (1) of the conditions in Column B, AND must satisfy the condition in Column C.

COLUMN A	COLUMN B	COLUMN C
1. The hospital has a Medicaid Inpatient Utilization Rate (MIUR) which is at least one standard deviation above the mean MIUR for all hospitals	1. The hospital has at least two (2) obstetricians who have staff privileges at the hospital and who have agreed to provide obstetric services to Medicaid	The hospital has an MIUR of at least 1 percent

receiving a Medicaid payment in the state and is an IHS facility, tribally owned and/or operated facility, or an other federally owned or operated facility ("Group 1") 1.A. The hospital has a MIUR which is at least one standard deviation above the mean MIUR for all hospitals receiving a Medicaid payment in the state and is a privately owned or privately operated hospital licensed by the state of Arizona ("Group 1A") 2. The hospital has a Low Income Utilization Rate (LIUR) that exceeds 25% and is an IHS facility, tribally owned and/or operated facility, or an other federally owned or operated facility ("Group 2") 2.A. The hospital has a LIUR that exceeds 25% and is a privately owned or privately operated hospital licensed by the state of Arizona ("Group 2A") 3. The hospital is a governmentally-operated hospital and is not an IHS facility, tribally owned and/or operated facility, or an other federally owned or operated facility. ("Group 4")	patients 2. The hospital is located in a rural area, defined in accordance with Section 1923(d)(2)(B) of the Social Security Act, and has at least two (2) physicians with staff privileges to perform non-emergency obstetric procedures 3. The patients of the hospital are predominantly under 18 years of age 4. The hospital was in existence on December 22, 1987 but did not offer non-emergency obstetric services as of that date	

Medicare Certification

In addition to the eligibility requirements outlined above, in order to receive payment under Medicaid, hospitals must meet the requirements for participation as a hospital in Medicare (except in the case of medical supervision of nurse-midwife services). Therefore, for purposes of DSH, the facility must be Medicare-certified during the state plan rate year for which the initial DSH payment is made.

If a facility is Medicare-certified for the full state plan rate year for which the initial DSH payment is made, but subsequently loses that certification, the facility remains eligible to receive the payment (together with any payment adjustments). If a hospital is only Medicare-certified for part of the state plan rate year for which the initial DSH payment is made, the eligibility and the payment will be calculated based on the period for which the hospital was Medicare- certified.

Data on a State Plan Year Basis

DSH payments are made based on the State Plan Year. The State Plan Year (or State Plan Rate Year or SPY) is equivalent to the Federal Fiscal Year and runs from October 1 to September 30 of each year. The calculations to determine eligibility for, and the amount of, DSH payments, will be made on the basis of the State Plan Year. This requirement will impact the information collected and submitted by all hospitals that do not have a fiscal year and/or CMS 2552 Report year that runs from 10/1 to 9/30.

In order to make the necessary calculations to determine eligibility and payments on a State Plan Year basis, hospitals that do not have a fiscal/CMS Report year that runs from 10/1 to 9/30 will have to submit cost reports and other data elements for each of the fiscal/CMS Report years that encompass the State Plan Year. For example, for SPY 2008 (10/1/07 to 9/30/08), for a hospital that has a CMS 2552 Report year that runs from 7/1 to 6/30, the hospital will have to submit the CMS 2552 Report and other data elements for the fiscal/CMS Report year that ends on 6/30/08 and the same information for the fiscal/CMS Report year that ends 6/30/09.[1]

As discussed later in this Attachment, AHCCCS will extract all Title XIX (Medicaid) claims and encounters from the PMMIS system on the basis of each hospital's CMS 2552 Report year and these data will serve as the basis for all Medicaid days, charges and payments. Similarly, AHCCCS will collect all Medicaid and Non-Title XIX payments (for the Comprehensive Medical and Dental Program, behavioral health services and payments for trauma and emergency departments) on the basis of each hospital's CMS 2552 Report year.

[1] Note however that the use of the 2008 and 2009 reports and information referred to in this paragraph is for the determination of *final* DSH payments. For the initial 2008 DSH payments, reports and information for 2006 and 2007 will be submitted. For a discussion of initial payments, final payments and data sources, see the discussions that follow.

All data compiled by the hospitals (e.g. total, uninsured and charity days; charges and payments; and state and local subsidy payment information not provided by AHCCCS) will be compiled on a CMS 2552 Report year basis.

Except in the case where a hospital's fiscal year is identical to the State Plan Year – the calculations to determine eligibility for, and the amount of, DSH payments, will be performed separately for each hospital's fiscal year and these results will be prorated based on the distribution of months from each of the two years that encompass the SPY. For example, for SPY 2008 (10/1/07 to 9/30/08), for a hospital that has a CMS 2552 Report year that runs from 7/1 to 6/30, the proration of the results of the calculations will be derived by summing:

1. $9/12^{th}$ of the result of the calculations performed for the fiscal/CMS Report year ending 6/30/08, and
2. $3/12^{th}$ of the result of the calculations performed for the fiscal/CMS Report year ending 6/30/09.

Timing of Eligibility Determination

The eligibility determination calculations will be performed annually for all hospitals located in the state of Arizona that are registered as providers with AHCCCS that have submitted the information required by this document and/or as otherwise requested by AHCCCS during the application process. In order to be considered "submitted during the application process," the information must be received by AHCCCS by the due date specified in a request for information communicated to the Chief Financial Officer of the hospital. This does not preclude AHCCCS from using other information available to AHCCCS to verify or supplement the information submitted by the hospitals. The calculations will be performed with the information submitted by hospitals, or available to AHCCCS on the due date specified as the deadline for the submission of information.

The eligibility determination will be made in at least two steps:

1. The first step of the eligibility process will occur in the state plan year of the initial DSH payment. To determine initial eligibility, AHCCCS will:
    a. Extract from the PMMIS system all inpatient and outpatient hospital claims and encounters by date of service for each registered hospital for that hospital's fiscal years that encompass the state plan rate year two years prior to the state plan year of the initial DSH payment.
    b. Based on the extracted claims and encounters data and data provided by the hospitals, determine for each hospital whether or not that hospital has a Medicaid Inpatient Utilization Rate (MIUR) of at least 1%. For hospitals that qualify under this criteria, determine if the hospital:
        i. Meets the criteria for Group 1
        ii. Meets the criteria for Group 1A
        iii. Meets the criteria for Group 2

iv. Meets the criteria for Group 2A
v. Meets the criteria for Group 4

c. Based on certifications filed by each hospital, determine if the hospital satisfies the criteria in Column B above.

2. The second step of the eligibility process will occur in the state plan rate year two years after the state plan rate year of the initial DSH payment using the same steps above except that the data will be from the actual state plan year(s) for which the DSH payment is made.

3. AHCCCS may redetermine any hospital's eligibility for any DSH payment should the agency become aware of any information that may prove that the hospital was not eligible for a DSH payment.

MIUR Calculation (Overall Eligibility Criteria and Group 1 and Group 1A Eligibility)

A hospital's Medicaid Inpatient Utilization Rate (MIUR) will determine the hospital's overall eligibility for DSH (Column C above) as well as the hospital's eligibility for Group 1 and Group 1A. A hospital's MIUR is calculated using the following equation:

$$MIUR = \cdot \frac{\textit{Total Medicaid Inpatient Days}}{\textit{Total Number of Inpatient Days}}$$

The calculation will be performed based on the state plan year. In order to find each hospital's MIUR for the state plan year, AHCCCS will calculate a MIUR separately for each hospital fiscal/CMS Report year that encompasses the relevant State Plan Year and then prorate the results from the two hospital fiscal/CMS Report years as described in the discussion above entitled "Data on a State Plan Year Basis". AHCCCS will perform this calculation twice. The first calculation will be performed using the state plan year two years prior to the year of the initial DSH payment. The second calculation will encompass the state plan year of the initial DSH payment. The CMS 2552 form(s) to be used is/are the most recent available cost report(s) that encompass the relevant state plan year

AHCCCS may apply trending factors for the initial calculation to account for changes in utilization and/or population (e.g., due to changes in Medicaid eligibility criteria). The adjustments will reflect increases and decreases resulting from changes in operations or circumstances that are not reflected in the information from the state plan year two years prior.

If a hospital has a MIUR of at least 1%, and the obstetrical criteria of Column B above are satisfied, it will meet the overall eligibility criteria. If a hospital has a MIUR which is at least one standard deviation above the mean MIUR for all Arizona hospitals receiving a Medicaid payment in that State Plan Year, it will meet the eligibility for Group 1 or 1A. Note that meeting overall eligibility criteria does not ensure that a hospital will meet the

eligibility criteria for any Group.

In performing the calculations:

1. "Inpatient Days" includes:
    a. Fee-for-service and managed care days, and
    b. Each day in which an individual (including a newborn) is an inpatient in the hospital, whether or not the individual is in a specialized ward, and whether or not the individual remains in the hospital for lack of suitable placement elsewhere.
2. AHCCCS will extract claims and encounter data for "Medicaid Inpatient Days" " from the PMMIS system. The data extraction will be performed using dates of service as specified in the earlier section titled "Timing of Eligibility Determination," found in both step 1(a) and step 2.

    "Medicaid Inpatient Days" includes all adjudicated inpatient days for Title XIX clients, including days paid by Medicare, except for Title XIX members between 21 and 65 years of age who is in an Institution for Mental Disease (IMD).

3. For "Total number of inpatient days" data should be taken from hospital cost reports. The specific figures to be used are found on Worksheet S-3, Lines 1 and 8 through 13, Column 8 plus Line 16 through 18, Column 8 for hospital subprovider days.

Calculation of the mean MIUR and the Standard Deviation

In calculating the mean MIUR, the MIUR calculated for the state plan year for all Arizona hospitals that have received a Medicaid payment will be used. The mean MIUR – the average of the individual MIURs – will be calculated based on all the individual state plan year MIURs greater than zero (i.e. including the MIURs that are less than 1%). The standard deviation will be calculated based on the same list of individual hospital MIURs.

LIUR Calculation (Group 2 and 2 A Eligibility)

A hospital's Low Income Utilization Rate (LIUR) will determine the hospital's eligibility for Group 2. A hospital's LIUR is calculated by summing the following two equations:

$$\text{LIUR} = \frac{\text{Total Medicaid Patient Services Charges + Total State and Local Cash Subsidies}}{\text{Total Charges for Patient Services}} + \frac{\text{Total Inpatient Charges Attributable to Charity Care-Cash Subsidies Portion}}{\text{Total Inpatient Charges}}$$

The calculation will be performed based on the state plan year. In order to find each hospital's LIUR for the state plan year, AHCCCS will calculate a LIUR separately for each

hospital fiscal/CMS Report year that encompasses the relevant state plan year and then prorate the results from the two hospital fiscal/CMS Report years as described in the discussion above entitled "Data on a State Plan Year Basis".

If a hospital has a LIUR that exceeds 25% it will meet the eligibility for Group 2 or 2A. AHCCCS will perform this calculation twice. The first calculation will be performed using the state plan year two years prior to the year of the initial DSH payment. The second calculation will encompass the state plan year of the initial DSH payment. The CMS 2552 form(s) to be used is/are the most recent available report(s) that encompass the relevant state plan year.

AHCCCS may apply trending factors for the initial calculation to account for changes in utilization, population (e.g., due to changes in Medicaid eligibility criteria), supplemental payments, and/or Medicaid payments and rates. The adjustments may increase or decrease the days, costs, charges, or payments reflected on the cost reports, Medicaid data and/or uninsured information. The adjustments will reflect increases and decreases resulting from changes in operations or circumstances that are not reflected in the information from the state plan year two years prior.

In performing the calculations:

1. "Total Medicaid Patient Services Charges" includes Title XIX charges for inpatient and outpatient services (both fee-for-service and managed care) extracted from PMMIS.

2. "Total Medicaid Patient Services Charges" does not include DSH payments or payments made for GME, Critical Access Hospitals, Rural Hospital Inpatient Payments or any other Title XIX supplemental payments authorized by the Legislature as these amounts are effectively included in charges.

3. "Total State and Local Cash Subsidies for Patient Services" includes payments made with state-only or local-only funds. AHCCCS will account for the amounts of such payments made during the relevant fiscal years. These payments include, but are not limited to
    a. Payments made for:
        i. Non-Title XIX and Non-Title XXI enrollees in the Comprehensive Medical and Dental Program (CMDP), this information is provided to AHCCCS from CMDP
        ii. Non-Title XIX and Non-Title XXI enrollees in the Behavioral Health Services Program
        iii. The support of trauma centers and emergency departments
    b. Payments reported by hospitals to AHCCCS which are made by:
        i. An appropriation of state-only funds
        ii. The Arizona State Hospital
        iii. Local governments including (but not limited to):

(1) Tax levies dedicated to support a governmentally-operated hospital
(2) Tax levies from a hospital district organized pursuant to A.R.S. § 48-1901 et seq.
(3) Subsidies for the general support of a hospital

4. "Total State and Local Cash Subsidies for Patient Services" does not include payments for or by:
    a. Inpatient or outpatient services for employees of state or local governments
    b. Governmentally-operated AHCCCS health plans or program contractors
    c. Tax reductions or abatements

5. "Total Charges for Patient Services" includes total gross patient revenue for hospital services (including hospital subprovider charges) from hospital cost report(s). The specific figures to be used are found on Worksheet C Part I, Column 8 Line 200 less Lines 44 to 46, less Lines 88 to 89, less Lines 94 to 101, less Lines 105 to 112, and less Lines 115 to 117. If charges for Rural Health Clinics or Federally Qualified Health Centers appear anywhere other than on Lines 88 to 89, these charge amounts should also be deducted from Line 200.

6. "Total Inpatient Charges Attributable to Charity Care" includes the amount of inpatient services – stated as charges – that is provided free to individuals who cannot afford health care due to inadequate resources as determined by the hospital's charity care policy and do not otherwise qualify for government subsidized insurance. In order to qualify as charity care, payment may neither be received nor expected. This data is taken from the hospital claims and financial records submitted with information requested by AHCCCS during the application process.

7. "Total Inpatient Charges Attributable to Charity Care" does not include bad debt expense or contract allowances and discounts offered to third party payors or self pay patients that do not qualify for charity care pursuant to the hospital's charity care policy.

8. "Cash Subsidies Portion Attributable to Inpatient" means that portion of "Total state and Local Cash Subsidies for Patient Services" that is attributable to inpatient services. Data should be taken from the hospital claims and financial records submitted with information requested by AHCCCS during the application process. If the hospital receives subsidies for the general operation of the hospital, allocation between outpatient and inpatient should be based on the percentage of total inpatient charges to total charges from patient services.

9. "Total Inpatient Charges" includes total inpatient and hospital subprovider charges without any deductions for contract allowances or discounts offered to third party payors or self pay patients. Data should be taken from hospital cost report(s). The

specific figures to be used are found in Worksheet C, Part I, Column 6 Line 200 less Lines 44 to 46, less Lines 88 to 89, less Lines 94 to 101, less Lines 105 to 112, and less Lines 115 to
117. If charges for Rural Health Clinics or Federally Qualified Health Clinics appear anywhere other than on Lines 88 to 89, these charge amounts should also be deducted from Line 200.

Governmentally-Operated Hospitals (Group 4 Eligibility)

Because the state has designated all governmentally-operated hospitals (represented in Group 4) as DSH hospitals, no eligibility calculations are required other than the minimum qualifications in columns B and C.

Obstetrician Requirements

In order to ensure that hospitals receiving DSH payments meet requirements related to obstetricians, all hospitals that are determined to have a MIUR of at least 1% must file a completed certification statement indicating their compliance with the requirements. Any hospital that fails to return the certification statement by the date specified by AHCCCS will not be eligible to receive DSH payments for the state plan year of the initial DSH payment.

For the determination of a hospital's compliance with the obstetrician requirement, the certification will be based on the state plan year of the initial DSH payment from the start of the state plan year to the date of certification.

The certification statement shall incorporate the following language:

> I certify that the hospital indicated below currently has and has had since the beginning of the current state plan year at least two (2) obstetricians with staff privileges who have agreed to provide obstetric services to individuals eligible for Medicaid, OR
>
> I certify that the hospital indicated below is located in a rural area and currently has and has had since the beginning of the current state plan year at least two (2) qualified physicians with staff privileges who have agreed to provide non-emergency obstetric services to individuals eligible for Medicaid, OR
>
> I certify that the hospital indicated below did not offer non-emergency obstetric services to the general population as of December 22, 1987, or that the inpatients of the hospital are predominantly individuals under 18 years of age.

Payment

<u>Pools and Changing Payment Levels</u>

The DSH program in Arizona is funded through a six pool system. With the exception of Group 5, each of the pools correlates to one of the hospital eligibility Groups. The amounts of funding for the pools for the current state plan year are contained in Exhibit 3.

When determining the payment amounts, hospitals in Group 1 and 2 will be calculated concurrently, and if a hospital qualifies for more than one pool, the hospital will be categorized into the pool that maximizes its DSH payment. When determining the payment amounts, hospitals in Group 1A and 2A will be calculated concurrently, and if a hospital qualifies for more than one pool, the hospital will be categorized into the pool that maximizes its DSH payment.

There are five instances where the initial DSH payment to one or more non-governmental hospitals may change:

1. A hospital is found on the second eligibility determination (or any subsequent eligibility check) to not be eligible for a DSH payment in the state plan year of the initial DSH payment. In this instance, the amount of payment to the hospital will be recouped and the recouped amount will be distributed proportionately based on the initial DSH payments to the eligible hospitals remaining in the pool in which the ineligible hospital was placed in the state plan year of the initial DSH payment, up to each hospital's OBRA limit (see discussion below).

2. A hospital is found to have exceeded its finalized OBRA limit (see discussions below). In this instance, the amount of payment to the hospital in excess of its finalized OBRA limit will be recouped, and the recouped amount will be distributed proportionately based on the initial DSH payments to the eligible hospitals remaining in the pool in which the hospital was placed in the state plan year of the initial DSH payment, up to each hospital's finalized OBRA limit.

3. In the event of a recoupment of an initial DSH payment and as a result of the process of distributing the recoupment to the pool to which the recouped payment was originally made, the distribution would result in all the hospitals in the pool receiving a total DSH payment in excess of their finalized OBRA limit, the amount of recoupment will be proportionately allocated among the remaining non-governmental hospital pools based on the initial DSH payments and distributed proportionately based on the initial DSH payments to the hospitals in the remaining non-governmental pools up to each hospital's finalized OBRA limit.

4. In the event that litigation (either by court order or settlement), or a CMS audit, financial review, or proposed disallowance requires AHCCCS to issue DSH payment amounts to one or more hospitals in a pool in excess of the initial DSH payment amount, AHCCCS will proportionately recoup funds based on the initial DSH payments from the remaining hospitals in the pool or pools effected to satisfy the requirement. This process will be followed to ensure that the annual federal

DSH allotment is not exceeded.

5. In the event that a hospital qualifies for a DSH payment in the second (or any subsequent) eligibility determination that did not qualify in the initial eligibility determination, that hospital will receive the minimum payment under the DSH program which is $5,000. AHCCCS may set aside monies from the initial payment to make these minimum payments. AHCCCS may use monies which were set aside for hospitals which did not qualify for the initial determination but qualified in subsequent determinations. In the event that monies set aside are insufficient to provide the minimum payments, AHCCCS will proportionately recoup funds based on the initial DSH payments from the remaining hospitals in the pool or pools effected to satisfy the requirement.

The payment amount to each governmentally-operated hospital will be determined during the state plan year of the initial DSH payment. The payment amount will only change if the total DSH payment to a hospital in the pool would be in excess of its finalized OBRA limit (see discussion below). To the extent that the excess amount recouped from a governmentally- operated hospital can be distributed to other hospitals in the pool without exceeding the interim or finalized OBRA limits of the remaining governmentally-operated hospitals, the excess amount will be distributed to the other governmentally-operated hospitals.

Determination of Payment Amounts

The amount that each non-governmental hospital receives as an initial DSH payment from the pool for which it qualifies is determined by a weighting method that considers both the amounts/points over the Group threshold and the volume of services. The volume of services is either measured by Title XIX days or net inpatient revenue, depending upon the group being considered.

Hospitals that qualify for Group 1, 1A, 2, or 2A

There are ten steps to determining the DSH payment amount for hospitals that qualify for Group 1, 1A, 2, or 2A. After determining the initial DSH payment amount through the ten step process, there is a final adjustment that may be made depending on the result of the hospital's OBRA limit. These steps will need to be performed separately: once for Groups 1 and 2 and once for Groups 1A and 2A.

1. Determine Points Exceeding Threshold.
   Each of the Groups 1 and 2 has thresholds established for qualification of the hospital. For Group 1 it is one standard deviation above the mean MIUR; for Group 2 it is greater than 25% LIUR. Step 1 merely determines the difference between each hospital's "score" for the Group measure and that Group's threshold.

2. Convert Points Exceeding Threshold into a Value.
   Each of the Groups 1 and 2 are measuring a value: for Group 1 the value is Medicaid

days; for Group 2 it is charges. Step 2 multiplies the Points Exceeding Threshold by the value of the associated Group.

3. Determine Relative Weight of Each Hospital in Each Group.
   The relative weight of each hospital in each Group is determined by dividing each hospital's value for a Group determined in Step 2 by the total of all hospital values for that Group.

4. Initial Allocation of Dollars to Each Hospital in Each Group.
   The amount of funds available to each of the Groups 1 and 2 is determined by AHCCCS as authorized by the Legislature. The funding amount for the current state plan year is contained in Exhibit 3. The initial allocation to each hospital in each group is determined by multiplying each hospital's relative weight in a Group (determined in Step 3) by the amount of funds available for that Group.

5. Maximize Allocation of Dollars Between Group 1 and Group 2.
   This step selects the greater of the allocation to each hospital between Group 1 and Group 2.

6. Recalculating the Relative Weights of Each Hospital in Group 1 and Group 2.
   Since Step 5 eliminated hospitals from both Group 1 and Group 2, it is necessary to redetermine the weight for each remaining hospital. This is accomplished by dividing the value of each hospital remaining in Group 1 and Group 2 after Step 5 by the total of the remaining hospitals.

7. Second Allocation of Dollars Within Group 1 and Group 2.
   The second allocation to each hospital remaining in Group 1 and Group 2 is determined by multiplying each hospital's recalculated relative weight pursuant to Step 6 by the amount of funds available for that Group.

8. Identifying Minimum Payment.
   It is policy that the minimum payment made to any hospital qualifying for DSH is $5,000. This step identifies any amount thus far determined for any hospital that is less than $5,000.

9. Ensuring Minimum Payment.
   This step replaces any amount thus far determined for any hospital that is less than $5,000 with a $5,000 amount.

10. Determining Penultimate Payment Amount.
    With the replacement of values with the $5,000 minimum amounts, it is necessary to recalculate and redistribute the values within any Group where the minimum payment amount was imposed in order to ensure that the total funding for a Group is not exceeded. Step 10 accomplishes this.

After determining the penultimate initial DSH payment amount for each hospital that qualifies for Group 1, 1A, 2, or 2A a check of the determined amount is made against the hospital's initial OBRA limit. The description of that limit follows in a subsequent section. If the initial DSH payment amount exceeds the initial OBRA limit, the initial DSH amount is set to the OBRA limit and the excess amount is distributed to the remaining hospitals in the Group, with a recheck of the initial DSH amounts against the OBRA limit. This process is repeated until all amounts are distributed or all hospitals in the Group are at their OBRA limit.

Hospitals that qualify for Group 4

To determine the initial DSH payment amount for each governmentally-operated hospital, the relative allocation percentage for each hospital is computed based on the lesser of the hospital's CPE and the amount of funding specified by the Legislature. The total funding amount for the current state plan year for Group 4 is contained in Exhibit 3. The funding amount for the IMD hospital in Group 4 is the IMD DSH limit for Arizona. The funding amount for the other governmentally-operated hospital in Group 4 is the remainder of the Group 4 pool amount, including any amount unclaimed by the IMD hospital.

OBRA Limits

The DSH payment ultimately received by qualifying non-governmental hospitals is the *lesser* of the amount calculated pursuant to the above-described methodologies or the hospital's OBRA limit. The DSH payment ultimately received by governmentally-operated hospitals is the *lesser* of the amount funded and specified by the Legislature or the hospital's finalized OBRA limit. All DSH payments are subject to the federal DSH allotment.

The OBRA limit is calculated using the following equation:

Uncompensated Care Costs Incurred Serving Medicaid Recipients
+
Uncompensated Care Costs Incurred Servicing the Uninsured

Pursuant to the above equation, the OBRA limit is comprised of two components:

1. The amount of uncompensated care costs associated with providing inpatient and outpatient hospital services to Medicaid individuals (the Medicaid shortfall), and
2. The amount of uncompensated care costs associated with providing inpatient and outpatient hospital services to individuals with no source of third party coverage for the inpatient and outpatient hospital services they received (uninsured costs).

The OBRA limit for the state plan year of the initial DSH payment will be computed for

each hospital up to three times:

1. The OBRA limit will be calculated in the state plan year of the initial DSH payment for all eligible hospitals based on the cost report(s) and days and charges and other program data for the state plan rate year two years prior to the state plan year of the initial DSH payment
2. For governmentally-operated hospitals, the OBRA limit will be recalculated when the cost report for the state plan year of the initial DSH payment is filed
3. The final calculation of each hospital's OBRA limit will be performed when the cost report for the state plan year of the initial DSH payment is finalized

The steps to computing the OBRA limit are[2]:

1. The hospital shall prepare its CMS 2552 Report (cost report(s)). Each hospital must complete the cost report to determine cost center-specific per diems (for inpatient routine services) and ratios of cost to charges (RCC) (for ancillary services). The cost reports must be completed based on Medicare cost principles and Medicare cost allocation process as specified in the CMS 2552 instructions and the CMS Provider Reimbursement Manual, volumes 15-1 and 15-2, including updates.

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[2] Note: The following discussion applies to hospitals that do not have a per diem ancillary allocation methodology approved by Medicare. For the steps to calculate the OBRA limit for governmental hospitals that do have such approval, see Exhibit 2 to this Attachment C. Non-governmental hospitals that have such approval should contact AHCCCS for further information.

2. Medicaid shortfall will be calculated based on information available from PMMIS, other AHCCCS financial systems, and the cost report.
3. Uninsured costs will be calculated based on uninsured days and charges and other program data collected by each hospital from its claims and financial records, other systems, and the cost report.

The sum of each hospital's Medicaid shortfall (whether positive or negative) and uninsured costs (whether positive or negative) is that hospital's OBRA limit.

The Medicaid Shortfall

The data used to calculate the Medicaid shortfall is extracted from the cost report(s) as well as from the AHCCCS PMMIS system and other AHCCCS financial reporting systems. The Medicaid shortfall will be calculated for each hospital for each fiscal/CMS Report year that encompasses the state plan year. The resulting Medicaid shortfall for each fiscal/CMS Report year will be prorated to derive the state plan year Medicaid shortfall according to the above discussion entitled "Data on a State Plan Year Basis".

The information from AHCCCS will include, but not be limited to:

1. The number of Medicaid fee for service (FFS) inpatient hospital days for each inpatient routine service cost center on the cost report
2. The number of Medicaid managed care inpatient hospital days for each inpatient routine service cost center on the cost report
3. The Medicaid inpatient and outpatient hospital FFS charges for each ancillary cost center on the cost report
4. The amounts of payments made by or on behalf of patients and payments made by third parties related to Medicaid inpatient and outpatient hospital FFS services
5. The amounts of Medicaid payments made by AHCCCS for inpatient and outpatient hospital FFS services
6. The Medicaid inpatient and outpatient hospital managed care charges for each ancillary cost center on the cost report
7. The amounts of payments made by or on behalf of patients and payments made by third parties related to Medicaid inpatient and outpatient hospital services for health plans and program contractors
8. The amounts of Medicaid payments made by managed care organizations for inpatient and outpatient hospital services
9. Other amounts of Medicaid payments for Medicaid inpatient and outpatient services furnished during the Medicaid state plan year under review (e.g. GME, CAH, etc.)
10. AHCCCS may apply trending factors for the initial payment to account for changes in utilization (e.g., due to changes in Medicaid eligibility criteria), supplemental payments, and Medicaid payments and rates. The adjustments may increase or decrease the days, costs, charges, or payments reflected on the cost reports, Medicaid

and/or uninsured information. The adjustments will reflect increases and decreases resulting from changes in operations or circumstances that are not reflected in the information from the state plan year two years prior.

For each hospital, the cost-center-specific per diems and ratios of cost to charges (RCC) from the cost report will be applied to the data extracted from PMMIS (days and charges) to determine the cost of providing inpatient and outpatient Medicaid services. Inpatient and outpatient Medicaid services will not include services reimbursed as Rural Health Clinic or Federally Qualified Health Clinic services. The per diem amounts will be calculated by dividing:

- The individual amounts on Worksheet B, Part I Column 24 Lines (and where applicable Subscript Lines) 30 to 35 and Lines 40 to 43
- By
- The corresponding day totals on Line 1, Lines (and where applicable Subscript Lines) 8 through 13 and Lines 16 to 18(for inpatient hospital subproviders) from Worksheet S-3, Part I Column 8.

Note: when calculating the Adults and Pediatrics (General Routine Care) per diem, the amount on Worksheet B, Part I, Column 24, Line 30 should have deducted the amounts appearing on Worksheet D-1, Part I, Lines 26 and 36 and the amount on Worksheet S-3, Part I, Column 8, Line 1 should have added the amount appearing on Line 28 (observation bed days).

The ancillary RCCs will be calculated by dividing:

1. The individual Line and Subscript amounts for each of the Lines 50 to 76 and Lines 90 to
   93 taken from Worksheet B, Part I Column 24
2. By
3. The individual Line and Subscript amounts for each of the Lines 50 to 76 and Lines 90 to 93 taken from Worksheet C, Part I Column 8

Costs will be offset by the payments made by or on behalf of patients and payments made by third parties related to Medicaid inpatient and outpatient hospital services as well as payments made by AHCCCS including FFS payments and payments by managed care organizations, made during the hospital's fiscal/CMS Report years that encompass the state plan year. Supplemental payments (such as GME, Rural Hospital Inpatient Payment and CAH) will be based on the state plan year. During the initial calculation, AHCCCS may use actual data if available as opposed to two years prior payments.

Uninsured Costs

Each hospital will collect uninsured days and charges and program data for the hospital's fiscal/CMS Report years that encompass the state plan year from the hospital's claims and

auditable financial records. Only hospital inpatient and outpatient days and charges and program data for medical services that would otherwise be eligible for Medicaid should be included in the DSH calculation. Inpatient and outpatient uninsured services will not include services that would be reimbursed as Rural Health Clinic or Federally Qualified Health Clinic services if the patient were eligible for Medicaid. The uninsured days, charges and program information provided to the state are subject to the same audit standards and procedures as the data included in the cost report.

When providing uninsured days, charges and program information hospitals should be guided by the following:

The Uninsured are defined as:

- Self pay and self insured patients
- Individuals with no source of third party coverage for inpatient and outpatient hospital services
- Third party coverage does not include state and local government subsidized care (i.e. individuals covered by indigent programs without other forms of third party coverage are uninsured)
- Payments made by state or local government are not considered a source of third party payment
- It is permissible to include in the Uninsured individuals who do not possess health insurance which would apply to the service for which the individual sought treatment.
- Individuals with AHCCCS coverage (under either Title XIX or Title XXI) are not considered uninsured
- Individuals participating in a Ryan White HIV/AIDS Program that have no source of third party coverage for the services provided other than the Ryan White program are considered uninsured. However, the funding provided under the program must be considered payments received from or on behalf of patients or payments received from third parties.

When submitting uninsured days, charges and program information hospitals should accompany the submission with:

- A listing of all payor types that are included in the uninsured data compilation, and
- An electronic file that contains sufficient claims or other information (e.g. ICNs) to enable an auditor to tie the amounts submitted during the application process to the financial records of the hospital

The uninsured costs will be calculated for each hospital for each fiscal/CMS Report year that encompasses the state plan year. The resulting uninsured costs for each fiscal/CMS Report year will be prorated to derive the state plan year uninsured costs according to the above discussion entitled “Data on a State Plan Year Basis”.

The information to be collected will include, but not be limited to:

1. The number of uninsured inpatient hospital days (this will be accumulated for each inpatient routine service cost center on the cost report)
2. The uninsured inpatient and outpatient hospital ancillary charges (this will be accumulated for each ancillary cost center on the cost report)
3. The amounts of payments received during the hospital's fiscal/CMS Report years that encompass the state plan year made by or on behalf of patients and payments made by third parties related to uninsured inpatient and outpatient hospital services. The information collected shall:
    a. Include payments received during the hospital's fiscal/CMS Report years that encompass the state plan year under Section 1011, Federal Reimbursement of Emergency Health Services Furnished to Undocumented Aliens, of the MMA,
    b. Not include payments, funding and subsidies made by the state or a unit of local governments (e.g., state-only, local-only or state-local health program)
4. AHCCCS may apply trending factors for the initial payment to account for changes in utilization (e.g., due to changes in Medicaid eligibility criteria), supplemental payments, and Medicaid payments and rates. The adjustments may increase or decrease the days, costs, charges, or payments reflected on the cost reports, Medicaid and/or uninsured information. The adjustments will reflect increases and decreases resulting from changes in operations or circumstances that are not reflected in the information from the state plan year two years prior.

For each hospital the cost center-specific per diems and ratios of cost to charges (RCC) from the cost report (as determined for Medicaid) will be applied to the data collected by the hospital to determine the uninsured costs.

Costs will be offset by the payments received during the state plan year from or on behalf of patients and payments received during the hospital's fiscal/CMS Report years that encompass the state plan year from third parties related to all uninsured inpatient and outpatient hospital services. Payments made by state or local government are not considered a source of third party payment.

The OBRA Limit

The summation of the Medicaid shortfall (whether positive or negative) and the uninsured costs (whether positive or negative) is the hospital's OBRA limit.

Group 5 Eligibility Determination

Any Arizona hospital that qualifies for funding in Groups 1, 1A, 2, 2A, or 4 s eligible for funding through Group 5. Group 5 is created to enable DSH-eligible hospitals to get

qualifying DSH payments matched via voluntary intergovernmental agreements (IGAs). Per State Medicaid Director Letter #10-010, the state will require the appropriate documentation that the funding has been voluntarily provided. Group 5 DSH payments are on top of the Groups 1, 1A, 2, 2A, and 4 DSH payments, but no individual hospital will receive aggregate DSH payments that exceed its OBRA limit.

Funding for any hospital in Group 5 must be arranged via a voluntary intergovernmental agreement with a political subdivision, tribal government or public university, through certified public expenditures (for governmental c hospitals) or an intergovernmental transfer of public funds not derived from impermissible sources, such as impermissible provider-related donations or impermissible health care-related taxes, as a match to draw down DSH payments. Political subdivisions, tribal governments and public universities will notify AHCCCS of the hospitals designated to receive funds from Pool 5 and of the amount of matching funds that are available through their IGAs or through a certification of public expenditures.

For hospitals that qualify for Group 5, a "LOM" score will be calculated by multiplying the hospital's LIUR times the hospital's full OBRA limit, times the hospital's MIUR.

Example:
Hospital A
OBRA = $54,734,467, MIUR = 0.3542, LIUR = 0.2946
Group 5 LOM score for Hospital A = $54,734,467 x 0.3542 x 0.2946 = $5,711,394

For the first round of distributions, allocations will be provided to hospitals located outside of the Phoenix and Tucson metropolitan statistical areas which have an agreement with a political subdivision, tribal government, or public university for intergovernmental transfer of the non- federal share funding. Each participating hospital's percentage of the total LOM score will be calculated using the hospital's LOM score as the numerator and the total of all participating hospitals' LOM scores as the denominator. The total amount of DSH available as a result of the IGAs (Group 5 DSH funds) will be multiplied by each hospital's LOM percentage of this first round. If any allocation from this round is higher than a hospital's OBRA limit (remaining after Group 1, 1A, 2, 2A, and 4 DSH distributions) or higher than the matching funds (in total computable) for that hospital, the lower of those two limits will be recorded as the allocation for round one.

The second round of distributions will be open to any hospital that qualifies for funding in Groups 1, 1A, 2, 2A, or 4 which did not participate in round 1 and which has a certificate of public expenditures or an agreement with a political subdivision, tribal government, or public university for intergovernmental transfer of the non-federal share funding. The second round will use the same protocol as the distribution in round 1 with any money remaining in the pool.

If any monies remain in Group 5 after monies have been distributed in rounds 1 and 2 (including monies made available after CMS finalizes the DSH allotment), AHCCCS may

issue additional rounds of funding to hospitals which qualified for funding in Groups 1, 1A, 2, 2A, or 4 which have not exceeded their OBRA limit, and which has an agreement with a political subdivision, tribal government, or public university for intergovernmental transfer of the non-federal share funding or a certificate of public expenditure.

Any Group 5 payment made to a hospital which qualifies for Group 4 will be accounted for as an offset in the CPE computation under Group 4.

All excess IGA funds not used for Group 5 DSH distributions, due to application of the above limits, will be returned to the originating political subdivisions, tribal governments or public universities and will not be retained by AHCCCS for other uses.

The Group 5 DSH distribution for any hospital will consist of that hospital's total of allocations from all rounds.

Aggregate Limits

IMD Limit

Federal law provides that aggregate DSH payments to Institutions for Mental Diseases (IMDs) in Arizona is confined to the *lesser* of $28,474,900 or the amount equal to the product of Arizona's current year total computable DSH allotment and 23.27%. Therefore, DSH payment to IMDs will be reduced proportionately to the extent necessary to ensure that the aggregate IMD limit is not exceeded.

"Institutions for Mental Diseases" includes hospitals that are primarily engaged in providing diagnosis, treatment, or care of persons with mental diseases, including medical attention, nursing care, and related services. Whether an institution is an IMD is determined by its overall character as that of a facility established and maintained primarily for the care and treatment of individuals with mental diseases, whether or not it is licensed as such.

Overall Total Limit

The federal government shares in the cost of Medicaid DSH expenditures based on the Federal Medical Assistance Percentage (FMAP) for each state. However, for each fiscal year, the amount of federal funds available to states for DSH payment is fixed. As such, the total amount of DSH payments for a state plan rate year will not exceed the federal allotment divided by the FMAP.

Reconciliations

The initial DSH payment issued to a hospital by AHCCCS is considered "interim" and is subject to different reconciliation methodologies depending upon whether the hospital is non- governmental or governmentally-operated. The payments to hospitals are generally made as a single lump sum payment that is made once the calculations of the payment

amounts are completed. The purpose of the interim DSH payment is to provide reimbursement that approximates the Medicaid and uninsured inpatient hospital and outpatient hospital uncompensated care costs eligible for Federal Financial Participation (FFP).

The reasons for a change in the initial (or interim) DSH payment for both non-governmental and governmentally-operated hospitals are outlined above under "Pools and Changing Payment Levels".

If it is determined that the total amount of payments made to non-governmental hospitals under the methodology outlined in the "Pools and Changing Payment Levels" exceeds the amount of all finalized non-governmental hospital OBRA limits, the amount in excess will be recouped by AHCCCS and any associated federal funding claimed will be properly credited to the federal government.

If it is determined that the total amount of payments made to governmentally-operated hospitals under the methodology outlined in the "Pools and Changing Payment Levels" exceeds the amount of either:

1. All governmentally-operated hospital OBRA limits calculated based on the "finalized" cost report, or
2. The total amount of certified public expenditures of governmentally-operated hospitals, then
3. The amount in excess will be recouped by AHCCCS and any associated federal funding claimed will be properly credited to the federal government.

Certified Public Expenditures

Expenditures by governmentally-operated hospitals shall be used by AHCCCS in claiming FFP for DSH payments to the extent that the amount of funds expended are certified by the appropriate officials at the governmentally-operated hospital.

The method for determining a governmentally-operated hospital's allowable uncompensated care costs eligible for DSH reimbursement when such costs are funded through the certified public expenditure (CPE) process will be the same as the method for calculating and reconciling the OBRA limit for governmentally-operated hospitals set forth above.

However, because governmentally-operated hospitals are certifying expenditures for the state plan year of the initial DSH payment and final expenditures may not be known at the time of initial certification of public expenditures, governmentally owned hospitals may certify an amount of expenditures for the initial DSH payment based on an estimate of the OBRA limit for the state plan year of the initial DSH payment.

In certifying estimates of public expenditure for the initial DSH payment, the governmentally operated hospital will first calculate its expenditures based on the methodology for calculating the OBRA limit for the state plan year two years before the

state plan year of the initial payment (as specified in the protocols in Exhibit 1 or Exhibit 2) and then provide for adjustments to such OBRA limit. The adjustments may increase or decrease the days, costs, charges or payments reflected on the cost reports, Medicaid and/or uninsured information used to calculate the OBRA limit. The adjustments will reflect increases and decreases resulting from changes in operations or circumstances that are not reflected in the information from the state plan year two years prior to the state plan year of the initial payment, but will be reflected in the final information for the state plan year of the initial payment. All adjustments must be supported by adequate explanation/justification and is subject to review by AHCCCS and CMS.

In order to use CPE, the certifying governmentally-operated hospital must follow the protocol in Exhibit 1 or Exhibit 2 and provide a certification as to the amount of allowable uncompensated care costs eligible for DSH reimbursement. If CPE is used, the amount of expenditures used to determine the FFP will not exceed the amount of the CPE.

The payment of FFP to governmentally-operated hospitals is subject to legislative appropriation.

Grievances and Appeals

The state considers a hospital's DSH eligibility and DSH payment amount to be appealable issues. A DSH eligibility list along with the initial DSH payment amounts that eligible hospitals have been calculated to receive will be distributed. Hospitals will be permitted thirty (30) days from distribution to appeal their DSH eligibility and payment amounts. Because the total amount of DSH funds is fixed, the successful appeal of one DSH hospital will reduce DSH payment amounts to all other providers. Once the final reconciliation process is completed, no additional DSH payment will be issued.

Other Provisions

Ownership

DSH payment will only be issued to the entity which is currently registered with AHCCCS as a participating hospital provider. Therefore, it is expected that facilities will consider this information when negotiating ownership changes.

AHCCCS Disproportionate Share Hospital (DSH)
Payments Exceptions

An exception to the use of the Medicare Cost Report (Form CMS 2552-10) as a data source shall apply to:

I. Hospitals that:

- Serve patients that are predominantly under 18 years of age, and

- Are licensed for fewer than 50 beds, and
- Do not file a comprehensive Form CMS 2552-10 (Medicare Cost Report), and
- Receive an acceptance letter from the CMS fiscal intermediary for the portion of the CMS 2552-10 (Medicare Cost Report) that the hospital does file with the fiscal intermediary, and
- Receive written permission from AHCCCS to invoke the provisions of this exception.

Such hospitals may extract data from their financial records in lieu of extracting data from the Form CMS 2552-10 (Medicare Cost Report) as provided in this Attachment C.

The method of extracting and compiling the data from the hospital's financial records shall conform to the instructions for the Form CMS 2552-10. All other non-Medicare Cost Report data and documentation as described in this Attachment C shall be required from such hospitals.

II. Indian Health Service (IHS) Hospitals and tribally-operated 638 hospitals who do not file a full Form CMS 2552-10 Medicare Cost Report but rather file an abbreviated Medicare cost report in accordance with Medicare Provider Reimbursement Manual, Part I, Section 2208.1.E (Method E cost report).

Such IHS Hospitals and tribally-operated 638 hospitals can submit a Private Facility Information Sheet (PFIS) to AHCCCS using data from the IHS Method E report that is filed with CMS aswell as supporting hospital financial reports, as necessary.

The method of extracting and compiling the data from the hospital's financial records shall conform to the instructions for the Form CMS 2552-10. All other non-Medicare Cost Report data and documentation as described on the PFIS cover sheet will be required by such hospitals.EXHIBIT 1 to ATTACHMENT C

AHCCCS
Disproportionate Share Hospital Payment Methodology
Calculation of OBRA Limits for
Governmentally-Operated Hospitals for the Purpose of
Certified Public Expenditures

Each governmentally-operated hospital certifying its expenditures for Disproportionate Share Hospital (DSH) payments shall compute and report its OBRA limit as prescribed by this Exhibit. The governmentally-operated hospital's OBRA limit is comprised of two components:

1. The amount of uncompensated care costs associated with providing inpatient and outpatient hospital services to Medicaid individuals (the

Medicaid shortfall), and
2. The amount of uncompensated care costs associated with providing inpatient and outpatient hospital services to individuals with no source of third party coverage for the inpatient and outpatient hospital services they received (uninsured costs).

The steps to computing the governmentally-operated hospital's OBRA limit are[3]:

1. The hospital shall prepare its CMS 2552 Report (cost report(s)). Each hospital must complete the cost report to determine per diems (for inpatient routine services) and ratios of cost to charges (RCC) (for ancillary services). The cost reports must be completed based on Medicare cost principles and Medicare cost allocation process as specified in the CMS 2552 instructions and the CMS Provider Reimbursement Manual, volumes 15-1 and 15-2, including updates.
2. Medicaid shortfall will be calculated based on information available from PMMIS, other AHCCCS financial systems, and the cost report.
3. Uninsured costs will be calculated based on uninsured days and charges and other program data collected by the hospital from its claims and financial records, other systems, and the cost report.
4. Finally, the governmentally-operated hospital will compile and summarize the calculations on The OBRA Limit and CPE Schedule. In compiling and summarizing the OBRA calculations, the governmentally-operated hospital may make adjustments to the calculated OBRA limit to estimate the OBRA limit for a future state plan year. The adjustments may increase or decrease the days, costs, charges or payments reflected on the cost reports, Medicaid and/or uninsured information used to calculate the OBRA limit. The adjustments will reflect increases and decreases resulting from changes in operations or circumstances that are not reflected in the information from the state plan year two years prior to the state plan year of the initial payment, but will be reflected in the final information for the state plan year of the initial payment. All adjustments must be supported by adequate explanation/justification and is subject to review by AHCCCS and CMS. The Schedule will be submitted to AHCCCS during the application process, with backup documentation, for the cost reporting period(s) covered by the Medicaid state plan year(s) under review.

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[3] Note: The following discussion applies to hospitals that do not have a per diem ancillary allocation methodology approved by Medicare. For the steps to calculate the OBRA limit for governmental hospitals that do have such approval, see Exhibit 2 to this Attachment C.

The Medicaid Shortfall

AHCCCS will provide each governmentally-operated hospital with a report from the PMMIS system and other agency financial reporting systems to assist each governmentally-operated hospital in completing required schedules. The information to be provided by AHCCCS will include, but not be limited to:

1. The number of Medicaid fee for service (FFS) inpatient hospital days for each inpatient routine service cost center on the cost report
2. The number of Medicaid managed care inpatient hospital days for each inpatient routine service cost center on the cost report
3. The Medicaid inpatient and outpatient hospital FFS charges for each ancillary cost center on the cost report. Inpatient and outpatient Medicaid charges will not include charges reimbursed as Rural Health Clinic or Federally Qualified Health Clinic services.
4. The amounts of payments made by or on behalf of patients and payments made by third parties related to Medicaid inpatient and outpatient hospital FFS services
5. The amounts of Medicaid payments made by AHCCCS for inpatient and outpatient hospital FFS services
6. The Medicaid inpatient and outpatient hospital managed care charges for each ancillary cost center on the cost report. Inpatient and outpatient Medicaid charges will not include charges reimbursed as Rural Health Clinic or Federally Qualified Health Clinic services.
7. The amounts of payments made by or on behalf of patients and payments made by third parties related to Medicaid inpatient and outpatient hospital services for health plans and program contractors
8. The amounts of Medicaid payments made by managed care organizations for inpatient and outpatient hospital services
9. Other amounts of Medicaid payments for Medicaid inpatient and outpatient services furnished during the Medicaid state plan year under review (e.g. GME, CAH, etc.)

Each governmentally-operated hospital will use the cost center-specific per diems and ratios of cost to charges (RCC) from the cost report and the data extracted from PMMIS (days and charges) to determine the cost of providing inpatient and outpatient Medicaid services. Inpatient and outpatient Medicaid services will not include services reimbursed as Rural Health Clinic or Federally Qualified Health Clinic services. The Medicaid shortfall will be calculated for each hospital for each fiscal/CMS Report year that encompasses the state plan year. The resulting Medicaid shortfall for each fiscal/CMS Report year will be prorated to derive the state plan year Medicaid shortfall according to the discussion entitled "Data on a State Plan Year Basis".

The per diem amounts will be calculated by dividing:

- The individual amounts on Worksheet B, Part I Column 24 Lines (and where

applicable Subscript Lines) 30 to 35 and Lines 40 to 43

- By
- The corresponding day totals on Line (and where applicable Subscript Line) 1, Lines 8 through 13 and Lines 16 to 18 (for inpatient hospital subproviders) from Worksheet S-3, Part I, Column 8.

Note: when calculating the Adults and Pediatrics (General Routine Care) per diem, the amount on Worksheet B, Part I, Column 24, Line 30 should have deducted the amounts appearing on Worksheet D-1, Part I, Lines 26 and 36 and the amount on Worksheet S-3, Part I, Column 8, Line 1 should have added the amount appearing on Line 28 (observation bed days).

The ancillary RCCs will be calculated by dividing:

1. The individual Line and Subscript amounts for each of the Lines 50 to 76 and Lines 90 to 93 taken from Worksheet B, Part I, Column 24
2. By
3. The individual Line and Subscript amounts for each of the Lines 50 to 76and Lines 90 to 93 taken from Worksheet C, Part I, Column 8

Each governmentally-operated hospital will use the cost center-specific per diems and ratios of cost to charges (RCC) from the cost report and the data supplied by AHCCCS to compile the Medicaid Schedule of Costs on the OBRA Limit and CPE Schedule. The Medicaid Schedule of Costs depicts:

1. The governmentally-operated hospital specific Medicaid inpatient and outpatient cost data,
2. The payments made by or on behalf of patients and payments made by third parties related to Medicaid inpatient and outpatient hospital services,
3. The Medicaid inpatient and outpatient net cost data,
4. Payments made by AHCCCS including FFS and payments by health plans and program contractors
5. The amount of supplemental Medicaid payments related to inpatient and outpatient hospital services (e.g., GME and CAH, etc.)
6. The Medicaid shortfall
7. Adjustments to the calculated Medicaid shortfall to estimate a Medicaid shortfall for a future state plan year.

Uninsured Costs

Each governmentally-operated hospital will collect uninsured days and charges and program data for the hospital's fiscal/CMS Report years that encompass the state plan year from the hospital's claims and auditable financial records. Only hospital inpatient and outpatient days and charges and program data for medical services that would otherwise be eligible for Medicaid should be included in the calculation. Inpatient and outpatient uninsured services

will not include services that would be reimbursed as Rural Health Clinic or Federally Qualified Health Clinic services ifthe patient were eligible for Medicaid. The uninsured days, charges and program information provided to the state is subject to the same audit standards and procedures as the data included in the cost report.

When providing uninsured days, charges and program information hospitals should be guided by the following:

The Uninsured are defined as:

- Self pay and self insured patients
- Individuals with no source of third party coverage for inpatient and outpatient hospital services
- Third party coverage does not include state and local government subsidized care (i.e. individuals covered by indigent programs without other forms of third party coverage are uninsured)
- Payments made by state or local government are not considered a source of third party payment
- It is permissible to include in the Uninsured individuals who do not possess health insurance which would apply to the service for which the individual sought treatment.
- Individuals with AHCCCS coverage (under either Title XIX or Title XXI) are not considered uninsured
- Individuals participating in a Ryan White HIV/AIDS Program that have no source of third party coverage for the services provided other than the Ryan White program are considered uninsured. However, the funding provided under the program must be considered payments received from or on behalf of patients or payments received from third parties.

When submitting uninsured days, charges and program information hospitals should accompany the submission with:

- A listing of all payor types that are included in the uninsured data compilation, and
- An electronic file that contains sufficient claims or other information (e.g. ICNs) to enable an auditor to tie the amounts submitted during the application process to the financial records of the hospital

The information to be collected will include, but not be limited to:

1. The number of uninsured inpatient hospital days (for each inpatient routine service cost center on the cost report)
2. The uninsured inpatient and outpatient hospital ancillary charges (for each ancillary cost center on the cost report)
3. The amounts of payments received during the hospital's fiscal/CMS Report years that encompass the state plan year made by or on behalf of patients and payments

made by third parties related to uninsured inpatient and outpatient hospital services. The information collected shall:

a. Include payments received during the hospital's fiscal/CMS Report years that encompass the state plan year under Section 1011, Federal Reimbursement of Emergency Health Services Furnished to Undocumented Aliens, of the MMA,
b. Not include payments, funding and subsidies made by the state or a unit of local governments (e.g., state-only, local-only or state-local health program)

Each governmentally-operated hospital will use the cost center-specific per diems and ratios of cost to charges (RCC) from the cost report (as determined for Medicaid), the uninsured days and charges, and other program data collected by the governmentally-operated hospital to compile the Uninsured Schedule of Costs on the OBRA Limit and CPE Schedule. The Uninsured Schedule of Costs depicts:

1. The governmentally-operated hospital specific uninsured inpatient and outpatient cost data,
2. The payments made by or on behalf of patients and payments made by third parties related to uninsured inpatient and outpatient hospital services, and
3. The uninsured inpatient and outpatient cost.
4. Adjustments to the calculated uninsured inpatient and outpatient cost to estimate the uninsured inpatient and outpatient cost for a future state plan year.

The Governmentally-Operated Hospital OBRA Limit

The summation of the Medicaid shortfall (whether positive or negative) and the uninsured costs (whether positive or negative) is the hospital's OBRA limit and is depicted on the Calculation of OBRA Limit and CPE on the OBRA Limit and CPE Schedule.

The summation of the estimated Medicaid shortfall (whether positive or negative) and the estimated uninsured costs (whether positive or negative) is the hospital's OBRA limit for a future state plan year and is depicted on the Calculation of OBRA Limit and CPE on the OBRA Limit and CPE Schedule.

Certification

The appropriate official of the governmentally-operated hospital will sign the certification statement on the Governmentally-Operated Hospital OBRA Limit and CPE Schedule. A certification will be signed for each of the three times the OBRA limit for the state plan year of the initial DSH payment is calculated as described below under "Reconciliation".

Reconciliation

The OBRA limit for the state plan year of the initial DSH payment will be computed for each governmentally-operated hospital three times:

1. The OBRA limit will be calculated in the state plan year of the initial DSH payment based on the cost report(s) and days and charges and other program data for the state plan year two years prior to the state plan year of the initial DSH payment. This calculation may include an adjustment to the calculated OBRA limit of the state plan year two yearsprior to the state plan year of the initial DSH payment in order to estimate the OBRA limit of the state plan year of the initial DSH payment.
2. The OBRA limit will be recalculated when the cost report(s) for the state plan year of the initial DSH payment are filed. In recalculating the OBRA limit the cost data from the as- filed cost report(s) and program data (days, charges, and payments) from the actual cost reporting period(s) will be used in the calculation. This calculation may not include any adjustment to the calculated OBRA limit of the state plan year of the initial DSH.
3. The final calculation of each governmentally-operated hospital's OBRA limit will be performed when the cost report(s) for the state plan year of the initial DSH payment are finalized. In finalizing the OBRA limit the cost data from the finalized cost report(s) and program data (days, charges, and payments) from the actual cost reporting period(s) will be used in the calculation.

EXHIBIT 2 to ATTACHMENT C

AHCCCS
Disproportionate Share Hospital Payment Methodology
Calculation of OBRA Limits for
Arizona State Hospital
A Hospital with a Per Diem Ancillary Cost Allocation Method Approved by Medicare

Arizona State Hospital (ASH), a governmentally-operated hospital that is an all-inclusive rate provider under Medicare, shall compute, report and certify its OBRA limit as prescribed by this Exhibit. Because ASH only provides inpatient services, the OBRA limit will by calculated based only on inpatient information. ASH's OBRA limit is comprised of two components:

1. The amount of uncompensated care costs associated with providing inpatient hospital services to Medicaid individuals (the Medicaid shortfall), and
2. The amount of uncompensated care costs associated with providing inpatient hospital services to individuals with no source of third party coverage for the inpatient hospital services they received (uninsured costs).

The steps to computing ASH's OBRA limit are:

1. The hospital shall prepare its CMS 2552 Report (cost report(s)). The hospital must complete the cost report to determine per diems (for inpatient routine services and for ancillary services). The cost reports must be completed based on Medicare cost principles and Medicare cost allocation process as specified in the CMS 2552 instructions and the CMS Provider Reimbursement Manual, volumes 15-1 and 15-2, including updates.
2. Medicaid shortfall will be calculated based on information available from PMMIS, other AHCCCS financial systems, and the cost report.
3. Uninsured costs will be calculated based on uninsured days and other program data collected by the hospital from its claims and financial records, other systems, and the cost report.

4. Finally, ASH will compile and summarize the calculations on The OBRA Limit and CPE Schedule. In compiling and summarizing the OBRA calculations, ASH may make adjustments to the calculated OBRA limit to estimate the OBRA limit for a future state plan year. The adjustments may increase or decrease the days, costs, charges or payments reflected on the cost reports, Medicaid and/or uninsured information used to calculate the OBRA limit. The adjustments will reflect increases and decreases resulting from changes in operations or circumstances that are not reflected in the information from the state plan year two years prior to the state plan year of the initial payment, but will be reflected in the final information

for the state plan year of the initial payment. All adjustments must be supported by adequate explanation/justification and is subject to review by AHCCCS and CMS. The Schedule will be submitted to AHCCCS during the application process, with backup documentation, for the cost reporting period(s) covered by the Medicaid state plan year(s) under review.

The Medicaid Shortfall

AHCCCS will provide ASH with a report from the PMMIS system and other agency financial reporting systems to assist ASH in completing required schedules. The information to be provided by AHCCCS will include, but not be limited to:

1. The number of Medicaid fee for service (FFS) inpatient hospital days (for the single inpatient routine service cost center on the cost report)
2. The number of Medicaid managed care inpatient hospital days (for the single inpatient routine service cost center on the cost report)
3. The amounts of payments made by or on behalf of patients and payments made by third parties related to Medicaid inpatient hospital FFS services
4. The amounts of Medicaid payments made by AHCCCS for inpatient hospital FFS services
5. The amounts of payments made by or on behalf of patients and payments made by third parties related to Medicaid inpatient hospital services for health plans and program contractors
6. The amounts of Medicaid payments made by health plans and program contractors for inpatient hospital services for health plans and program contractors
7. Other amounts of Medicaid payments for Medicaid inpatient services furnished during the Medicaid state plan year under review (e.g. GME, CAH, etc.)

ASH will use a single total per diem calculated from the cost report and the inpatient days extracted from PMMIS to determine the cost of providing inpatient Medicaid services. The Medicaid shortfall will be calculated for ASH for each fiscal/CMS Report year that encompasses the state plan year. The resulting Medicaid shortfall for each fiscal/CMS Report year will be prorated to derive the state plan year Medicaid shortfall according to the discussion entitled "Data on a State Plan Year Basis".

The single total per diem amount will be calculated by summing the inpatient per diem amount and the ancillary per diem amount.

The inpatient per diem amount will be found by dividing the amounts from Worksheet B, Part I Column 24, Line 30 by the day total on Line 1 from Worksheet S-3, Part I Column 8. Note: when calculating the Adults and Pediatrics (General Routine Care) per diem, the amount on Worksheet B, Part I, Column 24, Line 30 should have deducted the amounts appearing on Worksheet D-1, Part I, Lines 26 and 36 and the amount on Worksheet S-3, Part I, Column 8, Line 1 should have added the amount appearing on Line 28 (observation

bed days).

The ancillary per diem amount will be calculated by:

1. Summing the Line and Subscript amounts for each of the Lines 50 to 76and Lines 90 to 93 (but excluding Subscript Lines 88 to 89) taken from Worksheet B Part 1 Column 24ividing the amount determined in step 1 above by the amount determined in step 3 below
2. Summing Line 1 and 28 from Worksheet S-3, Part I, Column 8

ASH will use the single total per diem calculated from the cost report and the data supplied by AHCCCS to compile the Medicaid Schedule of Costs on the OBRA Limit and CPE Schedule. The Medicaid Schedule of Costs depicts:

1. The governmentally-operated hospital specific Medicaid inpatient cost data (determined by multiplying the single total per diem by the number of inpatient Medicaid days),
2. The payments made by or on behalf of patients and payments made by third parties related to Medicaid inpatient hospital services,
3. The Medicaid inpatient net cost data,
4. Payments made by AHCCCS including FFS and payments by health plans and program contractors
5. The amount of supplemental Medicaid payments (e.g., GME and CAH, etc.)
6. The Medicaid shortfall
7. Adjustments to the calculated Medicaid shortfall to estimate a Medicaid shortfall for a future state plan year.

Uninsured Costs

ASH will collect uninsured days and program data for the hospital's fiscal/CMS Report years that encompass the state plan year from the hospital's claims and auditable financial records. Only hospital inpatient days and program data for medical services that would otherwise be eligible for Medicaid should be included in the calculation. Inpatient uninsured services will not include services that would be reimbursed as Rural Health Clinic or Federally Qualified Health Clinic services if the patient were eligible for Medicaid. The uninsured days and program information provided to the state is subject to the same audit standards and procedures as the data included in the cost report.

When collecting uninsured days and program information ASH should be guided by the following:

The Uninsured are defined as:

- Self pay and self insured patients
- Individuals with no source of third party coverage for inpatient hospital services

- Third party coverage does not include state and local government subsidized care (i.e. individuals covered by indigent programs without other forms of third party coverage are uninsured)
- Payments made by state or local government are not considered a source of third party payment
- It is permissible to include in the Uninsured individuals who do not possess health insurance which would apply to the service for which the individual sought treatment.
- Individuals with AHCCCS coverage (under either Title XIX or Title XXI) are not considered uninsured
- Individuals participating in a Ryan White HIV/AIDS Program that have no source of third party coverage for the services provided other than the Ryan White program are considered uninsured. However, the funding provided under the program must be considered payments received from or on behalf of patients or payments received from third parties.

The uninsured costs will be calculated for ASH for each fiscal/CMS Report year that encompasses the state plan year. The resulting uninsured costs for each fiscal/CMS Report year will be prorated to derive the state plan year uninsured costs according to the discussion entitled "Data on a state Plan Year Basis".

The information to be collected will include, but not be limited to:

1. The number of uninsured inpatient hospital days (for the single inpatient routine service cost center on the cost report)
2. The amounts of payments received during the hospital's fiscal/CMS Report years that encompass the state plan year made by or on behalf of patients and payments made by third parties related to uninsured inpatient hospital services. The information collected shall:
    a. Include payments received during the hospital's fiscal/CMS Report years that encompass the state plan year under Section 1011, Federal Reimbursement of Emergency Health Services Furnished to Undocumented Aliens, of the MMA,
    b. Not include payments, funding and subsidies made by the state or a unit of local governments (e.g., state-only, local-only or state-local health program)

ASH will use the total inpatient per diem calculated from the cost report (as determined for Medicaid), the uninsured days, and other program data collected by ASH to compile the Uninsured Schedule of Costs on the OBRA Limit and CPE Schedule. The Uninsured Schedule of Costs depicts:

1. The ASH specific uninsured inpatient cost data (determined by multiplying the single total per diem by the number of uninsured inpatient days),
2. The payments made by or on behalf of patients and payments made by third

parties related to uninsured inpatient hospital services, and
3. The uninsured inpatient cost.
4. Adjustments to the calculated uninsured inpatient and outpatient cost to estimate the uninsured inpatient and outpatient cost for a future state plan year.

The Governmentally-Operated Hospital OBRA Limit

The summation of the Medicaid shortfall (whether positive or negative) and the uninsured costs (whether positive or negative) is the hospital's OBRA limit and is depicted on the OBRA Limit and CPE Schedule.

The summation of the estimated Medicaid shortfall (whether positive or negative) and the estimated uninsured costs (whether positive or negative) is the hospital's OBRA limit for a future state plan year and is depicted on the Calculation of OBRA Limit and CPE on the OBRA Limit and CPE Schedule.

Certification

The appropriate official of ASH will sign the certification statement on the OBRA Limit and CPE Schedule. A certification statement will be signed for each of the three times the OBRA limit for the state plan year of the initial DSH payment is calculated as described below under "Reconciliation".

Reconciliation

The OBRA limit for the state plan year of the initial DSH payment will be computed for ASH three times:

1. The OBRA limit will be calculated in the state plan year of the initial DSH payment based on the cost report(s) and days and other program data for the state plan year two years prior to the state plan year of the initial DSH payment. This calculation may include an adjustment to the calculated OBRA limit of the state plan year two years prior to the state plan year of the initial DSH payment in order to estimate the OBRA limit of the state plan year of the initial DSH payment.
2. The OBRA limit will be recalculated when the cost report(s) for the state plan year of the initial DSH payment are filed. In recalculating the OBRA limit the cost data from the as- filed cost report(s) and program data (days and payments) from the actual cost reporting period(s) will be used in the calculation. This calculation may not include any adjustment to the calculated OBRA limit of the state plan year of the initial DSH.
3. The final calculation of ASH's OBRA limit will be performed when the cost report(s) for the state plan year of the initial DSH payment are finalized. In finalizing the OBRA limit the cost data from the finalized cost report(s) and program data (days and payments) from the actual cost reporting period(s) will be used in the calculation.

EXHIBIT 3 to ATTACHMENT C

AHCCCS
Disproportionate Share Hospital Payment
Methodology Pool Funding Amount

This Exhibit contains the amount of funding for six pools in the Arizona DSH pool methodology.

For State Plan Year (SPY) 2008 and 2009, funding will be allocated among six pools (pools 1, 1A, 2, 2A, 3, and 4). For SPY 2010, funding will be allocated among seven pools (pools 1, 1A, 2, 2A, 3, 4, and 5). For SPY 2011, SPY 2012, SPY 2013, SPY 2014, and SPY 2015 the funding
will be allocated among six pools (pools 1, 1A, 2, 2A, 4, and 5).

Pools 1, 1A, 2, 2A, and 3 - Non-governmentally-operated hospitals
The funding for pools 1 and 2 will be sufficient to provide an average payment amount of $6,000 for all hospitals qualifying for both of the two pools. No hospital in pools 1 or 2 will receive less than $5,000. Therefore, the amount of funding for pools 1 and 2 will be determined by multiplying the number of hospitals qualifying for pools 1 and 2 by $6,000.

The funding for pools 1A, 2A and 3 (if applicable) will be derived by subtracting the total amount allocated for pools 1 and 2 from the amount of DSH authorized by the Legislature for non-governmentally operated hospitals. Beginning SPY 2011, these remaining funds will be split with 15% for Pool 1A and 85% for Pool 2A.

- For SPY 2008, the funding for pools 1, 2, 1A, and 2A and 3 will be $26,147,700.
- For SPY 2009, the funding for pools 1, 2, 1A, and 2A and 3 will be $26,147,700.
- For SPY 2010, the funding for pools 1, 2, 1A, and 2A and 3 will be $500,000.
- For SPY 2011, the funding for pools 1, 2, 1A, and 2A will be $9,284,800.
- For SPY 2012, the funding for pools 1, 2, 1A, and 2A will be $9,284,800.
- For SPY 2013, the funding for pools 1, 2, 1A, and 2A will be $9,284,800.
- For SPY 2014, the funding for pools 1, 2, 1A, and 2A will be $9,284,800.
- For SPY 2015, the funding for pools 1, 2, 1A, and 2A will be $9,284,800.

Pool 4 – Governmentally-operated hospitals
The funding for pool 4 is the amount authorized by the Legislature for governmentally operated hospitals.

- For SPY 2008, the funding for pool 4 is $117,914,800.
- For SPY 2009, the funding for pool 4 is $128,427,000.
- For SPY 2010, the funding for pool 4 is $132,596,900.
- For SPY 2011, the funding for pool 4 is $128,637,400.
- For SPY 2012, the funding for pool 4 is $119,784,246 - $2,404,156.73 reallocated to

Pool 5 = $117,380,089.27.

- For SPY 2013, the funding for pool 4 is $118,352,300.
- For SPY 2014, the funding for pool 4 is $118,352,600.
- For SPY 2015, the funding for pool 4 is $134,420,400.

For SPY 2009, any excess DSH funding in pool 4 not allocated due to OBRA limits may be reallocated and distributed to DSH-qualifying hospitals in pools 1, 1A, 2, 2A or 3 until September 30, 2011. AHCCCS shall notify CMS prior to the distribution of any pool 4 reallocated DSH funds.

For SPY 2010, funding will be reallocated first to pools 1, 1A, 2, 2A, and 3, should the state make available matching funds. This reallocation to the pools will be based proportionately on the SPY 2009 pool allocations. For each pool, the distribution of the reallocated DSH funding to the hospitals within the pool will be based on each hospital's 2010 relative weights as described in the "Determination of Payment Amounts" section of this Attachment C. SPY 2010 payments made from reallocated funds will be added to the hospital's original SPY 2010 payments with the total SPY payments subject to each hospital's OBRA limit. For SPY 2010, any excess DSH funding in pool 4 not allocated due to OBRA limits may be reallocated to DSH pools 1, 1A, 2, 2A, 3, and 5 until September 30, 2012. A determination will be made by June 30, 2012, by the Administration if any reallocation will occur. AHCCCS shall notify CMS prior to the distribution of any pool 4 reallocated DSH funds.

For SPY 2011, funding will be reallocated first to pools 1, 1A, 2, and 2A should the state make available matching funds. This reallocation to the pools will be based proportionately on the SPY 2011 pool allocation For each pool, the distribution of the reallocated DSH funding to the hospitals within the pool will be based on each hospital's 2011 relative weights as described in the "Determination of Payment Amounts" section of this Attachment C. SPY 2011 payments made from reallocated funds will be added to the hospital's original SPY 2011 payments with the total SPY payments subject to each hospital's OBRA limit. For SPY 2011, any excess DSH funding in pool 4 not allocated due to OBRA limits may be reallocated to DSH pools 1, 1A, 2, 2A, and 5 until September 30, 2013. A determination will be made by June 30, 2013, by the Administration if any reallocation will occur. AHCCCS shall notify CMS prior to the distribution of any pool 4 reallocated DSH funds.

For SPY 2012, funding will be reallocated first to pools 1, 1A, 2, and 2A should the state make available matching funds. This reallocation to the pools will be based proportionately on the SPY 2012 pool allocation For each pool, the distribution of the reallocated DSH funding to the hospitals within the pool will be based on each hospital's 2012 relative weights as described in the "Determination of Payment Amounts" section of this Attachment C. SPY 2012 payments made from reallocated funds will be added to the hospital's original SPY 2012 payments with the total SPY payments subject to each hospital's OBRA limit. For SPY 2012, any excess DSH funding in pool 4 not allocated due

to OBRA limits may be reallocated to DSH pools 1, 1A, 2, 2A, and 5 until September 30, 2014. A determination will be made by June 30, 2014, by the Administration if any reallocation will occur. AHCCCS shall notify CMS prior to the distribution of any pool 4 reallocated DSH funds.

For SPY 2013, funding will be reallocated first to pools 1, 1A, 2, and 2A should the state make available matching funds. This reallocation to the pools will be based proportionately on the SPY 2013 pool allocation For each pool, the distribution of the reallocated DSH funding to thehospitals within the pool will be based on each hospital's 2013 relative weights as described in the "Determination of Payment Amounts" section of this Attachment C. SPY 2013 payments made from reallocated funds will be added to the hospital's original SPY 2013 payments with the total SPY payments subject to each hospital's OBRA limit. For SPY 2013, any excess DSH funding in pool 4 not allocated due to OBRA limits may be reallocated to DSH pools 1, 1A, 2, 2A, and 5 until September 30, 2015. A determination will be made by June 30, 2015, by the Administration if any reallocation will occur. AHCCCS shall notify CMS prior to the distribution of any pool 4 reallocated DSH funds.

For SPY 2014, funding will be reallocated first to pools 1, 1A, 2, and 2A should the State make available matching funds. This reallocation to the pools will be based proportionately on the SPY 2014 pool allocation For each pool, the distribution of the reallocated DSH funding to the hospitals within the pool will be based on each hospital's 2014 relative weights as described in the "Determination of Payment Amounts" section of this Attachment C. SPY 2014 payments made from reallocated funds will be added to the hospital's original SPY 2014 payments with the total SPY payments subject to each hospital's OBRA limit. For SPY 2014, any excess DSH funding in pool 4 not allocated due to OBRA limits may be reallocated to DSH pools 1, 1A, 2, 2A, and 5 until September 30, 2016. A determination will be made by June 30, 2016, by the Administration if any reallocation will occur. AHCCCS shall notify CMS prior to the distribution of any pool 4 reallocated DSH funds.

For SPY 2015, funding will be reallocated first to pools 1, 1A, 2, and 2A should the State make available matching funds. This reallocation to the pools will be based proportionately on the SPY 2015 pool allocation For each pool, the distribution of the reallocated DSH funding to the hospitals within the pool will be based on each hospital's 2015 relative weights as described in the "Determination of Payment Amounts" section of this Attachment C. SPY 2015 payments made from reallocated funds will be added to the hospital's original SPY 2015 payments with the total SPY payments subject to each hospital's OBRA limit. For SPY 2015, any excess DSH funding in pool 4 not allocated due to OBRA limits may be reallocated to DSH pools 1, 1A, 2, 2A, and 5 until September 30, 2017. A determination will be made by June 30, 2017, by the Administration if any reallocation will occur. AHCCCS shall notify CMS prior to the distribution of any pool 4 reallocated DSH funds.

Additionally, for SPY 2010 forward, any remaining excess funding may be reallocated to pool 5. Additional DSH payments from Pool 5 are funded by transfers per IGAs. If more than one hospital has available voluntary match, the reallocation will be allocated based proportionately according to the hospital's LOM scores, subject to the lower of each hospital's remaining OBRA limit or the total computable matching fund amount designated for each hospital per the applicable IGA. AHCCCS shall notify CMS prior to the distribution of any pool 4 reallocated DSH funds. Any additional payments will be limited to a hospital's overall OBRA limit.

Pool 5 – Voluntary Intergovernmental Agreements

The funding for pool 5 will be provided through voluntary intergovernmental transfers to hospitals designated by political subdivisions, universities, and tribal governments. Political subdivisions, public universities, and tribal governments will notify AHCCCS of the hospitals that will be designated to receive funds and of the amount of matching funds that will be available through their intergovernmental agreements (IGAs). AHCCCS will provide CMS with a list of designated pool 5 hospitals as soon as it becomes available.

- For SPY 2010, the funding for pool 5 is $26,000,000
- For SPY 2011, the funding for Pool 5 is $16,000,000.
- For SPY 2012, the funding for Pool 5 is $25,000,000 + $2,404,156.73 reallocated from Pool 4 = $27,404,156.73.
- For SPY 2013, the funding for Pool 5 is $ is $34,178,795.
- For SPY 2014, the funding for Pool 5 is the FY 2014 Arizona DSH allotment total computable amount minus $127,637,400.
- For SPY 2015, the funding for Pool 5 is the FY 2015 Arizona DSH allotment total computable amount minus $143,705,200.

Upon reconciliation, the non-federal portion of any Pool 5 funds that has to be recouped due to changes in hospital qualification or payment limits will be returned to the local match entity. The resulting federal funds will be returned to CMS.

[To Be Placed on Public Hospital Letter Head]

State Plan Year_____ □ Initial

☐ Final

CERTIFICATION STATEMENT
DISPROPORTIONATE SHARE HOSPITAL PAYMENT

As the [insert title] of Maricopa Medical Center, I certify that:

- Maricopa Medical Center has expended local funds in an amount equal to the OBRA Limit(s) indicated below.

- The local funds were not obligated to match other federal funds for any federal program and these funds are not federal funds.

- The attached Maricopa Medical Center OBRA Limit and CPE Schedule is true, accurate and complete to the best of my knowledge and belief and the information presented thereon is either identified and supported in the Hospital's accounting system, has been supplied to me by AHCCCS, or is supported by the attached documentation. I understand that the information presented on the Schedule is subject to audit.

- Maricopa Medical Center and I understand that the Disproportionate Share Hospital Payment received by the hospital will be from Federal funds, that any overpayment of those funds to the hospital will be recovered by AHCCCS, and that any falsification or concealment of a material fact made to receive payment of those funds may be prosecuted under Federal and/or state laws.

The estimated OBRA Limit Calculation for State Plan Year_____is $_____.

(Another line to certify a finalized amount will be added in the future)

_____ _____
Signature of CEO or CFO Printed Name

_____ _____
Title Date

[To Be Placed on Public Hospital Letter Head]

State Plan Year_____

□ Initial

□ Final

CERTIFICATION STATEMENT
DISPROPORTIONATE SHARE HOSPITAL PAYMENT

As the [insert title] of Arizona State Hospital, I certify that:

- Arizona state Hospital has expended state funds in an amount equal to the OBRA Limit(s) indicated below.

- The state funds were not obligated to match other federal funds for any federal program and these funds are not federal funds.

- The attached Arizona State Hospital OBRA Limit and CPE Schedule is true, accurate and complete to the best of my knowledge and belief and the information presented thereon is either identified and supported in the Hospital's accounting system, has been supplied to me by AHCCCS, or is supported by the attached documentation. I understand that the information presented on the Schedule is subject to audit.

- Arizona State Hospital and I understand that the Disproportionate Share Hospital Payment received by the hospital will be from Federal funds, that any overpayment of those funds to the hospital will be recovered by AHCCCS, and that any falsification or concealment of a material fact made to receive payment of those funds may be prosecuted under Federal and/or state laws.

The estimated OBRA Limit Calculation for state Plan Year_____is $_____.

(Another line to certify a finalized amount will be added in the future)

_____ _____

Signature of CEO or CFO Printed Name

Title Date

Attachment D
Reimbursement for Critical Access Hospitals

Subject to the availability of state funds, beginning May 1, 2002, supplemental payments will be made to non-I.H.S., non-638 facility in-state hospitals, certified by Medicare as Critical Access Hospitals (CAHs) under 42 CFR 485, Subpart F and 42CFR 440.170(g). These supplemental CAH payments shall be made in addition to the other payments described in Attachments 4.19-A (inpatient hospital) and 4.19-B (outpatient hospital). Supplemental payments shall be made based on each CAH designated hospital's percentage of total inpatient and outpatient Title XIX reimbursement paid relative to other CAH designated hospitals for the time period from July 1 through June 30 of the previous year.

AHCCCS will allocate the amount available through legislative appropriation in the following manner:

(1) Gather all adjudicated claims/encounters with dates of service from July 1 through June 30 of the prior year for each CAH-designated hospital.

(2) Sum the AHCCCS payments for inpatient and outpatient services for the year to establish a hospital-specific hospital paid amount.

(3) Total all AHCCCS payments for inpatient and outpatient services for the year to establish a total paid amount.

(4) Divide the hospital paid amount by the total paid amount to establish the hospital's utilization percentage.

(5) Divide the annual CAH appropriation by twelve to get the monthly CAH allocation.

(6) Multiply each hospital's monthly relative utilization by the monthly CAH allocation to establish each hospital's monthly payment.

Funding will be distributed based on the number of CAH-designated hospitals in each month and their Medicaid utilization. Because there may be a different number of CAH-designated hospitals each month, the hospital-specific weightings and payments may fluctuate from month to month. The calculations will be computed monthly and the distribution of the CAH dollars to the CAH- designated hospitals will be made twice a year.

Attachment E
Safety Net Care Pool Claiming Protocol

In accordance with the special terms and conditions (STC) Section VI, this Attachment E serves as the claiming protocol for Arizona's Safety Net Care Pool (SNCP) for Phoenix Children's Hospital (PCH). The protocol provides for the computation of the uncompensated care cost limit for Phoenix Children's Hospital through December 31, 2017. For each demonstration Year (DY), aggregate uncompensated care payments will be a distribution of the SNCP pool established in Section VI for each DY, and payments to each individual provider cannot exceed the uncompensated care cost limit as determined by this cost claiming protocol for each DY.

Generally, the uncompensated care cost limit is determined based on each provider's uncompensated costs pertaining to Section 1905(a) medical services furnished to Medicaid eligible and uninsured individuals. Allowable patient care costs, consistent with Medicare and Medicaid cost principles and OMB Circular A-87, A-121, and A-122 where applicable, are identified using a CMS-approved cost report. Such costs are apportioned to the eligible Medicaid and uninsured services and then offset by all applicable revenues. SNCP payments made based on interim computation of the uncompensated care cost limit (using prior period cost data) must be subsequently limited to a recomputation of the uncompensated care costs using the provider's as-filed and audited cost reports for the actual service period covered by the DY.

Under no circumstances will total SNCP payments to PCH (eligible to receive payment for uncompensated care costs incurred through December 31, 2017) exceed the provider's uncompensated costs, as described in paragraph 25 and in this Attachment E.

Hospital Inpatient and Outpatient Uncompensated Care Costs

To be eligible for federal financial participation (FFP), SNCP uncompensated care payments to PCH cannot exceed the uncompensated care costs as computed by the following steps:

Interim Computation of Uncompensated Care Costs

SNCP uncompensated care payments to PCH are limited to uncompensated care costs incurred on or before December 31, 2017. Each DY's SNCP will be distributed based on the provider's projected uncompensated care subject to the PCH Limit described in STC paragraph 25(c), to the extent that sufficient local matching funds are available. This interim computation of uncompensated care costs will be used as the basis for SNCP distribution and will also serve as the uncompensated care cost limit for SNCP payments made to the provider in each demonstration year.

1. The process of determining the hospital's interim uncompensated care cost limit begins with the use of each hospital's CMS 2552(s) filed with its Medicare contractor. The most recent CMS 2552 filed with the hospital's Medicare contractor will be utilized.

2. Per diem amount for each hospital routine cost center is computed by dividing:
   - The individual amounts on Worksheet B, Part I, Column 25, Lines (and where applicable subscripted lines) 25 to 33 of CMS 2552-96 or Worksheet B, Part I, Column 24, Lines (and where applicable subscripted lines) 30-43 of CMS 2552-10

   by-

   - The corresponding day totals on Lines (and where applicable subscripted lines) 5 through 11 and Line 14 (for inpatient hospital subproviders) from Worksheet S-3, Part I, Column 6 of CMS 2552-96 or Lines 7 through 13 and Lines 16-18 (for inpatient hospital subproviders) from Worksheet S-3, Part I, Column 8 of CMS 2552-10 consistent with the instructions below regarding observation bed days.

Note when computing the Adults and Pediatrics (General Routine Care) per diem, the amount on Worksheet B, Part I, Column 24, Line 25 of CMS 2552-96 (Worksheet B, Part I, Column 25, Line 30 of CMS 2552-10) should have deducted the amounts appearing on Worksheet D-1, Part I, Lines 26 and 36 (for swing bed and private room differential adjustments, respectively) of CMS 2552-96 and CMS 2552-10, and the amount on Worksheet S-3, Part I, Column 6, Line 5 of CMS 2552-96 (Worksheet S-3, Part I, Column 8, Line 7 of CMS 2552-10) should have added the amount appearing on Line 26 (observation bed days) of CMS 2552-96 (Line 28 of CMS 2552-10).

Ancillary ratio of cost-to-charges (RCC) for each hospital ancillary cost center is computed by dividing:

- The individual line and subscript amounts for each of the Lines 37 to 63, taken from Worksheet B, Part I, Column 25 of CMS 2552-96 or the individual line and subscript amounts for each of the Lines 50 to 93, taken from Worksheet B, Part I, Column 24 of CMS 2552-10.
- by
- The individual line and subscript amounts for each of the Lines 37 to 63, taken from Worksheet C, Part I, Column 8 of CMS 2552-96 or the individual line and subscript amounts for each of the Lines 50 to 93, taken from Worksheet C, Part I, Column 8 of CMS 2552-10.

(Note that the above cost report references are based on the CMS-2552-96 and CMS 2552-10. For later versions of the CMS-2552, the equivalent worksheets, columns and lines should be identified.)

3. For each hospital routine cost center, the per diem amount computed in Step #2 is applied to the number of Medicaid and uninsured hospital inpatient days for the service period as defined in Step #1. Only hospital inpatient days are to be included; all days pertaining to long term care units or any other non-hospital units must be excluded. The number of Medicaid and uninsured hospital inpatient days must be

derived from auditable sources, including the state's PMMIS, managed care encounter data, and provider patient accounting records. Hospital Medicaid and uninsured days are identified for each hospital routine cost center. The result is the facility's Medicaid and uninsured hospital routine cost.

For each hospital ancillary cost center, the RCC computed in Step #2 is applied to the Medicaid and uninsured hospital inpatient and hospital outpatient ancillary charges for the service period as defined in Step #1. Only hospital ancillary charges are to be included; all charges pertaining to non-hospital units, including Rural Health Clinics, Federally Qualified Health Centers, and clinics that are not recognized as hospital outpatient departments, must be excluded. The Medicaid and uninsured hospital ancillary charges must be derived from auditable sources, including the state's PMMIS, managed care encounter data, and provider patient accounting records. Hospital Medicaid and uninsured ancillary charges are identified for each hospital ancillary cost center. The result is the facility's Medicaid and uninsured hospital inpatient and hospital outpatient ancillary cost.

4. The Medicaid and uninsured costs computed in Step #3 will be offset by all revenues received by the hospital for the Medicaid and uninsured hospital inpatient and hospital outpatient services, including but not limited to Medicaid FFS and supplemental payments made by AHCCCS; Medicaid payments made by health plans and program contractors; payments made by or on behalf of patients; payments made by third parties; and any other payments received by for uninsured services that are not excluded from offset under Section 1923(g)(1)(A) of the Social Security Act as state-only or local-only indigent care program payments.

5. The computed Medicaid and uninsured uncompensated care costs based on a prior period may be inflated to the current period using CMS market basket. Furthermore, the state may apply trending factors to account for changes in utilization (e.g., due to changes in Medicaid eligibility criteria) and Medicaid payment rates to ensure that interim uncompensated care costs approximate final uncompensated care costs for the current service period as closely as possible. Such trending factors must account for both increases and decreases affecting a provider's uncompensated care costs.

6. The hospital's Medicaid and uninsured costs must be further adjusted to remove costs related to non-emergency services furnished to unqualified aliens. For this purpose, the hospital's uncompensated care costs will be reduced by 12.88% to the extent that such unqualified alien non-emergency service costs are not fully reimbursed by DSH dollars.

7. For SNCP uncompensated care payments, the state must ensure that the payments made to hospitals are accounted for in the facility's disproportionate share hospital (DSH) OBRA 93 hospital-specific limit. There cannot be any duplication of payments for the same hospital uncompensated care costs under the SNCP and under DSH.

8. The interim computation of hospital uncompensated care cost limit as described above uses the same prior period cost report and other relevant data as that used by the state in its initial OBRA 93 hospital-specific limit computation for DSH payments for the current DSH state Plan Rate Year.

Interim Reconciliation

Each hospital's uncompensated care costs must be recomputed based on the hospital's as-filed cost report for the actual service period. The cost report is filed with the Medicare contractor five months after the close of the cost reporting period. SNCP uncompensated care payments made to the hospital for a DY cannot exceed the recomputed uncompensated care cost limit. If, at the end of the interim reconciliation process, it is determined that expenditures claimed exceeded the individual hospital's uncompensated care cost limit, the overpayment will be recouped from the hospital, and the federal share will be properly credited to the federal government.

The interim reconciliation follows the same computation as outlined above in the Interim Computation of Uncompensated Care Costs steps, except that the per diems and RCCs, Medicaid and uninsured days and charges, and payment offset amounts used will pertain to the actual service period (rather than the prior period). Per diems and RCCs will be derived from the as- filed cost report; and Medicaid and uninsured days, charges and payments will be derived from the latest available auditable data for the service period. No trending factor will be applied. The uncompensated care costs must again be adjusted to remove costs related to non-emergency services furnished to unqualified aliens. The state must ensure that there is no duplication of payments for the same hospital uncompensated care costs under the SNCP and under DSH; SNCP payments must be accounted for in the hospital's OBRA 93 hospital-specific limit.

A hospital’s uncompensated care cost limit is determined for the twelve month period in each DY. Where a hospital's cost reporting period does not coincide with the DY (or partial DY or calendar year if the limits in paragraph 25(c) are stated for a partial DY or a calendar year), the uncompensated care costs computed for a cost reporting period can be allocated to the DY (or partial DY) based on the number of cost reporting months that overlap with the DY (or partial DY). This is consistent with the methodology for the computation of the OBRA 93 hospital-specific limit for a given DSH State plan rate year.

The interim reconciliation described above will be performed and completed within six months after the filing of the hospital Medicare cost report(s).

Final Reconciliation

Each hospital's uncompensated care costs must be recomputed based on the hospital's audited cost report for the actual service period. The cost report is audited and settled by the

Medicare contractor to determine final allowable costs and reimbursement amounts as recognized by Medicare. SNCP uncompensated care payments made to the hospital for a DY cannot exceed the recomputed uncompensated care cost limit. If, at the end of the final reconciliation process, it is determined that expenditures claimed exceeded the individual hospital's uncompensated care cost limit, the overpayment will be recouped from the hospital, and the federal share will be properly credited to the federal government.

The final reconciliation follows the same computation as outlined above in the Interim Computation of Uncompensated Care Costs steps, except that the per diems and RCCs, Medicaid and uninsured days and charges, and payment offset amounts used will pertain to the actual service period (rather than the prior period). Per diems and RCCS will be derived from the audited cost report, and Medicaid and uninsured days, charges and payments will be updated with the latest available auditable data for the service period. No trending factor will be applied. The uncompensated care costs must again be adjusted to remove costs related to non-emergency services furnished to unqualified aliens. The state must ensure that there is no duplication of payments for the same hospital uncompensated care costs under the SNCP and under DSH; SNCP payments must be accounted for in the hospital's OBRA 93 hospital-specific limit.

A hospital's uncompensated care cost limit is determined for the twelve month period in each DY. Where a hospital's cost reporting period does not coincide with the DY (or partial DY or calendar year if the limits in paragraph 25(c) are stated for a partial DY or a calendar year), the uncompensated care costs computed for a cost reporting period can be allocated to the DY (or partial DY or calendar year) based on the number of cost reporting months that overlap with the DY (or partial DY or calendar year). This is consistent with the methodology for the computation of the OBRA 93 hospital-specific limit for a given DSH State Plan Rate Year.

The final reconciliation described above will be performed and completed within six months after the audited hospital Medicare cost report(s) are made available.

The final computation of hospital uncompensated care cost limit as described above uses the same final cost report and other relevant data as that used by the state in its final OBRA 93 hospital-specific limit computation for DSH payments for the given DSH State Plan Rate Year.

Physician Professional Service Uncompensated Care Costs

To be eligible for Federal financial participation (FFP), SNCP uncompensated care payments to each provider cannot exceed the uncompensated care costs as computed by the following steps. The eligible provider is Phoenix Children Hospital, which employs and contracts for physician services and incurs physician professional service costs (whether the professional services are billed by the hospital or by the physicians).

Interim Computation of Uncompensated Care Costs

SNCP uncompensated care payments to PCH are limited to uncompensated care costs incurred on or before December 31, 2017. Each DY's SNCP will be distributed based on the provider's projected uncompensated care subject to the PCH limit as described in STC paragraph 25(c), to the extent that sufficient local matching funds are available. This interim computation of uncompensated care costs will be used as the basis for SNCP distribution and will also serve as the uncompensated care cost limit for SNCP payments made to the provider in each demonstration year.

1. Steps for PCH incurring physician professional service costs

a. The professional component of physician costs are identified from the hospital's CMS 2552 cost report Worksheet A-8-2, Column 4. The most recent CMS 2552 filed with the hospital's Medicare contractor will be utilized. These professional costs are:

1. Limited to allowable and auditable physician compensations that have been incurred by the hospital;
2. For the professional, direct patient care furnished by the hospital's physicians;
3. Identified as professional costs on Worksheet A-8-2, Column 4 of the cost report of the hospital claiming payment (or, for registry physicians only, Worksheet A-8, if the physician professional compensation cost is not reported by the hospital on Worksheet A-8-2 because the registry physicians are contracted solely for direct patient care activities (i.e., no administrative, teaching, research, or any other provider component or non-patient care activities);
4. Supported by a time study, accepted by Medicare for Worksheet A-8-2 reporting purposes, that identified the professional, direct patient care activities of the physicians (not applicable to registry physicians discussed above); and
5. Removed from hospital costs on Worksheet A-8.

b. The professional costs on Worksheet A-8-2, Column 4 (or Worksheet A-8 for registry physicians) are subject to further adjustments and offsets, including any necessary adjustment to bring the costs in line with Medicare and Medicaid cost principles and applicable OMB Circulars. However, Medicare physician reasonable compensation equivalents are not applied for physician professional cost determination purposes. The professional costs are further subject to offsets to account for any applicable non-patient care revenues that were not previously offset or accounted for by the application of time study. The resulting costs represent the net allowable professional service costs incurred by the hospitals.

c. Reimbursement for other professional practitioner service costs that have also been identified and removed from hospital costs on the Medicare cost report. The practitioner types to be included are:

Certified Registered Nurse Anesthetists
Nurse Practitioners
Physician Assistants

Dentists
Certified Nurse
Midwives Clinical
Social Workers Clinical
Psychologists
Optometrists

d. To the extent these practitioners' professional compensation costs are not included in Worksheet A-8-2, Column 4, but are removed from PCH costs through an A-8 adjustment on the Medi-Cal cost report, these costs may be recognized if they meet the following criteria:

- the practitioners must engage in the direct provision of care in addition to being Medicaid- qualified practitioners for whom the services are billable under Medicaid separate from PCH services;
- for all non physician practitioners there must be an identifiable and auditable data source by practitioner type;
- a CMS-approved time study must be employed to allocate practitioner compensation between clinical and non-clinical costs; and
- the clinical costs resulting from the CMS-approved time study are subject to further adjustments and offsets, including adjustments to bring the costs in line with Medicare cost principles and offset of applicable non-patient care revenues that were not previously offset or accounted for by the application of CMS-approved time study.

The resulting net clinical non-physician practitioner compensation costs are allowable costs. The compensation costs for each non-physician practitioner type are identified separately.

e. Professional costs incurred for freestanding clinics (clinics that are not recognized as hospital outpatient departments on the 2552) are not included in this protocol.

f. The hospital may additionally include physician support staff compensation, data processing, and patient accounting costs as physician-related costs to the extent that:

1. These costs are removed from hospital inpatient and outpatient costs because they have been specifically identified as costs related to physician professional services;
2. They are directly identified on ws A-8 as adjustments to hospital costs;
3. They are otherwise allowable and auditable provider costs; and
4. They are further adjusted for any non-patient-care activities such as research based on physician time studies.

If these are removed as A-8 adjustments to the hospital's general service cost centers, these costs should be stepped down to the physician cost centers based on the accumulated

physician professional compensation costs. Other than the physician and non-physician practitioner compensation costs and the A-8 physician-related adjustments discussed above, no other costs are allowed.

g. Total billed professional charges by cost center related to physician services are identified from auditable provider records. Similarly, for each non-physician practitioner type, the total billed professional charges are identified from provider records. Charges must be identified for all professional services for which PCH incurred its cost (whether salaried or contracted). Where the professional services are not billed by PCH directly, PCH must obtain those professional charges from the billing party.

h. A physician cost to charge ratio for each cost center is calculated by dividing the total costs for each cost center as established in paragraphs a-f of subsection 1 by the total billed professional charges for each cost center as established in paragraph g of subsection 1. For each non-physician practitioner type, a cost to charge ratio is calculated by dividing the total costs for each practitioner type as established in paragraphs a-f of subsection 1 by the total billed professional charges for each practitioner type as established in paragraph g of subsection 1.

i. The total professional charges for each cost center related to eligible Medicaid and uninsured physician services are identified using auditable records. PCH must map the charges to their cost centers. Each charge may only be mapped to one cost center to prevent duplicate mapping and claiming. These charges must be associated with services furnished during the period defined by paragraph a of subsection 1.

For each non-physician practitioner type, the eligible Medicaid and uninsured professional charges are identified using auditable records. The hospital must map the charges to non-physician practitioner type. Each charge may only be mapped to one practitioner type to prevent duplicate mapping and claiming. These charges must be associated with services furnished during the period covered by the latest as-filed cost report.

Auditable records include the state's PMMIS, managed care encounter data, and hospital records.

j. The total Medicaid and uninsured costs related to physician practitioner professional services are determined for each cost center by multiplying total Medicaid and uninsured charges as established in paragraph i of subsection 1 by the respective cost to charge ratio for the cost center as established in paragraph h of subsection 1.

For each non-physician practitioner type, the total Medicaid and uninsured costs related to non- physician practitioner professional services are determined by multiplying total Medicaid and uninsured charges as established in paragraph i of subsection 1 by the respective cost to charge ratios as established in paragraph h of subsection 1.

k. The total Medicaid and uninsured uncompensated care costs are determined by subtracting all revenues received for the Medicaid and uninsured physician/practitioner services from the Medicaid and uninsured costs as established in paragraph j of subsection 1. The revenues are derived from auditable records. All revenues received for the Medicaid

and uninsured professional services will be offset against the computed cost; these revenues include but are not limited to all Medicaid payments from the state or its program contractors, payments from or on behalf of patients, and payments from any other third party payer. The total professional service uncompensated care costs as computed above should be reduced by 12.88% to account for non-emergency care furnished to unqualified aliens.

l. The Medicaid and uninsured physician/practitioner amount computed in paragraph k of subsection 1 above can be trended to current period to account for cost inflation based on CMS market basket update factor. Furthermore, the state may apply trending factors to account for changes in utilization (e.g., due to changes in Medicaid eligibility criteria) and Medicaid payment rates to ensure that interim uncompensated care costs approximate final uncompensated care costs for the current service period as closely as possible. Such trending factors must account for both increases and decreases affecting a provider's uncompensated care costs.

(Note that the above cost report references are based on the CMS-2552-96 and CMS 2552-10. For later versions of the CMS-2552, the equivalent worksheets and columns should be identified.)

Interim Reconciliation

Each hospital's uncompensated care costs must be recomputed based on the as-filed cost report for the actual service period. The hospital cost report is filed with the Medicare contractor five months after the close of the cost reporting period. SNCP uncompensated care payments made to the hospital for a DY cannot exceed the recomputed uncompensated care cost limit. If, at the end of the interim reconciliation process, it is determined that expenditures claimed exceeded the individual hospital's uncompensated care cost limit, the overpayment will be recouped, and the federal share will be properly credited to the federal government.

The interim reconciliation follows the same computation as outlined above in the Interim Computation of Uncompensated Care Costs steps, except that the RCCs, Medicaid and uninsured charges, payment offset amounts and any other relevant statistics such as time study or time study proxy data used will pertain to the actual service period (rather than the prior period).

RCCs will be derived from the as-filed cost report; and Medicaid and uninsured charges and payments will be derived from the latest available auditable data for the service period. No trending factor will be applied. The uncompensated care costs must again be adjusted to remove costs related to non-emergency services furnished to unqualified aliens.

A hospital's uncompensated care cost limit is determined for the twelve month period in each DY. Where a hospital's cost reporting period does not coincide with the DY (or partial DY or calendar year if the limits in paragraph 25(c) are stated for a partial DY or a calendar year), the uncompensated care costs computed for a cost reporting period can be allocated to

the DY (or partial DY or calendar year) based on the number of cost reporting months that overlap with the DY (or partial DY or calendar year).

The interim reconciliation described above will be performed and completed within six months after the filing of the cost report(s).

Final Reconciliation

Each hospital's uncompensated care costs must be recomputed based on the audited cost report for the actual service period. The hospital cost report is audited and settled by the Medicare contractor to determine final allowable costs and reimbursement amounts as recognized by Medicare. SNCP uncompensated care payments made to the hospital for a DY cannot exceed the recomputed uncompensated care cost limit. If, at the end of the final reconciliation process, it is determined that expenditures claimed exceeded the individual hospital's uncompensated care cost limit, the overpayment will be recouped, and the federal share will be properly credited to the federal government.

The final reconciliation follows the same computation as outlined above in the Interim Computation of Uncompensated Care Costs steps, except that the RCCs, Medicaid and uninsured charges, payment offset amounts, and other relevant statistics such as time study or time study proxy data used will pertain to the actual service period (rather than the prior period). RCCs will be derived from the audited cost report, and Medicaid and uninsured charges and payments will be updated with the latest available auditable data for the service period. No trending factor will be applied. The uncompensated care costs must again be adjusted to remove costs related to
non-emergency services furnished to unqualified aliens.

A hospital's uncompensated care cost limit is determined for the twelve month period in each DY. Where a hospital's cost reporting period does not coincide with the DY (or partial DY or calendar year if the limits in paragraph 25(c) are stated for a partial DY or calendar year), the uncompensated care costs computed for a cost reporting period can be allocated to the DY (or partial DY or calendar year) based on the number of cost reporting months that overlap with the DY (or partial DY or calendar year).

For hospital-incurred professional service uncompensated care costs, the final reconciliation described above will be performed and completed within six months after the audited hospital Medicare cost report(s) are made available.

Attachment F

IHS and 638 Facilities Uncompensated Care Payment Methodology

The methodology outlined below has been approved for structuring a payment that will be made to IHS and 638 facilities that take in to account their uncompensated costs in furnishing specified types of care furnished by IHS and tribal 638 facilities to Medicaid-eligible individuals.

Participating facilities must utilize the methodology described below in determining these payments to the facilities:

Historical Data Methodology

This methodology is comprised of the following that will be used to calculate the total dollar amount of uncompensated care that will be paid to IHS and 638 facilities on a prospective basis.

- The state will calculate a per member per month (PMPM) rate, using historical data, to reflect the services that it removed from the Medicaid state plan effective October 1, 2010, that were furnished in or by IHS/tribal 638 facilities to AHCCCS-enrolled individuals, and would multiply this rate by the total number of adult AI/ANs currently enrolled in the AHCCCS program. This PMPM will be adjusted on an annual basis to mirror the medical inflation adjustment applied to the all-inclusive rate.

Once this aggregate dollar amount has been computed, the state will disburse payments to the IHS and 638 facilities based on payments made to each facility for care provided to AI/AN adults from July 1, 2010 through June 30, 2011.

In addition, the state will annually review whether the PMPMs calculated above were accurate within a reasonable margin of error by reviewing actual records of services furnished by one or more facilities. If the PMPM is not validated, the state will apply an adjustment factor for the following year.

As part of this methodology, the non-Federal share for services provided to non-natives would be calculated based on the following.

1. After analyzing claims data from 2009-10, the state calculated a ratio of claims paid for currently covered Arizona Medicaid state plan services that were provided at IHS and 638 facilities to non-natives to the total number of paid claims to IHS and 638 facilities. Using this ratio, the state calculated that approximately $2 million out of total claims paid to IHS facilities was for services provided to non-natives. As such, the state will pay the non-Federal share of the $2 million. The state will review the claims data on an annual basis and will adjust the non-Federal share amount accordingly.
2. The state will apply the ratio that was calculated of non-native costs to total IHS costs as described above to calculate the non-Federal portion of the service PMPM payments as described above.

Monthly Payment Calculation – Services

Adult Per Member Per Month Service	$15.11
Total Number of AI/AN Adults Enrolled with AHCCCS	56,851
May Services Payment	$859,018.61
Total May Payment to I.H.S and 638 Facilities (Eligibility + Services)	$3,920,484.61
Facility A - Allocation - 1%	$39,204.85
Facility B - Allocation - 5%	$196,024.23

Attachment G
Targeted Investments Program DSHP Claiming Protocol

DSHP Claiming Protocol

1. State Documentation of DSHP Expenditures.

   Documentation made available by the State for CMS review for quarterly DSHP expenditures will include the agency, program, provider(s), payment amount(s), and relevant provider costs as described below.

2. Offsets.

   In accordance with the STC, DSHP expenditures submitted to CMS will not include:

   a. Grant funding to test new models of care
   b. Construction costs (bricks and mortar)
   c. Room and board expenditures
   d. Animal shelters and animal vaccines
   e. School based programs for children
   f. Unspecified projects
   g. Debt relief and restructuring
   h. Costs to close facilities
   i. HIT/HIE expenditures
   j. Services provided to undocumented individuals
   k. Sheltered workshops
   l. Research expenditures
   m. Rent and/or Utility Subsidies that are normally funded by the United States Department of Housing and Urban Development and United States Department of Agriculture (USDA) or other state/local rental assistance programs
   n. Prisons, correctional facilities, services for incarcerated individuals and services provided to individuals who are civilly committed and unable to leave
   o. Revolving capital fund
   p. Expenditures made to meet a maintenance of effort requirement for any federal grant program
   q. Administrative costs
   r. Cost of services for which payment was made by Medicaid or CHIP (including from managed care plans)
   s. Cost of services for which payment was made by Medicare or Medicare Advantage
   t. Funds from other federal grants
   u. Needle-exchange programs
   v. Abortions that would not be allowable if furnished under Medicaid or CHIP
   w. Costs associated with funding federal matching requirements.

   To ensure DSHP expenditures do not include costs associated with providing coverage of

non-emergency services to undocumented immigrants, the State will reduce actual expenditures by the proportion of the AHCCCS population enrolled in the Emergency Services Program (ESP), which is 6.3%. This adjustment is the undocumented immigrant offset.

3. Financial Data Reporting.

The Arizona Financial Information System (AFIS) is the accounting system of record for the state of Arizona. Payment voucher information is entered into AFIS by AHCCCS and ADES. All payments made by the state are processed in AFIS. AFIS expenditure data is the basis for identifying the total DSHP expenditure, prior to applying offsets.

For DSHP services to individuals with Serious Mental Illness, AHCCCS' total reportable DSHP expenditures start with the amounts AHCCCS paid the Regional Behavioral Health Authorities (RBHAs) as reported in AFIS. RBHAs provide quarterly financial reports to AHCCCS that identify specific, actual expenditures. These reports are the basis for identifying and calculating offsets as discussed below to reduce the total reportable DSHP expenditures.

For early intervention developmentally disabled DSHP services, ADES' total reportable DSHP expenditures tart with the amount of ADES paid to its contracted providers as reported in AFIS. ADES will identify and calculate offsets as discussed below to reduce the total reportable DSHP expenditures.

4. Designated State Health Programs Detail

Services to Individuals with Serious Mental Illness

State Agency: AHCCCS
Program: Services to Individuals with Serious Mental Illness (SMI)
Funding Source: Intergovernmental Agreement (IGA) Funds provided by Maricopa County and Pima County.

Brief Description:

Two counties in Arizona provide funds to AHCCCS via Intergovernmental Agreements (IGAs) to provide services to non-Medicaid individuals with Serious Mental Illness (SMI). AHCCCS contracts with managed care organizations called Regional Behavioral Health Authorities (RBHAs), who contract with providers for case management, peer support and planning, community based supports, medication management services, and other medical services. Funding flows from the counties, to AHCCCS, to RBHAs, and then to providers.

Eligible Population:

The program serves individuals who request behavioral health services, are determined eligible to receive SMI services, and are determined not eligible for Medicaid/CHIP.

An individual is determined eligible to receive SMI services if they have a qualifying SMI diagnosis and functional impairment caused by the diagnosis. Qualifying diagnoses include anxiety, bipolar, major depression, obsessive-compulsive, dissociative, personality, psychotic, and post-traumatic stress disorders. Functional impairment means long-term dysfunction in one of the following domains: (1) inability to live in an independent or family setting without supervision, (2) risk of serious harm to self or others, (3) dysfunction in role performance, or (4) risk of deterioration. Individuals are evaluated for SMI eligibility by a clinician and receive an initial SMI evaluation and a final SMI eligibility determination.

When an individual requests to receive behavioral health services they are also required to participate in a preliminary financial screening and eligibility process to identify third party payers and determine if they are eligible for Medicaid/CHIP, including submission of an application and completion of the eligibility determination process. If an individual receives an SMI determination, but does not qualify for Medicaid/CHIP, they are eligible to receive services under this program. An individual does not qualify for Medicaid/CHIP if they have household income or assets in excess of the following thresholds, do not meet residency requirements, and/or do not otherwise qualify for categorical eligibility:

Eligibility Criteria:	Income <	Assets >
Children	200% FPL	-
Adults	133% FPL	-
Pregnant Women	156% FPL	-
Long-Term Care	300% FBR	$2,000
SSI CASH	100% FBR	$2,000
SSI MAO	100% FPL	-

Funding:

Services provided to non-Title XIX individuals with SMI may be funded by the County IGAs, Mental Health Block Grant, Substance Abuse Block Grant, or State General Fund.

This DSHP reflects only the County IGAs, and so excludes other federal and state sources of funding. Two Arizona counties (Maricopa and Pima) provide approximately $60 million annually for this state-only program. Funding and associated expenditures are contained within AHCCCS. The counties provide funding to AHCCCS on a monthly basis in accordance with IGAs. These County IGA funds do not serve to meet any maintenance of effort requirement or federal matching requirement for any federal program.

No copayments or fees are charged to this population and so patient payments do not offset the cost of providing services or provide revenue for the program.

In some cases, individuals not eligible for Medicaid/CHIP may have third-party coverage that covers all or a portion of behavioral health services. RBHAs and behavioral health

providers are required to determine third party health insurance coverage prior to providing services under this program and are responsible for cost avoiding by coordinating benefits. If third-party liability is identified after services have been provided, RBHAs and providers are responsible for post-payment recovery. All expenditures reported for this program are net of any TPL revenue that is collected.

Eligible Providers:

The State makes monthly installment payments based on the annual contract amount to RBHAs under existing non-Medicaid services contracts. RBHAs contract with behavioral health providers, who provide direct services. On a quarterly basis, RBHAs report back to AHCCCS on the actual services provided in the form of RBHA financial statements. AHCCCS' monthly payments to the RBHAs are reconciled to actual RBHA expenditures.

Documentation and Claiming Process:

Step 1 AHCCCS Division of Business and Finance (DBF) identifies actual expenditures of County IGA funds to RBHAs based on appropriation, fund, and sub-fund account codes as recorded in AFIS. This methodology excludes all federal funds and State General Fund expenditures. The identified amount is the initial, unadjusted DSHP expenditure, which reflects costs incurred by AHCCCS in making payments to the RBHAs specifically for the County IGA program.

Step 2 On a quarterly basis, each RBHA submits a Statement of Activities that reports expenses by funding source, including the County IGA program. AHCCCS Division of Health Care Management (DHCM) reviews the quarterly RBHA financial statements for the period and identifies IGA funds paid to the RBHAs that were not used to provide SMI services and/or were used to provide services that are not permissible as DSHP expenditures, per Section 2. The DSHP expenditure is reduced by these amounts.

The following expenditures are excluded because they are not for SMI services:

- General Mental Health and Substance Abuse Services to non-SMI Adults
- Children's Services to Remanded Juveniles
- Central City Addiction Recovery Center (CCARC) Services

The following expenditures are excluded because they are not DSHP eligible:

- Room and Board Services

- Services provided to residents of an Institution for Mental Diseases (IMD)
- Medicare Part D Prescription Drug Costs
- RBHA Administrative Costs

Step 3 AHCCCS DBF applies the 6.3% undocumented immigrant offset on the DSHP expenditure adjusted by Step 2. The DSHP expenditure is reduced by this amount.

Step 4 AHCCCS prepares a summary schedule that identifies the initial, unadjusted DSHP expenditure in AFIS (Step 1), shows the reductions for funds paid to RBHAs that were not used to provide SMI services and/or were used to provide services that are not permissible as DSHP expenditures (Step 2), and shows the 6.3% undocumented immigrant offset (Step 3). The final amount is the adjusted, eligible DSHP payment. An example summary schedule is attached.

Step 5 The State submits a claim to CMS for FFP based on the total computable expenditure incurred by the State in making the eligible DSHP payment.

Step 6 The State attests expenditures used are correct and verifiable as DSHP allowable.

Process occurs quarterly based on quarterly financial reporting.

Reductions/Offsets for Non-Matchable Expenditure List:

The reportable DSHP expenditures incurred by AHCCCS as reported in AFIS are evaluated for the non-matchable expenditures listed in Section 2 and in the AHCCCS STCs.

Any DSHP expenditures reported from AFIS already exclude expenditures that are funded by federal grants or federal financial participation and other non-state, non-local government funding or revenue sources.

Expenditures for this program are not utilized to meet the state maintenance of effort requirements for the Mental Health Block Grant and Substance Abuse Block Grant, and so do not need to be reduced or offset for this purpose.

The following DSHP ineligible expenditures are offsets/reductions that apply to this program.

- Room and Board Services
- Services provided to residents of an Institution for Mental Diseases (IMD)
- Medicare Part D Prescription Drug Costs

- RBHA Administrative Costs

These are expenditures for services that are not Medicaid-like or for non-medical services. Finally, actual expenditures are reduced by the undocumented immigrant offset amount to exclude costs associated with non-emergency services provided to undocumented immigrants.

Developmentally Disabled Services

State Agency: Arizona Department of Economic Security (ADES)
Program: Division of Developmental Disabilities (DDD)
Funding Source: State General Fund Appropriation

Brief Description:

The Arizona Department of Economic Security (ADES) Division of Developmental Disabilities (DDD) provides state-only early intervention and home and community based services to individuals who are not eligible for Medicaid. Annual funding of approximately $16.8 million is provided by a state general fund appropriation. DDD directly contracts with independent providers for early intervention services, day treatment, habilitation, residential group homes, occupational therapy, physical therapy, and speech therapy.

Eligible Population:

The target population is primarily children, specifically the early intervention population aged 0 to 3 with, or at risk of, developmental delays. Developmental delays are based on diagnostic criteria in the areas of physical, cognitive, language/communication, social/emotional, and adaptive self-help childhood development. Individuals must be ineligible for Medicaid in order to receive state-only services. Children are ineligible for Medicaid primarily due to household income or assets in excess of established limits. Some individuals may have other insurance, in which cases state-only funding may function as the payer of last resort.

Funding:

The source of non-federal revenue is an annual state general fund appropriation. DDD exchanges a file with AHCCCS to identify individuals who are Medicaid-eligible and for whom Medicaid should pay for services, and providers must bill Medicaid first. For individuals with third party coverage, providers must bill insurance first and DDD requires documentation of the denial of those claims in order to process a state-only payment. All expenditures for this program are net of costs that were avoided or revenues recovered.

IDEA Part C is not a funding source for this program. However, ADES DDD reports these state-only expenditures to the Arizona Department of Education in order to demonstrate

compliance with state Maintenance of Effort requirements for IDEA Part C.

Eligible Providers:

ADES DDD contracts with independent providers for early intervention services, day treatment, habilitation, residential group homes, occupational therapy, physical therapy, and speech therapy.

Documentation and Claiming Process:

Step 1 ADES submits data summary table to AHCCCS that identifies actual expenditures based on appropriation, fund, and sub-fund account codes as recorded in AFIS. This amount is the initial, unadjusted DSHP expenditure. These identified expenditures are expenditures incurred by ADES in making medical service payments to contracted providers for the DDD program.

Step 2 ADES submits data summary table to AHCCCS that identifies actual expenditures based on service category to AHCCCS, including identification of the amount of expenditures for Room and Board services. The DSHP expenditure is reduced by this amount.

Step 3 ADES submits data summary table to AHCCCS that identifies state expenditures reported as Maintenance of Effort (MOE) for the IDEA Part C federal grant. The DSHP expenditure is reduced by this amount. MOE is calculated once annually and offset is applied in a single quarter.

Step 4 AHCCCS applies the 6.3% undocumented immigrant offset on the DSHP expenditure as adjusted by Step 2 and Step 3. The DSHP expenditure is reduced by this amount.

Step 5 AHCCCS prepares a summary schedule that identifies the initial, unadjusted DSHP expenditure in AFIS (Step 1), shows the reduction for Room and Board expenditures (Step 2), shows the reduction for IDEA Part C MOE (Step 3), and shows the 6.3% undocumented immigrant offset (Step 4). The final amount is the adjusted, eligible DSHP payment.

Step 6 The State submits a claim to CMS for FFP based on the total computable expenditure incurred by the State in making the eligible DSHP payment.

Step 7 The State attests expenditures used are correct and verifiable as DSHP allowable.

Reductions/Offsets for Non-Matchable Expenditure List:

Any DSHP expenditures reported from AFIS already exclude expenditures that are funded by federal grants or federal financial participation and other non-state, non-local government funding or revenue sources.

Actual expenditures are reduced by Room and Board expenditures. These are the only expenditures for services that are not Medicaid-like. The expenditures reported in AFIS do not include any payments made by ADES for non-medical services.

Actual expenditures are reduced by the expenditures reported as MOE for the IDEA Part C grant program. Process occurs quarterly and IDEA Part C MOE offset is calculated annually and applied to a single quarter.

Finally, actual expenditures are reduced by the undocumented immigrant offset amount to exclude costs associated with services provided to undocumented immigrants.

Attachment H
Monitoring Protocol

Attachment I
Approved Appendix K

APPENDIX K: Emergency Preparedness and Response and COVID-19 Addendum

Background:

This standalone appendix may be utilized by the state during emergency situations to request amendments to its approved waiver, to multiple approved waivers in the state, and/or to all approved waivers in the state. It includes actions that states can take under the existing Section 1915(c) home and community-based waiver authority in order to respond to an emergency. Other activities may require the use of various other authorities such as the Section 1115 demonstrations or the Section 1135 authorities.[1] This appendix may be applied retroactively as needed by the state. Public notice requirements normally applicable under 1915(c) do not apply to information contained in this Appendix.

Appendix K-1: General Information

General Information:

A. State: Arizona

B. Waiver Title(s): Arizona Health Care Cost Containment System (AHCCCS)

C. Control Number(s):
1115 Demonstration Project No. 11-W-00275/9

D. Type of Emergency (The state may check more than one box):

X	**Pandemic or Epidemic**
☐	**Natural Disaster**
☐	**National Security Emergency**
☐	**Environmental**

[1] Numerous changes that the state may want to make may necessitate authority outside of the scope of section 1915(c) authority. States interested in changes to administrative claiming or changes that require section 1115 or section 1135 authority should engage CMS in a discussion as soon as possible. Some examples may include: (a) changes to administrative activities, such as the establishment of a hotline; or (b) suspension of general Medicaid rules that are not addressed under section 1915(c) such as payment rules or eligibility rules or suspension of provisions of section 1902(a) to which 1915(c) is typically bound.

☐	**Other (specify):**

E. Brief Description of Emergency. *In no more than one paragraph each*, briefly describe the: 1) nature of emergency; 2) number of individuals affected and the state's mechanism to identify individuals at risk; 3) roles of state, local and other entities involved in approved waiver operations; and 4) expected changes needed to service delivery methods, if applicable. The state should provide this information for each emergency checked if those emergencies affect different geographic areas and require different changes to the waiver.

COVID-19 pandemic. This amendment will apply waiver-wide for each waiver included in this Appendix, to all individuals impacted by the virus or the response to the virus (e.g. closure of day programs, etc.)

F. Proposed Effective Date: March 13, 2020 **Anticipated End Date:** End of the calendar quarter in which the PHE ends.

G. Description of Transition Plan.

All activities will take place in response to the impact of COVID-19 as efficiently and effectively as possible based upon the complexity of the change.

H. Geographic Areas Affected:

These actions will apply across the waiver to all individuals impacted by the COVID-19 virus

I. Description of State Disaster Plan (if available) ***Reference to external documents is acceptable:***

N/A

Appendix K-2: Temporary or Emergency-Specific Amendment to Approved Waiver

Temporary or Emergency-Specific Amendment to Approved Waiver:

These are changes that, while directly related to the state's response to an emergency situation, require amendment to the approved waiver document. These changes are time limited and tied specifically to individuals impacted by the emergency. Permanent or long-ranging changes will need to be incorporated into the main appendices of the waiver, via an amendment request in the waiver management system (WMS) upon advice from CMS.

a.___ Access and Eligibility:

i.___ Temporarily increase the cost limits for entry into the waiver.
[Provide explanation of changes and specify the temporary cost limit.]

N/A

ii.___ Temporarily modify additional targeting criteria.
[Explanation of changes]

N/A

b.___ Services

i.___ Temporarily modify service scope or coverage.
[Complete Section A- Services to be Added/Modified During an Emergency.]

ii. ___Temporarily exceed service limitations (including limits on sets of services as described in Appendix C-4) or requirements for amount, duration, and prior authorization to address health and welfare issues presented by the emergency.
[Explanation of changes]

N/A

iii. ___Temporarily add services to the waiver to address the emergency situation (for example, emergency counseling; heightened case management to address emergency needs; emergency medical supplies and equipment; individually directed goods and services; ancillary services to establish temporary residences for dislocated waiver enrollees; necessary technology; emergency evacuation transportation outside of the scope of non-emergency transportation or transportation already provided through the waiver).
[Complete Section A-Services to be Added/Modified During an Emergency]

iv. _X_Temporarily expand setting(s) where services may be provided (e.g. hotels, shelters, schools, churches). Note for respite services only, the state should indicate any facility-based settings and indicate whether room and board is included:
[Explanation of modification, and advisement if room and board is included in the respite rate]:

The state requests the flexibility to allow providers, in consultation with the state's licensing agency, to provide services in alternative settings including settings that are licensed for other purposes (i.e. residential providing using a day program facility) or unlicensed settings (i.e. hotels, schools, churches and/or permanent or temporary shelters) for residential or day programming in an effort to mitigate COVID-19 spread.

v.___ Temporarily provide services in out of state settings (if not already permitted in the state's approved waiver). [Explanation of changes]

c. __ Temporarily permit payment for services rendered by family caregivers or legally responsible individuals if not already permitted under the waiver. Indicate the services to which this will apply and the safeguards to ensure that individuals receive necessary services as authorized in the plan of care, and the procedures that are used to ensure that payments are made for services rendered.

d.___ Temporarily modify provider qualifications (for example, expand provider pool, temporarily modify or suspend licensure and certification requirements).

i.___ Temporarily modify provider qualifications.

[Provide explanation of changes, list each service affected, list the provider type, and the changes in provider qualifications.]

ii.___ Temporarily modify provider types.

[Provide explanation of changes, list each service affected, and the changes in the provider type for each service].

iii.___ Temporarily modify licensure or other requirements for settings where waiver services are furnished.

[Provide explanation of changes, description of facilities to be utilized and list each service provided in each facility utilized.]

e. ___Temporarily modify processes for level of care evaluations or re-evaluations (within regulatory requirements). [Describe]

f.___ Temporarily increase payment rates.

[Provide an explanation for the increase. List the provider types, rates by service, and specify whether this change is based on a rate development method that is different from the current approved waiver (and if different, specify and explain the rate development method). If the rate varies by provider, list the rate by service and by provider.]

g. X Temporarily modify person-centered service plan development process and individual(s) responsible for person-centered service plan development, including qualifications.

[Describe any modifications including qualifications of individuals responsible for service plan development, and address Participant Safeguards. Also include strategies to ensure that services are received as authorized.]

For Person-Centered Service Plans that are due to expire within the next 60 days, case managers will be required to make contact with members/Health Care Decision Makers, using allowable remote contact methods in order to verify with the members/Health Care Decision Makers that the current assessed needs, services and supports, including service providers, are still appropriate and should continue to be authorized through the next review period. Additionally, the state will ensure that member service plans are modified to allow for additional supports and/or services to respond to the COVID-19 pandemic. The state will verify by obtaining electronic signatures, electronic verification via secure email from the member/Health Care Decision Maker and service providers, in accordance with the state's HIPAA requirements, and must be documented in the member's case management file.

The specificity of such services including amount, duration and scope will be appended in the member's service plan as soon as possible to ensure that the specific services are delineated accordingly to include the date the services were received/rendered, but no later than 30 days from the date the services began.

If members/Health Care Decision Makers are not able to be reached via telephone or other electronic means, outreach attempts must be documented in the member's case management file.

h.___ Temporarily modify incident reporting requirements, medication management or other participant safeguards to ensure individual health and welfare, and to account for emergency circumstances. [Explanation of changes]

i._X_ Temporarily allow for payment for services for the purpose of supporting waiver participants in an acute care hospital or short-term institutional stay when necessary supports (including communication and intensive personal care) are not available in that setting, or when the individual requires those services for communication and behavioral stabilization, and such services are not covered in such settings.

[Specify the services.]

The state will allow for payment for services for the purpose of supporting waiver participants in an acute care hospital or short-term institutional stay when necessary supports are not available in that setting during this emergency. *Payments may only be made for up to 30 consecutive days.*

j._X__ Temporarily include retainer payments to address emergency related issues.

[Describe the circumstances under which such payments are authorized and applicable limits on their duration. Retainer payments are available for habilitation and personal care only.]

Retainer payments will be made to providers to address reductions in utilization of services related to the COVID-19 emergency, such as missed appointments or decreased frequency of members receiving services. The payments are intended to ensure provider sustainability by helping to offset the reduction in revenue experienced by providers due to members staying home and avoiding care, or providers otherwise being unable to provide in-person or telehealth services to members.

AHCCCS currently intends to implement retainer payments as follows:

- Retainer payments will be authorized for providers of habilitation and personal care services.
    - Specific provider types and procedure codes will be identified.
- Providers will be determined by AHCCCS to be qualified to bill for retainer payments by submitting an attestation in template form that includes the following information:
    - Provider information including Tax Identification Number, Provider Name, and Provider AHCCCS ID.
    - Summary description of the decline in utilization attributable to COVID-19.
    - Summary estimate of weekly units by service code it anticipates it will bill each Health Plan for retainer payments.
    - Confirmation it understands and will follow the specific billing guidance, subject to future audit.
    - Confirmation it understands that retainer payments may be subject to recoupment if an audit determines that inappropriate billing or duplicate payments for services occurred.
- Qualifying providers will bill for specific services that would have been provided to specific members.
    - Retainer payments may only be billed for specific services authorized and documented in the member's service plan.
    - Units billed shall not exceed the amount, scope, and duration authorized for the provider.
    - Retainer payments may not be billed when the member chooses to receive services through a different provider.
        - Retainer payments will not be made if the member receives the same service from a different provider within the same time period, e.g. on the same day if a daily service, or within the same week if a weekly service.
    - AHCCCS will designate the GY modifier to be used by providers to bill for retainer payments during the emergency period.
    - Retention payments for qualifying services may not exceed 30 consecutive days.
- AHCCCS will establish additional billing, reporting, submission, and payment requirements and timelines for providers and Health Plans in order to ensure timely and

accurate payment of claims and submission of encounters.

- Retainer payments are anticipated to be made available to qualifying providers for qualifying habilitation and personal care services for the duration of the emergency period. Retainer payment may not exceed the lesser of 30 consecutive days or the number of days for which the state authorizes a payment of "bed hold" in nursing facilities.

k.___ Temporarily institute or expand opportunities for self-direction.

[Provide an overview and any expansion of self-direction opportunities including a list of services that may be self-directed and an overview of participant safeguards.]

l.___ Increase Factor C.

[Explain the reason for the increase and list the current approved Factor C as well as the proposed revised Factor C]

m.___ Other Changes Necessary [For example, any changes to billing processes, use of contracted entities or any other changes needed by the State to address imminent needs of individuals in the waiver program]. [Explanation of changes]

Appendix K Addendum: COVID-19 Pandemic Response

1. HCBS Regulations

a. ☒ Not comply with the HCBS settings requirement at 42 CFR 441.301(c)(4)(vi)(D) that individuals are able to have visitors of their choosing at any time, for settings added after March 17, 2014, to minimize the spread of infection during the COVID-19 pandemic.

2. Services

a. ☒ Add an electronic method of service delivery (e.g,. telephonic) allowing services to continue to be provided remotely in the home setting for:
   i. ☒ Case management
   ii. ☒ Personal care services that only require verbal cueing
   iii. ☒ In-home habilitation

iv. ☐ Monthly monitoring (i.e., in order to meet the reasonable indication of need for services requirement in 1915(c) waivers).

v. ☐ Other *[Describe]:*

b. ☒ Add home-delivered meals

c. ☐ Add medical supplies, equipment and appliances (over and above that which is in the state plan)

d. ☐ Add Assistive Technology

3. Conflict of Interest: The state is responding to the COVID-19 pandemic personnel crisis by authorizing case management entities to provide direct services. Therefore, the case management entity qualifies under 42 CFR 441.301(c)(1)(vi) as the only willing and qualified entity.

a. ☒ Current safeguards authorized in the approved waiver will apply to these entities.

b. ☐ Additional safeguards listed below will apply to these entities.

4. Provider Qualifications

a. ☒ Allow spouses and parents of minor children to provide personal care services

b. ☐ Allow a family member to be paid to render services to an individual.

c. ☐ Allow other practitioners in lieu of approved providers within the waiver. *[Indicate the providers and their qualifications]*

Afford the state additional flexibility to allow for legally responsible individuals (parents and spouses) to receive payment for direct care services. Permitting parents of minor children to receive payment for direct care services. Removing the 40 hour maximum hours per week of services a member can receive if they have a spouse serving as the paid caregiver as well as allowing the spouse to provide the total amount of attendant care the member receives. The parents and spouses must be employed/contracted by an AHCCCS Registered Direct Care Service Agency.

d. ☒ Modify service providers for home-delivered meals to allow for additional providers, including non-traditional providers.

The state is not seeking an extension of the authority to allow for additional providers, including non-traditional providers for home delivered meals, beyond the date of expiration of the current Appendix K. This authority will be terminated effective March 12, 2021

5. Processes

a. ☒ Allow an extension for reassessments and reevaluations for up to one year past the due date.

b. ☒ Allow the option to conduct evaluations, assessments, and person-centered service planning meetings virtually/remotely in lieu of face-to-face meetings.
c. ☒ Adjust prior approval/authorization elements approved in waiver.
d. ☒ Adjust assessment requirements
e. ☒ Add an electronic method of signing off on required documents such as the person-centered service plan.

The state is not seeking an extension of the authority to allow an extension for reassessments and reevaluations for up to one year past the due date, beyond the date of expiration of the current Appendix K. This authority will be terminated effective March 12, 2021

Contact Person(s)

A. The Medicaid agency representative with whom CMS should communicate regarding the request:

First Name:	Mohamed
Last Name	Arif
Title:	Federal Relations Administrator
Agency:	AHCCCS
Address 1:	801 E Jefferson Street
Address 2:	
City	Phoenix
State	Arizona
Zip Code	85034
Telephone:	602-417-4573
E-mail	Mohamed.arif@azahcccs.gov
Fax Number	

B. If applicable, the State operating agency representative with whom CMS should communicate regarding the waiver is:

First Name:	Shreya
Last Name	Arakere
Title:	Waiver Manager
Agency:	AHCCCS
Address 1:	801 E Jefferson Street
Address 2:	
City	Phoenix
State	Arizona
Zip Code	85034
Telephone:	602-417-4611
E-mail	Shreya.arakere@azahcccs.gov
Fax Number	

8. Authorizing Signature

Signature: 	**Date:** **3/8/2021**
State Medicaid Director or Designee	

First Name:	Jami
Last Name	Snyder
Title:	Director
Agency:	AHCCCS
Address 1:	801 E Jefferson Street
Address 2:	
City	Phoenix
State	Arizona
Zip Code	85034
Telephone:	602-417-4458
E-mail	Jami.snyder@azahcccs.gov
Fax Number	

Section A---Services to be Added/Modified During an Emergency

Complete for each service added during a time of emergency. For services in the approved waiver that the state is temporarily modifying, enter the entire service definition and highlight the change. State laws, regulations and policies referenced in the specification should be readily available to CMS upon request through the Medicaid agency or the operating agency (if applicable).

Service Specification					
Service Title:	Add Home Delivered Meals				
Complete this part for a renewal application or a new waiver that replaces an existing waiver. Select one:					
Service Definition (Scope)**:**					
Home Delivered Meals is a service that provides a nutritious meal containing at least one third of the Federal recommended daily allowance for the member, delivered to the member's own home. The scope will be expanded to include individuals with intellectual and/or developmental disabilities.					
Specify applicable (if any) limits on the amount, frequency, or duration of this service:					
Not Applicable					

Provider Specifications				
Provider Category(s) *(check one or both)***:**	☐	Individual. List types:	☐	Agency. List the types of agencies:
				Any entity providing Home Delivered Meals including, but not limited to, senior centers, meals on wheels programs, adult day health providers and other community-based organizations.

Specify whether the service may be provided by *(check each that applies):*	☐	Legally Responsible Person	☐	Relative/Legal Guardian

Provider Qualifications (*provide the following information for each type of provider)*:

Provider Type:	License *(specify)*	Certificate *(specify)*	Other Standard *(specify)*

Verification of Provider Qualifications

Provider Type:	Entity Responsible for Verification:	Frequency of Verification
Home Delivered Meals		

Service Delivery Method				
Service Delivery Method *(check each that applies)*:	☐	Participant-directed as specified in Appendix E	☐	Provider managed

APPENDIX K: Emergency Preparedness and Response and COVID-19 Addendum

Background:

This standalone appendix may be utilized by the state during emergency situations to request amendments to its approved waiver, to multiple approved waivers in the state, and/or to all approved waivers in the state. It includes actions that states can take under the existing Section 1915(c) home and community-based waiver authority in order to respond to an emergency. Other activities may require the use of various other authorities such as the Section 1115 demonstrations or the Section 1135 authorities.[1] This appendix may be applied retroactively as needed by the state. Public notice requirements normally applicable under 1915(c) do not apply to information contained in this Appendix.

Appendix K-1: General Information

General Information:

A. State: Arizona

B. Waiver Title(s): Arizona Health Care Cost Containment System (AHCCCS)

C. Control Number(s):
1115 Demonstration Project No. 11-W-00275/9

D. Type of Emergency (The state may check more than one box):

X	**Pandemic or Epidemic**
☐	**Natural Disaster**
☐	**National Security Emergency**
☐	**Environmental**

[1] Numerous changes that the state may want to make may necessitate authority outside of the scope of section 1915(c) authority. States interested in changes to administrative claiming or changes that require section 1115 or section 1135 authority should engage CMS in a discussion as soon as possible. Some examples may include: (a) changes to administrative activities, such as the establishment of a hotline; or (b) suspension of general Medicaid rules that are not addressed under section 1915(c) such as payment rules or eligibility rules or suspension of provisions of section 1902(a) to which 1915(c) is typically bound.

☐	**Other (specify):**

E. Brief Description of Emergency. *In no more than one paragraph each*, briefly describe the: 1) nature of emergency; 2) number of individuals affected and the state's mechanism to identify individuals at risk; 3) roles of state, local and other entities involved in approved waiver operations; and 4) expected changes needed to service delivery methods, if applicable. The state should provide this information for each emergency checked if those emergencies affect different geographic areas and require different changes to the waiver.

COVID-19 pandemic. This amendment will apply waiver-wide for each waiver included in this Appendix, to all individuals impacted by the virus or the response to the virus (e.g. closure of day programs, etc.) This application includes changes that are additive to the previously approved Attachment K.

F. Proposed Effective Date: March 13, 2020 **Anticipated End Date:** End of the calendar quarter in which the PHE ends

G. Description of Transition Plan.

All activities will take place in response to the impact of COVID-19 as efficiently and effectively as possible based upon the complexity of the change.

H. Geographic Areas Affected:

These actions will apply across the Waiver to all individuals impacted by the COVID-19 virus

I. Description of State Disaster Plan (if available) ***Reference to external documents is acceptable:***

N/A

Appendix K-2: Temporary or Emergency-Specific Amendment to Approved Waiver

Temporary or Emergency-Specific Amendment to Approved Waiver:

These are changes that, while directly related to the state's response to an emergency situation, require amendment to the approved waiver document. These changes are time limited and tied specifically to individuals impacted by the emergency. Permanent or long-ranging changes will need to be incorporated into the main appendices of the waiver, via an amendment request in the waiver management system (WMS) upon advice from CMS.

a.___ Access and Eligibility:

i.___ Temporarily increase the cost limits for entry into the waiver.
[Provide explanation of changes and specify the temporary cost limit.]

ii.___ Temporarily modify additional targeting criteria.
[Explanation of changes]

b.___ Services

i.___ Temporarily modify service scope or coverage.
[Complete Section A- Services to be Added/Modified During an Emergency.]

ii. ___Temporarily exceed service limitations (including limits on sets of services as described in Appendix C-4) or requirements for amount, duration, and prior authorization to address health and welfare issues presented by the emergency.
[Explanation of changes]

iii. ___Temporarily add services to the waiver to address the emergency situation (for example, emergency counseling; heightened case management to address emergency needs; emergency medical supplies and equipment; individually directed goods and services; ancillary services to establish temporary residences for dislocated waiver enrollees; necessary technology; emergency evacuation transportation outside of the scope of non-emergency transportation or transportation already provided through the waiver).
[Complete Section A-Services to be Added/Modified During an Emergency]

iv. __ Temporarily expand setting(s) where services may be provided (e.g. hotels, shelters, schools, churches). Note for respite services only, the state should indicate any facility-based settings and indicate whether room and board is included:
[Explanation of modification, and advisement if room and board is included in the respite rate]:

v.___ Temporarily provide services in out of state settings (if not already permitted in the state's approved waiver). [Explanation of changes]

c. __ Temporarily permit payment for services rendered by family caregivers or legally responsible individuals if not already permitted under the waiver. Indicate the services to

which this will apply and the safeguards to ensure that individuals receive necessary services as authorized in the plan of care, and the procedures that are used to ensure that payments are made for services rendered.

d.___ Temporarily modify provider qualifications (for example, expand provider pool, temporarily modify or suspend licensure and certification requirements).

i.___ Temporarily modify provider qualifications.

[Provide explanation of changes, list each service affected, list the provider type, and the changes in provider qualifications.]

ii.___ Temporarily modify provider types.

[Provide explanation of changes, list each service affected, and the changes in the provider type for each service].

iii.___ Temporarily modify licensure or other requirements for settings where waiver services are furnished.

[Provide explanation of changes, description of facilities to be utilized and list each service provided in each facility utilized.]

e. ___Temporarily modify processes for level of care evaluations or re-evaluations (within regulatory requirements). [Describe]

f._X_ Temporarily increase payment rates.

[Provide an explanation for the increase. List the provider types, rates by service, and specify whether this change is based on a rate development method that is different from the current approved waiver (and if different, specify and explain the rate development method). If the rate varies by provider, list the rate by service and by provider.]

1. The Administration shall make lump sum payments to AHCCCS registered assisted living facilities and adult foster care homes providers with Arizona Medicaid using the utilization data during the period of October 1, 2019 to December 31, 2019 as a proxy to determine payment amounts for providers within the Public Health Emergency. The lump sum payments are to

compensate providers for costs of covered services furnished to Arizona Medicaid beneficiaries to improve the member's experience of care. Arizona previously estimated potential additional incremental costs to ALFs of $34 per diem due to costs for supplies, labor, and preventive measures attributable to COVID-19. The initial directed payment were made at $10.26 for ALF per diem, for one quarter of utilization. Therefore, the state is providing additional lump sum payments associated with Quarter Ending December 2019 at the same level as the first round which would provide additional financial relief for a second quarter of estimated incurred costs. The initial and subsequent payment would reflect 30% of estimated incurred costs for two quarters for the providers. Based on this analysis, there is likely unmet need associated with both the variance in per diem amounts and additional quarters of impact. Payments are limited to utilization for individuals who meet the institutional level of care requirements. Each registered provider's lump sum payment shall be determined as follows:

a. *Determine each provider's actual Medicaid bed days based on approved and adjudicated claims and encounters from October 1, 2019 to December 31, 2019.*
b. *The uniform dollar increase amount for Assisted Living Facilities and Adult Foster Care Homes is $ $10.26 per bed day. The $10.26 per day increase is 12.6%% of the current average rate of $81.09 for Assisted Living Facilities during this time period. The $10.26 per day increase is 13.7% of the current published rate of $74.99 for Adult Foster Care Homes.*
c. *The Administration will multiply the appropriate uniform dollar increase amount listed in item b. by the number of Medicaid bed days as determined in item a. to calculate the lump sum payment for each provider.*

2. The Administration shall make lump sum payments to home and community based service (HCBS) registered network providers who provide attendant care, personal care, and respite services with Arizona Medicaid using utilization data during the period of October 1, 2019 to December 31, 2019 as a proxy to determine payment amounts for providers within the Public Health Emergency. Registered network providers which qualify for these increases include all HCBS providers who provide attendant care, personal care, and respite services. The lump sum payments are to compensate providers for costs of covered services furnished to Arizona Medicaid beneficiaries to improve the member's experience of care. Arizona developed the $1.15 per unit amount by estimating the additional personnel costs and supply costs needed to address the COVID-19 pandemic. The $1.15 per unit addresses the potential need for enhanced pay or overtime pay along with personal protective equipment to ensure services are delivered in an appropriate manner. Given that the $1.15 per unit increase applied to only one quarter of pre-COVID utilization, the pandemic and associated costs have continued for four full quarters, resulting in the additional payment intended to provide the same $1.15 per unit increase for an additional quarter's worth of utilization. As described the amounts were calculated based on an analysis of anticipated costs to be incurred by providers to attract and retain direct care workers. The payments are limited to utilization for individuals who meet the institutional level of care requirements. Each registered network provider's lump sum payment shall be determined as follows:

a. *Determine each provider's actual Medicaid service utilization for qualifying services based on approved and adjudicated claims and encounters from October 1, 2019 to December 31, 2019.*

b. *The uniform dollar increase amount is $1.15 per unit increase for attendant care, personal care, and respite services, as well as a $55.04 per diem increase for personal care and respite services. The $1.15 per unit increase is 22.2% of the current published rate of $5.19 for Attendant Care/Respite Care during this time period. The $1.15 per unit increase is 16.7% of the current published rate of $6.89*

for Personal Care during this time period. The $55.04 Per Diem increase for Personal care and Respite care accounts to 21% of the current published rate of $262.69 during this time period.

c. *The Administration will multiply the appropriate uniform dollar increase amount listed in item b. by the actual Medicaid service utilization as determined in item a. to calculate the lump sum payment for each provider.*

3. The State of Arizona has directed the providers to use these payments for the following purposes:

a. *Direct staff expenses, including increases to salary or wages, stipends and/or over-time, employee related expense costs associated with direct staff expenses..*
b. *Infection control costs, including cleaning supplies, equipment, and labor, and personal protective equipment (PPE) costs.*

The maintenance of appropriate staffing levels will ensure the member care experience is not negatively impacted by an increase in staff to patient ratios as a result of labor challenges.
The provision of cleaning supplies, equipment, labor, and PPE will reduce the incidence of COVID-19 infection and avoid negative impacts to the member care experience.

g.__Temporarily modify person-centered service plan development process and individual(s) responsible for person-centered service plan development, including qualifications.

[Describe any modifications including qualifications of individuals responsible for service plan development, and address Participant Safeguards. Also include strategies to ensure that services are received as authorized.]

h.___ Temporarily modify incident reporting requirements, medication management or other participant safeguards to ensure individual health and welfare, and to account for emergency circumstances. [Explanation of changes]

i. __ Temporarily allow for payment for services for the purpose of supporting waiver participants in an acute care hospital or short-term institutional stay when necessary supports (including communication and intensive personal care) are not available in that setting, or when the individual requires those services for communication and behavioral stabilization, and such services are not covered in such settings.

[Specify the services.]

j. __ Temporarily include retainer payments to address emergency related issues.

[Describe the circumstances under which such payments are authorized and applicable limits on their duration. Retainer payments are available for habilitation and personal care only.]

k.___ Temporarily institute or expand opportunities for self-direction.

[Provide an overview and any expansion of self-direction opportunities including a list of services that may be self-directed and an overview of participant safeguards.]

l.___ Increase Factor C.

[Explain the reason for the increase and list the current approved Factor C as well as the proposed revised Factor C]

m.___ Other Changes Necessary [For example, any changes to billing processes, use of contracted entities or any other changes needed by the State to address imminent needs of individuals in the waiver program]. [Explanation of changes]

Appendix K Addendum: COVID-19 Pandemic Response

1. HCBS Regulations

a. ☐ Not comply with the HCBS settings requirement at 42 CFR 441.301(c)(4)(vi)(D) that individuals are able to have visitors of their choosing at any time, for settings added after March 17, 2014, to minimize the spread of infection during the COVID-19 pandemic.

2. Services

a. ☐ Add an electronic method of service delivery (e.g,. telephonic) allowing services to continue to be provided remotely in the home setting for:

i. ☐ Case management

ii. ☐ Personal care services that only require verbal cueing

iii. ☐ In-home habilitation

iv. ☐ Monthly monitoring (i.e., in order to meet the reasonable indication of need for services requirement in 1915(c) waivers).

v. ☐ Other *[Describe]:*

b. ☐ Add home-delivered meals
c. ☐ Add medical supplies, equipment and appliances (over and above that which is in the state plan)
d. ☐ Add Assistive Technology

3. **Conflict of Interest: The state is responding to the COVID-19 pandemic personnel crisis by authorizing case management entities to provide direct services. Therefore, the case management entity qualifies under 42 CFR 441.301(c)(1)(vi) as the only willing and qualified entity.**
   a. ☐ Current safeguards authorized in the approved waiver will apply to these entities.
   b. ☐ Additional safeguards listed below will apply to these entities.

4. **Provider Qualifications**
   a. ☐ Allow spouses and parents of minor children to provide personal care services
   b. ☐ Allow a family member to be paid to render services to an individual.
   c. ☐ Allow other practitioners in lieu of approved providers within the waiver. *[Indicate the providers and their qualifications]*

d. ☐ Modify service providers for home-delivered meals to allow for additional providers, including non-traditional providers.

5. **Processes**
   a. ☐ Allow an extension for reassessments and reevaluations for up to one year past the due date.
   b. ☐ Allow the option to conduct evaluations, assessments, and person-centered service planning meetings virtually/remotely in lieu of face-to-face meetings.
   c. ☐ Adjust prior approval/authorization elements approved in waiver.
   d. ☐ Adjust assessment requirements
   e. ☐ Add an electronic method of signing off on required documents such as the person-centered service plan.

Contact Person(s)

A. The Medicaid agency representative with whom CMS should communicate regarding the request:

First Name:	Mohamed
Last Name	Arif
Title:	Federal Relations Administrator
Agency:	AHCCCS
Address 1:	801 E Jefferson Street
Address 2:	Click or tap here to enter text.
City	Phoenix
State	Arizona
Zip Code	85034
Telephone:	602-417-4573
E-mail	Mohamed.arif@azahcccs.gov
Fax Number	

B. If applicable, the State operating agency representative with whom CMS should communicate regarding the waiver is:

First Name:	Shreya
Last Name	Arakere
Title:	Waiver Manager
Agency:	AHCCCS
Address 1:	801 E Jefferson St
Address 2:	
City	Phoenix
State	AZ
Zip Code	85034
Telephone:	602-417-4611
E-mail	Shreya.arakere@azahcccs.gov
Fax Number	

8. Authorizing Signature

Signature: 	**Date:** **3/8/2021**
State Medicaid Director or Designee	

First Name:	*Jami*
Last Name	*Snyder*

Title:	Director
Agency:	AHCCCS
Address 1:	801 E Jefferson Street
Address 2:	
City	Phoenix
State	Arizona
Zip Code	85034
Telephone:	602-417-4458
E-mail	Jami.snyder@azahcccs.gov
Fax Number	

Section A---Services to be Added/Modified During an Emergency

Complete for each service added during a time of emergency. For services in the approved waiver that the state is temporarily modifying, enter the entire service definition and highlight the change. State laws, regulations and policies referenced in the specification should be readily available to CMS upon request through the Medicaid agency or the operating agency (if applicable).

Service Specification				
Service Title:				
Complete this part for a renewal application or a new waiver that replaces an existing waiver. Select one:				
Service Definition (Scope)**:**				
Specify applicable (if any) limits on the amount, frequency, or duration of this service:				
Not applicable				
Provider Specifications				
Provider Category(s) *(check one or both)***:**	☐	Individual. List types:	☐	Agency. List the types of agencies:
Specify whether the service may be provided by *(check each that applies):*	☐	Legally Responsible Person	☐	Relative/Legal Guardian

Provider Qualifications (*provide the following information for each type of provider)*:

Provider Type:	License *(specify)*	Certificate *(specify)*	Other Standard *(specify)*

Verification of Provider Qualifications

Provider Type:	Entity Responsible for Verification:	Frequency of Verification
Home Delivered Meals		

Service Delivery Method				
Service Delivery Method *(check each that applies)*:	☐	Participant-directed as specified in Appendix E	☐	Provider managed

Attachment J
Approved Evaluation Design

Arizona Health Care Cost Containment System

Arizona's Section 1115 Waiver Independent Evaluation – Design Plan

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

October 2020

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

Table of Contents

1. Background

Introduction

The Centers for Medicare & Medicaid Services (CMS) and federal law set standards for the minimum care states must provide Medicaid-eligible populations, while also giving states an opportunity to design and test their own strategies for funding and providing health care services. Section 1115 of the Social Security Act permits states to test innovative demonstration projects and evaluate state-specific policy changes to increase efficiency and reduce costs. On September 30, 2016, CMS approved Arizona's request to extend its Section 1115 demonstration project, Arizona Health Care Cost Containment System (AHCCCS). The demonstration extension was approved for an additional five years effective October 1, 2016, through September 30, 2021.[1-1] The following six Section 1115 waiver programs have been implemented or extended:

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

Additional Components

AHCCCS Works

AHCCCS had additionally received approval for and intended to implement AHCCCS Works during the current demonstration period. However, in October 2019, AHCCCS announced a delay in implementation citing ongoing litigation nationally.[1-2] An evaluation design plan has been drafted for this component as Appendix G if the demonstration is implemented.

AHCCCS CARE

AHCCCS describes the Choice Accountability Responsibility Engagement (CARE) program in its approved special terms and conditions (STCs), describing a planned implementation date of January 2017. The AHCCCS CARE program would have required Group VIII expansion beneficiaries to make monthly contributions into AHCCCS CARE accounts, providing certain incentives for timely payment and completion of "healthy targets"

[1-1] CMS Approval Letter. Centers for Medicare & Medicaid Services. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-demo-ext-09302016.pdf. Accessed on: Sept 23, 2019.

[1-2] AHCCCS Letter to CMS, RE: Implementation of AHCCCS Works, October 17, 2019; https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-postponement-ltr-ahcccs-works-10172019.pdf. Accessed on: July 6, 2020.

under a separate but related program.[1-3] However, AHCCCS has not, and does not intend to implement the CARE program. As a result, this component is not included in either the evaluation design plan or the evaluation reports.

Descriptions, goals, and populations for each waiver program are described below.

ACC

On November 26, 2018, AHCCCS submitted a request to amend the Special Terms and Conditions (STCs) of the previously approved Section 1115 demonstration waiver to "reflect the delivery system changes that resulted from the ACC managed care contract award."[1-4]

Throughout recent years, AHCCCS has made strides to integrate behavioral health and physical health care among its Medicaid beneficiaries. These integration efforts included a statewide integrated contract with the implementation of the ACC contract on October 1, 2018. AHCCCS streamlined services for beneficiaries by transitioning them to seven new ACC integrated health care plans with member outreach and communication planning began in 2017. On October 1, 2018, AHCCCS transitioned approximately 1.5 million AHCCCS beneficiaries into ACC managed care plans that provide integrated physical and behavioral health care services. Specifically, the ACC plans serve AHCCCS Acute Care Program enrollees except for adults determined to have a serious mental illness (SMI) and foster children enrolled in CMDP.

The ACC contract was awarded to seven health plans across three geographical service areas (GSAs): Northern Arizona, Central Arizona, and Southern Arizona. Contractors under ACC are responsible for provision of integrated physical and behavioral health care for adults who are not determined to have an SMI (excluding beneficiaries enrolled with Department of Economic Security/Division of Developmental Disabilities [DES/DDD]), children with and without special health care needs (excluding beneficiaries enrolled with DES/DDD and Department of Child Safety/CMDP), and beneficiaries determined to have an SMI who opt out and transfer to an ACC for the provision of physical health services.

As part of the ACC contract, health plans are expected to "develop specific strategies to promote the integration of physical and behavioral health service delivery and care integration activities."[1-5] Such strategies include the following:

- Implementing care coordination and care management best practices for physical and behavioral health care
- Proactive identification of beneficiaries for engagement in care management
- Providing the appropriate level of care management/coordination of services to beneficiaries with comorbid physical health and behavioral health conditions and collaborating on an ongoing basis with both the member and other individuals involved in the member's care

[1-3] AHCCCS Special Terms and Conditions, updated September 13, 2019; https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/az-hccc-ca.pdf. Accessed on: July 6, 2020.
[1-4] AHCCCS Letter to CMS, RE: Arizona's 1115 Waiver: AHCCCS Complete Care Technical Clarification, November 26, 2018; https://www.azahcccs.gov/Resources/Downloads/ACC_TechnicalAmendmentCorrection_11262018.pdf. Accessed on: Aug 22, 2019.
[1-5] AHCCCS Complete Care contract #YH19-0001, Section D; https://www.azahcccs.gov/Resources/Downloads/ContractAmendments/ACC/YH190001_ACC_AMD6.pdf. Accessed on: Aug 22, 2019.

- Ensuring continuity and coordination of physical and behavioral health services and collaboration/communication among physical and behavioral health care providers
- Operating a single member services toll-free telephone line, and a single nurse triage line, both available to all beneficiaries for physical health and behavioral health services
- Developing strategies to encourage beneficiaries to utilize integrated service settings
- Considering the behavioral health and physical health care needs of beneficiaries during network development and contracting practices that consider providers and settings with an integrated service delivery model to improve member care and health outcomes
- Developing organizational structure and operational systems and practices that support the delivery of integrated services for physical and behavioral health care

ALTCS

In 1988, the original Section 1115 Research and Demonstration Waiver was amended to allow Arizona to implement a capitated long-term care program for the elderly, beneficiaries with physical disabilities, and beneficiaries with intellectual or developmental disabilities—the ALTCS program. ALTCS provides acute care, long-term care, behavioral care, and home- and community-based services to Medicaid beneficiaries at risk for institutionalization. Services are provided through contracted prepaid, capitated arrangements with managed care organizations (MCOs). MCOs that contracted with the state under ALTCS provide care to eligible beneficiaries who are elderly and/or physically disabled (EPD). These plans are referred as ALTCS-EPD health plans. ALTCS also contracts with DES/DDD. MCOs that contracted with DES/DDD, referred to as ALTCS-DDD health plans, provide care to Medicaid beneficiaries with intellectual/developmental disabilities (DD).[1-6]

There were no substantive policy changes upon renewal of the demonstration; therefore, outcomes should not substantively change between pre-renewal and post-renewal. However, on October 1, 2019, behavioral health for beneficiaries with DD were transitioned into ALTCS-DDD health plans.[1-7] Behavioral services, along with physical health services and certain Long Term Services and Supports (LTSS) (i.e., nursing facilities, emergency alert system services, and rehabilitative physical therapy for beneficiaries 21 years of age and older), are subcontracted by DES/DDD to managed care organizations called DDD health plans. Therefore, part of this waiver evaluation will assess changes in rates attributable to this integration of behavioral and physical care.

The goals of the ALTCS program are to ensure that beneficiaries are living in the most integrated setting and actively engaged and participating in community life. The ALTCS program's goals are to improve the quality of and access to care for ALTCS program beneficiaries, the quality of life for ALTCS program beneficiaries, and ALTCS program beneficiary satisfaction.

CMDP

CDMP operates as an acute care health plan under contract with Arizona's Medicaid Agency, AHCCCS, for children who are determined Medicaid eligible and in the custody of the Arizona Department of Child Safety

[1-6] Arizona's Section 1115 Waiver Demonstration Annual Report. https://www.azahcccs.gov/Resources/Downloads/FY2018AnnualReportCMS.pdf. Accessed on: Sep 27, 2019.
[1-7] DDD Health Plans. https://des.az.gov/services/disabilities/developmental-disabilities/new-ddd-health-plans. Accessed on: Sep 30, 2019.

(DCS). CMDP provides medical and dental services for children in foster homes; the custody of DCS and placed with a relative, or placed in a certified adoptive home prior to the entry of the final order of adoption, or in an independent living program as provided in Arizona Revised Statutes (A.R.S) § 8-521; or in the custody of a probation department and placed in out of home care. CMDP is administered by DCS and complies with AHCCCS regulations to cover children in foster care who are eligible for Medicaid services.[1-8]

The CMDP promotes the well-being of Arizona's children in foster care by ensuring, in partnership with the foster care community, the provision of appropriate and quality health care services. The CMDP's primary objectives are to proactively respond to the unique health care needs of Arizona's children in foster care, ensure the provision of high quality, clinically appropriate, and medically necessary health care, in the most cost-effective manner, and promote continuity of care and support caregivers, custodians, and guardians through integration and coordination of services. CMDP staff assist and support providers through a range of activities, including but not limited to the management of beneficiaries who do not follow through on appointments and/or treatment; facilitating clean claims for authorized services within 30 days, providing information regarding referrals to CMDP registered providers; assisting with beneficiary referrals to community programs; and coordinating medical care for at-risk children.

Behavioral health services for CMDP children are anticipated to be covered through a RBHA until April 1, 2021. After this date, AHCCCS intends to integrate behavioral health coverage into the CMDP plans to further simplify health care coverage and encourage better care coordination.

RBHA

As part of this demonstration renewal, adult AHCCCS beneficiaries with an SMI continue to receive acute care and behavioral health services through a geographically designated RBHA contracted with AHCCCS.[1-9]

Historically, RBHAs provided coverage for behavioral health services for all AHCCCS beneficiaries with few exceptions.[1-10] In March 2013, AHCCCS awarded Mercy Maricopa Integrated Care (MMIC) the RBHA contract for Maricopa County, Arizona's most populous county, to take effect April 2014. As part of this contract, MMIC provided integrated physical and behavioral health care coverage for individuals with an SMI in Maricopa county. In October 2015, RBHA contractors statewide began providing integrated care for their beneficiaries with an SMI.[1-11, 1-12] On October 1, 2018, AHCCCS conducted its largest care integration initiative by transitioning all acute care beneficiaries who do not have an SMI to seven ACC integrated health care plans, which provided coverage for physical and behavioral health care. Following the implementation of the ACC integration, the RBHAs provided specific services for several well-defined populations:

- Integrated physical and behavioral health services for beneficiaries determined to have an SMI

[1-8] CMDP Provider Manual, 2018, https://dcs.az.gov/sites/default/files/DCS-PamphletsandFlyers/CMDP-1711-ProviderManual2018.pdf. Accessed on: Sept 24, 2019.
[1-9] Ibid.
[1-10] These exceptions include ALTCS elderly and physically disabled.
[1-11] "Supportive Service Expansion for Individuals with Serious Mental Illness: A Case Study of Mercy Maricopa Integrated Care," *NORC*, August 18, 2017. Available at: https://news.aetna.com/wp-content/uploads/2018/02/NORC-Mercy-Maricopa-Case-Study-FINAL-v-2.pdf. Accessed on: Sept 26, 2019.
[1-12] Draft Data Quality Strategy Assessment and Performance Improvement Report, *AHCCCS*, July 1, 2018. Available at: https://www.azahcccs.gov/PlansProviders/Downloads/DraftQualityStrategyJuly2018.pdf. Accessed on: Sept 26, 2019.

- Behavioral health services for beneficiaries in the custody of the Department of Child Safety (DCS) and enrolled in DCS/CMDP
- Behavioral health services for ALTCS beneficiaries enrolled with the DES/DDD

Beginning October 1, 2019, AHCCCS intends to integrate behavioral and physical health care for the DES/DDD population covered through ALTCS (ALTCS-DD). Beneficiaries enrolled in CMDP will transition to integrated behavioral and physical health care services care under the CMDP waiver beginning October 1, 2020. Due to these integration initiatives, the focus of this evaluation will be on assessing outcomes among adult beneficiaries with an SMI only. Measures and outcomes for the other populations will be included in the respective waiver evaluation design plans—measures for children covered by CMDP will be included in the evaluation design plan for CMDP and measures for ALTCS-DD beneficiaries will be included in the evaluation design plan for ALTCS.

PQC Waiver

On January 18, 2019, CMS approved Arizona's requests to amend its Section 1115 Demonstration project to waive PQC retroactive eligibility. PQC allows individuals who are applying for Title XIX coverage retroactive coverage for up to three months prior to the month of application as long as the individual remained eligible for Medicaid during that time. The amendment will allow AHCCCS to limit retroactive coverage to the month of application, which is consistent with the AHCCCS historical waiver authority prior to January 2014. [1-13] The amendment will allow AHCCCS to implement the waiver no earlier than April 1, 2019, with an anticipated effective date of July 1, 2019, with the demonstration approved from January 18, 2019, through September 30, 2021.[1-14] The demonstration will apply to all Medicaid beneficiaries, except for pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age. AHCCCS will provide outreach and education to eligible members, current beneficiaries, and providers to inform those that may be impacted by the change.

The goals of the demonstration are to encourage beneficiaries to obtain and maintain health coverage, even when healthy, or to obtain health coverage as soon as possible after becoming eligible, increase continuity of care by reducing gaps in coverage that occur when members "churn" (individuals moving on and off Medicaid repeatedly), and therefore, improve health outcomes and reduce costs to AHCCCS, ensuring the long term fiscal sustainability of the Arizona Medicaid program.

TI

On January 18, 2017, CMS approved the five-year TI demonstration program, effective January 18, 2017, through the expiration date of September 30, 2021.[1-15] The TI program provides a total of up to $300 million across the demonstration approval period to support the physical and behavioral health care integration and coordination for beneficiaries with behavioral health needs who are enrolled in AHCCCS. These beneficiaries include adults with

[1-13] Arizona Health Care Cost Containment System. Arizona Section 1115 Waiver Amendment Request: Proposal to Waive Prior Quarter Coverage. Apr 6, 2019. Available at: https://www.azahcccs.gov/Resources/Downloads/PriorQuarterCoverageWaiverToCMS_04062018.pdf. Accessed on: Jun 19, 2019.
[1-14] Centers for Medicare & Medicaid Services. CMS Approval Letter. Jan 18, 2019. Available at: https://www.azahcccs.gov/Resources/Downloads/CMSApprovalLetter.pdf. Accessed on: Jun 19, 2019.
[1-15] CMS Approval Letter. Centers for Medicare & Medicaid Services. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-trgtd-invstmnts-prgrm-appvl-01182017.pdf. Accessed on: Aug 20, 2019.

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

The TI program directs its managed care plans to make payments to certain providers and provide financial incentives to eligible Medicaid providers who meet certain benchmarks for integrating and coordinating physical and behavioral health care for Medicare beneficiaries pursuant to 42 CFR 438.6(c) and the 1115 Waiver. These payments are incorporated into the actuarially sound capitation rates, to incentivize providers to improve performance. The TI program's overall goals are to reduce fragmentation between acute care and behavioral health care, increase efficiencies in service delivery for members with behavioral health needs by improving integration at the provider level, and improve health outcomes for the affected populations.

This demonstration is funded by up to $300 million from multiple sources, which include a maximum of $90,824,900 from a CMS-approved time-limited expenditure from the Designated State Health Programs (DSHP). This one-time investment of DSHP funding will be phased down over the demonstration period and is meant to provide a short-term federal investment. AHCCCS and CMS expect that by the end of the demonstration, the care coordination will be supported through ongoing payment arrangements without the need for demonstration authority.[1-16] There are certain amounts of DSHP funds during years three through five of the TI Program that are designated "at risk". If the State does not meet certain performance requirements in a given demonstration year, the TI program will lose the amount of DSHP funds specified as "at risk" for that year. This would lower total TI program spending unless Intergovernmental Transfers (IGTs) are available to fill the gap.[1-17]

Evaluation Design Plan Structure

The background section is followed by four substantive chapters that focus on how the evaluation design plan will be implemented for each of the six AHCCCS programs. Chapter 2 presents each program's logic model, hypotheses, and research questions, which focus on evaluating the impact of the AHCCCS waiver demonstration. Chapter 3 provides the detailed methodologies and the data sources utilized to assess the impacts of the waiver. Chapter 4 presents detailed information on the limitations of the waiver demonstration evaluation, methods, and data sources. Chapter 5 provides an overview of the reporting structure and elements for the interim and summative evaluation reports.

In addition to the chapters provided in the main body of the evaluation design plan, there are seven accompanying appendices (A through G) that contain the expected qualifications of the independent evaluator, estimated budget and timeline, detailed measure specifications for each program, data sources considered, anticipated methodological adjustments for the coronavirus disease 2019 (COVID-19) pandemic, and the evaluation design plan for the AHCCCS Works program, which has yet to be implemented.

[1-16] Ibid.
[1-17] Ibid.

2. Evaluation Questions and Hypotheses

This section provides each program's logic model, hypotheses, and research questions, which focus on evaluating the impact of the Arizona Health Care Cost Containment System's (AHCCCS') waiver demonstration.

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

Most AHCCCS beneficiaries in the managed care system have coverage through one of four different programs:

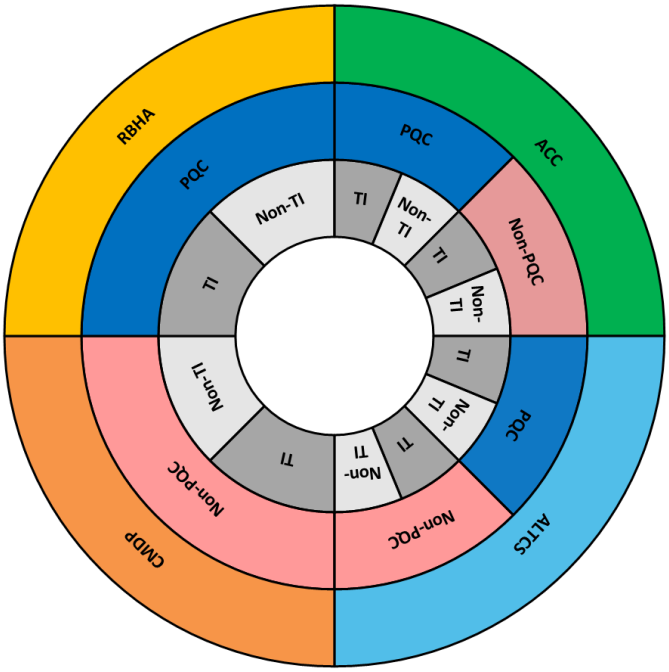
1. **AHCCCS Complete Care (ACC)**—Covers the following populations:
   a. Adults who are not determined to have a serious mental illness (SMI) (excluding beneficiaries enrolled with Department of Economic Security/Division of Developmental Disabilities [DES/DDD]);
   b. Children, including those with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

The Prior Quarter Coverage (PQC) waiver impacts all adults on AHCCCS.[2-1] Therefore, evaluations that only cover children (i.e., CMDP) will not be affected by PQC, and evaluations that only cover adults (i.e., RBHA) will be impacted entirely by PQC (with few exceptions). The Targeted Investments (TI) program is designed to encourage participating practitioners to provide integrated care for their beneficiaries. This impacts all children and adult beneficiaries attributed or assigned to TI-participating practitioners; however, it does not impact beneficiaries who are not attributed or assigned to practitioners who are not participating in TI. Therefore, the TI program is expected to impact every eligibility category. Figure 2-1 illustrates that the populations covered by ACC, CMDP, ALTCS, and RBHA are mutually exclusive and that each of these may have a subset impacted by PQC and/or TI.

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

Figure 2-1: Population Relationships Across Waivers

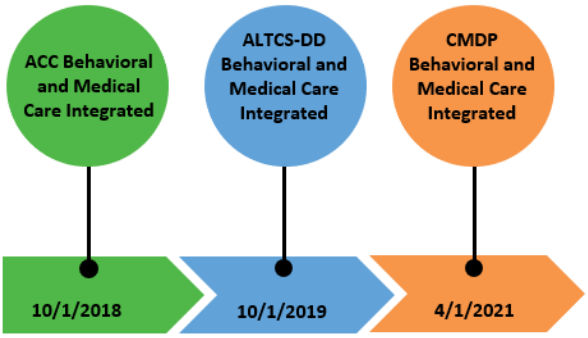
Note: The size of each segment does not represent population size.



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

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

Figure 2-2: Timeline of Payer-Level Integration of Behavioral Health and Medical Health Care



ACC

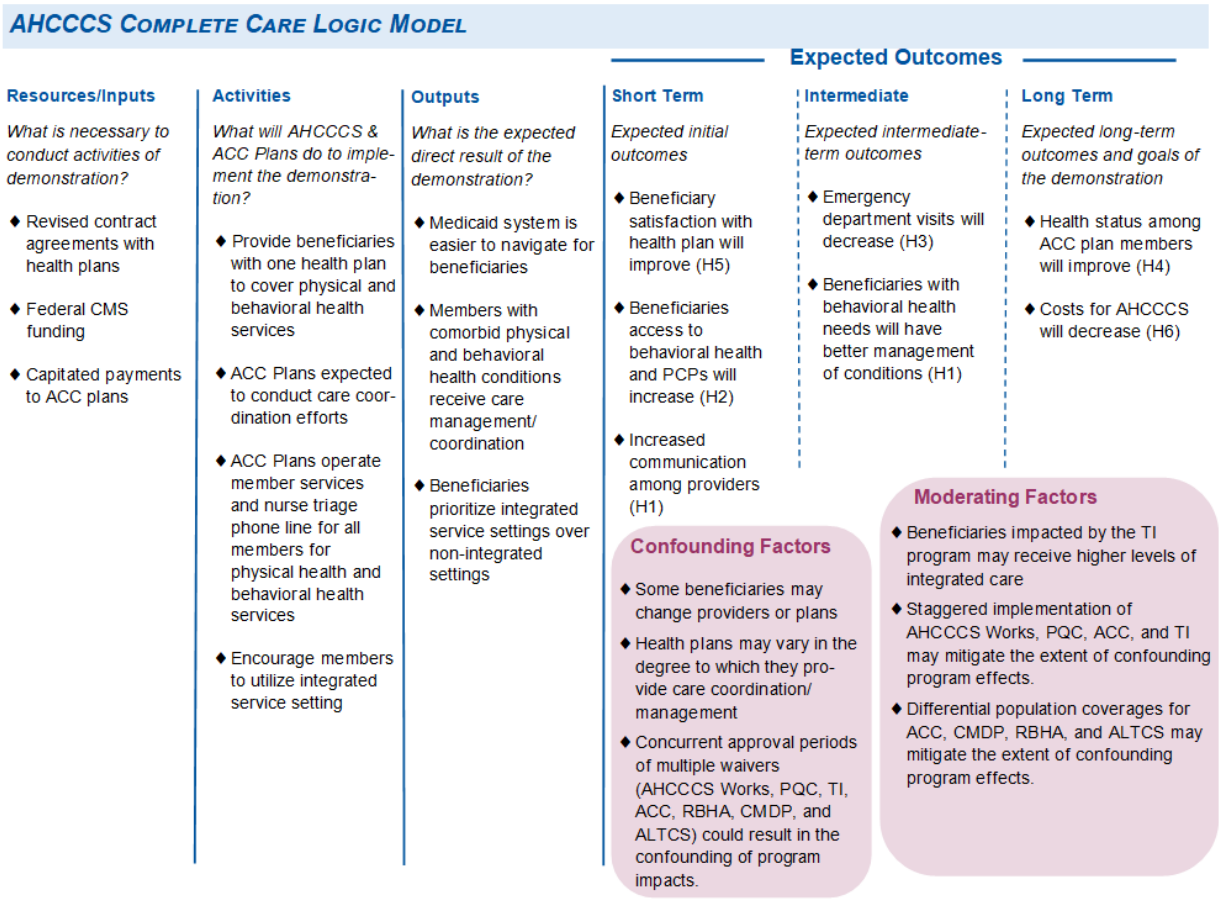
The overarching goals of the ACC delivery system are to reduce fragmentation of care by providing beneficiaries with a single health plan, payer, and provider network to cover their physical and behavioral health care. Additionally, health plans are expected to conduct and manage care coordination efforts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

The primary purpose of this evaluation is to determine whether the ACC demonstration waiver is achieving these goals. To develop hypotheses and research questions associated with these goals, AHCCCS created a logic model which relates the inputs and activities of the program (i.e., providing beneficiaries with a single health plan that covers both physical and behavioral care and requiring health plans to conduct care coordination efforts) to anticipated initial, intermediate, and long-term outcomes.

Logic Model

Figure 2-3 illustrates that, given resources to fund the ACC plans, beneficiaries will find the Medicaid system easier to navigate, those with physical and behavioral health comorbidities will receive care coordination/management, and beneficiaries will prioritize practices with integrated services over those with non-integrated services. With an easier to navigate Medicaid system, beneficiary satisfaction will improve. With better care coordination/management, beneficiaries with complex needs will see improved health outcomes, first shown by increased access to care and reduced utilization of emergency department visits. In the long term, this will improve beneficiaries' health and well-being while providing cost-effective care. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-1).

Figure 2-3: ACC Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the ACC demonstration waiver, six hypotheses will be tested using 18 research questions. Table 2-1 lists the six hypotheses.

Table 2-1: ACC Hypotheses

ACC Hypotheses	
1	Health plans encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.
2	Access to care will maintain or improve as a result of the integration of behavioral and physical care.
3	Quality of care will maintain or improve as a result of the integration of behavioral and physical care.
4	Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care.
5	Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care.
6	The ACC program will provide cost-effective care.

Hypothesis 1 is designed to identify in detail the activities the plans conducted to further AHCCCS' goal of care integration by implementing strategies supporting care coordination and management. Barriers encountered during the transition to ACC and implementation of these strategies will also be a focus of Hypothesis 1. These research questions will be addressed through semi-structured key informant interviews with representatives from the ACC health plans and AHCCCS staff, as well as through beneficiary surveys and provider focus groups. The research questions and associated measures for Hypothesis 1 are presented in Table 2-2.

Table 2-2: Hypothesis 1 Research Questions and Measures

Hypothesis 1—Health plans encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.	
Research Question 1.1: What care coordination strategies did the plans implement as a result of ACC?	
1-1	Health plans' reported care coordination activities
Research Question 1.2: Did the plans encounter barriers to implementing care coordination strategies?	
1-2	Health plans' reported barriers to implementing care coordination strategies
Research Question 1.3: Did the plans encounter barriers not related specifically to implementing care coordination strategies during the transition to ACC?	
1-3	Health plans' reported barriers not related specifically to implementing care coordination strategies during the transition to ACC
Research Question 1.4: Did AHCCCS encounter barriers related to the transition to ACC?	
1-4	AHCCCS' reported barriers before, during, and shortly following the transition to ACC
Research Question 1.5: Did providers encounter barriers related to the transition to ACC?	
1-5	Providers' reported barriers before, during, and shortly following the transition to ACC
Research Question 1.6: Do beneficiaries perceive their doctors to have better care coordination as a result of ACC?	
1-6	Percentage of beneficiaries who reported their doctor seemed informed about the care they received from other health providers

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

Table 2-3: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Access to care will maintain or improve as a result of the integration of behavioral and physical care.	
Research Question 2.1: Do beneficiaries enrolled in an ACC plan have the same or better access to primary care services compared to prior to integrated care?	
2-1	Percentage of adults who accessed preventive/ambulatory health services
2-2	Percentage of children and adolescents who accessed PCPs
2-3	Percentage of beneficiaries under 21 with an annual dental visit
2-4	Percentage of beneficiaries who reported they received care as soon as they needed

Hypothesis 2—Access to care will maintain or improve as a result of the integration of behavioral and physical care.	
2-5	Percentage of beneficiaries who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed
2-6	Percentage of beneficiaries who reported they were able to schedule an appointment with a specialist as soon as they needed
Research Question 2.2: Do beneficiaries enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to integrated care?	
2-7	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment
2-8	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment

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

Table 2-4: Hypothesis 3 Research Questions and Measures

Hypothesis 3—Quality of care will maintain or improve as a result of the integration of behavioral and physical care.	
Research Question 3.1: Do beneficiaries enrolled in an ACC plan have the same or higher rates of preventive or wellness services compared to prior to integrated care?	
3-1	Percentage of beneficiaries with a well-child visit in the first 15 months of life
3-2	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life
3-3	Percentage of beneficiaries with an adolescent well-care visit
3-4	Percentage of children two years of age with appropriate immunization status
3-5	Percentage of adolescents 13 years of age with appropriate immunizations
3-6	Percentage of adult beneficiaries who reported having a flu shot or nasal flu spray since July 1
Research Question 3.2: Do beneficiaries enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to integrated care?	
3-7	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent
Research Question 3.3: Do beneficiaries enrolled in an ACC plan have the same or better management of behavioral health conditions compared to prior to integrated care?	
3-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment
3-9	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
3-10	Percentage of beneficiaries with a follow-up visit after emergency department (ED) visit for mental illness
3-11	Percentage of beneficiaries with follow-up after ED visit for alcohol and other drug abuse or dependence

Hypothesis 3—Quality of care will maintain or improve as a result of the integration of behavioral and physical care.	
3-12	Percentage of beneficiaries with a screening for clinical depression and follow-up plan
3-13	Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth)
Research Question 3.4: Do beneficiaries enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to integrated care?	
3-14	Percentage of adult beneficiaries who have prescriptions for opioids at a high dosage
3-15	Percentage of adult beneficiaries with concurrent use of opioids and benzodiazepines
Research Question 3.5: Do beneficiaries enrolled in an ACC plan have equal or lower ED or hospital utilization compared to prior to ACC?	
3-16	Number of ED visits per 1,000 member months
3-17	Number of inpatient stays per 1,000 member months
3-18	Percentage of adult inpatient discharges with an unplanned readmission within 30 days

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

Table 2-5: Hypothesis 4 Research Questions and Measures

Hypothesis 4— Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care.	
Research Question 4.1: Do beneficiaries enrolled in an ACC plan have the same or higher overall health rating compared to prior to integrated care?	
4-1	Percentage of beneficiaries who reported a high rating of overall health
Research Question 4.2: Do beneficiaries enrolled in an ACC plan have the same or higher overall mental or emotional health rating compared to prior to integrated care?	
4-2	Percentage of beneficiaries who reported a high rating of overall mental or emotional health

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

Table 2-6: Hypothesis 5 Research Questions and Measures

Hypothesis 5—Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care.	
Research Question 5.1: Are beneficiaries equally or more satisfied with their health care as a result of integrated care?	
5-1	Percentage of beneficiaries who reported a high rating of health plan
5-2	Percentage of beneficiaries who reported a high rating of overall health care

Hypothesis 6 (Table 2-7) seeks to measure the cost-effectiveness of the ACC demonstration waiver. A long-term goal of the ACC is to provide cost-effective care for its beneficiaries. Because cost-effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 6. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not been renewed or implemented. Program savings will be identified as reductions in administrative and/or service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures for which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of the ACC is described in detail in the Cost-Effectiveness Analysis section.

Table 2-7: Hypothesis 6 Research Questions and Measures

Hypothesis 6—The ACC program provides cost-effective care.
Research Question 6.1: What are the costs associated with the integration of care under ACC?
Research Question 6.2: What are the benefits/savings associated with the integration of care under ACC?

ALTCS

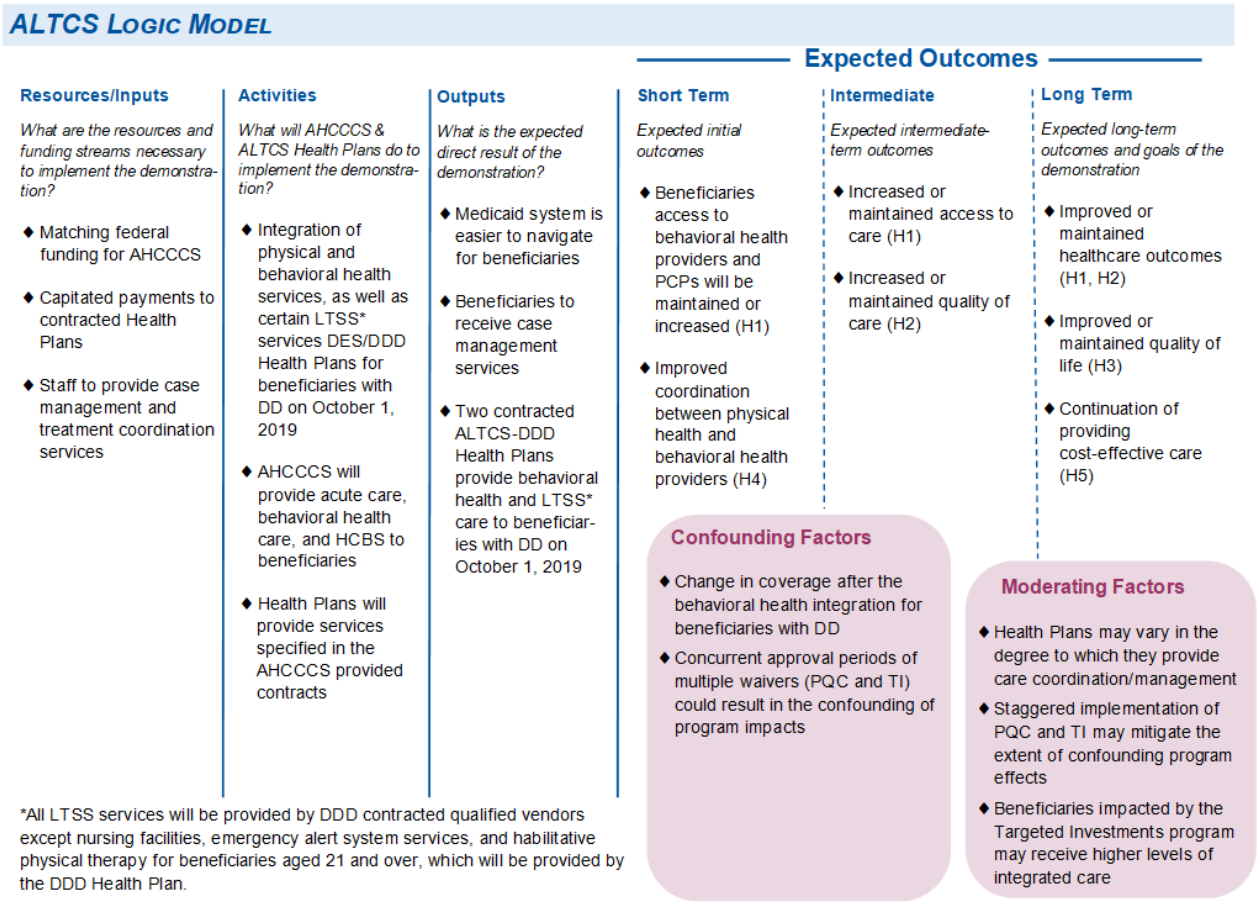
The goal of the ALTCS is to ensure beneficiaries who are elderly and/or have physical disabilities (EPD) or beneficiaries who have intellectual/developmental disabilities (DD) are living in the most integrated setting while remaining actively engaged in community life by providing physical health, long term care, behavioral health, and home- and community-based services (HCBS) to beneficiaries who are at risk for institutionalization.

The primary purpose of this evaluation is to determine whether the ALTCS demonstration waiver renewal is achieving these goals.

Logic Model

To develop hypotheses and research questions associated with these goals, AHCCCS developed a logic model which relates the inputs and activities of the program to anticipated initial, intermediate, and long-term outcomes, which are associated with the hypotheses to be tested. Figure 2-4 illustrates that, given resources to fund the ALTCS plans, beneficiaries will find the Medicaid system easier to navigate, beneficiaries will continue to receive case management, and beneficiaries will prioritize practices with integrated services over those with non-integrated services. With improvements to the navigation of the Medicaid system, beneficiary access to care will improve. With better case management, beneficiaries will see improved health outcomes, first shown by an increase in quality and access of care. In the long term, this will improve beneficiaries' health outcomes and well-being while providing cost-effective care.

Figure 2-4: ALTCS Program Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the ALTCS Program demonstration waiver, five hypotheses will be tested using 19 research questions. Table 2-8 lists the five hypotheses.

Table 2-8: ALTCS Hypotheses

Hypotheses	
1	Access to care will maintain or improve over the waiver demonstration period.
2	Quality of care will maintain or improve over the wavier demonstration period.
3	Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.
4	ALTCS encourages and/or facilitates care coordination among Primary Care Practitioners (PCPs) and behavioral health practitioners.
5	ALTCS provides cost-effective care.

Hypothesis 1 is designed to determine if access to care will be maintained or improved. The measures to test this hypothesis and answer the associated research questions are listed below in Table 2-9.

Table 2-9: Hypothesis 1 Research Questions and Measures

Hypothesis 1—Access to care will maintain or improve over the waiver demonstration period.	
Research Question 1.1: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with developmental disabilities (DD) have the same or higher access to care compared to baseline rates and out-of-state comparisons?	
1-1	Percentage of beneficiaries who accessed preventive/ambulatory health services
Research Question 1.2: Do child beneficiaries with DD have the same or higher rates of access to care compared to baseline rates and out-of-state comparisons?	
1-2	Percentage of children and adolescents who accessed primary care practitioners
1-3	Percentage of beneficiaries under 21 with an annual dental visit
Research Question 1.3: Do adult beneficiaries with DD have the same or improved rates of access to care as a result of the integration of care for beneficiaries with DD?	
1-4	Percentage of beneficiaries who have a primary care doctor or practitioner
1-5	Percentage of beneficiaries who had a complete physical exam in the past year
1-6	Percentage of beneficiaries who had a dental exam in the past year
1-7	Percentage of beneficiaries who had an eye exam in the past year
1-8	Percentage of beneficiaries who had an influenza vaccine in the past year

To determine if quality of care is maintained or increased, Hypothesis 2 will evaluate measures associated with preventative care, behavioral health care management, and utilization of care. The measures and associated research questions are presented in Table 2-10.

Table 2-10: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Quality of care will maintain or improve over the wavier demonstration period.	
Research Question 2.1: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of preventative care compared to baseline rates and out-of-state comparisons?	
2-1	Percentage of adult beneficiaries with a breast cancer screening
2-2	Percentage of adult beneficiaries with a cervical cancer screening
2-3	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent
Research Question 2.2: Do child beneficiaries with DD have the same or higher rates of preventative care compared to baseline rates and out-of-state comparisons?	
2-4	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life
2-5	Percentage of beneficiaries with an adolescent well-care visit
2-6	Percentage of beneficiaries with an influenza vaccine

Hypothesis 2—Quality of care will maintain or improve over the wavier demonstration period.	
Research Question 2.3: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or better management of behavioral health conditions compared to baseline rates and out-of-state comparisons?	
2-7	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
2-8	Percentage of adult beneficiaries who remained on an antidepressant medication treatment
2-9	Percentage of beneficiaries with a screening for depression and follow-up plan
2-10	Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, emergency department [ED], or telehealth)
Research Question 2.4: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with DD have the same or better management of prescriptions compared to baseline rates and out-of-state comparisons?	
2-11	Percentage of adult beneficiaries with monitoring for persistent medications
2-12	Percentage of beneficiaries with opioid use at high dosage
2-13	Percentage of beneficiaries with a concurrent use of opioids and benzodiazepines
Research Question 2.5: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of utilization of care compared to baseline rates and out-of-state comparisons?	
2-14	Number of ED visits per 1,000 member months
2-15	Number of inpatient stays per 1,000 member months
2-16	Percentage of adult inpatient discharges with an unplanned readmission within 30 days

Hypothesis 3 evaluates if the quality of life for beneficiaries remain the same or improves. The measures and associated research questions are presented in Table 2-11.

Table 2-11: Hypothesis 3 Research Questions and Measures

Hypothesis 3—Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.	
Research Question 3.1: Do beneficiaries have the same or higher rates of living in their own home as a result of the ALTCS waiver renewal?	
3-1	Percentage of beneficiaries residing in their own home
3-2	Type of residence for adult beneficiaries with DD
Research Question 3.2: Do adult beneficiaries have the same or higher rates of feeling satisfied with their living arrangements as a result of the integration of care for beneficiaries with DD?	
3-3	Percentage of beneficiaries who want to live somewhere else
3-4	Percentage of beneficiaries who believe services and supports help them live a good life
Research Question 3.3: Do adult beneficiaries have the same or higher rates of feeling engaged as a result of the integration of care for beneficiaries with DD?	
3-5	Percentage of beneficiaries able to go out and do things s/he likes to do in the community

Hypothesis 3—Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.	
3-6	Percentage of beneficiaries who have friends who are not staff or family members
3-7	Percentage of beneficiaries who decide or has input in deciding their daily schedule

Hypothesis 4 measures if the provision of behavioral services for beneficiaries with DD was impacted during the integration by performing key informant interviews and provider focus groups. The research questions and measures pertaining to this hypothesis are listed in Table 2-12.

Table 2-12: Hypothesis 4 Research Questions and Measures

Hypothesis 4—ALTCS encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.	
Research Question 4.1: Did Department of Economic Security/Division of Developmental Disabilities (DES/DDD) or its contracted plans encounter barriers during the integration of care for beneficiaries with DD?	
4-1	DES/DDD and its contracted plans' barriers during transition
Research Question 4.2: What care coordination strategies did DES/DDD and its contracted plans implement as a result of integration of care?	
4-2	DES/DDD and its contracted plans' care coordination activities
Research Question 4.3: Did DES/DDD or its contracted plans encounter barriers to implementing care coordination strategies?	
4-3	DES/DDD and its contracted plans' barriers to implementing care coordination strategies
Research Question 4.4: Did AHCCCS encounter barriers related to integration of care for beneficiaries with DD?	
4-4	AHCCCS' reported barriers before, during, and shortly after the integration of care
Research Question 4.5: Did providers encounter barriers related to integration of care for beneficiaries with DD?	
4-5	Providers' reported barriers before, during, and shortly after the integration of care

Hypothesis 5 seeks to measure the cost-effectiveness of the ALTCS demonstration waiver. A long-term goal of ALTCS is to provide cost-effective care for its beneficiaries. Because cost-effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 5. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not be renewed. Program savings will be identified as reductions in administration and/or service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures in which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of ALTCS is described in detail in the Methodology section and the research questions are listed in Table 2-13.

Table 2-13: Hypothesis 5 Research Questions and Measures

Hypothesis 5—ALTCS provides cost-effective care.
Research Question 5.1: What are the costs associated with the integration of care under ALTCS?
Research Question 5.2: What are the benefits/savings associated with the integration of care under ALTCS?

CMDP

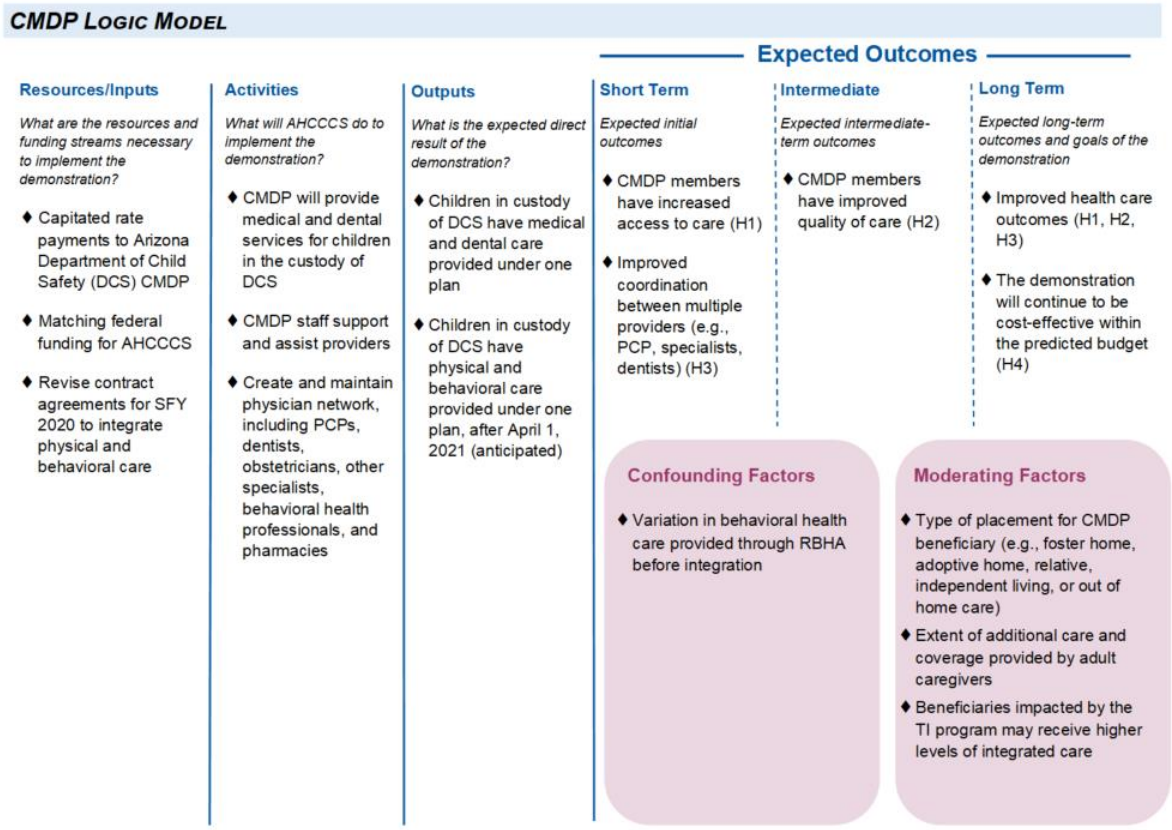
Through providing medical and dental care, the CMDP's goal is to promote the well-being of Arizona's children in foster care. Promoting well-being takes the form of providing quality and timely care for this population, therefore it is essential for the CMDP to work with foster parents, community members, health care providers, behavioral health care providers, specialists and coordinators to meet these goals.

The primary purpose of this evaluation is to determine whether the CMDP demonstration waiver is achieving these goals. To develop hypotheses and research questions associated with these goals, AHCCCS developed a logic model which relates the inputs and activities of the program (i.e., providing beneficiaries with timely immunizations and dental care) to anticipated initial, intermediate, and long-term outcomes, which are associated with hypotheses.

Logic Model

Figure 2-5 illustrates that, given the resources and contracting to fund the CMDP and integrate care, children in custody of the Arizona Department of Child Safety (DCS) will have medical and dental care provided under a single plan, and have physical and behavioral health care provided under a single plan after April 1, 2021. With improved access to and integration of care, children covered by the CMDP will experience improved health outcomes under a cost-effective care model. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-14).

Figure 2-5: CMDP Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the CMDP demonstration waiver, four hypotheses will be tested using 10 research questions. Table 2-14 lists the four hypotheses.

Table 2-14: CMDP Hypotheses

Hypotheses	
1	Access to care will be maintained or increase during the demonstration.
2	Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.
3	CMDP encourages and/or facilitates care coordination among Primary Care Practitioners (PCPs) and behavioral health practitioners.
4	CMDP will provide cost-effective care.

Hypothesis 1 is designed to determine whether the CMDP activities during the demonstration maintain or improve beneficiary access to PCPs and specialists. Access to care will be assessed by focusing on beneficiaries' PCPs, dental utilization, and opportunities to make appointments. The hypothesis will be addressed using claims/encounter data and through beneficiary survey responses. The measures to test this hypothesis and answer the associated research question are listed below in Table 2-15.

Table 2-15: Hypothesis 1 Research Questions and Measures

Hypothesis 1—Access to care will be maintained or increase during the demonstration.	
Research Question 1.1: Do CMDP beneficiaries have the same or increased access to PCPs and specialists in the remeasurement period compared to the baseline?	
1-1	Percentage of children and adolescents with access to PCPs
1-2	Percentage of beneficiaries with an annual dental visit

Hypothesis 2 is designed to determine whether the CMDP activities during the demonstration maintain or improve the quality of care provided to beneficiaries. The research questions for this hypothesis will focus on preventive and wellness services; management of chronic conditions, mental health, and opioid prescriptions, and hospital utilization. This hypothesis will be addressed using both claims/encounter data and through beneficiary surveys. The measures and associated research questions are presented in Table 2-16.

Table 2-16: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.	
Research Question 2.1: Do CMDP beneficiaries have the same or higher rates of preventive or wellness services in the remeasurement period compared to the baseline?	
2-1	Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life
2-2	Percentage of beneficiaries with an adolescent well-care visit
2-3	Percentage of children two years of age with appropriate immunization status
2-4	Percentage of adolescents 13 years of age with appropriate immunizations

Hypothesis 2—Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.	
Research Question 2.2: Do CMDP beneficiaries have the same or better management of chronic conditions in the remeasurement period compared to the baseline?	
2-5	Percentage of beneficiaries ages 5 to 18 who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year
Research Question 2.3: Do CMDP beneficiaries have the same or better management of behavioral health conditions in the remeasurement period compared to the baseline?	
2-6	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
2-7	Percentage of children and adolescents on antipsychotics with metabolic monitoring
2-8	Percentage of beneficiaries with screening for depression and follow-up plan
2-9	Percentage of children and adolescents with use of multiple concurrent antipsychotics
2-10	Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, emergency department [ED], or telehealth)
Research Question 2.4: Do CMDP beneficiaries have the same or lower hospital utilization in the remeasurement period compared to the baseline?	
2-11	Number of ED visits per 1,000 member months
2-12	Number of inpatient stays per 1,000 member months

Hypothesis 3 (Table 2-17) is designed to identify in detail the activities CMDP conducted to further AHCCCS' goal of care integration through implementing strategies supporting care coordination and management. Barriers encountered during the transition to integrated care and implementing these strategies will also be a focus of Hypothesis 3. These research questions will be addressed through semi-structured key informant interviews with representatives from CMDP.

Table 2-17: Hypothesis 3 Research Questions and Measures

Hypothesis 3—CMDP encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.	
Research Question 3.1: What barriers did CMDP anticipate/encounter during the integration?	
3-1	CMDP's anticipated/reported barriers during transition
Research Question 3.2: What care coordination strategies did CMDP plan/implement during integration?	
3-2	CMDP's planned/reported care coordination activities
Research Question 3.3: What barriers to implementing care coordination strategies did the CMDP anticipate/encounter?	
3-3	CMDP's anticipated/reported barriers to implementing care coordination strategies

Hypothesis 4 (Table 2-18) seeks to measure the cost-effectiveness of the CMDP. A goal of the CMDP is to provide cost-effective care for its beneficiaries. Because cost-effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 4. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not been renewed or implemented. Program savings will be identified as reductions in administrative and/or

service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures for which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of the CMDP is described in detail in the Cost-Effectiveness Analysis section.

Table 2-18: Hypothesis 4 Research Questions and Measures

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

RBHA

By providing coordinated and integrated physical and behavioral health care to AHCCCS beneficiaries with an SMI, AHCCCS expects the RBHAs to improve access to primary care services, increase prevention, early identification, and intervention services and to reduce the incidence and impact of serious physical and mental illnesses and to improve the overall health and quality of life for their beneficiaries. Specifically, the RBHAs are expected to both conduct care coordination activities and provide care management activities to beneficiaries with an SMI in the top tier of high need/high cost.[2-2] The goals of care management are to identify high-risk beneficiaries with an SMI, effectively transition beneficiaries across levels of care, streamline, monitor, and adjust care plans based on progress and outcomes, reduce hospital admissions and emergency department and crisis service use, and provide beneficiaries with tools to self-manage care.[2-3]

The primary purpose of this evaluation is to determine whether the RBHAs are achieving these goals for its SMI population as part of AHCCCS' overarching Section 1115 demonstration waiver.

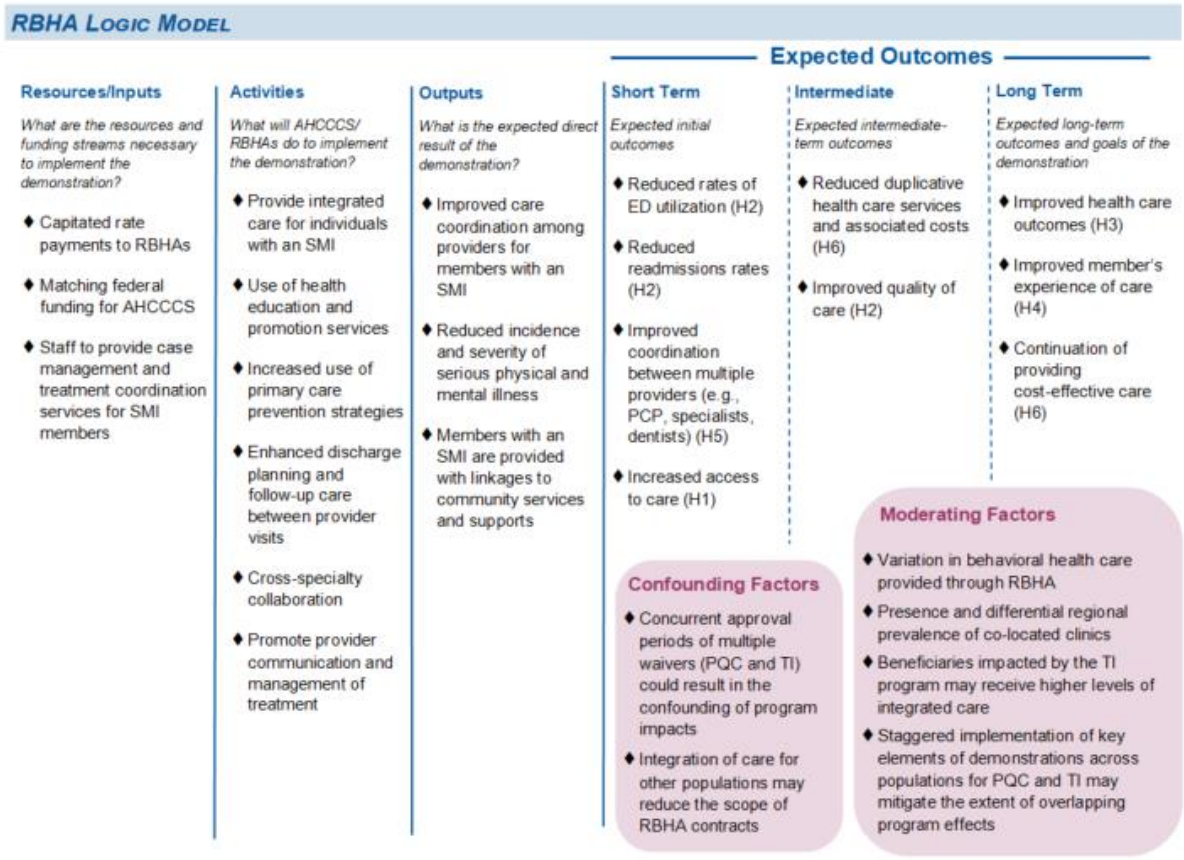
Logic Model

To develop hypotheses and research questions associated with these goals, AHCCCS created a logic model which relates the inputs and activities of the program to anticipated initial, intermediate, and long-term outcomes. Figure 2-6 shows that, given resources to fund the RBHAs, adult beneficiaries with an SMI will continue to receive care coordination/management, their providers will follow enhanced discharge planning guidelines and conduct cross-specialty collaboration, thereby promoting communication among providers. By integrating physical and behavioral health care, beneficiary satisfaction will be maintained or improve during the demonstration period. With better care coordination/management, beneficiaries will have equal or improved access to care and utilization of emergency department visits resulting in equal or better health outcomes, overall health, and satisfaction with their health care experiences. In the long term, this will improve beneficiaries' health and well-being while providing cost-effective care.

[2-2] AHCCCS Medical Policy Manual (AMPM) Policies 541 and 1020, respectively. Available at: AHCCCS Medical Policy Manual https://www.azahcccs.gov/shared/MedicalPolicyManual/. Accessed on: Oct 18, 2019.

[2-3] RBHA Contract YH17-0001 effective 10/01/2019, for Greater Arizona, available at: https://www.azahcccs.gov/Resources/Downloads/ContractAmendments/RBHAs/YH170001_GAZ_AMD11.pdf. Accessed on: Oct 18, 2019; and RBHA Contract YH17-0001 effective 10/01/2019, for Maricopa County, available at https://www.azahcccs.gov/Resources/Downloads/ContractAmendments/RBHAs/YH170001_MMIC_AMD11.pdf. Accessed on: Oct 18, 2019.

Figure 2-6: RBHA Program Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the RBHA demonstration waiver, six hypotheses will be tested using 16 research questions. Table 2-19 lists the six hypotheses.

Table 2-19: RBHA Hypotheses

RBHA Hypotheses	
1	Access to care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or increase during the demonstration.
2	Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.
3	Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.
4	Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration period.
5	RBHAs encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.

RBHA Hypotheses	
6	RBHAs will provide cost-effective care for beneficiaries with an SMI.

Hypothesis 1 will test whether access to care increased or was maintained throughout the demonstration renewal period. This hypothesis will be addressed using both claims/encounter data and beneficiary survey responses. The research question and measures associated with this hypothesis are listed in Table 2-20.

Table 2-20: Hypothesis 1 Research Questions and Measures

Hypothesis 1—Access to care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or increase during the demonstration.	
Research Question 1.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to primary care services compared to prior to the demonstration renewal?	
1-1	Percentage of adults who accessed preventive/ambulatory health services
1-2	Percentage of beneficiaries who reported they received care as soon as they needed
1-3	Percentage of beneficiaries who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed
1-4	Percentage of beneficiaries who reported they were able to schedule an appointment with a specialist as soon as they needed
Research Question 1.2: Do adult beneficiaries with an SMI enrolled in RBHA have the same or increased access to substance abuse treatment compared to prior to the demonstration renewal?	
1-5	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment
1-6	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment

The primary goal of providing integrated care for RHBA beneficiaries with an SMI is to promote health and wellness by improving the quality of care. Hypothesis 2 will test whether the quality of care provided to RBHA beneficiaries with an SMI improved or was maintained during the demonstration renewal period. This hypothesis will be addressed using both claims/encounter data and beneficiary survey responses. The research questions and measures associated with the hypothesis are presented in Table 2-21.

Table 2-21: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.	
Research Question 2.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rates of preventive or wellness services compared to prior to demonstration renewal?	
2-1	Percentage of beneficiaries who reported having a flu shot or nasal flu spray since July 1
Research Question 2.2: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of chronic conditions compared to prior to the demonstration renewal?	
2-2	Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent
2-3	Percentage of beneficiaries with schizophrenia or bipolar disorder using antipsychotic medications who had a diabetes screening test

Hypothesis 2—Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.	
2-4	Percentage of beneficiaries with schizophrenia who adhered to antipsychotic medications
Research Question 2.3: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of behavioral health conditions compared to prior to the demonstration renewal?	
2-5	Percentage of beneficiaries who remained on antidepressant medication treatment
2-6	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
2-7	Percentage of beneficiaries with a follow-up visit after emergency department (ED) visit for mental illness
2-8	Percentage of beneficiaries with follow-up after ED visit for alcohol and other drug abuse or dependence
2-9	Percentage of beneficiaries with a screening for depression and follow-up plan
2-10	Percentage of beneficiaries receiving mental health services (total and by inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth)
Research Question 2.4: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of opioid prescriptions compared to prior to the demonstration renewal?	
2-11	Percentage of beneficiaries who have prescriptions for opioids at a high dosage
2-12	Percentage of beneficiaries with concurrent use of opioids and benzodiazepines
Research Question 2.5: Do adult beneficiaries with an SMI enrolled in a RBHA have the same lower tobacco usage compared to prior to the demonstration renewal?	
2-13	Percentage of beneficiaries who indicated smoking cigarettes or using tobacco
Research Question 2.6: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or lower hospital utilization compared to prior to the demonstration renewal?	
2-14	Number of ED visits per 1,000 member months
2-15	Number of inpatient stays per 1,000 member months
2-16	Percentage of inpatient discharges with an unplanned readmission within 30 days

To determine the overall health status among RBHA beneficiaries with an SMI, the independent evaluator will utilize two survey questions asking beneficiaries to report their overall health and overall mental or emotional health. The measures and associated research questions are presented in Table 2-22.

Table 2-22: Hypothesis 3 Research Questions and Measures

Hypothesis 3—Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.	
Research Question 3.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rating of health compared to prior to the demonstration renewal?	
3-1	Percentage of beneficiaries who reported a high rating of overall health
3-2	Percentage of beneficiaries who reported a high rating of overall mental or emotional health

Hypothesis 4 will measure beneficiary satisfaction and experience of care with the RBHAs, using three survey questions about their ratings of the health care received from the RBHAs and providers. Table 2-23 presents the measures and survey questions that will be used to measure these outcomes.

Table 2-23: Hypothesis 4 Research Questions and Measures

Hypothesis 4—Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration period.	
Research Question 4.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher satisfaction in their health care compared to prior to the demonstration renewal?	
4-1	Percentage of beneficiaries who reported a high rating of overall health care
4-2	Percentage of beneficiaries who reported a high rating of health plan
Research Question 4.2: Do adult beneficiaries with an SMI enrolled in a RBHA perceive their doctors to have the same or better care coordination compared to prior to the demonstration renewal?	
4-3	Percentage of beneficiaries who reported their doctor seemed informed about the care they received from other health providers

While RBHAs provide integrated behavioral and physical care for their adult beneficiaries with an SMI throughout the demonstration renewal period, there have been changes to care delivery for other AHCCCS beneficiaries, namely the introduction of ACC in October 2018. Hypothesis 5 will consist of key informant interviews with health plan representatives, subject matter experts from AHCCCS, and providers to assess care coordination activities for the SMI population and identify any changes that could have resulted from the implementation of ACC. Table 2-24 presents the measures and research questions related to this hypothesis.

Table 2-24: Hypothesis 5 Research Questions and Measures

Hypothesis 5—RBHAs encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.	
Research Question 5.1: What care coordination strategies are the RBHAs conducting for their SMI population?	
5-1	Health plans' reported care coordination activities for SMI population
Research Question 5.2: Have care coordination strategies for the SMI population changed as a result of ACC?	
5-2	Reported changes in health plans' care coordination strategies for SMI population
Research Question 5.3: What care coordination strategies is AHCCCS conducting for its SMI population?	
5-3	AHCCCS's reported care coordination strategies and activities for the SMI population served by the RBHAs
Research Question 5.4: What care coordination strategies and/or activities are providers conducting for their SMI patients served by the RBHAs?	
5-4	Providers' reported care coordination strategies and activities for their SMI patients

Hypothesis 6 (Table 2-25) will measure the cost-effectiveness of providing behavioral and physical care to beneficiaries with an SMI through the RBHAs. A long-term goal of the RBHAs is to provide cost-effective care for its beneficiaries. Because cost-effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 5. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs prior to demonstration renewal. Program savings will

be identified as reductions in administration and/or service expenditures beyond those projected prior to demonstration renewal. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures in which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of the RBHAs is described in detail in the Cost-Effectiveness Analysis section.

Table 2-25: Hypothesis 6 Research Questions and Measures

Hypothesis 6—RBHAs will provide cost-effective care for beneficiaries with an SMI.
Research Question 6.1: What are the costs associated with providing care for beneficiaries with an SMI through the RBHAs?
Research Question 6.2: What are the benefits/savings associated with providing care for beneficiaries with an SMI through the RBHAs?

PQC

The overarching goals of the AHCCCS demonstration in waiving prior quarter coverage from three months of retroactive coverage to the month of enrollment are that members will be encouraged to obtain and continuously maintain health coverage, even when healthy; members will be encouraged to apply for Medicaid without delays, promoting continuity of eligibility and enrollment for improved health status; and Medicaid costs will be contained.[2-4] This will support the sustainability of the Medicaid program while more efficiently focusing resources on providing accessible high-quality health care and limiting the resource-intensive process associated with PQC eligibility.

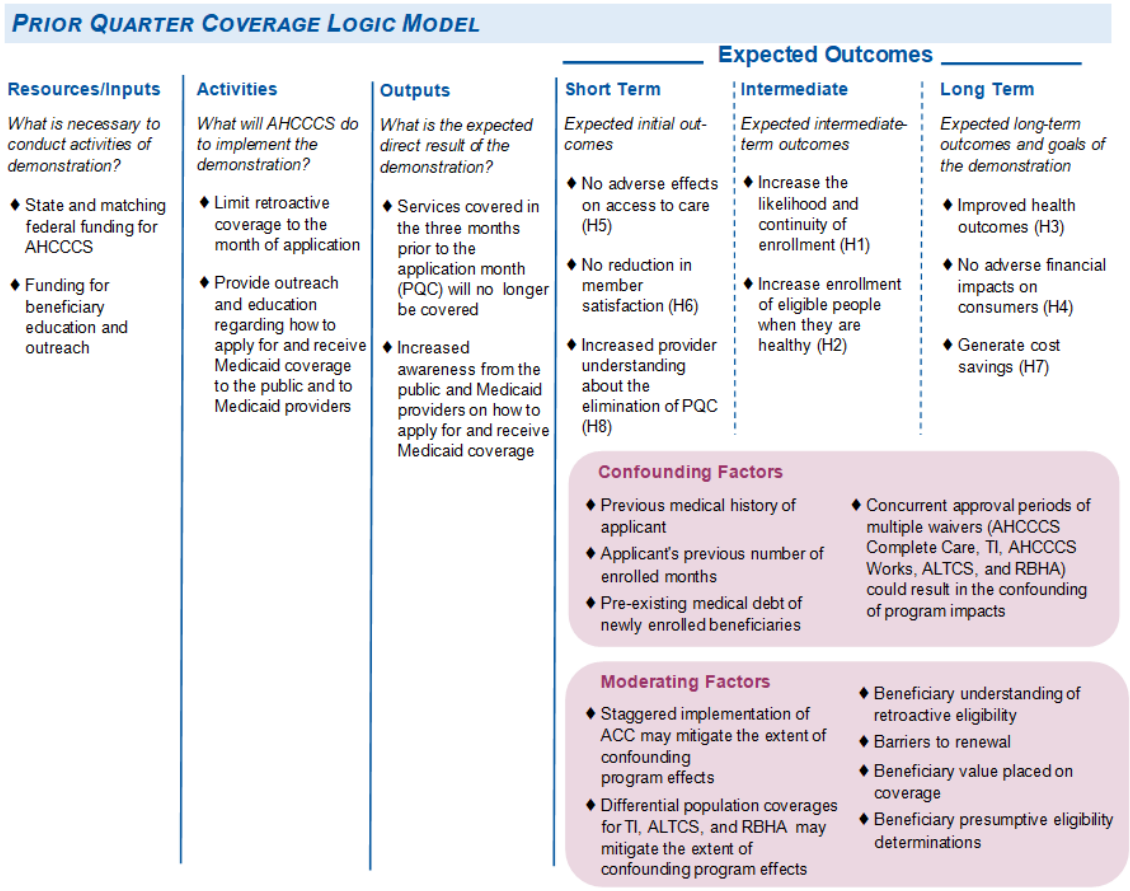
A primary purpose of this evaluation is to determine whether the AHCCCS demonstration to waive PQC is achieving these goals. To develop hypotheses and research questions associated with these goals, AHCCCS developed a logic model that relates the inputs and activities of the program to the anticipated initial, intermediate, and long-term outcomes, which are associated with hypotheses.

Logic Model

Figure 2-7 illustrates that through providing outreach and education to the public and providers regarding the demonstration and limiting retroactive eligibility to the month of application will lead to improved health outcomes, while having no negative effects on access to care and beneficiary satisfaction, as well as no negative financial impact to beneficiaries. These expected outcomes will not all happen simultaneously. Any effects on access to care and beneficiary satisfaction are expected to occur first. Later, there is the expectation that there will be an increase in the likelihood and continuity of enrollment and in the enrollment of eligible people while they are healthy. This aligns with the set objectives of the amendment. Longer term, there should be no financial impact on beneficiaries, while generating cost savings to promote Arizona Medicaid sustainability. Ultimately, this leads to improved health outcomes among beneficiaries. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-26).

[2-4] Arizona Health Care Cost Containment System. Arizona Section 1115 Waiver Amendment Request: Proposal to Waive Prior Quarter Coverage. Apr 6, 2019. Available at: https://www.azahcccs.gov/Resources/Downloads/PriorQuarterCoverageWaiverToCMS_04062018.pdf. Accessed on: Jun 19, 2019.

Figure 2-7: PQC Logic Model



Hypotheses and Research Questions

To comprehensively evaluate the PQC demonstration waiver, eight hypotheses will be tested using 14 research questions. Table 2-26 lists the eight hypotheses.

Table 2-26: PQC Hypotheses

Hypotheses	
1	Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.
2	Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.
3	Health outcomes will be better for those without prior quarter coverage compared to Medicaid beneficiaries with prior quarter coverage.
4	Eliminating prior quarter coverage will not have adverse financial impacts on consumers.
5	Eliminating prior quarter coverage will not adversely affect access to care.

Hypotheses	
6	Eliminating prior quarter coverage will not result in reduced member satisfaction.
7	Eliminating prior quarter coverage will generate cost savings over the term of the waiver.
8	Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.

Hypothesis 1 will test whether the demonstration results in an increase in the likelihood and continuity of enrollment. The measures and associated research questions are listed in Table 2-27. Improvements in these outcomes would support the demonstration's goal of increasing enrollment and its continuity among eligible beneficiaries.

Table 2-27: Hypothesis 1 Research Questions and Measures

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

Hypothesis 2 will test whether eliminating PQC increases the number of healthy enrollees. The measure and associated research question are presented in Table 2-28.

Table 2-28: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.	
Research Question 2.1: Do newly enrolled beneficiaries without prior quarter coverage have higher self-assessed health status than continuously enrolled beneficiaries?	
2-1	Beneficiary reported rating of overall health
2-2	Beneficiary reported rating of overall mental or emotional health
2-3	Percentage of beneficiaries who reported prior year emergency room (ER) visit
2-4	Percentage of beneficiaries who reported prior year hospital admission
2-5	Percentage of beneficiaries who reported getting health care three or more times for the same condition or problem

A key goal of waiving PQC is that there will be improved health outcomes among both newly enrolled and established beneficiaries. Hypothesis 3 will test this by determining if beneficiaries without PQC have better outcomes than those with PQC or who have been enrolled since pre-implementation of the waiver. The measures and associated research questions are presented in Table 2-29.

Table 2-29: Hypothesis 3 Research Questions and Measures

Hypothesis 3—Health outcomes will be better for those without prior quarter coverage compared to Medicaid beneficiaries with prior quarter coverage.	
Research Question 3.1: Do beneficiaries without prior quarter coverage have better health outcomes than compared to baseline rates and out-of-state comparisons with prior quarter coverage?	
3-1	Beneficiary reported rating of overall health for all beneficiaries
3-2	Beneficiary reported rating of overall mental or emotional health for all beneficiaries

It is crucial to evaluate the financial impact that the PQC waiver has on beneficiaries. This can determine if there are any unintended consequences, such as consumers having additional expenses due to the PQC waiver not covering medical expenses during the prior quarter. Hypothesis 4 evaluates the impact that the waiver has by measuring reported beneficiary medical debt. The measure and associated research question are presented in Table 2-30.

Table 2-30: Hypothesis 4 Research Question and Measure

Hypothesis 4—Eliminating prior quarter coverage will not have adverse financial impacts on consumers.	
Research Question 4.1: Does the prior quarter coverage waiver lead to changes in the incidence of beneficiary medical debt?	
4-1	Percentage of beneficiaries who reported medical debt

It is important to ensure that the PQC waiver does not have an impact on access to care. Hypothesis 5 assesses this by examining utilization of office visits and facility visits for beneficiaries subject to the PQC wavier compared to those who were not subject to the wavier. The measures and associated research questions are presented in Table 2-31.

Table 2-31: Hypothesis 5 Research Questions and Measures

Hypothesis 5—Eliminating prior quarter coverage will not adversely affect access to care.	
Research Question 5.1: Do beneficiaries without prior quarter coverage have the same or higher rates of office visits compared to baseline rates and out-of-state comparisons with prior quarter coverage?	
5-1	Beneficiary response to getting needed care right away
5-2	Beneficiary response to getting an appointment for a check-up or routine care at a doctor's office or clinic
Research Question 5.2: Do beneficiaries without prior quarter coverage have the same or higher rates of service and facility utilization compared to baseline rates and out-of-state comparisons with prior quarter coverage?	
5-3	Percentage of beneficiaries with a visit to a specialist (e.g., eye doctor, Ears Nose Throat [ENT], cardiologist)

As these changes will directly impact the beneficiaries, it is important to ensure that the beneficiaries remain satisfied with their health care. Hypothesis 6 seeks to quantify the change that the implementation of the waiver has on beneficiary satisfaction. The measure and associated research question are presented in Table 2-32.

Table 2-32: Hypothesis 6 Research Question and Measure

Hypothesis 6—Eliminating prior quarter coverage will not result in reduced member satisfaction.	
Research Question 6.1: Do beneficiaries without prior quarter coverage have the same or higher satisfaction with their health care compared to baseline rates and out-of-state comparisons with prior quarter coverage?	
6-1	Beneficiary rating of overall health care

Hypothesis 7 seeks to measure the cost effectiveness of the eliminating retroactive eligibility demonstration waiver. A long-term goal of doing so is to provide cost-effective care for its beneficiaries. Because cost effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under research questions 7-1 and 7-2 for Hypothesis 7. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not be renewed. Program savings will be identified as reductions in administration and/or service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures in which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of eliminating PQC is described in detail in the Cost-Effectiveness Analysis section and the research questions are listed in Table 2-33.

Table 2-33: Hypothesis 7 Research Questions and Measures

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

Hypothesis 8 seeks to determine if there were barriers in the implementation of eliminating PQC. The measure and associated research question are presented in Table 2-34.

Table 2-34: Hypothesis 8 Research Question and Measure

Hypothesis 8—Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.	
Research Question 8.1: What activities did AHCCCS perform to educate beneficiaries and providers about changes to retroactive eligibility?	
8-1	AHCCCS' reported education activities
8-2	Providers' knowledge on eliminating PQC
Research Question 8.2: Did AHCCCS encounter barriers related to informing providers about eliminating PQC?	
8-3	AHCCCS' reported barriers to providing education on eliminating PQC

TI

The overarching goal of the AHCCCS demonstration for TI is to improve health by providing financial incentives to encourage integration of care between primary care providers and behavioral health care providers. Success will be measured by providers' ability to reach integration milestones, and improved health outcomes for children with behavioral health disorders, including children with ASD and children in the foster care system, adults with behavioral health needs, and adults with behavioral health needs who are transitioning from the criminal justice system. To participate in the TI program, providers and hospitals are required to meet specific requirements (Table 2-35). [2-5]

Table 2-35: TI Provider Requirements

TI Providers	Requirements
Primary Care Providers	• Have a minimum threshold of assigned AHCCCS members across all health plans with which they are contracted; • Attest to having an electronic health record (EHR) system which has the ability to exchange and use electronic health information from other systems without special effort on the part of the user; and • Have completed a behavioral health integration assessment.
Behavioral Health Care Providers	• Have delivered an AHCCCS-defined minimum number of qualifying outpatient services to members during a recent 12-month period; • Attest to having an EHR system, which has the ability to exchange and use electronic health information from other systems without special effort on the part of the user; and • Have completed a behavioral health integration assessment.

[2-5] Arizona Health Care Cost Containment System. Targeted Investments Program Overview. Available at: https://www.azahcccs.gov/PlansProviders/TargetedInvestments/. Accessed on: Aug 14, 2019.

TI Providers	Requirements
Hospitals	• Have had an AHCCCS-defined minimum number of qualifying member discharges across all health plans during a recent 12-month period; and • Attest to having an EHR system, which has the ability to exchange and use electronic health information from other systems without special effort on the part of the user.

A key step in the integration process for participating TI participating providers is establishing an executed agreement with Health Current and receiving Admission-Discharge-Transfer (ADT) alerts. Providers who receive ADT alerts receive an automated clinical summary in response to an inpatient admission, emergency department registration or ambulatory encounter registration, and a comprehensive continuity of care document that contains the patient's most recent clinical and encounter information.[2-6] This allows providers to receive key information to improve patient care.

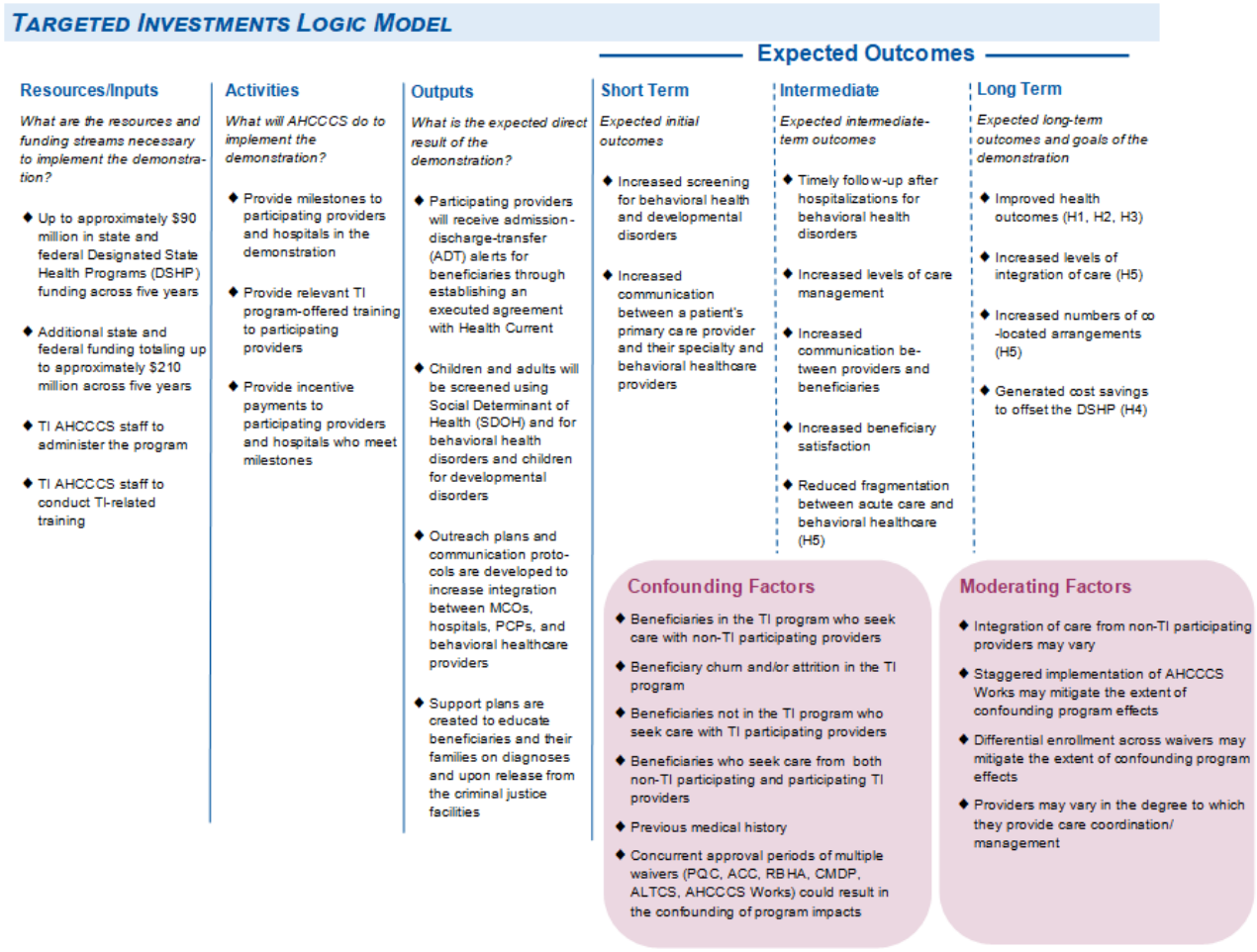
A primary purpose of this evaluation is to determine whether the AHCCCS demonstration to integrate physical health and behavioral health care services with TI is achieving the goals of the program. To develop hypotheses and research questions associated with these goals, AHCCCS created a logic model that relates the inputs and activities of the program to the anticipated initial, intermediate, and long-term outcomes.

Logic Model

The logical model presented in Figure 2-8 illustrates how providing financial investments to participating providers and hospitals in the demonstration will ultimately lead to improved health outcomes, increased levels of integration of care, and generate cost savings that will offset the time-limited federal Designated State Health Program (DSHP). By providing milestones that must be met at specific timeframes to earn financial incentives, AHCCCS expects to encourage increased levels of integration of care among participating providers. In the short term, AHCCCS expects that there will be increased communication between a patient's primary care provider and their specialty and behavioral health care providers. This will lead to increased levels of care management, which in the longer term, will lead to improved health outcomes among targeted beneficiaries. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-36).

[2-6] Health Current. HIE Services. Available at: https://healthcurrent.org/hie/benefits-services/. Accessed on: Aug 21, 2019.

Figure 2-8: TI Logic Model



Historically, RBHA provided behavioral health coverage for much of the AHCCCS population, while medical care was provided through other plans.

AHCCCS expects that the simultaneous implementation of TI along with the payer-level care integration (most notably ACC) will provide an opportunity for both providers and health plans to leverage their experience and share strategies in delivering whole person integrated care.[2-7] This in turn may introduce an interaction effect between the TI program and the provision of integrated behavioral and medical care under a single plan. This may lead to confounding program effects; however, as described in Disentangling Confounding Events section below, both the differential timing in the integration of care and the TI program and the differential between program participation may be leveraged to mitigate the impact from these confounding factors.

[2-7] AHCCCS Targeted Investments Program Sustainability Plan, March 29, 2019. Available at: https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-target-stability-plan-20190812.pdf. Accessed on: Feb 11, 2020.

Hypotheses and Research Questions

To comprehensively evaluate the TI program, six hypotheses will be tested using 21 research questions. Table 2-36 lists the six hypotheses.

Table 2-36: TI Hypotheses

Hypotheses	
1	The TI program will improve physical and behavioral health care integration for children.
2	The TI program will improve physical and behavioral health care integration for adults.
3	The TI program will improve care coordination for AHCCCS enrolled adults released from criminal justice facilities.
4	The TI program will provide cost-effective care.
5	Providers will increase the level of care integration over the course of the demonstration.
6	Providers will conduct care coordination activities.

Hypothesis 1 will test whether the demonstration improves the integration of physical and behavioral health care for children. The measures and associated research questions are listed in Table 2-37. Improvements in these outcomes would support the demonstration's goal of improving health outcomes for children with behavioral health disorders, children with or at risk for ASD, and children who are engaged in the foster care system.

Table 2-37: Hypothesis 1 Research Questions and Measures

Hypothesis 1— The TI program will improve physical and behavioral health care integration for children.	
Research Question 1.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	
1-1	Percentage of participating pediatric primary care and behavioral health care practices that have an executed agreement with Health Current
1-2	Percentage of participating pediatric primary care and behavioral health care practices that routinely receive ADT alerts
Research Question 1.2: Do children subject to the TI program have higher rates of screening and well-child visits compared to those who are not subject to the demonstration?	
1-3	Percentage of beneficiaries with a well-child visit in the third, fourth, fifth, and sixth years of life
1-4	Percentage of beneficiaries with a depression screening and follow-up plan
1-5	Percentage of beneficiaries with an adolescent well-care visit
1-6	Beneficiary response to getting needed care right away
Research Question 1.3: Do children subject to the TI program have higher rates of follow-up after hospitalization or an emergency department (ED) visit for mental illness than those who are not subject to the demonstration?	
1-7	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
Research Question 1.4: Do parents/guardians of children subject to the program perceive their doctors have better care coordination than those not subject to the demonstration?	

Hypothesis 1— The TI program will improve physical and behavioral health care integration for children.	
1-8	Beneficiary response to their child's doctor seeming informed about the care their child received from other health providers

Hypothesis 2 will test whether the demonstration improves the integration of physical and behavioral health care for adults with behavioral health needs. The measures and associated research questions are listed in Table 2-38.

Table 2-38: Hypothesis 2 Research Questions and Measures

Hypothesis 2— The TI program will improve physical and behavioral health care integration for adults.	
Research Question 2.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	
2-1	Percentage of participating adult primary care and behavioral health care practices that have an executed agreement with Health Current
2-2	Percentage of participating adult primary care and behavioral health care practices that routinely receive ADT alerts
Research Question 2.2: Do adults subject to the TI program have higher rates of screening than those who are not subject to the demonstration?	
2-3	Percentage of beneficiaries with a depression screening and follow-up plan
2-4	Beneficiary response to getting needed care right away
Research Question 2.3: Do adults subject to the TI program have lower rates of ED utilization than those who are not subject to the demonstration?	
2-5	Number of ED visits per 1,000 member months
2-6	Number of ED visits for substance use disorder (SUD) or opioid use disorder (OUD) per 1,000 member months
Research Question 2.4: Do adults subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration?	
2-7	Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness
2-8	Percentage of beneficiaries with a follow-up visit after an ED visit for mental illness
Research Question 2.5: Do adults subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?	
2-9	Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment
2-10	Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment
2-11	Percentage of beneficiaries with OUD receiving any Medication Assisted Treatment (MAT)
Research Question 2.6: Do adults subject to the TI program perceive their doctors have better care coordination than those not subject to the demonstration?	
2-12	Beneficiary response to their doctor seeming informed about the care they received from other health providers

Hypothesis 3 will test whether the demonstration improves the integration of physical and behavioral health care for adults who were recently released from the criminal justice system. The measures and associated research questions are listed in Table 2-39.

Table 2-39: Hypothesis 3 Research Questions and Measures

Hypothesis 3— The TI program will improve care coordination for AHCCCS enrolled adults released from criminal justice facilities.	
Research Question 3.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	
3-1	Percentage of integrated practices participating in the justice transition project that have an executed agreement with Health Current
3-2	Percentage of integrated practices participating in the justice transition project that routinely receive ADT alerts
Research Question 3.2: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of access to care than those who were not subject to the demonstration?	
3-3	Percentage of recently released beneficiaries who had a preventive/ambulatory health service visit
3-4	Recently released beneficiary response to getting needed care right away
3-5	Recently released beneficiary response to getting routine care right away
Research Question 3.3: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?	
3-6	Percentage of recently released beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment
3-7	Percentage of recently released beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment
3-8	Percentage of recently released beneficiaries with OUD receiving any Medication Assisted Treatment (MAT)
Research Question 3.4: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have lower rates of ED utilization than those who were not subject to the demonstration?	
3-9	Number of ED visits per 1,000 member months for recently released beneficiaries
3-10	Number of ED visits for SUD or OUD per 1, 000 member months for recently released beneficiaries
Research Question 3.5: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have better management of opioid prescriptions than those who were not subject to the demonstration?	
3-11	Percentage of recently released beneficiaries who have prescriptions for opioids at a high dosage
3-12	Percentage of recently released beneficiaries who have prescriptions for concurrent use of opioids and benzodiazepines

It is crucial to evaluate the financial impact that the TI demonstration will have. Because the demonstration is partially financed by time-limited DSHP funds, AHCCCS intends for the demonstration to become self-sufficient by the end of the demonstration period. Consequently, one of the expectations is for the program to generate cost savings that are equal to or exceed the time-limited DSHP funding. Hypothesis 4 evaluates the impact that the demonstration has by measuring costs and cost-effectiveness associated with the TI demonstration. Because cost-effectiveness will not be evaluated solely on the basis of the outcome of specific financial measurements, no specific measures are included under Hypothesis 4. The independent evaluator will calculate costs and savings

associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not been renewed or implemented. Program savings will be identified as reductions in administrative and/or service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (reductions) in any of the above measures for which a monetary value cannot be assigned. As part of the cost-effectiveness analysis, a comparison of benefits/savings to the time-limited DSHP funding will be performed to determine whether the program offsets this funding. The approach for assessing cost-effectiveness of the TI program is described in further detail in the Cost-Effectiveness Analysis section. Table 2-40 presents the measures and associated research questions.

Table 2-40: Hypothesis 4 Research Questions and Measures

Hypothesis 4— The TI program will provide cost-effective care.
Research Question 4.1: What are the costs associated with care coordination provided under TI?
Research Question 4.2: What are the benefits/savings associated with care coordination provided under TI?

Direct payments to participating providers are designed to support increasing care integration at the practice level. In turn, the higher levels of care integration are expected to ultimately be associated with better health outcomes and patient satisfaction. For these reasons, it is important to ensure that the level of integration for participating TI practices is increasing during the demonstration period. Hypothesis 5 assesses the percentage of providers who transition to a higher level of care integration, as defined by the Substance Abuse and Mental Health Services Administration (SAMHSA) and used in the Integrated Practice Assessment Tool (IPAT).[2-8] Table 2-41 presents the measures and associated research questions.

Table 2-41: Hypothesis 5 Research Questions and Measures

Hypothesis 5— Providers will increase the level of care integration over the course of the demonstration.	
Research Question 5.1: Do providers progress across the Substance Abuse and Mental Health Services Administration (SAMHSA) national standard of six levels of integrated health care?	
5-1	Percentage of providers transitioning from Level 1 or Level 2 (coordinated care[2-9]) to Level 3 or Level 4 (co-located care)[2-10]
5-2	Percentage of providers transitioning from Level 3 or Level 4 (co-located care) to Level 5 or Level 6 (integrated care)[2-11]
Research Question 5.2: Do providers increase level of integration within each broader category (i.e., coordinated, co-located, and integrated care) during the demonstration period?	

2-8 Waxmonsky, J., Auxier, A., Wise Romero, P., and Heath, B., Integrated Practice Assessment Tool Version 2.0. Available at: https://www.thenationalcouncil.org/integrated-health-coe/. Accessed on: Feb 11, 2020.

2-9 Note: "co-located care" in this context refers to the SAMHSA definition of physical proximity between behavioral health and primary care providers; it does not refer to the co-location of integrated health care settings with select county probation offices and/or parole offices, as used by AHCCCS in reference to adults transitioning from the criminal justice system. For purposes of these measures, "co-located care" will refer to physical proximity between behavioral health and primary care providers for all providers, including criminal justice providers.

2-10 Heath B, Wise Romero P, and Reynolds K. A Review and Proposed Standard Framework for Levels of Integrated Healthcare. Washington, D.C. SAMHSA-HRSA Center for Integrated Health Solutions. March 2013. Available at: https://www.integration.samhsa.gov/integrated-care-models/A_Standard_Framework_for_Levels_of_Integrated_Healthcare.pdf. Accessed on: Feb 11, 2020.

2-11 Ibid.

Hypothesis 5— Providers will increase the level of care integration over the course of the demonstration.	
5-3	Percentage of providers transitioning from Level 1 to Level 2 integration
5-4	Percentage of providers transitioning from Level 3 to Level 4 integration
5-5	Percentage of providers transitioning from Level 5 to Level 6 integration

Hypothesis 6 (Table 2-42) is designed to identify in detail the activities the providers conducted to further AHCCCS' goal of care coordination and integration through the TI program. Barriers encountered during implementation of the TI program will be a focus of this hypothesis. These research questions will be addressed through semi-structured key informant interviews or focus groups with representatives from AHCCCS and TI providers.

Table 2-42: Hypothesis 6 Research Questions and Measures

Hypothesis 6— Providers will conduct care coordination activities.	
Research Question 6.1: Did AHCCCS encounter barriers related to the pre-implementation and implementation phases of TI?	
6-1	AHCCCS' reported barriers before, during, and shortly following the implementation of TI
Research Question 6.2: Did providers encounter barriers related to the pre-implementation and implementation phases of TI?	
6-2	Providers' reported barriers before, during, and shortly following the implementation of TI

3. Methodology

To assess the impact of the program, a comparison of outcomes between the intervention group and a valid counterfactual—the intervention group had they not been exposed to the intervention—must be made. The gold standard for experimental design is a randomized controlled trial which would be implemented by first identifying an intervention population, and then randomly assigning individuals to the intervention and the rest to a comparison group, which would serve as the counterfactual. However, random assignment is rarely feasible or desirable in practice, particularly as it relates to health care policies.

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

Table 3-1: Sampling of Analytic Approaches

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

Given that each demonstration component (Arizona Health Care Cost Containment System [AHCCCS] Complete Care [ACC], Comprehensive Medical and Dental Program [CMDP], Arizona Long Term Care System [ALTCS], Regional Behavioral Health Authority [RBHA], Prior Quarter Coverage [PQC], and Targeted Investments [TI]) implemented under AHCCCS serve different populations, selection of a comparison group must be specific to each program.

ACC

The ACC plans affected most Medicaid children and adults statewide on October 1, 2018, and thus the viability of an in-state counterfactual group not exposed to the intervention (i.e., ACC) is limited by several factors. First, the number of beneficiaries available for a potential comparison group is far smaller than the number of beneficiaries enrolled in ACC plans. This restricts the ability to apply often-used one-to-one matching techniques. Possible solutions include propensity score weighting or matching with replacement. The small pool for the eligible comparison group, however, increases the likelihood that the comparison group would be dominated by only a few individuals, leading to inaccurate and misleading results. Second, the small comparison group reduces statistical power. Finally, and most importantly, AHCCCS beneficiaries not enrolled in an ACC plan are fundamentally different from those who are enrolled in an ACC plan. For example, the theoretical in-state comparison group would consist of those with a serious mental illness (SMI), foster children, those with developmental disabilities, and the elderly and physically disabled. It is possible that these groups could serve as a comparison group with a risk-adjustment algorithm applied; however, this approach is unlikely to sufficiently adjust for the substantial differences across subpopulations to produce accurate and reliable results. Since Arizona does not have an all-payer claims database, it is not possible to identify and use an in-state low-income non-Medicaid population as a comparison group.

Despite these limitations, since ACC covers most children and adults on Medicaid, many measure rates for the ACC population may be compared to national benchmarks, with regional adjustments if available. By comparing ACC rates both before and after implementation against national benchmarks during the same time periods, a difference-in-differences (DiD) calculation can be performed.

ALTCS

The ALTCS has been in existence since prior to the current Section 1115 demonstration waiver renewal period, which began on October 1, 2016. There were no substantive changes to the program on this date. However, behavioral health services for beneficiaries with intellectual/developmental disabilities (DD) were transitioned to the Arizona Department of Economic Security/Division of Developmental Disabilities (DES/DDD), which is contracted with ALTCS, on October 1, 2019. Behavioral services, along with physical health services and certain Long Term Services and Supports (LTSS) (i.e., nursing facilities, emergency alert system services, and habilitative physical therapy for beneficiaries 21 years of age and older), are subcontracted by DES/DD to managed care organizations called DDD health plans. Therefore, the results from the evaluation of the ALTCS program will be split by population (beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD) and consist of two components:

1. Evaluation of demonstration renewal period, beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD (October 1, 2016—September 30, 2021)
2. Evaluation of behavioral health care integration beneficiaries with DD only (October 1, 2019 – September 30, 2021)

Because there were no substantive policy changes upon renewal of the demonstration, the objective of the pre-integration evaluation is to assess the general performance and sustainability of ALTCS during this timeframe. In contrast, the evaluation of integration will assess the impact of care integration on outcomes. Therefore, different methodologies will be used for each component of the evaluation.

Given that ALTCS only impacts individuals with intellectual/developmental disabilities and individuals who are elderly and/or with physical disabilities, the viability of an in-state comparison group consisting of similar

beneficiaries is limited by several factors. First, there are few in-state people with developmental disabilities who are not enrolled in Medicaid and ALTCS. While the number of people who are elderly and/or with physical disabilities who are not enrolled in Medicaid may be somewhat larger, the size of the comparison group is estimated to be far smaller than the similar ALTCS population, thereby reducing the ability to use valid and robust matching techniques to ensure reliable results and reducing statistical power. In the event that such in-state population were sufficient and appropriate as a comparison group, Arizona does not have an all-payer claims database with which to identify and calculate relevant measures for the comparison group. As a result, an out-of-state comparison group, if available, will serve as the most appropriate counterfactual.

A second potential comparison may be used comprising of national or regional benchmarks of similar populations during the same time periods. By comparing ALTCS rates both during the baseline and evaluation periods against national or regional benchmarks, a DiD calculation can be performed. However, it is important to note that because the ALTCS population differ substantially from that of national or regional benchmarks reported for Medicaid programs, such comparisons and DiD testing may not be appropriate for all measures. The independent evaluator will determine which comparison group is best suited for the evaluation or if both can be used for each measure once data has obtained.

CMDP

The CMDP has been in existence since prior to the current Section 1115 waiver demonstration renewal period, beginning on October 1, 2016, with no substantive changes to the program on this date. However, AHCCCS anticipates that behavioral health services will be integrated into CMDP on April 1, 2021. Therefore, the evaluation of the CMDP will consist of two components:

1. Evaluation of demonstration renewal period (October 1, 2016—September 30, 2021)
2. Evaluation of behavioral healthcare integration (April 1, 2021 – March 31, 2022)

Because there were no substantive policy changes upon renewal of the demonstration, the objective of the pre-integration evaluation is to assess the general performance and sustainability of CMDP during this timeframe. In contrast, the evaluation of integration will assess the impact of care integration on outcomes. Therefore, different methodologies will be used for each component of the evaluation.

Given that CMDP only impacts children in the custody of the Arizona Department of Child Safety (DCS) and the unique health care needs of this population, the viability of an in-state comparison group consisting of similar beneficiaries is limited. As such, an out-of-state comparison group, if available, would serve as the most appropriate counterfactual. To account for differences between the two groups, propensity score matching, or weighting would be used to identify non-CMDP beneficiaries who share similar characteristics to those in the intervention (i.e., foster children from another state). An out-of-state comparison group may be obtained by using aggregate rates calculated for a population of foster children served by Medicaid services in another state. To obtain data for a comparison group in this way will require the independent evaluator to obtain a Data Use Agreement (DUA) with comparison state Medicaid authority.

A second potential comparison may be used comprising of national or regional benchmarks of similar populations during the same time periods. By comparing CMDP rates both before and after during the baseline and evaluation period against an out-of-state comparison group or national or regional benchmarks, a DiD calculation can be performed. However, it is important to note that because the CMDP population will differ substantially from that of national or regional benchmarks, DiD statistical testing may not be performed, and the benchmarks will provide context in which to interpret results for the CMDP population.

RBHA

The RBHA have been in existence prior to the current Section 1115 waiver demonstration renewal period which began on October 1, 2016. During the existence of the RBHAs, there have been no substantive changes to the provision of behavioral and physical health care services to adult beneficiaries with a SMI. However, the integration efforts that began with Mercy Maricopa in April 2014 and expanded statewide in October 2015 have not been rigorously evaluated as part of a formal 1115 demonstration evaluation under CMS's revised guidance. Therefore, this evaluation will build upon existing studies of the RBHAs by assessing the impact of the integration on rates through statistical testing and quasi-experimental research design. Previous studies of the RBHAs include a case study conducted by NORC, which consisted of a qualitative assessment of Mercy Maricopa, an issue brief by the Commonwealth Fund, and an independent evaluation of the RBHAs conducted by Mercer Government Human Services Consulting.[3-1] While Mercer's independent evaluation assessed a wide range of performance measures both before and after integration, the evaluation was conducted prior to CMS's revised guidance for 1115 waiver evaluations, and therefore does not include statistical testing or causal analysis. The objective of this evaluation is to assess the integration of care over the 2014/2015 timeframe on pertinent measures for the adult SMI population.. The rates for RBHA beneficiaries with an SMI will be compared to historical rates (i.e., pre-demonstration renewal) and tested to determine if the observed changes are statistically significant.

PQC

The PQC waiver demonstration impacts all new AHCCCS beneficiaries, excluding pregnant woman, women who are 60 days or less postpartum, and infants and children under 19 years of age. Therefore, the excluded populations may serve as a comparison group. To account for differences between the two groups, propensity score matching, or weighting will be used to identify beneficiaries who share similar characteristics to those in the intervention (i.e., new members subject to the waiver requirements). Since age can impact many of the outcomes studied, one important consideration is adequately controlling for the impact of age on the outcomes. This will isolate the effect of the demonstration on outcomes, rather than contaminate that effect with the impact of age on the outcome. This is discussed in sections below.

A second potential comparison group can be used comprising current beneficiaries who were not impacted by the PQC waiver because they enrolled prior to the waiver implementation. The independent evaluator will determine which comparison group is best suited for the evaluation or if both can be used.

TI

The demonstration measures the improvement of health on beneficiaries who are assigned to primary care practitioner (PCP) or behavioral health care providers participating in the TI program. Thus, beneficiaries who receive care from PCPs or behavioral health care providers not participating in the program may serve as the comparison group. To account for differences between the two groups, propensity score matching or weighting,

[3-1] "Supportive Service Expansion for Individuals with Serious Mental Illness: A Case Study of Mercy Maricopa Integrated Care," NORC, August 18, 2017; Bachrach. D., Boozang, P. M., Davis, H. E., "How Arizona Medicaid Accelerated the Integration of Physical and Behavioral Health Services," Issue Brief: *The Commonwealth Fund*, May 2017. Available at: https://www.commonwealthfund.org/publications/issue-briefs/2017/may/how-arizona-medicaid-accelerated-integration-physical-and. Accessed on Jun 19, 2020; "Independent Evaluation of Arizona's Medicaid Integration Efforts," Mercer, November 27, 2018. Available at: https://www.azahcccs.gov/shared/Downloads/News/CRS_SMI_IndependentEvaluationReport_11_27_18.pdf. Accessed on: Jun 19, 2020.

will be used to identify beneficiaries who share similar characteristics to those in the intervention (i.e., children and adults with behavioral health needs and beneficiaries who are transitioning from the criminal justice system).

Evaluation Design Summary

A DiD study design may be used to evaluate measures in which (1) a valid comparison group and baseline data are available, or (2) comparable national or regional benchmarks are available both before and after implementation. DiD compares the changes in outcomes for the intervention group against the changes in the outcomes for the comparison group. Assuming that the trends in outcomes between the two groups would be the same in absence of the intervention, the changes in outcomes for the comparison group would serve as the expected change in outcomes for the intervention group, thereby providing an estimated counterfactual.

There are two general limitations to the planned DiD approach:

1. Medicaid member composition as represented in the national or regional benchmarks may differ from the target population (e.g., ACC, CMDP, or ALTCS populations).
2. Measurement time periods between national or regional benchmarks and rate calculation may not align. Specifically, benchmarks are calculated on a calendar year basis, while the demonstration approval period aligns with the federal fiscal year. To mitigate this limitation, the independent evaluator can align measurement periods for specific measures as necessary.

Where a comparison group is not available, multiple data points in the baseline may be used to support an interrupted time series (ITS) design. Program specific considerations are described below.

ACC

For the evaluation of ACC, the comparison group will be Medicaid beneficiaries nationally or regionally and incorporated into a DiD approach.

If comparable national or regional benchmarks are not available and the measure relies on state administrative claims data that have monthly or quarterly measurements taken both prior to and after implementation across multiple years, then an ITS methodology may be utilized. This can serve to build pre- and post-implementation trends, which can evaluate the impact that the ACC had on health outcomes, assuming enough measurements can be taken both prior to and after the implementation of the ACC.

If there are insufficient data points before and after implementation of ACC to support an ITS, then causal inferences cannot be drawn. For these measures, the independent evaluator will compare rates calculated before and after the implementation of the ACC to assess changes in a pre-test/post-test analysis. To the extent multiple data points are available prior to the implementation of ACC and measure specifications are comparable across years, trends can be estimated by which to compare post-implementation rates outside the framework of a formal interrupted time series analysis. In short, the independent evaluator can use historical Arizona rate calculations for the Acute Care population and/or benchmarks to triangulate an estimate of the impact of the ACC on outcomes.

ALTCS

The evaluation of the ALTCS program will consist of two components: the demonstration renewal period and the integration of behavioral health care. The evaluation of the demonstration renewal period prior to care integration will rely on comparisons to historical AHCCCS rates and national or regional benchmarks. With the presence of a

pre-implementation period, the integration of care evaluation may utilize either a DiD approach or a pre-test/post-test design, depending on the availability of a viable comparison group for the specific measure.

CMDP

The evaluation of the pre-integration renewal period will rely on aggregate measures for a similar population from other states if available or on pre-test/post-testing if such data is unavailable. With the presence of multiple data points in the pre-implementation period, the integration of care evaluation may utilize either a DiD approach or an ITS design, depending on the availability of a viable comparison group.

For the evaluation of CMDP, the comparison group will be children in the custody of DCS nationally or Medicaid children nationally. Where possible, the independent evaluator will seek aggregate rates calculated for a population of foster children served by Medicaid services in another state. To obtain data for a comparison group in this way will require the independent evaluator to obtain a DUA with comparison state Medicaid authority.

RBHA

A robust approach to evaluating the integration of care is the inclusion and identification of an in-state comparison group. Although the target population of the RBHA evaluation are adults with an SMI as defined by A.R.S. §36-550, there could be a subset of AHCCCS beneficiaries who have not gone through the formal SMI determination process yet exhibit similar characteristics. Propensity scores can be used to identify beneficiaries similar to the target population who are not enrolled in a RBHA as an adult SMI beneficiary. The independent evaluator will assess the comparability of a potential comparison group following best practices in the literature prior to proceeding with statistical testing.[3-2] If a suitable in-state comparison group can be found, then a robust difference-in-differences design can be employed to conduct statistical testing. Given the selection and SMI determination process for RBHA coverage, we do not anticipate finding a comparable group similar to the RBHA SMI population.[3-3] If no suitable in-state comparison group is found, then the independent evaluator will leverage multiple data points before and after integration to construct an interrupted time series analysis.

PQC

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

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

[3-2] See, e.g., Guo, S., and Fraser, M.W., (2010) *Propensity Score Analysis: Statistical Methods and Applications*, SAGE Publications, Inc., Thousand Oaks, CA; or Austin, P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/.

[3-3] Due to the subjective and qualitative nature of the clinical determination of an SMI, there is no uniform screening tool that could be used to identify a hypothetical comparison group through a regression discontinuity approach.

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

Outcomes that rely on state administrative data pertaining to enrollment by eligibility category and rates of enrollment can have intra-year (e.g., monthly) measurements taken both prior to and after implementation. This can serve to build pre- and post-implementation trends that can be evaluated via an interrupted time series analysis and through a pre-test/post-test analysis. These analyses will not utilize a comparison group because no comparable populations exist within Arizona that would not be impacted by the elimination of PQC. Additionally, a descriptive analysis of these measures will be included in the rapid-cycle reporting for the State's implementation of the waiver.

Due to the implementation of multiple waivers that will be evaluated, the independent evaluator will leverage the staggered implementation of each waiver along with variations among intervention and comparison groups to identify waiver-specific impacts. This will be accomplished through varying the timing of survey collections as well as judicious employment of statistical controls identifying individual participation in each waiver.

TI

DiD may be used for all outcomes that rely on administrative data when a valid comparison group can be utilized. However, in situations where a valid comparison group is not available and the outcome relies on state administrative claims data that can have intra-year (e.g., monthly) measurements taken both prior to and after implementation, then an ITS methodology can be utilized. This can serve to build pre- and post-implementation trends, which can evaluate the impact that the TI demonstration had on health outcomes. This is assuming that enough measurements can be taken both prior to and after the implementation of the TI program. This analysis would serve as valuable rapid-cycle reporting for the State's implementation of the demonstration.

For measures in which a survey is utilized and a valid comparison group exists, a chi-square test can be used to compare results of the survey between the intervention group and the comparison group. A chi-square test is a test statistic that determines if there is a relationship between a categorical outcome for two groups.

Due to the implementation of multiple program that will be evaluated, the independent evaluator will leverage the staggered implementation of each program along with variations among intervention and comparison groups to identify program-specific impacts. This will be accomplished through varying the timing of survey collections as well as judicious employment of statistical controls identifying individual participation in each program.

Intervention and Comparison Populations

ACC

Intervention Population

The intervention group will consist of AHCCCS beneficiaries previously covered by "Acute Care" plans who, as of October 1, 2018, transitioned into ACC plans. Specifically, AHCCCS beneficiaries meeting the following criteria are affected:

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

Results for each of these populations will be presented separately; however, it is anticipated that the number of beneficiaries with an SMI who opt out of a RBHA and transfer to an ACC is too small to support meaningful analysis. Therefore, ACC results will be stratified by adults and children for measures where supported by the data (i.e., sufficiently covers both adults and children).

Comparison Populations

In-State Comparison Groups

AHCCCS does not maintain or have access to an all-payer claims database from which to pull commercial insurance claims and enrollment information to identify low income commercial insurance enrollees who may be similar to AHCCCS beneficiaries. Additionally, as mentioned above, the intervention group covers virtually all non-SMI, non-disabled, and non-foster care children, limiting the viability of an in-state comparison group.

Aggregate Data

The evaluation design will rely on national benchmarks based on aggregate data to represent a comparison group. Regional benchmarks will be used when available, since they would provide a more accurate comparison to the population specific to Arizona. The independent evaluator will utilize the most granular data available, such as at the health plan level. The level of granularity will determine the extent to which statistical testing can be performed.

ALTCS

Intervention Population

As described in the Background section, the intervention group will consist of individuals who:

- Are EPD
- With DD

To qualify for EPD, individuals must be 65 or older and/or medically require long-term care services. Long-term care service needs are determined by a pre-admission screening (PAS).[3-4]

A DD qualifying diagnosis is a cognitive disability, cerebral palsy, epilepsy, or autism. Since children often do not have a specific diagnosis, individuals six and under must either have one of the four previously mentioned diagnoses, be determined to be at risk for one of the four diagnoses, or demonstrate a delay that may lead to one of the four diagnoses. Similar to EPD eligibility, beneficiaries with DD must pass the PAS and require institutional level of care.[3-5]

Comparison Populations

In-State Comparison Groups

AHCCCS does not maintain or have access to an all-payer claims database from which to pull commercial insurance claims and enrollment information to identify low income commercial insurance enrollees who may be similar to AHCCCS beneficiaries. Additionally, as mentioned above and in the Background section, the intervention group covers virtually all people with physical and developmental disabilities, eliminating the use of an in-state comparison group.

Out-of-State Comparison Groups

Aggregate Data

An out-of-state comparison group could also be obtained by using aggregate rates calculated for a population of beneficiaries who are EDP or with DD served by Medicaid services in another state. Ideally, the state chosen to serve as the comparison group would not have physical and behavioral health care services integrated throughout the period of the demonstration. It may be challenging to identify and confirm states that will not make such an integration prior to the end of the AHCCCS ALTCS evaluation period. As an alternative, however, a state that has already integrated physical and behavioral health care prior to the ALTCS baseline for integration could also serve as a viable comparison group. In effect, the evaluation would compare the performance of ALTCS after integration to a group already receiving integrated care and who, all else equal, should not exhibit any significant changes. To obtain data for a comparison group in this way will require the independent evaluator to obtain a Data Use Agreement (DUA) with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS ALTCS model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in populations for ALTCS and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their foster care population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the population of beneficiaries who are EPD or with DD when using aggregate rates.

[3-4] Medical Assistance Eligibility Policy Manual. https://www.azahcccs.gov/Resources/guidesmanualspolicies/eligibilitypolicy/eligibilitypolicymanual/Policy/Chapter_500_Non-Financial_Conditions_of_Eligibility/MA0509.htm. Accessed on Oct 16, 2019.

[3-5] DDD Eligibility. https://des.az.gov/sites/default/files/10_DDD_Eligibility.pdf. Accessed on Oct 16, 2019.

Identifying Comparison States

For measures in which individual level data are not available, the selection of states used for an out-of-state comparison group will be based on similarity to Arizona in terms of overall demographics and Medicaid programs and policies. In addition to sharing demographic factors and similar Medicaid policies, comparison state(s) should not have a major change in Medicaid policies during either the baseline or evaluation period. Selection of states will be conducted on a measure-by-measure basis depending on the available data and state willingness to share data. The independent evaluator will assess the feasibility of utilizing out-of-state comparison groups based on the criteria for identifying comparison states, such as comparability of population demographics and similarity of Medicaid policies and regulations, as well as data availability. The evaluation reports will include a discussion detailing the results of any analysis, and rationale for why an out-of-state comparison group was or was not pursued.

CMDP

Intervention Population

As described in the Background section, the intervention group will consist of children in the custody of DCS. More specifically, children in:

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

CMDP provides health care to eligible beneficiaries from birth to 18 years of age, and up to age 21 in rare instances when the beneficiary is not Medicaid eligible.

Comparison Populations

In-State Comparison Groups

AHCCCS does not maintain or have access to an all-payer claims database from which to pull commercial insurance claims and enrollment information to identify low income commercial insurance enrollees who may be similar to AHCCCS beneficiaries. Additionally, as mentioned above, the intervention group covers all children in the state of Arizona in the custody of DCS and in out-of-home care. As such, the CMDP beneficiaries represent a qualitatively unique population with health care needs that often exceed other children, and no comparable group of individuals within the state for whom CMDP was not already providing physical health care coverage and where the integration of physical and behavioral health care will not occur. For these reasons, no viable in-state comparison group exists for this evaluation.

Out-of-State Comparison Groups

Aggregate Data

An out-of-state comparison group could be obtained by using aggregate rates calculated for a population of foster children served by Medicaid services in another state. Ideally, the state chosen to serve as the comparison group

would not have physical and behavioral health care services integrated throughout the period of the demonstration. It may be challenging to identify and confirm states that will not make such an integration prior to the end of the AHCCCS CMDP evaluation period. As an alternative, however, a state that has already integrated physical and behavioral health care prior to the CMDP baseline for integration could also serve as a viable comparison group. In effect, the evaluation would compare the performance of CMDP after integration to a group already receiving integrated care and who, all else equal, should not exhibit any significant changes. To obtain data for a comparison group in this way will require the independent evaluator to obtain a DUA with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS CMDP model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in populations for CMDP and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their foster care population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the CMDP population when using aggregate rates.

RBHA

Intervention Population

The intervention group will consist of beneficiaries 18 years of age or older and designated with an SMI, as defined as a substantial disorder of emotional processes, thought, cognition or memory that require supporting treatment or long-term support services to remain in the community.[3-6]

Comparison Populations

In-State Comparison Groups

AHCCCS does not maintain or have access to an all-payer claims database from which to pull commercial insurance claims and enrollment information to identify low income commercial insurance enrollees who may be similar to AHCCCS beneficiaries with an SMI. Additionally, as mentioned above and in the Background section, the intervention group consists of all Medicaid beneficiaries with an SMI, effectively eliminating the use of other Medicaid beneficiaries as an in-state comparison group. With these limitations, an in-state comparison group is unlikely to be feasible.

Out-of-State Comparison Groups

Aggregate Data

An out-of-state comparison group could be obtained by using aggregate rates calculated for a population with an SMI served by Medicaid services in another state. Ideally, the state chosen to serve as the comparison group would not have physical and behavioral health care services integrated throughout the period of the demonstration. It may be challenging to identify and confirm states that will not make such an integration prior to the end of the AHCCCS RHBA evaluation period. As an alternative, however, a state that has already integrated

[3-6] Arizona Revised Statute § 36-550 and 36-501, https://www.azleg.gov/ars/36/00550.htm; https://www.azleg.gov/ars/36/00501.htm.

physical and behavioral health care prior to the RBHA baseline for integration could also serve as a viable comparison group. In effect, the evaluation would compare the performance of RBHA after integration to a group already receiving integrated care and who, all else equal, should not exhibit any significant changes. To obtain data for a comparison group in this way will require the independent evaluator to obtain a Data Use Agreement (DUA) with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS RHBA model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in populations for RHBAs and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their population designated with an SMI, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the RBHA population when using aggregate rates.

Identifying Comparison States

The selection of states used for an out-of-state comparison group will be based on similarity to Arizona in terms of overall demographics and Medicaid programs and policies. In addition to sharing demographic factors and similar Medicaid policies, comparison state(s) should not have a major change in Medicaid policies during either the baseline or evaluation period. Selection of states will be conducted on a measure-by-measure basis depending on the available data.

As result of the unavailability of reliable national data with the necessary level of detail and covered periods of time, the independent evaluator will not be able to use a comparison group from one of these sources for the evaluation. The independent evaluator will assess the feasibility of utilizing out-of-state comparison groups based on the criteria for identifying comparison states, such as comparability of population demographics and similarity of Medicaid policies and regulations, as well as data availability. The evaluation reports will include a discussion detailing the results of any analysis, and rationale for why an out-of-state comparison group was or was not pursued.

PQC

Intervention Population

The intervention group will consist of all eligible members who apply for coverage after implementation, expected to be July 1, 2019, excluding pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age. Comparison Populations

Comparison Populations

Out-of-State Comparison Groups

Aggregate Data

An out-of-state comparison group for survey responses could also be obtained by using aggregate rates calculated for a population of beneficiaries age 19 and older, women who are not pregnant, and women who are not less than 60 days postpartum, who are served by Medicaid services in another state. Aggregate rates based on enrollment data could also be used to calculate measures evaluating enrollment activities. The state chosen to serve as the

comparison group would not have implemented a demonstration that limits retroactive eligibility or implement other demonstrations during the time period of the demonstration. To obtain data for a comparison group in this way will require the independent evaluator to obtain a DUA with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in the intervention population and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their Medicaid population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the AHCCCS intervention population when using aggregate rates. However, the independent evaluator will work with other states to obtain aggregate data for the most appropriate comparison population possible for each measure for which aggregate data will be used.

Identifying Comparison States

The selection of states used in an out-of-state comparison group will be based on similarity to Arizona in terms of overall demographics and Medicaid programs and policies. Potential comparison states would also not have implemented a retroactive eligibility waiver during the baseline or evaluation periods. There are several key limiting factors in identifying and using data on specific states. In addition to sharing demographic factors and similar Medicaid policies, comparison state(s) should not have a major change in Medicaid policies during either the baseline or evaluation period. Selection of states will be conducted on a case-by-case basis depending on the available data and state willingness to share data.

The independent evaluator will assess the feasibility of utilizing out-of-state comparison groups based on the criteria for identifying comparison states, such as comparability of population demographics and similarity of Medicaid policies and regulations, as well as data availability. The evaluation reports will include a discussion detailing the results of any analysis, and rationale for why an out-of-state comparison group was or was not pursued.

TI

Intervention Population

Although the TI demonstration's ultimate goal is to improve health outcomes of select beneficiaries, the participating providers are also measured on their level of integration. The evaluation design has measures targeted towards both populations: the providers and the beneficiaries.

Identification of Participating Providers

A state-provided list of providers and hospitals who successfully applied to the TI program will be utilized to identify participating providers. This list will be provided at least annually. To address potential bias that may arise from provider attrition, participating providers will be split into two groups upon analysis. Providers who participated in TI throughout the duration will be identified and separated from providers who did not participate throughout the duration. This will allow for the independent evaluator to identify and estimate any self-selection bias as a result of provider attrition.

Identification of Participating Beneficiaries

The intervention group will consist of beneficiaries assigned to or attributed to participating providers who are:

- Adults with behavioral health needs;
- Children with behavioral health needs, including children with or at risk for Autism Spectrum Disorder (ASD), and children engaged in the child welfare system; or
- Individuals transitioning from incarceration who are AHCCCS-eligible.

The independent evaluator will continue collaboration with AHCCCS to refine the identification of TI beneficiaries for purposes of evaluating the program. AHCCCS contracted with Arizona State University Center for Health Information and Research (ASU CHiR) to calculate performance measures used for provider incentive payments. Beneficiaries for ASU CHiR's analysis will be attributed to providers through a stepwise process that combines attribution algorithms with plan assignment lists. Beneficiaries are attributed to TI participating practitioners through the following process, where attribution is made by the first criterion met:

1. Physical examination or assessment by one of the eligible PCP specialties and PCP assigned via enrollment.[3-7]
2. Most recent physical examination or assessment by any physician with one of the eligible PCP specialties. Non-physician specialties do not qualify.
3. Ambulatory or nursing facility visit or professional supervision service by one of the eligible PCP specialties and PCP assigned via enrollment.
4. Largest number of any combination of the following by one of the eligible PCP specialties
    a. Ambulatory visits, nursing facility visits, professional supervision services. The most recent visit breaks any ties.
5. Prenatal, postpartum, or antepartum visit, or routine obstetrical care services performed by one of the eligible PCP specialties and PCP assigned via enrollment.
6. Largest number of prenatal, postpartum, or antepartum visits, or routine obstetrical care services by one of the eligible PCP specialties. The most recent visit breaks any ties.
7. PCP assigned via enrollment. The PCP can be any specialty

The lookback period for member attribution is the twelve months prior to each evaluation year.

While this methodology is suitable for calculating provider-level rates for purposes of determining incentive payments, it is not feasible to use for this evaluation, in part due to the reliance on plan assignment files, which do not exist for the proposed baseline period. As a result, logic from the above methodology will be extended to accurately and appropriately identify beneficiaries impacted by the TI program without reliance on the plan assignment files. Provider attribution could be accomplished by identifying members with multiple visits to a TI participating provider (both PCPs and BH providers) in the year prior to each measurement year and taking the most recent visit in case of a tie.

Comparison Populations

For measures at the provider level (e.g., the percentage of providers who routinely receive Admission-Discharge-Transfer [ADT] alerts), the comparison group will be non-TI participating providers.

[3-7] Eligible PCP specialties defined as provider types 08, 19, and 31 with one of the following specialty codes: 055, 060, 050, 150.

For all other measures, the comparison group will include beneficiaries who are attributed to non-TI participating providers, and have never been assigned, attributed to, nor received any health care services from a TI participating provider. The attribution methodology for the comparison group will follow the steps described above to identify the intervention group. Statistical methods will be used to identify and select members of the comparison group who have similar characteristics to the intervention group, including comparable levels of access to care as the intervention group.

Excluding beneficiaries who have received any care from TI participating providers should minimize any crossover effects from beneficiaries who have not been assigned to a TI participating provider receiving TI-influenced care from a TI participating provider. However, once program participation data are available, the independent evaluator will determine the feasibility and appropriateness of this comparison group criteria and may revise it to accommodate details of program implementation and the idiosyncrasies of the available data, while ensuring a scientific and rigorous evaluation.

Identification of Similar Beneficiaries

Propensity score matching will be used to identify a subset of the eligible comparison group that is most similar to the intervention population based on observable characteristics, including demographic factors and health conditions prior to implementation of the demonstration.[3-8] Propensity score matching has been used extensively to match individuals from an eligible comparison group to individuals in the intervention group.[3-9] However, there are several risks to the use of propensity scores and subsequent matching on the propensity score (Table 3-2).

Table 3-2: Propensity Score Risks

Risk	Description
Insufficient coverage	Not enough individuals in the eligible comparison group similar enough to intervention population for 1:1 matching
Unbalanced groups	Observable characteristics of the intervention and comparison groups after matching are not balanced

When confronted with insufficient coverage, the independent evaluator should first explore alternative specifications in either the propensity score model and/or the matching algorithm before moving to alternative approaches. For example, instead of a typical 1:1 greedy matching algorithm, the independent evaluator could explore matching with replacement or optimal matching algorithms.[3-10] If alternative matching algorithms do not yield a matched comparison group with sufficient coverage and balance, then propensity score weighting can be explored as the next step. Propensity score weighting utilizes the full eligible comparison group and assigns a higher statistical weight to beneficiaries who are predicted to be part of the intervention but were not. A risk of this methodology is that the analysis may be dominated by a handful of beneficiaries with extremely high weights.

[3-8] See, e.g., Selecting the Best Comparison Group and Evaluation Design: A Guidance Document for State Section 1115 Demonstration Evaluations" for a detailed discussion of appropriate evaluation designs based on comparison group strategies (https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/comparison-grp-evaldsgn.pdf).

[3-9] Guo, S., and Fraser, M.W., (2010) *Propensity Score Analysis: Statistical Methods and Applications*, SAGE Publications, Inc., Thousand Oaks, CA; or Austin, P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/.

[3-10] See, e.g., Austin P. C. (2014). A comparison of 12 algorithms for matching on the propensity score. *Statistics in medicine*, 33(6), 1057–1069. doi:10.1002/sim.6004; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4285163/.

Balance between the matched comparison and intervention groups will be assessed using a three-pronged approach to evaluate the similarity between the intervention group and comparison groups across observable characteristics, or covariates. Table 3-3 summarizes each of the three prongs.

Table 3-3: Assessment Approaches

Assessment Approach	Advantage	Cautionary Note
Covariate-level statistical testing	Provides quantitative evidence, or lack thereof, of significant differences between matched groups	Susceptible to false positives for large sample sizes and false negatives for small sample sizes
Standardized differences	Does not rely on sample size	No universal threshold to indicate balance or unbalance
Omnibus test	Provides a single quantitative assessment of balance across all covariates as a whole	Susceptible to false positives for large sample sizes and false negatives for small sample sizes

Each of these approaches ultimately assesses the similarity of the *mean* of the distribution for each covariate. Additional metrics pertaining to the distribution should also be considered as part of the balance assessment, such as reporting the standard deviations.[3-11]

These categories represent a starting place for building the comparison group and may not reflect the final selection identified by the independent evaluator.

Similarities in observable characteristics between the intervention population and those meeting exemptions will be assessed and if systematic differences are found, propensity score matching, or weighting will be used to normalize the comparison group to match the intervention group.

National Survey Data

The independent evaluator will consider utilizing an out-of-state comparison group if data are available and complete enough to support rigorous statistical testing of outcomes. One possible data source for beneficiary-level data is through national surveys, such as the Behavioral Risk Factors Surveillance System (BRFSS), the National Health Interview Survey (NHIS), Medical Expenditure Panel Survey (MEPS), National Survey on Drug Use and Health (NSDUH) or National Core Indicators (NCI) survey, and data collection efforts like the HHS Administration for Children and Families Adoption and Foster Care Analysis and Reporting System (AFCARS) and the National Survey of Children's Health (NSCH). The ACC, PQC, and RBHA evaluations will utilize the BRFSS, NHIS and MEPS datasets, ALTCS will utilize the NCI survey, and the CMDP evaluation will utilize AFCARs and NSCH. Details on each of these national surveys are described under each specific program.

When considering such data sources, there are several pieces that need to align in order to leverage the data source in the evaluation. First, ideally beneficiary-level data should be available, which will allow for identification of additional key features to control for in statistical testing. Second, the data source must include a method to identify Medicaid beneficiaries. Third, the data source must include state indicators to separate Medicaid beneficiaries in Arizona from other states. Fourth, the data source should include a method to identify specific subpopulations of interest, specifically Medicaid expansion beneficiaries. Fifth, the data source must contain

[3-11] Austin P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/.

relevant outcomes to measure that are pertinent to the waiver evaluation. Finally, the timing of survey administration and lag time in data availability should be taken into consideration as it relates to the implementation of each program specifically and the demonstration renewal period.

Another potential source for beneficiary-level data, is the Transformed Medicaid Statistical Information System (T-MSIS) maintained and collected by the Centers for Medicare & Medicaid Services (CMS). The evaluation of ACC, ALTCS, CMDP, PQC, and RBHAs will utilize the T-MSIS data. It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support individual-level matching to beneficiaries of each program. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group. If these data become available in time for the summative evaluation report, the independent evaluator will examine the completeness and viability of using these data in the analyses. With robust beneficiary-level data covering the baseline period and multiple years during the demonstration period (if not the entire demonstration period), then more robust methods can be employed to estimate the effect of the demonstration on outcomes. Measures that utilize administrative claims/encounter data or enrollment and eligibility data may use methods such as propensity score matching or reweighting to construct a valid out-of-state comparison group.

When these pieces are aligned and the data source appears viable, there are several additional limitations that confront usage of these data—some that may be anticipated while others may be uncovered upon closer inspection of the data. A discussion of the limitations of these data sets specific to each program can be found below.

ACC

Many national surveys such as NHIS or MEPS are designed to be nationally representative, but once limited to the Medicaid population in certain states, this sample may not be representative of each state's Medicaid population. Similarly, sample sizes and response frequencies may be too small to provide a sufficiently powered statistical analysis once the subpopulations are identified. The NHIS indicates that pooling multiple years together may yield sufficient statistical power; however, given the multitude of programs and demonstration components implemented before and during the current demonstration renewal period, a redesign of the NHIS, and the time-limited nature of the summative evaluation report, the aggregation of survey results across time may not provide unbiased results indicative of the causal impact of the ACC on outcomes with sufficient statistical power.

An alternative use of national survey data, which can in part address the possibility of inadequate or unrepresentative sample for AHCCCS beneficiaries, is to leverage the survey questions for use in surveys conducted as part of the waiver evaluation and compare these responses to beneficiaries in other states. One limitation to this approach is that the survey instruments would not be the same, which could introduce bias in the responses. This is especially pertinent when the mode of fielding the survey is different. For example, the NHIS survey is conducted face-to-face while Consumer Assessment of Healthcare Providers and Systems (CAHPS®) surveys (which could be modified to include additional questions) are typically administered through a combination of telephone and mail and have lower response rates than face-to-face surveys.[3-12] Another limitation to this approach is because the survey was not fielded at baseline, only a single, post-implementation data point would be included in the summative evaluation, which would not provide causal inferences.

[3-12] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality.

For the ACC evaluation, such national survey data sources do not appear to be viable or cost-effective if in-person data collection is required. The NHIS and MEPS data sources do not include state identifiers in their public use files, the sample sizes are likely too small to provide reliable single-state estimates without aggregating across multiple years, and they are administered in-person, which would add significant costs to the evaluation and departs from the typical CAHPS survey administration method. Similarly, while BRFSS contains a state indicator, the Medicaid coverage indicator is part of an optional module collected by only six states in 2017 and 11 states in 2016, and Arizona is not included in either year. Additionally, this survey is only administered via telephone, which departs from the collection methods of the standard CAHPS survey. The primary benefit of leveraging such data sources, therefore, is to use beneficiary-level responses as a comparison group for several measures. Because national benchmarks for CAHPS surveys can be used as a comparison group for the ACC population, this advantage is lessened. One exception to this is Measure 4-1, percentage of beneficiaries who reported a high rating of overall health, which may utilize data from BRFSS to create an out-of-state comparison group among beneficiaries in states that include a Medicaid indicator. A comparison of possible data sources, their requirements, limitations, and anticipated utility is described in Appendix E.

ALTCS

Because of the specific nature of the ALTCS population, none of the standard nationally representative datasets, used to measure national trends in physical and behavioral health, such as the BRFSS, the NHIS, or MEPS, would identify a comparison group similar the ALTCS population. A comparison of possible data sources, their requirements, limitations, and anticipated utility is described in Appendix E. However, the NCI survey captures a range of data for Medicaid beneficiaries with DD. The survey has been issued annually since 1997, and this year 39 states are expected to participate.[3-13] Results from other states with similar Medicaid eligibility criteria along with national aggregated results can be used as a comparison group for beneficiaries with a developmental disability.

CMDP

The AFCARS data contain information on the demographics of children in adoption and foster care systems, and the timing of entry to and exit from the system. The data do not, however, contain information on the health care services received or outcomes experienced by children within the foster care system. Therefore, while the AFCARS data captures data from the correct population and at the desired scale, the breadth of data is insufficient for the purpose of this evaluation. The NSCH is sponsored by the Health Resources and Services Administration, Maternal and Child Health Bureau and is designed to produce national and state-level estimates of the health and emotional well-being of all children. While the survey design allows for the identification of adults in the survey who self-report being a foster parent, the proportion of respondents self-reporting as a foster parent is approximately 0.3 percent. In 2017, the NSCH sampled 3,664 households in Arizona, completing 1,204 screening surveys with basic demographic information, and limited questions regarding current healthcare needs of children (e.g., limitations in abilities; special therapy needs; emotional, developmental, or behavioral problems). For the detailed topical survey components that include questions about experiences with providers and access to care, there were 434 surveys completed. Based on the estimated number of foster parent surveys completed, the NSCH foster child sample for Arizona would be fewer than 10 respondents with sufficiently detailed information for inclusion in the current evaluation. The NSCH, therefore, captures data at the national and state level and contains detailed questions that could be of use to the CMDP evaluation, but is not sufficiently powered in sample size to adequately capture a representative sample of the population receiving care through CMDP at the state level. For

[3-13] National Core Indicators. https://www.nationalcoreindicators.org/. Accessed on Oct 15, 2019.

these reasons, no known national survey data source or data collection efforts for this population can produce a viable estimate of a treatment and comparison group. A comparison of possible data sources, their requirements, and anticipated utility is described in Appendix E.

RBHA

The BRFSS and NHIS surveys do not contain indicators that could identify the adult with an SMI enrolled in Medicaid with an acceptable degree of reliability and accuracy. The NSDUH contains an indicator for beneficiaries with an SMI. The NSDUH is an annual survey directed by the Substance Abuse and Mental Health Services Administration (SAMHSA) and conducted by RTI International. This survey provides information on tobacco, alcohol, drug use, mental health, and other health-related issues.[3-14]

While the NSDUH allows for the identification of Medicaid beneficiaries with an SMI, there are several critical limitations to using this dataset for the purposes of evaluating program or waiver performance. First, there is an unknown degree of bias between definitions of SMI for RBHA eligibility and the SMI indicator in the NSDUH.[3-15] Lastly, because only a single round of surveys will be administered during the current demonstration renewal period, the evaluation would be limited to comparisons to the control population at only a single point in time. Such single-point-in-time-comparisons are of limited utility and provide no useful data to evaluate the performance of the waiver program. Comparisons to control groups or national averages would only be useful for waiver program performance evaluation when compared over multiple years. As a result, the NSDUH data cannot be used for the evaluation for the waiver during the current renewal/evaluation period. However, questions similar to those in NSDUH that are identified as appropriate given the limitations described above will be included in the CAHPS administered to the waiver population to generate baseline data for future evaluations and build a sound foundation for rigorous program evaluations in future years, within the limitations above.

PQC

The BRFSS, NHIS, and MEPS datasets provide beneficiary-level data and state indicators; however, BRFSS does not contain a Medicaid indicator for all states. The Medicaid indicator in BRFSS is part of an optional module collected by only six states in 2017 and 11 states in 2016, and Arizona is not included in either year. It is possible for future analyses to consider this data source if Arizona participates in the optional module to identify Medicaid beneficiaries. Responses from Medicaid beneficiaries in other states may be used as an out of state comparison group for measures from state beneficiary surveys asking the same questions; specifically, data for AHCCCS beneficiaries for Measure 3-1 (Beneficiary reported rating of overall health for all beneficiaries) and Measure 4-1 (Percentage of beneficiaries who reported medical debt).

Out-of-state members may also come from state eligibility and enrollment data, such as Integrated Public Use Microdata Series (IPUMS) American Community Surveys (ACS).

There are two approaches that may be taken to identify a valid comparison using national datasets, such as IPUMS. They could be used either independently or together, and through the course of conducting analysis, the independent evaluator will determine the best approach. The first approach would be to identify a state with similar Medicaid beneficiaries and eligibility criteria as the intervention state (i.e., Arizona). This could be accomplished through a variety of methods, including background qualitative research in addition to quantitative

[3-14] What is NSDUH? https://nsduhweb.rti.org/respweb/homepage.cfm; Accessed Oct 12, 2019

[3-15] The SMI indicator in NSDUH is derived from a predictive model using survey responses as predictors. Therefore, the selection of pertinent measures is limited due to many measures exhibiting endogeneity with the SMI indicator.

assessments. Once a similar state or states are identified, national data from that state would be used. Identifying Medicaid beneficiaries during the time period of interest would depend on the data source. Some data sources, including IPUMS ACS, currently provide a field on previous year Medicaid coverage. Alternatively, individuals likely eligible for Medicaid could be identified using additional data fields indicating household/family income, number of dependents, and/or disability status.

The second approach would involve identifying a state with roughly similar Medicaid beneficiaries and coverages, but utilizing propensity score matching to identify a subset of the eligible comparison group that is most similar to the intervention population based on observable characteristics, including demographic factors and health conditions prior to implementation of the waiver.[3-16] The richness of data on observable characteristics will depend on the data source. Some national data sets may only contain broad information that could be used to balance populations based on general demographic and basic health/disability status, rather than detailed indicators of specific chronic physical and/or mental health conditions. A comparison of possible data sources, their requirements, and anticipated utility is described in Appendix E.

Evaluation Periods

ACC

The current demonstration period was approved from October 1, 2016, through September 30, 2021. AHCCCS Complete Care plans were effective as of October 1, 2018. The baseline period will span three years prior to the effective date of the ACC plans, with the interim evaluation report covering the first year of ACC, and the summative report covering the remaining years. Table 3-4 presents time frames for each of the evaluation periods.

Table 3-4: ACC Evaluation Periods

Evaluation Periods	Time Frame
Baseline	October 1, 2015 – September 30, 2018
Evaluation*	October 1, 2018 – September 30, 2021

*Approval for the waiver ends September 30, 2021.

ALTCS

The ALTCS program has been in effect since 1989, providing health care services to beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD, with the most current demonstration waiver coming into effect beginning October 2016 and approved through September 2021. The baseline period will be October 1, 2014 through September 30, 2016. Table 3-5 presents time frames for each of the evaluation periods.

Table 3-5: ALTCS Evaluation Periods

Evaluation Periods	Time Frame
Pre-Renewal Baseline	October 1, 2014 – September 30, 2016
Waiver Renewal	October 1, 2016 – September 30, 2021

[3-16] See, e.g., Selecting the Best Comparison Group and Evaluation Design: A Guidance Document for State Section 1115 Demonstration Evaluations" for a detailed discussion of appropriate evaluation designs based on comparison group strategies (https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/comparison-grp-evaldsgn.pdf).

Evaluation Periods	Time Frame
Pre-Integration Baseline	October 1, 2014 – September 30, 2019
Integration Evaluation*	October 1, 2019 – September 30, 2021

*Approval for the waiver ends September 30, 2021.

CMDP

The CMDP program has been in effect for many decades now, providing health care services to children in custody of DCS with the most current demonstration waiver coming into effect beginning October 2016 and approved through September 2021. Table 3-6 presents time frames for each of the evaluation periods.

Table 3-6: CMDP Evaluation Periods

Evaluation Periods	Time Frame
Pre-renewal baseline	October 1, 2014 – September 30, 2016
Waiver renewal period	October 1, 2016 – September 30, 2021
Integration Evaluation Baseline[1]	October 1, 2014 – September 30, 2020
Integration Evaluation[1,2]	April 1, 2021 – March 31, 2022

[1]Subject to revision pending final implementation date.
[2]Approval for the waiver ends September 30, 2021.

RBHA

The RBHAs have been providing integrated behavioral and physical care for beneficiaries with an SMI in greater Arizona since 2015 and in Maricopa county since 2014, prior to the current demonstration renewal period. Because evaluation of the integration is a focus of CMS and AHCCCS, the evaluation period will extend prior to the demonstration renewal period, beginning on October 1, 2015, with the expansion of integrated RBHA services statewide. Table 3-7 below defines the baseline and evaluation periods.

Table 3-7: RBHA Evaluation Periods

Evaluation Periods	Time Frame
Baseline	October 1, 2011 – September 30, 2015
Evaluation*	October 1, 2015 – September 30, 2021

*Approval for the waiver ends September 30, 2021.

PQC

The PQC waiver is anticipated to be in effect beginning in July 1, 2019, through September 30, 2021. Due to the timing of the Interim Evaluation Report the time period covered by the interim evaluation will be July 1, 2019 through December 31, 2019, with three months of claims/encounter data run out. Due to this shortened evaluation period, measures using national data released annually may not be reportable in the Interim Evaluation Report. The baseline period will be July 1, 2017, through June 30, 2019. Because the baseline period will end prior to the beginning of the evaluation, baseline data collection will only be possible through administrative data and by asking retrospective questions on beneficiary surveys. The Summative Evaluation Report will cover two full years of the waiver with six months of claims/encounter data run out. Table 3-8 presents time frames for each of the evaluation periods.

Table 3-8: PQC Evaluation Periods

Evaluation Periods	Time Frame
Baseline	July 1, 2017 – June 30, 2019
Interim Evaluation*	July 1, 2019 – December 31, 2019
Summative Evaluation	July 1, 2019 – June 30, 2021

*Approval for the waiver ends September 30, 2021.

TI

The initial demonstration for the TI program was approved from January 18, 2017, through September 30, 2021. The first nine months of the demonstration from January 2017 through September 30, 2017, consisted of recruitment and onboarding of providers. The second year of the demonstration, October 1, 2017, through September 30, 2018, primarily consisted of a ramp-up period as TI participating providers began establishing systems and implementing integration protocols. AHCCCS expects that by September 30, 2019, TI participating providers will meet the associated milestones of care integration. Therefore, the baseline period for the evaluation will be October 1, 2014, through September 30, 2016. The Summative Evaluation Report will cover two full years of the demonstration, beginning on October 1, 2019, when TI providers are expected to have met implementation milestones. This period will allow for six months of claims/encounter data run out. Table 3-9 presents time frames for each of the evaluation periods.

Table 3-9: TI Program Evaluation Periods

Evaluation Periods	Time Frame
Baseline	October 1, 2014 – September 30, 2016
Evaluation	October 1, 2019 – September 30, 2021

Evaluation Measures

Table 3-10 through Table 3-15 details the proposed measure(s), study populations, data sources and proposed analytic methods that will be used to evaluate the ACC, ALTCS, CMDP, PQC, RBHA, and TI program, respectively. Detailed measure specifications can be found in Appendix D.

Table 3-10: ACC Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1—Health plans encourage and/or facilitate care coordination among primary care practitioners (PCPs) and behavioral health practitioners.				
Research Question 1.1: What care coordination strategies did the plans implement as a result of ACC?	1-1: Health plans' reported care coordination activities	N/A	Key informant interviews	Qualitative synthesis
Research Question 1.2: Did the plans encounter barriers to implementing care coordination strategies?	1-2: Health plans' reported barriers to implementing care coordination strategies	N/A	Key informant interviews	Qualitative synthesis

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 1.3: Did the plans encounter barriers not related specifically to implementing care coordination strategies during the transition to ACC?	1-3: Health plans' reported barriers not related specifically to implementing care coordination strategies during the transition to ACC	N/A	Key informant interviews	Qualitative synthesis
Research Question 1.4: Did AHCCCS encounter barriers related to the transition to ACC?	1-4: AHCCCS' reported barriers before, during, and shortly following the transition to ACC	N/A	Key informant interviews	Qualitative synthesis
Research Question 1.5: Did providers encounter barriers related to the transition to ACC?	1-5: Providers' reported barriers before, during, and shortly following the transition to ACC	N/A	Provider Focus Groups	Qualitative synthesis
Research Question 1.6: Do beneficiaries perceive their doctors to have better care coordination as a result of ACC?	1-6: Percentage of beneficiaries who reported their doctor seemed informed about the care they received from other health providers	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Hypothesis 2—Access to care will maintain or improve as a result of the integration of behavioral and physical care.				
Research Question 2.1: Do beneficiaries enrolled in an ACC plan have the same or better access to primary care services compared to prior to integrated care?	2-1: Percentage of adults who accessed preventive/ambulatory health services	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	2-2: Percentage of children and adolescents who accessed PCPs	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	2-3: Percentage of beneficiaries under 21 with an annual dental visit	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	2-4: Percentage of beneficiaries who reported they received care as soon as they needed	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	2-5: Percentage of beneficiaries who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	2-6: Percentage of beneficiaries who reported they were able to schedule an appointment with a specialist as soon as they needed	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Research Question 2.2: Do beneficiaries enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to integrated care?	2-7: Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	2-8: Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Hypothesis 3—Quality of care will maintain or improve as a result of the integration of behavioral and physical care.				
Research Question 3.1: Do beneficiaries enrolled in an ACC plan have the same or higher rates of preventive or wellness services compared to prior to integrated care?	3-1: Percentage of beneficiaries with a well-child visit in the first 15 months of life	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-2: Percentage of beneficiaries with a well-child visits in the third, fourth, fifth, and sixth years of life	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-3: Percentage of beneficiaries with an adolescent well-care visit	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-4: Percentage of children two years of age with appropriate immunization status	National/regional benchmarks	• State eligibility and enrollment data • Arizona State Immunization Information System	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-5: Percentage of adolescents 13 years of age with appropriate immunizations	National/regional benchmarks	• State eligibility and enrollment data • Arizona State Immunization Information System	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	3-6: Percentage of adult beneficiaries who reported having a flu shot or nasal flu spray since July 1	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
Research Question 3.2: Do beneficiaries enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to integrated care?	3-7: Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Research Question 3.3: Do beneficiaries enrolled in an ACC plan have the same or better management of behavioral health conditions compared to prior to integrated care?	3-8: Percentage of adult beneficiaries who remained on an antidepressant medication treatment	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-9: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	3-10: Percentage of beneficiaries with a follow-up visit after emergency department (ED) visit for mental illness	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	3-11: Percentage of beneficiaries with follow-up after ED visit for alcohol and other drug abuse or dependence	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	3-12: Percentage of beneficiaries with a screening for clinical depression and follow-up plan	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	3-13: Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth)	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Research Question 3.4: Do beneficiaries enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to integrated care?	3-14: Percentage of adult beneficiaries who have prescriptions for opioids at a high dosage	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-15: Percentage of adult beneficiaries with concurrent use of opioids and benzodiazepines	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 3.5: Do beneficiaries enrolled in an ACC plan have equal or lower ED or hospital utilization compared to prior to ACC?	3-16: Number of ED visits per 1,000 member months	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	3-17: Number of inpatient stays per 1,000 member months	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	3-18: Percentage of adult inpatient discharges with an unplanned readmission within 30 days	National/regional benchmarks	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
Hypothesis 4—Beneficiary self-assessed health outcomes will maintain or improve as a result of the integration of behavioral and physical care.				
Research Question 4.1: Do beneficiaries enrolled in an ACC plan have the same or higher overall health rating compared to prior to integrated care?	4-1: Percentage of beneficiaries who reported a high rating of overall health	• National/regional benchmarks • Out-of-State Comparison	• Beneficiary survey • National/regional benchmarks • BRFSS	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Research Question 4.2: Do beneficiaries enrolled in an ACC plan have the same or higher overall mental or emotional health rating compared to prior to integrated care?	4-2: Percentage of beneficiaries who reported a high rating of overall mental or emotional health	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Hypothesis 5—Beneficiary satisfaction with their health care will maintain or improve as a result of the integration of behavioral and physical care.				

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 5.1: Are beneficiaries equally or more satisfied with their health care as a result of integrated care?	5-1: Percentage of beneficiaries who reported a high rating of health plan	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
	5-2: Percentage of beneficiaries who reported a high rating of overall health care	National/regional benchmarks	• Beneficiary survey • National/regional benchmarks	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults
Hypothesis 6—The AHCCCS Complete Care program provides cost-effective care.				
Research Question 6.1: What are the costs associated with the integration of care under ACC?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost-effectiveness analysis
Research Question 6.2: What are the benefits/savings associated with the integration of care under ACC?				

Table 3-11: ALTCS Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1: Access to care will maintain or improve over the waiver demonstration period.				
Research Question 1.1: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with DD have the same or higher rates of access to care compared to baseline rates and out-of-state comparisons?	1-1: Percentage of beneficiaries who accessed preventive/ambulatory health services	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 1.2: Do child beneficiaries with DD have the same or higher rates of access to care compared to	1-2: Percentage of children and adolescents who accessed primary care practitioners	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
baseline rates and out-of-state comparisons?	1-3: Percentage of beneficiaries under 21 with an annual dental visit	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 1.3: Do adult beneficiaries with DD have the same or improved rates of access to care as a result of the integration of care for beneficiaries with DD?	1-4: Percentage of beneficiaries who have a primary care doctor or practitioner	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	1-5: Percentage of beneficiaries who had a complete physical exam in the past year	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	1-6: Percentage of beneficiaries who had a dental exam in the past year	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	1-7: Percentage of beneficiaries who had an eye exam in the past year	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	1-8: Percentage of beneficiaries who had an influenza vaccine in the past year	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
Hypothesis 2: Quality of care will maintain or improve over the wavier demonstration period.				
Research Question 2.1: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of preventative care compared to baseline rates and out-of-state comparisons?	2-1: Percentage of adult beneficiaries with a breast cancer screening	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-2: Percentage of adult beneficiaries with a cervical cancer screening	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-3: Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 2.2: Do child beneficiaries with DD have the same or higher rates of preventative care	2-4: Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
compared to baseline rates and out-of-state comparisons?	2-5: Percentage of beneficiaries with an adolescent well-care visit	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-6: Percentage of beneficiaries with an influenza vaccine	N/A	• State eligibility and enrollment data • ASIIS	Pre-test/post-test
Research Question 2.3: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or better management of behavioral health conditions compared to baseline rates and out-of-state comparisons?	2-7: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-8: Percentage of adult beneficiaries who remained on an antidepressant medication treatment	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-9: Percentage of beneficiaries with a screening for depression and follow-up plan	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-10: Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, emergency department [ED], or telehealth)	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 2.4: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with DD have the same or better management of prescriptions compared	2-11: Percentage of adult beneficiaries with monitoring for persistent medications	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-12: Percentage of beneficiaries with opioid use at high dosage	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
to baseline rates and out-of-state comparisons?	2-13: Percentage of beneficiaries with a concurrent use of opioids and benzodiazepines	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 2.5: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of utilization of care compared to baseline rates and out-of-state comparisons?	2-14: Number of ED visits per 1,000 member months	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-15: Number of inpatient stays per 1,000 member months	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-16: Percentage of adult inpatient discharges with an unplanned readmission within 30 days	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Hypothesis 3: Quality of life for beneficiaries will maintain or improve over the waiver demonstration period.				
Research Question 3.1: Do beneficiaries have the same or higher rates of living in their own home as a result of the ALTCS waiver renewal?	3-1: Percentage of beneficiaries residing in their own home	N/A	• PMMIS • ACE	Pre-test/post-test
	3-2: Type of residence for adult beneficiaries with DD	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
Research Question 3.2: Do adult beneficiaries have the same or higher rates of feeling satisfied with their living arrangements as a result of the integration of care for beneficiaries with DD?	3-3: Percentage of beneficiaries who want to live somewhere else	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	3-4: Percentage of beneficiaries who believe services and supports help them live a good life	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
Research Question 3.3: Do adult beneficiaries have the same or higher rates of feeling engaged as a result of the integration of care for beneficiaries with DD?	3-5: Percentage of beneficiaries able to go out and do things s/he likes to do in the community	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	3-6: Percentage of beneficiaries who have friends who are not staff or family members	Respondents from NCI survey in other states	NCI survey	Difference-in-differences
	3-7: Percentage of beneficiaries who decide or has input in deciding their daily schedule	Respondents from NCI survey in other states	NCI survey	Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 4: ALTCS encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.				
Research Question 4.1: Did DES/DDD or its contracted plans encounter barriers during the integration of care for beneficiaries with DD?	4-1: DES/DDD and its contracted plans' barriers during transition	N/A	Key informant interview	Qualitative synthesis
Research Question 4.2: What care coordination strategies did DES/DDD and its contracted plans implement as a result of integration of care?	4-2: DES/DDD and its contracted plans' care coordination activities	N/A	Key informant interview	Qualitative synthesis
Research Question 4.3: Did DES/DDD or its contracted plans encounter barriers to implementing care coordination strategies?	4-3: DES/DDD and its contracted plans' barriers to implementing care coordination strategies	N/A	Key informant interview	Qualitative synthesis
Research Question 4.4: Did AHCCCS encounter barriers related to integration of care for beneficiaries with DD?	4-4: AHCCCS' reported barriers before, during, and shortly after the integration of care	N/A	Key informant interview	Qualitative synthesis
Research Question 4.5: Did providers encounter barriers related to integration of care for beneficiaries with DD?	4-5: Providers' reported barriers before, during, and shortly after the integration of care	N/A	Key informant interview	Qualitative synthesis
Hypothesis 5: ALTCS provides cost-effective care.				
Research Question 5.1: What are the costs associated with the integration of care under ALTCS?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost-effectiveness analysis
Research Question 5.2: What are the benefits/savings associated with the integration of care under ALTCS?				

Table 3-12: CMDP Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1: Access to care will be maintained or increase during the demonstration.				

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 1.1: Do CMDP beneficiaries have the same or increased access to primary care practitioners (PCPs) and specialists in the remeasurement period as compared to the baseline?	1-1: Percentage of children and adolescents with access to primary care practitioners	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	1-2: Percentage of beneficiaries with an annual dental visit	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
Hypothesis 2: Quality of care for beneficiaries enrolled in CMDP will be maintained or improve during the demonstration.				
Research Question 2.1: Do CMDP beneficiaries have the same or higher rates of preventive or wellness services in the remeasurement period as compared to the baseline?	2-1: Percentage of beneficiaries with well-child visits in the third, fourth, fifth, and sixth years of life	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-2: Percentage of beneficiaries with an adolescent well-care visit	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-3: Percentage of children two years of age with appropriate immunization status	National/regional benchmarks	• State eligibility and enrollment data • Arizona State Immunization Information System	• Difference-in-differences • Pre-test/post-test
	2-4: Percentage of adolescents 13 years of age with appropriate immunizations	National/regional benchmarks	• State eligibility and enrollment data • Arizona State Immunization Information System	• Difference-in-differences • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 2.2: Do CMDP beneficiaries have the same or better management of chronic conditions in the remeasurement period as compared to the baseline?	2-5: Percentage of beneficiaries ages 5 to 18 who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
Research Question 2.3: Do CMDP beneficiaries have the same or better management of behavioral health conditions in the remeasurement period as compared to the baseline?	2-6: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-7: Percentage of children and adolescents on antipsychotics with metabolic monitoring	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-8: Percentage of beneficiaries with screening for depression and follow-up plan	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-9: Percentage of children and adolescents with use of multiple concurrent antipsychotics	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-10: Percentage of beneficiaries receiving mental health services (inpatient, intensive outpatient or partial hospitalization, outpatient, emergency department [ED], or telehealth)	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 2.4: Do CMDP beneficiaries have the same or lower hospital utilization in the remeasurement period as compared to the baseline?	2-11: Number of ED visits per 1,000 member months	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks	• Difference-in-differences • Pre-test/post-test
	2-12: Number of inpatient stays per 1,000 member months	• National/regional benchmarks • Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmark	• Difference-in-differences • Pre-test/post-test
Hypothesis 3: CMDP encourages and/or facilitates care coordination among PCPs and behavioral health practitioners.				
Research Question 3.1: What barriers did CMDP anticipate/encounter during the integration?	3-1: CMDP's anticipated/reported barriers during transition	N/A	• Key informant interviews • Provider Focus Groups	Qualitative synthesis
Research Question 3.2: What care coordination strategies did CMDP plan/implement during integration?	3-2: CMDP's planned/reported care coordination activities	N/A	• Key informant interviews • Provider focus groups	Qualitative synthesis
Research Question 3.3: What barriers to implementing care coordination strategies did the CMDP anticipate/encounter?	3-3: CMDP's anticipated/reported barriers in implementing care coordination strategies	N/A	• Key informant interviews • Provider focus Groups	Qualitative synthesis
Hypothesis 4: CMDP provides cost-effective care.				
Research Question 4.1: What are the costs associated with the integration of care in the CMDP?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost Effectiveness Analysis
Research Question 4.2: What are the benefits/savings associated with the integration of care in the CMDP?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost Effectiveness Analysis

Table 3-13: PQC Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1—Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.				

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 1.1: Do eligible people without prior quarter coverage enroll in Medicaid at the same rates as other eligible people with prior quarter coverage?	1-1: Percentage of Medicaid enrollees by eligibility group out of estimated eligible Medicaid recipients	Out-of-State Comparison	IPUMS ACS	• Difference-in-differences • Pre-test/post-test
	1-2: Percentage of new Medicaid enrollees by eligibility group, as identified by those without a recent spell of Medicaid coverage out of estimated eligible Medicaid recipients	N/A	• Eligibility and enrollment data • IPUMS ACS	• Interrupted time series • Pre-test/post-test
	1-3: Number of Medicaid enrollees per month by eligibility group and/or per-capita of state	N/A	Eligibility and enrollment data	Rapid-cycle reporting – statistical process control chart
	1-4: Number of new Medicaid enrollees per month by eligibility group, as identified by those without a recent spell of Medicaid coverage	N/A	Eligibility and enrollment data	Rapid-cycle reporting – statistical process control chart
Research Question 1.2: What is the likelihood of enrollment continuity for those without prior quarter coverage compared to other Medicaid beneficiaries with prior quarter coverage?	1-5: Percentage of Medicaid beneficiaries due for renewal who complete the renewal process	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test • Interrupted time series
	1-6: Average number of months with Medicaid coverage	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test • Interrupted time series
Research Question 1.3: Do beneficiaries without prior quarter coverage who disenroll from Medicaid have shorter enrollment gaps than other beneficiaries with prior quarter coverage?	1-7: Percentage of Medicaid beneficiaries who re-enroll after a gap of up to six months	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test • Interrupted time-series
	1-8: Average number of months without Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test • Interrupted time series
	1-9: Average number of gaps in Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test
	1-10: Average number of days per gap in Medicaid coverage for beneficiaries who re-enroll after a gap of up to six months	Aggregate Data for Other State	• Eligibility and enrollment data • Other state aggregate data	• Difference-in-differences • Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 2—Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.				
Research Question 2.1: Do newly enrolled beneficiaries without prior quarter coverage have higher self-assessed health status than continuously enrolled beneficiaries?	2-1: Beneficiary reported rating of overall health	N/A	State beneficiary survey	Comparison of means
	2-2: Beneficiary reported rating of overall mental or emotional health	N/A	State beneficiary survey	Comparison of means
	2-3: Percentage of beneficiaries who reported prior year ER visit	N/A	State beneficiary survey	Comparison of means
	2-4: Percentage of beneficiaries who reported prior year hospital admission	N/A	State beneficiary survey	Comparison of means
	2-5: Percentage of beneficiaries who reported getting healthcare three or more times for the same condition or problem	N/A	State beneficiary survey	Comparison of means
Hypothesis 3—Health outcomes will be better for those without prior quarter coverage compared to Medicaid beneficiaries with prior quarter coverage.				
Research Question 3.1: Do beneficiaries without prior quarter coverage have better health outcomes than compared to baseline rates and out-of-state comparisons with prior quarter coverage?	3-1: Beneficiary reported rating of overall health for all beneficiaries	• Aggregate Data for Other State • Out-of-State Comparison	• State beneficiary survey • Other state aggregate data • BRFSS	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	3-2: Beneficiary reported rating of overall mental or emotional health for all beneficiaries	Aggregate Data for Other State	• State beneficiary survey • Other state aggregate data	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
Hypothesis 4—Eliminating prior quarter coverage will not have adverse financial impacts on consumers.				
Research Question 4.1: Does the prior quarter coverage waiver lead to changes in the incidence of beneficiary medical debt?	4-1: Percentage of beneficiaries who reported medical debt	Out-of-State Comparison	• State beneficiary survey • BRFSS	Comparison to other states
Hypothesis 5—Eliminating prior quarter coverage will not adversely affect access to care.				

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 5.1: Do beneficiaries without prior quarter coverage have the same or higher rates of office visits compared to baseline rates and out-of-state comparisons with prior quarter coverage?	5-1: Beneficiary response to getting needed care right away	Aggregate Data for Other State	• State beneficiary survey • Other state aggregate data	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
	5-2: Beneficiary response to getting an appointment for a check-up or routine care at a doctor's office or clinic	Aggregate Data for Other State	• State beneficiary survey • Other state aggregate data	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
Research Question 5.2: Do beneficiaries without prior quarter coverage have the same or higher rates of service and facility utilization compared to baseline rates and out-of-state comparisons with prior quarter coverage?	5-3: Percentage of beneficiaries with a visit to a specialist (e.g., eye doctor, ENT, cardiologist)	Aggregate Data for Other State	• Eligibility and enrollment data • Administrative claims data • Other state aggregate data	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test
Hypothesis 6—Eliminating prior quarter coverage will not result in reduced member satisfaction.				
Research Question 6.1: Do beneficiaries without prior quarter coverage have the same or higher satisfaction with their healthcare compared to baseline rates and out-of-state comparisons with prior quarter coverage?	6-1: Beneficiary rating of overall healthcare	N/A	State beneficiary survey	Pre-test/post-test
Hypothesis 7—Eliminating prior quarter coverage will generate cost savings over the term of the waiver.				
Research Question 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	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 7.3: Do costs to non-AHCCCS entities stay the same or decrease after implementation of the waiver compared to before?	7-1: Reported costs for uninsured and/or likely eligible Medicaid recipients among potentially impacted providers and/or provider networks	Out-of-State Comparison	• HCRIS • HCUP-SID • Provider focus groups	• Difference-in-differences • Interrupted time series • Qualitative synthesis
Hypothesis 8—Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.				
Research Question 8.1: What activities did AHCCCS perform to educate beneficiaries and providers about changes to retroactive eligibility?	8-1: AHCCCS' education activities	N/A	Key informant interviews	Qualitative Synthesis
	8-2: Providers' knowledge on eliminating PQC	N/A	Provider focus groups	Qualitative Synthesis
Research Question 8.2: Did AHCCCS encounter barriers related to informing providers about eliminating PQC?	8-3: AHCCCS' reported barriers to providing education on eliminating PQC	N/A	Key informant interviews	Qualitative Synthesis

Note: IPUMS: Integrated Public Use Microdata Series; ACS: American Community Surveys; BRFSS: Behavioral Risk Factors Surveillance System ER: emergency room; ENT: ears, nose, throat; HCRIS: Healthcare Cost Report Information System; HCUP-SID: Healthcare Cost and Utilization Project, State Inpatient Databases.

Table 3-14: RBHA Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1— Access to care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or increase during the demonstration.				
Research Question 1.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to primary care services compared to prior to the demonstration renewal?	1-1: Percentage of adults who accessed preventive/ambulatory health services	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	1-2: Percentage of beneficiaries who reported they received care as soon as they needed	N/A	Beneficiary survey	Pre-test/post-test
	1-3: Percentage of beneficiaries who reported they were able to schedule an appointment for a checkup or routine care at a doctor's office or clinic as soon as they needed	N/A	Beneficiary Survey	Pre-test/post-test
	1-4: Percentage of beneficiaries who reported they were able to schedule an appointment with a specialist as soon as they needed	N/A	Beneficiary survey	Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 1.2: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to substance abuse treatment compared to prior to the demonstration renewal?	1-5: Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	1-6: Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Hypothesis 2—Quality of care for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.				
Research Question 2.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rates of preventive or wellness services compared to prior to demonstration renewal?	2-1: Percentage of beneficiaries who reported having a flu shot or nasal flu spray since July 1	N/A	Beneficiary Survey	Pre-test/post-test
Research Question 2.2: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of chronic conditions compared to prior to the demonstration renewal?	2-2: Percentage of beneficiaries with persistent asthma who had a ratio of controller medications to total asthma medications of at least 50 percent	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-3: Percentage of beneficiaries with schizophrenia or bipolar disorder using antipsychotic medications who had a diabetes screening test	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-4: Percentage of beneficiaries with schizophrenia who adhered to antipsychotic medications	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 2.3: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of behavioral health conditions compared to prior to the demonstration renewal?	2-5: Percentage of beneficiaries who remained on antidepressant medication treatment	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-6: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-7: Percentage of beneficiaries with a follow-up visit after emergency department (ED) visit for mental illness	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	2-8: Percentage of beneficiaries with follow-up after ED visit for alcohol and other drug abuse or dependence	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-9: Percentage of beneficiaries with a screening for clinical depression and follow-up plan	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-10: Percentage of beneficiaries receiving mental health services (total and by inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth)	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 2.4: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of opioid prescriptions compared to prior to the demonstration renewal?	2-11: Percentage of beneficiaries who have prescriptions for opioids at a high dosage	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-12: Percentage of beneficiaries with concurrent use of opioids and benzodiazepines	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Research Question 2.5: Do adult beneficiaries with an SMI enrolled in a RBHA have the same lower tobacco usage compared to prior to the demonstration renewal?	2-13: Percentage of beneficiaries who indicated smoking cigarettes or using tobacco	N/A	• Beneficiary Survey	• Pre-test/post-test
Research Question 2.6: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or lower hospital utilization compared to prior to the demonstration renewal?	2-14: Number of ED visits per 1,000 member months	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-15: Number of inpatient stays per 1,000 member months	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
	2-16: Percentage of inpatient discharges with an unplanned readmission within 30 days	Out-of-State Comparison	• State eligibility and enrollment data • Claims/encounter data	• Pre-test/post-test • Difference-in-differences
Hypothesis 3—Health outcomes for adult beneficiaries with an SMI enrolled in a RBHA will be maintained or improve during the demonstration.				
Research Question 3.1: Do adult beneficiaries with an SMI enrolled in	3-1: Percentage of beneficiaries who reported a high rating of overall health	N/A	Beneficiary survey	Pre-test/post-test

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
a RBHA have the same or higher rating of health compared to prior to the demonstration renewal?	3-2: Percentage of beneficiaries who reported a high rating of overall mental or emotional health	N/A	Beneficiary survey	Pre-test/post-test
Hypothesis 4—Adult beneficiary satisfaction in RBHA health plans will be maintained or improve over the waiver demonstration period.				
Research Question 4.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher satisfaction in their health care compared to prior to the demonstration renewal?	4-1: Percentage of beneficiaries who reported a high rating of overall healthcare	N/A	Beneficiary survey	Pre-test/post-test
	4-2: Percentage of beneficiaries who reported a high rating of health plan	N/A	Beneficiary survey	Pre-test/post-test
Research Question 4.2: Do adult beneficiaries with an SMI enrolled in a RBHA perceive their doctors to have the same or better care coordination compared to prior to the demonstration renewal?	4-3: Percentage of beneficiaries who reported their doctor seemed informed about the care they received from other health providers	N/A	Beneficiary survey	Pre-test/post-test
Hypothesis 5—RBHAs encourage and/or facilitate care coordination among PCPs and behavioral health practitioners.				
Research Question 5.1: What care coordination strategies are the RBHAs conducting for their beneficiaries with an SMI?	5-1: Health plans' reported care coordination activities for beneficiaries with an SMI	N/A	Key informant interviews	Qualitative synthesis
Research Question 5.2: Have care coordination strategies for beneficiaries with an SMI changed as a result of AHCCCS Complete Care?	5-2: Reported changes in health plans' care coordination strategies for beneficiaries with an SMI	N/A	Key informant interviews	Qualitative synthesis
Research Question 5.3: What care coordination strategies is AHCCCS conducting for its beneficiaries with an SMI?	5-3: AHCCCS's reported care coordination strategies and activities for beneficiaries with an SMI served by the RBHAs	N/A	Key informant interviews	Qualitative synthesis
Research Question 5.4: What care coordination strategies and/or activities are providers conducting for their Medicaid patients with an SMI served by the RBHAs?	5-4: Providers' reported care coordination strategies and activities for their Medicaid patients with an SMI	N/A	Provider focus groups	Qualitative synthesis

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 6—RBHAs will provide cost-effective care for beneficiaries with an SMI.				
Research Question 6.1: What are the costs associated with providing care for beneficiaries with an SMI through the RBHAs?	There are no specific measures associated with this hypothesis; see the Cost-Effectiveness Analysis Section for details	N/A	N/A	Cost-effectiveness analysis
Research Question 6.2: What are the benefits/savings associated with providing care for beneficiaries with an SMI through the RBHAs?	There are no specific measures associated with this hypothesis; see the Cost-Effectiveness Analysis Section for details	N/A	N/A	Cost-effectiveness analysis

Table 3-15: TI Program Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1: The TI program will improve physical and behavioral health care integration for children.				
Research Question 1.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	1-1: Percentage of participating pediatric primary care and behavioral health care practices that have an executed agreement with Health Current	Practitioners not participating in TI	Administrative program data	• Rapid cycle reporting • Applicable Subgroup: Children
	1-2: Percentage of participating pediatric primary care and behavioral health care practices that routinely receive ADT alerts	Practitioners not participating in TI	Administrative program data	• Rapid cycle reporting • Applicable Subgroup: Children
Research Question 1.2: Do children subject to the TI program have higher rates of screening and well-child visits compared to those who are not subject to the demonstration?	1-3: Percentage of beneficiaries with a well-child visit in the third, fourth, fifth, and sixth years of life	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Children
	1-4: Percentage of beneficiaries with a depression screening and follow-up plan	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Children

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	1-5: Percentage of beneficiaries with an adolescent well-care visit	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Children
	1-6: Beneficiary response to getting needed care right away	Beneficiaries not assigned to, nor received care from TI participating providers	Beneficiary survey	• Chi-square test • Applicable Subgroup: Children
Research Question 1.3: Do children subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration?	1-7: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Children
Research Question 1.4: Do parents/guardians of children subject to the program perceive their doctors have better care coordination than those not subject to the demonstration?	1-8: Beneficiary response to their child's doctor seeming informed about the care their child received from other health providers	Beneficiaries not assigned to, nor received care from TI participating providers	Beneficiary survey	• Chi-square test • Applicable Subgroup: Children
Hypothesis 2: The TI program will improve physical and behavioral health care integration for adults.				
Research Question 2.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	2-1: Percentage of participating adult primary care and behavioral health care practices that have an executed agreement with Health Current	Practitioners not participating in TI	Administrative program data	• Rapid cycle reporting • Applicable Subgroup: Adults
	2-2: Percentage of participating adult primary care and behavioral health care practices that routinely receive ADT alerts	Practitioners not participating in TI	Administrative program data	• Rapid cycle reporting • Applicable Subgroup: Adults

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 2.2: Do adults subject to the TI program have higher rates of screening than those who are not subject to the demonstration?	2-3: Percentage of beneficiaries with a depression screening and follow-up plan if positive	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Adults
	2-4: Beneficiary response to getting needed care right away	Beneficiaries not assigned to, nor received care from TI participating providers	Beneficiary survey	• Chi-square test • Applicable Subgroup: Adults
Research Question 2.3: Do adults subject to the TI program have lower rates of ED utilization than those who are not subject to the demonstration?	2-5: Number of ED visits per 1,000 member months	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Adults
	2-6: Number of ED visits for SUD or OUD per 1,000 member months	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Adults
Research Question 2.4: Do adults subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration?	2-7: Percentage of beneficiaries with a follow-up visit after hospitalization for mental illness	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Adults
	2-8: Percentage of beneficiaries with a follow-up visit after an ED visit for mental illness	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Adults

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 2.5: Do adults subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?	2-9: Percentage of beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Adults
	2-10: Percentage of beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Adults
	2-11: Percentage of beneficiaries with OUD receiving any Medication Assisted Treatment (MAT)	Beneficiaries not assigned to, nor received care from TI participating providers	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Adults
Research Question 2.6: Do adults subject to the TI program perceive their doctors have better care coordination than those not subject to the demonstration?	2-12: Beneficiary response to their doctor seeming informed about the care they received from other health providers	Beneficiaries not assigned to, nor received care from TI participating providers	Beneficiary survey	• Chi-square test • Applicable Subgroup: Adults
Hypothesis 3: The TI program will improve care coordination for AHCCCS enrolled adults released from criminal justice facilities.				
Research Question 3.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?	3-1: Percentage of integrated practices participating in the justice transition project that have an executed agreement with Health Current	Practitioners participating in justice transition project not participating in TI	Administrative program data	• Rapid cycle reporting • Applicable Subgroup: Criminal justice
	3-2: Percentage of integrated practices participating in the justice transition project that routinely receives ADT alerts	Practitioners participating in justice transition project not participating in TI	Administrative program data	• Rapid cycle reporting • Applicable Subgroup: Criminal justice

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 3.2: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of access to care than those who were not subject to the demonstration?	3-3: Percentage of recently released beneficiaries who had a preventive/ambulatory health service visit	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Criminal justice
	3-4: Recently released beneficiary response to getting needed care right away	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	Beneficiary survey	• Chi-square test • Applicable Subgroup: Criminal justice
	3-5: Recently released beneficiary response to getting routine care right away	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	Beneficiary survey	• Chi-square test • Applicable Subgroup: Criminal justice
Research Question 3.3: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?	3-6: Percentage of recently released beneficiaries who had initiation of alcohol and other drug abuse or dependence treatment	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Criminal justice

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	3-7: Percentage of recently released beneficiaries who had engagement of alcohol and other drug abuse or dependence treatment	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Criminal justice
	3-8: Percentage of recently released beneficiaries with OUD receiving any MAT	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Criminal justice
Research Question 3.4: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have lower rates of emergency department utilization than those who were not subject to the demonstration?	3-9: Number of ED visits per 1,000 member months for recently released beneficiaries	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Criminal justice
	3-10: Number of ED visits for SUD or OUD per 1,000 member months for recently released beneficiaries	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Criminal justice

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 3.5: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have better management of opioid prescriptions than those who were not subject to the demonstration?	3-11: Percentage of recently released beneficiaries who have prescriptions for opioids at a high dosage	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Criminal justice
	3-12: Percentage of recently released beneficiaries who have prescriptions for concurrent use of opioids and benzodiazepines	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI	• State eligibility and enrollment data • Claims/encounter data	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Applicable Subgroup: Criminal justice
Hypothesis 4: The TI program will provide cost-effective care.				
Research Question 4.1: What are the costs associated with care coordination provided under TI?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost-effectiveness analysis
Research Question 4.2: What are the benefits/savings associated with care coordination provided under TI?				
Hypothesis 5: Providers will increase the level of care integration over the course of the demonstration.				
Research Question 5.1: Do providers progress across the Substance Abuse and Mental Health Services Administration (SAMHSA) national standard of six levels of integrated health care?	5-1: Percentage of providers transitioning from Level 1 to Level 2(coordinated care) to Level 3 to Level 4 (co-located care)	N/A	Program data from provider attestations	Descriptive impact analysis
	5-2: Percentage of providers transitioning from Level 3 to Level 4 (co-located care) to Level 5 to Level 6 (integrated care)	N/A	Program data from provider attestations	Descriptive impact analysis
Research Question 5.2: Do providers increase level of integration within each	5-3: Percentage of providers transitioning from Level 1 to Level 2 integration	N/A	Program data from provider attestations	Descriptive impact analysis

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
broader category (i.e. coordinated, co-located, and integrated care) during the demonstration period?	5-4: Percentage of providers transitioning from Level 3 to Level 4 integration	N/A	Program data from provider attestations	Descriptive impact analysis
	5-5: Percentage of providers transitioning from Level 5 to Level 6 integration	N/A	Program data from provider attestations	Descriptive impact analysis
Hypothesis 6: Providers will conduct care coordination activities				
Research Question 6.1: Did AHCCCS encounter barriers related to the pre-implementation and implementation phases of TI?	6-1: AHCCCS' reported barriers before, during, and shortly following the implementation of TI	N/A	Key informant interviews	Qualitative synthesis
Research Question 6.2: Did providers encounter barriers related to the pre-implementation and implementation phases of TI?	6-2: Providers' reported barriers before, during, and shortly following the implementation of TI	N/A	Provider focus groups	Qualitative synthesis

ADT: Admission-Discharge-Transfer; ED: emergency department; SUD: substance use disorder; OUD: opioid use disorder; MAT: Medication Assisted Treatment

Data Sources

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

ACC

Multiple data sources will be utilized to evaluate the six hypotheses for the ACC evaluation. Data collection will include administrative and survey-based data such as CAHPS questions. Administrative data sources will include information extracted from Prepaid Medical Management Information System (PMMIS). PMMIS will be used to collect, manage and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics), fee-for-service (FFS) claims, and managed care encounter data. Administrative data will also be used from the Arizona State Immunization Information System (ASIIS) to identify child and adolescent vaccination rates. The combination of survey and the administrative data sources will be used to assess the six research hypotheses.

State Beneficiary Survey Data

State beneficiary surveys will be used to assess beneficiaries' ability to obtain timely appointments, experience with health care, and their perception that their personal doctor seemed informed about the care they received from other providers. CAHPS surveys are often used to assess beneficiaries' experiences with provided health care services.

The timing of the ACC and evaluation presents some challenges in constructing pre- and post-implementation comparisons. Although the ACC program has been in effect for a full year before the development of the evaluation design plan, surveys will be administered without the use of retrospective questions which would be particularly susceptible to recall bias. Results will be compared against historical AHCCCS rates from previous state-wide surveys sampled from the Acute Care population (the same population as those who transitioned into the ACC plans) and national benchmarks where available. It is expected that cross-sectional surveys will be conducted annually. The sampling frame for the survey will be identified through eligibility and enrollment data, with specific enrollment requirements being finalized upon inspection of the data. Typically, beneficiaries are drawn from beneficiaries enrolled continuously during the last six months of the measurement period, with no more than a one-month gap in enrollment.

Stratified random sampling by ACC plan will be used to construct a statistically valid sample at the plan level. The independent evaluator will conduct power calculations to determine the appropriate number of surveys that will be sent out to beneficiaries in each plan. The standard National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®) Specifications for Survey Measures requires a sample size of 1,350 beneficiaries for the CAHPS 5.0 Adult Medicaid Health Plan Survey and 1,650 for the CAHPS 5.0 Child Medicaid Health Plan Survey.[3-17,3-18] An oversample of at least 10 percent for each plan will be applied to ensure an adequate number of respondents to each CAHPS measure. The maximum estimated number of surveys that need to be sent per plan is estimated to be 1,485 for adults and 1,815 for children. Historical response rates in Arizona for the Acute Care population have been approximately 22 percent for adults and 20 percent for children, which would translate to 327 completed adult surveys and 363 completed child surveys per plan. The statewide sample across the seven ACC plans would therefore be 2,289 adult respondents and 2,541 child respondents. An adult sample of 2,289 would have 0.8 power to identify a single percentage estimate of a 50 percent rate with a margin of error of 2.05 percent or be able to identify a difference of rates between 50 percent and 54.1 percent with an alpha level of 0.05 and a two-tailed test. A child sample of 2,541 would have 0.8 power to identify a single percentage estimate of a 50 percent rate with a margin of error of 1.94 percent, or to be able to identify a difference of rates between 50 percent and 54.0 percent with an alpha level of 0.05 and a two-tailed test. Because plan sampling will be disproportionate to overall plan membership statewide, plan-level rates will be reweighted to adjust for proportionality when calculating aggregate rates. Because evaluations for several concurrent waivers are planned, the State and its independent evaluator will seek to streamline survey administration across evaluations to minimize the number of separate survey rounds required, thereby minimizing the burden on beneficiaries and maximizing the response rate. Therefore, the sampling strategy described above may be revised based on enrollment across waivers. Two survey instruments will be used depending on the population:

- Children: CAHPS 5.0 Child Medicaid Health Plan Survey with the HEDIS supplemental item set
- Adults: CAHPS 5.0 Adult Medicaid Health Plan Survey with the HEDIS supplemental item set

To maximize response rates, a mixed-mode methodology (e.g., telephone and mail) for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to beneficiaries, has been shown to increase response rates and will be incorporated into survey administration.

[3-17] HEDIS is a registered trademark of NCQA.
[3-18] National Committee for Quality Assurance. *HEDIS® 2020, Volume 3: Specifications for Survey Measures*. Washington, DC: NCQA Publication, 2019.

Administrative Data

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

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

The ASIIS will be used to calculate measures pertaining to immunization history. ASIIS is Arizona's immunization registry that collects immunization information and demographic data. Providers are mandated under Arizona Revised Statute (ARS) §36-135 to report all immunizations administered to individuals aged 18 and younger.[3-19]

Aggregate Data

Aggregate data may be used in the form of national or regional benchmarks and/or plan-level rates. National or regional benchmarks would be obtained to support difference-in-differences hypothesis testing. The independent evaluator will obtain rates from a range of national or regional benchmark sources, recognizing and where feasible, minimizing any limitations in the comparability of the AHCCCS target population and the population represented by the national or regional benchmarks. Most aggregate rates for HEDIS performance measures or CAHPS survey responses are provided at the measure level. Plan-level rates may be purchased, which can potentially support more rigorous statistical testing. However, these plan-level rates would not include data pertaining to plan demographics or risk. Although denominator data is not included in plan-level rates, these data sources include overall plan size. As a result, plan-level data would limit the ability to weight individual measures by denominator size (although overall plan size can be controlled for) and to control for differences in demographics or risk.

Out-of-State Comparison Groups

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is T-MSIS maintained and collected by CMS. All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-20] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support individual-level matching to ACC beneficiaries. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

One measure may utilize data from BRFSS as an out-of-state comparison group. BRFSS is a health-focused telephone survey developed by the Centers for Disease Control and Prevention (CDC) that collects data from

[3-19] Arizona State Legislature. https://www.azleg.gov/viewdocument/?docName=http://www.azleg.gov/ars/36/00135.htm. Accessed October 11, 2019.

[3-20] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.

approximately 400,000 adults annually across all 50 states, Washington D.C., and three territories.[3-21] The questionnaire generally consists of two components: a core component and an optional component. Measure 3-1, general health status, will utilize data from BRFSS core module Health Status in conjunction with Medicaid coverage indicator from optional module Healthcare Access to compare against responses for a similar question among AHCCCS beneficiaries.[3-22] As described in the Comparison Populations—Out-of-State Comparison Groups section, fewer than a dozen states included the optional Healthcare Access module in a given year, which limits the availability and selection of potential comparison states.

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

Provider Focus Groups and Key Informant Interviews

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

ALTCS

Multiple data sources will be utilized to evaluate the five research hypotheses for the ALTCS evaluation. Administrative data sources include information extracted from PMMIS. PMMIS will be used to collect, manage and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics), FFS claims, and managed care encounter data. Historical eligibility data was contained in the AHCCCS Customer Eligibility (ACE) system, which was replaced with Health-e-Arizona Plus in September 2018. The NCI survey results will also be used to identify a comparison group of people with DD.

Administrative Data

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

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

The ASIIS will be used to calculate measures pertaining to immunization history. ASIIS is Arizona's immunization registry that collects immunization information and demographic data. Providers are mandated

[3-21] "About BRFSS," Centers for Disease Control and Prevention. Available at: https://www.cdc.gov/brfss/about/index.htm. Accessed on: Feb 11, 2020.

[3-22] CAHPS surveys for this evaluation will be administered through both mail and telephone, while BRFSS is administered exclusively through telephone. This difference in survey administration mode may lead to biased comparisons.

under Arizona Revised Statute (ARS) §36-135 to report all immunizations administered to individuals aged 18 and younger.[3-23]

Out-of-State Comparison Groups

Aggregate Data

NCI

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

Other State Aggregate Data

An out-of-state comparison group could also be obtained by using aggregate rates calculated for a population of beneficiaries who are EDP or with DD served by Medicaid services in another state. Ideally, the state chosen to serve as the comparison group would not have physical and behavioral health care services integrated throughout the period of the demonstration. It may be challenging to identify and confirm states that will not make such an integration prior to the end of the AHCCCS ALTCS evaluation period. As an alternative, however, a state that has already integrated physical and behavioral health care prior to the ALTCS baseline for integration could also serve as a viable comparison group. In effect, the evaluation would compare the performance of ALTCS after integration to a group already receiving integrated care and who, all else equal, should not exhibit any significant changes. To obtain data for a comparison group in this way will require the independent evaluator to obtain a DUA with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS ALTCS model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in populations for ALTCS and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their

[3-23] Arizona State Legislature. https://www.azleg.gov/viewdocument/?docName=http://www.azleg.gov/ars/36/00135.htm. Accessed Oct 11, 2019.

foster care population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the population of beneficiaries who are EPD or with DD when using aggregate rates.

Beneficiary-Level Data

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is T-MSIS maintained and collected by CMS. All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-24] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support beneficiary-level matching to ALTCS beneficiaries. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

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

Focus Groups and Key Informant Interviews

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

CMDP

Multiple data sources will be utilized to evaluate the three research hypotheses for the CMDP evaluation. Quantitative data collection will include administrative data extracted from PMMIS. PMMIS will be used to collect, manage and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics, income, community engagement compliance), FFS claims, managed care encounter data, income and program compliance data. Registry data about immunizations for children under 18 will be extracted from the ASIIS. Qualitative data pertaining to care coordination among providers will be collected through key informant interviews and/or provider focus groups. The combination of these data sources will be used to assess the four research hypotheses.

Administrative Data

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

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

[3-24] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.

Aggregate Data

Aggregate data may be used in the form of national or regional benchmarks and/or plan-level rates. National or regional benchmarks can be obtained to support difference-in-differences hypothesis testing. The independent evaluator will obtain rates from a range of national or regional benchmark sources, recognizing and where feasible, minimizing any limitations in the comparability of the AHCCCS target population and the population represented by the national or regional benchmarks. Most aggregate rates for HEDIS performance measures or CAHPS survey responses are provided at the measure level. Plan-level rates may be purchased, which can potentially support more rigorous statistical testing. However, these plan-level rates would not include data pertaining to plan demographics or risk. Although denominator data is not included in plan-level rates, these data sources include overall plan size. As a result, plan-level data would limit the ability to weight individual measures by denominator size (although overall plan size can be controlled for) and to control for differences in demographics or risk. Where possible, aggregate data for other health plans will be limited to those that primarily serve children in foster care.

An out-of-state comparison group could be obtained by using aggregate rates calculated for a population of foster children served by Medicaid services in another state. Ideally, the state chosen to serve as the comparison group would not have physical and behavioral health care services integrated throughout the period of the demonstration. It may be challenging to identify and confirm states that will not make such an integration prior to the end of the AHCCCS CMDP evaluation period. As an alternative, however, a state that has already integrated physical and behavioral health care prior to the CMDP baseline for integration could also serve as a viable comparison group. In effect, the evaluation would compare the performance of CMDP after integration to a group already receiving integrated care and who, all else equal, should not exhibit any significant changes. To obtain data for a comparison group in this way will require the independent evaluator to obtain a Data Use Agreement (DUA) with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS CMDP model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in populations for CMDP and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their foster care population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the CMDP population when using aggregate rates.

Out-of-State Comparison Groups

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is T-MSIS maintained and collected by CMS. All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-25] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support beneficiary-level matching to CMDP beneficiaries. However, as of the submission date of this evaluation design plan, these data

[3-25] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.

are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

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

Provider Focus Groups and Key Informant Interviews

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

PQC

Multiple data sources will be utilized to evaluate the eight research hypotheses for the PQC waiver evaluation. These include administrative and survey-based data. Administrative data include state eligibility, enrollment, and claims/encounter data. These data will be extracted from the PMMIS. State beneficiary survey data will be used primarily to measure beneficiary health status and satisfaction. National data will be used to capture data elements not otherwise available.

Administrative Data

Administrative data containing information on Medicaid eligibility, enrollment, demographics, claims, and encounters will be used to calculate measures pertaining to enrollment patterns, service utilization, costs, and to identify a valid comparison group.

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

National Datasets

Data from the IPUMS ACS will be utilized to estimate the number of Medicaid-eligible individuals in Arizona, as part of the analysis of *Percentage of Medicaid Enrollees by Eligibility Group* (Measure 1-1) and *Percentage of New Medicaid Enrollees by Eligibility Group* (Measure 1-2). The IPUMS ACS is a "database providing access to over sixty integrated, high-precision samples of the American population drawn from sixteen federal censuses, from the American Community Surveys of 2000-present."[3-26] The independent evaluator will extract data that include demographic information, employment, disability, income data and program participation such as Medicaid enrollment information.

Healthcare Cost Report Information System (HCRIS)

Data reported by Medicare-certified institutions housed in HCRIS will be used to assess non-Medicare uncompensated care costs, including Medicaid shortfalls as part of the measure *Reported costs for uninsured and/or likely eligible Medicaid recipients among potentially impacted providers and/or provider networks*

[3-26] IPUMS. Available at: https://usa.ipums.org/usa/intro.shtml. Accessed on: Feb 11, 2020.

(Measure 7-1). Institutions serving Medicare beneficiaries are required to submit a cost report to CMS annually, which includes data on non-Medicare uncompensated care costs, non-Medicare and non-reimbursable Medicare bad debts, indigent care costs, charity care, and Medicaid shortfalls. Data from HCRIS will be used to assess facility-level uncompensated care costs and will be compared to states similar to Arizona that do not operate a retroactive eligibility waiver. There is approximately a one to two-year lag on reporting into the HCRIS system.

Healthcare Cost and Utilization Project, State Inpatient Databases (HCUP-SID)

The Agency for Healthcare Research and Quality (AHRQ) supports the collection of healthcare databases from State data organizations, hospital associations, private data organizations, and the Federal government. HCUP includes the largest collection of longitudinal encounter-level hospital care data in the United States.[3-27] The HCUP State Inpatient Database encompasses over 95 percent of all U.S. hospital discharges, allows for cross-state comparisons, and contains information on the charges and source of payment, including charity care and self-payment.[3-28] There is approximately a one to two year lag on reporting into the HCUP-SID.

Beneficiary-level data

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is T-MSIS maintained and collected by CMS. All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-29] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support individual-level matching to PQC beneficiaries. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

Two measures may utilize data from BRFSS as out-of-state comparison groups. BRFSS is a health-focused telephone survey developed by CDC that collects data from approximately 400,000 adults annually across all 50 states, Washington D.C., and three territories.[3-30] The questionnaire generally consists of two components: a core component and an optional component. Measure 3-1 (*Beneficiary reported rating of overall health for all beneficiaries*) will utilize data from BRFSS core module Health Status in conjunction with Medicaid coverage indicator from optional module Healthcare Access to compare against responses for a similar question among AHCCCS beneficiaries.[3-31] Likewise, Measure 4-1, (*Percentage of beneficiaries who reported medical debt*) will utilize data from optional module Healthcare Access to measure percentage of Medicaid beneficiaries with medical bills. As described in the Comparison Populations—Out-of-State Comparison Groups section, fewer than a dozen states elected to include the optional Healthcare Access module in a given year, which limits the availability and selection of potential comparison states.

[3-27] Overview of HCUP; https://www.hcup-us.ahrq.gov/overview.jsp. Accessed on June 25, 2020.
[3-28] Introduction to the HCUP State Inpatient Databases (SID); https://www.hcup-us.ahrq.gov/db/state/siddist/Introduction_to_SID.pdf. Accessed on June 25, 2020.
[3-29] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.
[3-30] "About BRFSS," Centers for Disease Control and Prevention; https://www.cdc.gov/brfss/about/index.htm; last accessed Feb 11, 2020.
[3-31] CAHPS surveys for this evaluation will be administered through both mail and telephone, while BRFSS is administered exclusively through telephone. This difference in survey administration mode may lead to biased comparisons.

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

State Beneficiary Survey Data

Measures pertaining to Hypotheses 3, 4, 5, and 6 will be based on a consumer survey, CAHPS® and will include CAHPS-like questions specific to the PQC evaluation.[3-32] CAHPS surveys are often used to assess satisfaction with provided healthcare services and are adapted to elicit information addressing the research hypotheses related to members' continuity of healthcare coverage, and overall health status and utilization.

Since the program will be in effect prior to the completion of the evaluation design plan, the independent evaluator will conduct two post-implementation surveys to ask recipients about their self-reported health status. The elimination of PQC is not expected to reduce self-reported health. Rather, the elimination of PQC is expected to increase the enrollment of eligible individuals when they are healthy, and reduce the disenrollment of individuals when they are healthy. As such, the survey data collected by the independent evaluator does not have a traditional baseline period and comparison group for identification of causal effects. Rather, fielding a survey shortly after implementation, and another in the following year will allow a descriptive comparison of the self-reported health for newly-enrolled Medicaid beneficiaries and those that are not newly enrolled. This approached is predicated on the assumption that there will be a ramp-up period during which the knowledge-base of the eligible population will be updated to include the elimination of PQC moving forward. To the extent that this increases the likelihood of enrollment by eligible individual and reduces disenrollment of beneficiaries when they are healthy, the self-reported health status should increase between the survey waves.

Measures pertaining to Hypothesis 2 will also be based on CAHPS-like questions. Unlike a traditional CAHPS survey that is limited to beneficiaries enrolled for at least five of the past six months, the self-reported data needed for Hypothesis 2 must also be collected for a sample of beneficiaries who are newly enrolled. The sampling frame will be adjusted to include a sample of beneficiaries who have been enrolled within the past month to capture the health status of beneficiaries who did not have a recent spell of Medicaid coverage. All beneficiaries will be eligible to be surveyed and beneficiaries who are newly enrolled will be compared to continuously enrolled beneficiaries who have had sustained Medicaid coverage. This will allow for comparison of health status between beneficiaries who are newly enrolled compared to those who have had sustained coverage. A second survey with the same questions will be administered to similar groups later in the demonstration to evaluate how health outcomes between beneficiaries who are newly enrolled and those who are not have changed over time. Because CAHPS surveys are traditionally limited to beneficiaries who have been enrolled for at least five of the past six months, and exclude any newly enrolled beneficiaries, historical data does not exist to serve as a comparison. Additionally, this survey will not allow for causal inferences to be drawn regarding the impact of the PQC waiver. The survey results, however, will provide a descriptive statement about the self-reported health status of beneficiaries over time to determine if the expected improvements manifest.

Simple random sampling will be used to construct a statistically valid sample at the state level. The independent evaluator will perform power calculations to determine the appropriate number of surveys that will be sent out to beneficiaries statewide and to include sufficient power to identify rates for the newly enrolled. The standard NCQA HEDIS® Specifications for Survey Measures requires a sample size of 1,350 beneficiaries for the CAHPS 5.0 Adult Medicaid Health Plan Survey.[3-33,3-34] An oversample of at least 10 percent for each plan will be applied

[3-32] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).
[3-33] HEDIS is a registered trademark of NCQA.
[3-34] National Committee for Quality Assurance. *HEDIS® 2020, Volume 3: Specifications for Survey Measures*. Washington,

to ensure an adequate number of respondents to each CAHPS measure. The maximum estimated number of surveys that need to be sent is estimated to be 1,485. Historical response rates in Arizona for the Acute Care population are approximately 22 percent, which would translate to 327 completed adult surveys. The statewide sample across the seven plans would therefore be 2,289 respondents. A sample of 2,289 would have 0.8 power to identify a single percentage estimate of a 50 percent rate with a margin of error of 2.05 percent, or to identify a difference of rates between 50 percent and 54.1 percent with an alpha level of 0.05 and a two-tailed test. Because evaluations for several concurrent waivers are planned, the State and its independent evaluator will seek to streamline survey administration across evaluations to minimize the number of separate survey rounds required, thereby minimizing the burden on beneficiaries and maximizing the response rate. Therefore, the sampling strategy described above may be revised based on enrollment across waivers.

To maximize response rates, a mixed-mode methodology (e.g., telephone and mail) for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to beneficiaries, has been shown to increase response rates and will be incorporated into survey administration.

Historical Data

Results will be compared against historical AHCCCS rates from previous state-wide surveys and national benchmarks where available. Between October 2015 and March 2016, a CAHPS survey was administered to the Acute Care population, which is similar to the population subject to the waiver of PQC.[3-35] Limitations with using this survey as a comparison group lie in the differences in the population. The Acute Care population includes women who are pregnant or less than 60 days postpartum, as well as individuals who are 18 years of age. The Acute Care population also excludes individuals with severe mental illness, individuals who are elderly and/or physically disabled, and individuals who are developmentally disabled, whereas these individuals would be subjected to the elimination of PQC. However, these population differences are minimal and are not expected to have an impact on the aggregated rates.

Aggregate Data

An out-of-state comparison group for CAHPS survey responses could also be obtained by using aggregate rates from the Adult Medicaid Health Plan Survey with the Healthcare Effectiveness Data and Information Set. The state(s) chosen to serve as the comparison group would not have implemented a demonstration that limits retroactive eligibility or implement other demonstrations during the time period of the demonstration. To obtain data for a comparison group in this way will require the independent evaluator to obtain a DUA with comparison state Medicaid authority.

The use of aggregate rates from another state does not come without limitations. Two key limitations to note are the challenges in comparing a population that may have different demographics and background disease conditions and diagnoses from the Arizona population, and the likely inability to identify a state with a system that does not differ from the AHCCCS model and does not have other confounding quality improvement activities operating concurrently. Both of these factors could lead to confounded results. Whereas beneficiary-level data could allow the independent evaluator to statistically control for differences in the intervention population and a comparison state, the use of aggregated rates will not allow similar statistical adjustments to be made. Similarly, if a comparison state is concurrently operating other quality improvement initiatives that impact their Medicaid

DC: NCQA Publication, 2019.

[3-35] 2016 Acute Care Program Adult Medicaid Member Satisfaction Report. https://www.azahcccs.gov/shared/Downloads/Reporting/CAHPS/2016/AZCAHPS_2016_Acute_Care_Program_Adult_Member_Satisfaction_Report_Final.pdf. Accessed on Oct 24, 2019.

population, the independent evaluator will not be able to statistically adjust for potential effects that would not impact the AHCCCS intervention population when using aggregate rates.

Provider Focus Groups and Key Informant Interviews

A possible unintended consequence of the retroactive eligibility waiver is that likely Medicaid-eligible beneficiaries who are uninsured will not have costs covered by Medicaid. This can adversely impact the financial well-being of these individuals, which is addressed through Measure 4-1 (*Percentage of Beneficiaries Who Reported Medical Debt*). Another effect of this, is that it could cause an increase in costs for healthcare providers through providing uncompensated care to the uninsured who are likely Medicaid eligible. To comprehensively evaluate the cost savings of the waiver, costs external to Medicaid should be captured to the extent possible. Measure 7-4, *Reported Costs for Uninsured and/or Likely Eligible Medicaid Recipients*, will be based on data obtained during provider focus groups. Focus groups will be conducted with representatives of some of the healthcare providers who serve the likely Medicaid-eligible population in Arizona. Key informant interviews will gather information from individuals with AHCCCS and health plans who are knowledgeable about their organization's populations served, and associated costs and utilization particularly among Medicaid beneficiaries and likely Medicaid-eligible beneficiaries who are uninsured.

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

RBHA

Multiple data sources will be utilized to evaluate the six hypotheses for the RBHA evaluation. Data collection will include administrative and survey-based data, such as from CAHPS® questions.[3-36] Administrative data sources include information extracted from PMMIS. PMMIS will be used to collect, manage and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics), FFS claims, and managed care encounter data. The combination of survey and the administrative data sources mentioned earlier will be used to assess the six research hypotheses.

State Beneficiary Survey Data

State beneficiary surveys will be used to assess beneficiaries' ability to obtain timely appointments, satisfaction with healthcare, and their perception that their personal doctor seemed informed about the care they received from other providers, and flu vaccinations. CAHPS surveys are often used to assess satisfaction with provided healthcare services. It is expected that cross-sectional surveys will be conducted once during 2020 and once during 2021. The sampling frame for the survey will be identified through eligibility and enrollment data, with specific enrollment requirements being finalized upon inspection of the data. Typically, beneficiaries are drawn from beneficiaries enrolled continuously during the last six months of the measurement period, with no more than a one-month gap in enrollment. Stratified random sampling by RBHA will be used to construct a statistically valid sample at the plan level. The standard NCQA HEDIS® Specifications for Survey Measures requires a sample size of 1,350 beneficiaries for the CAHPS 5.0 Adult Medicaid Health Plan Survey.[3-37,3-38] An oversample of at least 10 percent for each plan will be applied to ensure an adequate number of respondents to each CAHPS

[3-36] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).
[3-37] HEDIS is a registered trademark of the NCQA.
[3-38] National Committee for Quality Assurance. HEDIS® 2020, Volume 3: Specifications for Survey Measures. Washington, DC: NCQA Publication, 2019.

measure. The maximum estimated number of surveys that need to be sent per plan is 1,485. In Arizona, the response rate for beneficiaries determined to have an SMI was approximately 30 percent in 2015. With a 30 percent response rate across three RBHAs, the anticipated number of completed surveys is 1,336. A sample size of 1,336 would have 0.8 power to identify a single percentage estimate of a 50 percent rate with a margin of error of 2.68 percent, or to identify a difference of rates between 50 percent and 55.4 percent with an alpha level of 0.05 and two-tailed tests. Because plan sampling will be disproportionate to overall plan membership statewide, plan-level rates will be reweighted to adjust for proportionality when calculating aggregate rates. Because evaluations for several concurrent waivers are planned, the State and its independent evaluator will seek to streamline survey administration across evaluations to minimize the number of separate survey rounds required, thereby minimizing the burden on beneficiaries and maximizing the response rate. Therefore, the sampling strategy described above may be revised based on enrollment across waivers. The CAHPS 5.0 Adult Medicaid Health Plan Survey with the HEDIS supplemental item set will be used to field the survey.

To maximize response rates, a mixed-mode (i.e., telephone a mail) methodology for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to beneficiaries, has been shown to increase response rates and will be incorporated into survey administration.

Administrative Data

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

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

National Datasets

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is T-MSIS maintained and collected by CMS. All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-39] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support beneficiary-level matching to RBHA beneficiaries. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

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

Focus Groups and Key Informant Interviews

[3-39] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.

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

TI

Multiple data sources will be utilized to evaluate the six research hypotheses for the TI program evaluation. Quantitative data collection will include administrative and survey-based data such as CAHPS® survey questions. Administrative data sources include information extracted from PMMIS.[3-40] PMMIS will be used to collect, manage and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics), FFS claims, managed care encounter data. Administrative program data from Health Current will be utilized to assess providers who have an executed agreement and receive ADT alerts and self-attestation Integrated Practice Assessment Tool (IPAT) results from participating TI participating providers will serve to monitor the level of care integration. Qualitative data pertaining to AHCCCS' and providers' reported barriers to implementation of the TI program will be collected through key informant interviews and/or provider focus groups. The combination of these data sources will be used to assess the six research hypotheses.

State Beneficiary Survey Data

State beneficiary surveys will be used to assess beneficiaries' health care coverage and satisfaction after TI program implementation. These surveys will be an important data source for the evaluation because the independent evaluator will need to capture information from beneficiaries about their health care experience in order to answer pertinent questions to the demonstration, such as patient perception of care coordination.

The survey questions will be designed to capture elements of the program Special Terms and Conditions (STCs) that cannot be addressed through administrative data. The following concepts and hypotheses will be addressed in the beneficiary surveys:

1. Access and availability of care—research questions 1.2, 2.2, and 3.2 ask whether rates of screening visits, well-care visits, and beneficiaries' access to care are higher for beneficiaries subject to the TI demonstration compared to beneficiaries not subject to the TI demonstration.
2. Patient perception of care coordination—research questions 1.4 and 2.6 ask whether beneficiaries subject to the TI demonstration perceive that their doctors have better care coordination than those not subject to the demonstration.

The independent evaluator will conduct single cross-sectional surveys during the measurement period.

When administering the survey for children, the survey may include language on the cover page allowing for older children to answer directly; otherwise the parent or guardian will answer on their behalf. To maximize response rates, a mixed-mode methodology for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to beneficiaries, has shown to increase response rates and will be incorporated into survey administration. Additionally, to the extent possible, the independent evaluator will align multiple demonstration surveys to be distributed at the same time to increase response rates across all demonstrations with overlapping populations. A range of sampling protocols will be considered

[3-40] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

including simple random samples, stratified random samples, multistage stratifications (i.e., cluster), and targeted oversamples.

The standard NCQA HEDIS® Specifications for Survey Measures requires a sample size of 1,350 beneficiaries for the CAHPS 5.0 Adult Medicaid Health Plan Survey and 1,650 for the CAHPS 5.0 Child Medicaid Health Plan Survey. [3-41,3-42] An oversample of at least 10 percent for each plan will be applied to ensure an adequate number of respondents to each CAHPS measure. Rather than sampling from plans, the survey for the TI program will sample from the TI and non-TI attributed populations for three distinct populations: adults, children, and adults transitioning from the criminal justice system. The maximum estimated number of surveys that need to be sent is estimated to be 1,485 for adults and 1,815 for children in each of the TI and non-TI attributed populations. Historic response rates in Arizona for the Acute Care population are approximately 22 percent for adults and 20 percent for children, which would translate to a completed sample of 327 adult respondents and 363 child respondents. For the adult samples, a sample size of 327 would have 0.8 power to identify a single percentage of 50 percent with a margin of error of 5.42 percent, or to identify a difference between rates of 50 percent and 60.9 percent with an alpha level of 0.05 and two-tailed tests. For the child sample, a sample size of 363 would have 0.8 power to identify a single percentage of 50 percent with a margin of error of 5.14 percent, or to identify a difference between rates of 50 percent and 60.3 percent with an alpha level of 0.05 and two-tailed tests.

Administrative Data

AHCCCS's demonstration evaluation will allow the opportunity to utilize data from several sources (i.e., PMMIS and Health Current) to determine the impact of TI. The administrative data sources are necessary to address the five research hypotheses primarily relating to health outcomes, and to identify a valid comparison group.

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

Program administrative data will also be used to identify TI participating practices, member assignment, monitor providers who have an executed agreement with Health Current and routinely receive ADT alerts, as well as each participating providers' self-reported result from the IPAT, which measures the level of care integration.

Focus Groups and Key Informant Interviews

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

Analytic Methods

The evaluation reporting will meet traditional standards of scientific and academic rigor, as appropriate and feasible for each aspect of the evaluation (e.g., for the evaluation design, data collection and analysis, and the interpretation and reporting of findings). The ACC waiver evaluation will use the best available data, will use controls and adjustments where appropriate and available, and will report the limitations of data and the

[3-41] HEDIS is a registered trademark of NCQA.
[3-42] National Committee for Quality Assurance. *HEDIS® 2020, Volume 3: Specifications for Survey Measures*. Washington, DC: NCQA Publication, 2019.

limitations' effects on interpreting the results. Six general analytic approaches will be considered for this evaluation:

1. Difference-in-differences (DiD)
2. Interrupted time series
3. Hierarchical Linear/Generalized Linear Model
4. Pre-test/post-test
5. Comparison to national benchmarks and/or historical rates
6. Qualitative synthesis

Difference-in-Differences

A DiD analysis will be performed on all measures for which baseline and evaluation period data are available for both the intervention and comparison groups. Because this is the preferred analytic approach, the DiD will be utilized of the evaluation of all six programs where possible. This analysis will compare the changes in the rates or outcomes between the baseline period and the evaluation period. This allows for expected rates for the intervention group to be calculated by considering expected changes in outcomes had the policy not been implemented. This is done by subtracting the average change in the comparison group from the average change in the intervention, thus removing biases from the evaluation period comparisons due to permanent differences between the two groups. In other words, any changes in the outcomes caused by factors external to the policy would apply to both groups equally and the DiD methodology will remove the potential bias. The result is a clearer picture of the actual effect of the program on the evaluated outcomes.

Because beneficiary-level data is unlikely to be publicly available for other states and out-of-state comparisons rates are likely to be aggregated rates, DiD statistical testing will be conducted with aggregated data.

The generic DiD model is:

$$Y_{it} = \beta_0 + \beta_1 X_i + \beta_2 R_t + \beta_3 (R_t * X_i) + \boldsymbol{\gamma} \mathbf{D'}_{\boldsymbol{it}} + u_{it}$$

Where Y is the proportion for group *i* in year *t*, X is a binary indicator for the intervention group (i.e., Arizona), T is a binary indicator for the follow-up period, and ε is an error term. The vector **D'** will include observable covariates, where available, to ensure comparability of the groups for any measure-specific subgrouping (e.g., to address non-response bias) and $\boldsymbol{\gamma}$ is the related coefficient vector. The coefficient, β_1, identifies the average difference between the groups prior to the effective date of the policy. The time period dummy coefficient, β_2, captures the change in outcome between baseline and evaluation time periods. The coefficient of interest, β_3, is the coefficient for the interaction term, $R_t * X$, which is the same as the dummy variable equal to one for those observations in the intervention group in the remeasurement period. This represents the estimated effect of the program on the intervention group, conditional on the included observable covariates. For measures in which the comparison group is comprised of plan-level rates, the above regression will be frequency weighted by the sample size used to calculate the rate. Identifying the number of observations that go into a measure rate in the regression model will allow estimation of the same parameter results that would be obtained by having the underlying beneficiary-level data. It is expected that the aggregated data will include both the necessary rates and variances or for each measure or that variances can be estimated from the rates and total number of responses for each measure.

The generic DiD calculation is:

$$\delta = \left(\bar{y}_{T,R} - \bar{y}_{\mathrm{T,B}}\right) - \left(\bar{y}_{\mathrm{C,R}} - \bar{y}_{\mathrm{C,B}}\right) \mid \mathbf{D}'$$

Assuming trends in the outcome between the comparison and intervention groups are approximately parallel during the baseline period, the estimate will provide the expected costs and rates without intervention. If the β_3 coefficient is significantly different from zero, then it is reasonable to conclude that the outcome differed between the intervention and comparison group after the policy went into effect. In addition to assessing the degree of statistical significance for the result, as represented by the p-value associated with β_3, the results will be interpreted in a broader context of clinical and practical significance.[3-43]

For analyses that utilize an out-of-state comparison group, the DiD regression model will provide an estimate of the statistical significance of the difference between the results for Arizona beneficiaries and those outside of the state. This estimate, however, is derived from data sources that are likely to have several important caveats that could lead to biased results. For survey-based measures the aggregated data is likely to include measurement error related to the questions asked and respondent recall issues. Similarly, an administrative data could contain measurement error in the form of coding mistakes or omissions. Importantly, any out-of-state comparison group is likely to include some differences in rates from Arizona based on differences in the policies and regulations governing the state Medicaid system such as eligibility rules and programmatic policies. Based on these potential biases, the independent evaluator will also need to characterize the uncertainty in the results of the DiD regression model above.

The measure rates, variances, and sample sizes will be used to simulate draws of the data. For each of the four data points in the regression (i.e., intervention and comparison group in the pre- and post-periods), a random value will be generated within 95 percent confidence interval of the observed rate. The DiD regression will be estimated with the randomly drawn values, and the process will be replicated 10,000 times. The resulting distribution of p-values will provide an estimate of how often a significant result would be found, given the potential error in the data. For example, the results will allow the creation of probabilistic statements such as "In 80 percent of the simulated samples, a significant difference was identified in the DiD." Of note, this simulation will not mitigate against significant differences that are due to true programmatic differences across states that impact the populations. Rather, the simulation acknowledges that the data are drawn from data sources that contain measurement error and other sources of error and will help characterize the extent of uncertainty attached to a given model.

Interrupted Time Series

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

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

[3-43] Results from statistical analyses will be presented and interpreted in a manner that is consistent with the spirit of recent guidance put forth in *The American Statistician.* Ronald L. Wasserstein, Allen L. Schirm & Nicole A. Lazar (2019) Moving to a World Beyond "p < 0.05", The American Statistician, 73:sup1, 1-19, DOI: 10.1080/00031305.2019.1583913.

$$Y_t = \beta_0 + \beta_1 time_t + \beta_2 post_t + \beta_3 time \times post_t + \mu_t$$

where Y_t is the outcome of interest for the time period *t*, *time* represents a linear time trend, *post* is a dummy variable to indicate the time periods post-implementation, and $time \times post$ is the interaction term between *time* and *post*. The coefficient, β_0, identifies the starting level of outcome *Y*, β_1 is the slope of the outcome between the measurements before the program, β_2 is the change in the outcome at a various point in time, and β_3 is the change in the slope for the measurements after the program.

Assuming that the measurements taken after the implementation of the demonstration would have been equal to the expectation predicted from the measurements taken before the demonstration in the absence of the intervention, any changes in the observed rates after implementation can be attributed to the program.

A limitation of interrupted time series is the need for sufficient data points both before and after program implementation.[3-44] To facilitate this methodology, the independent evaluator may consider additional baseline data points using prior year calculations, and/or calculating quarterly rates where feasible, if multiple years both pre-and post-implementation are available to control for seasonality.

Specifically, for the PQC evaluation, the independent evaluator will evaluate two measures in which data on a comparison group will not be available:

- Percentage of Medicaid enrollees by eligibility group out of estimated eligible Medicaid recipients.
- Percentage of Medicaid beneficiaries applying for Medicaid within the month of finding relevant diagnosis, by eligibility category.

These measures are intended to be captured monthly through administrative program data. As such, the higher frequency can be used to construct pre- and post-implementation trends using interrupted time series. An interrupted time series approach can be utilized to draw causal inferences if sufficient data points exist before and after implementation, there are no concurrent shocks in the trend around program implementation, and any seasonal effects are adequately accounted for.

Hierarchical Linear/Generalized Linear Model

This analytic approach may be used in the evaluation of Targeted Investments because outcomes are measured at the beneficiary level while the TI program is implemented at the provider or practice level. Consequently, each provider or practice serves many beneficiaries, the statistical methods for the evaluation of the TI program must account for systematic variation at the level of the provider or practice. This can be accomplished through directly modelling the variation through hierarchical linear modeling techniques. Additional methods may include risk adjustment at the provider level and adjusting standard errors for clustering.

A hierarchical linear model (HLM) or hierarchical generalized linear model (HGLM) may be used to directly model the variation across providers. The HGLM is an extension of the HLM by which the outcome may be represented by data other than a continuous, numeric scale, such as binary or count data. The independent evaluator will determine the most appropriate methodology given the data. To allow for causal inference, the

[3-44] Baicker, K., and Svoronos, T., (2019) "Testing the Validity of the Single Interrupted Time Series Design," *NBER Working Paper 26080,* https://www.nber.org/papers/w26080.pdf; Bernal, J.L., Cummins, S., Gasparrini, A. (2017) "Interrupted time series regression for the evaluation of public health interventions: a tutorial," *International Journal of Epidemiology*, 46(1): 348-355, https://doi.org/10.1093/ije/dyw098; Penfold, R. B., Zhang, F. (2013) "Use of Interrupted Time Series Analysis in Evaluating Health Care Quality Improvements," *Academic Pediatrics*, 13(6): S38 - S44, https://doi.org/10.1016/j.acap.2013.08.002.

HLM or HGLM should be structured in either a DiD or ITS framework for this evaluation. The below description details the HLM model specification in a DiD framework.[3-45]

The nature of the demonstration will yield data that logically adhere to a nested structure, with repeated measurements across time nested within beneficiaries, who are then nested within providers. Through the nested structure of the dataset, the generic HLM will be comprised of three levels, which will be combined in a final, fully nested equation.

The generic HLM will be comprised of three levels:

1. Time
2. Beneficiary
3. Provider

The time-level model is given by:

$$Y_{tij} = \pi_{0ij} + \pi_{1ij}T_{tij} + \varepsilon_{tij} \quad (1)$$

Where $Y_{tij}$is the outcome *Y* at time *t* for beneficiary *i* for provider *j;* the coefficient π_{0ij} is the value of outcome *Y* for beneficiary *i* for provider *j* at *T*=0 (i.e., baseline); the coefficient π_{1ij} is the average change in outcome *Y* for beneficiary *i* for provider *j* for a one unit change in *T*; $T_{tij}$is a whole number time trend coded as 0 for the first data point (i.e., baseline); and ε_{tij} is a normally distributed error term representing the random deviation in the observed outcome Y_{tij}.

The beneficiary-level model is given by:

$$\pi_{0ij} = \beta_{00j} + \beta_{01j}X_{ij} + r_{0ij} \quad (2)$$

$$\pi_{1ij} = \beta_{10j} + \beta_{11j}X_{ij} + r_{1ij}$$

Where β_{00j} is the average outcome *Y* for provider *j* at *T*=0; the coefficient β_{01j} is the average change in *Y* for provider *j* at *T*=0 for a unit change in X_{ij} which represents person-level covariates for beneficiary *i* for provider *j* such as demographics or health conditions; r_{0ij} is a normally distributed person-level error term and represents the deviation in outcome *Y* for person *i* for provider *j*; β_{10j} is the average change in *Y* for provider *j* for a one unit change in *T*; β_{11j} is the average increment or decrement to the change over time in the outcome for provider *j* for a one unit change in *X*; and r_{1ij} is a normally distributed person-level error term and represents the deviation of beneficiary *i* from the average change in *Y* for provider *j* for a one unit change in *T*.

The provider-level model is given by:

$$\beta_{00j} = \gamma_{000} + \gamma_{001}W_j + u_{00j} \quad (3)$$

$$\beta_{10j} = \gamma_{100} + \gamma_{101}W_j + u_{10j}$$

Where γ_{000} is the grand mean average outcome *Y* (i.e. average outcome across all beneficiaries and providers in the comparison group) at *T*=0; γ_{001} is the average change in the grand mean at *T*=0 for a unit change in *W* (e.g.

[3-45] This model specification can be modified to follow an ITS framework or comparative ITS framework depending on the availability of a comparison group and number of data points both before and after program implementation.

the average difference in rates between intervention and comparison group at baseline); W_j represents an indicator for TI participation and, optionally, other provider-level covariates, such as panel size; u_{00j} is a normally distributed provider-level error term representing the deviation in outcome *Y* from the grand mean for provider *j* at *T*=0; γ_{100} is the grand mean change in *Y* for a one unit change in *T* across providers in the comparison group (e.g. average change in rates between baseline and remeasurement period for non-TI providers); γ_{101} is the increment or decrement to the change over time in the outcome for a one unit change in *W*; and u_{10j} is a normally distributed provider-level error term and represents the deviation from γ_{100} for provider *j* for a unit change in *T*.

Substituting equations (2) and (3) into equation (1) and rearranging terms yields the following complete equation, which is what the independent evaluator will estimate:

$$Y_{tij} = \underbrace{\gamma_{000} + \beta_{01j}X_{ij} + \gamma_{001}W_j}_{\text{Fixed-Effects Main Effects}} + \underbrace{(\gamma_{100} + \beta_{11j}X_{ij} + \gamma_{101}W_j)T_{tij}}_{\text{Fixed-Effects Cross-Level Interactions}} + \underbrace{(u_{1j} + r_{1ij})T_{tij} + r_{0ij} + u_{0j}}_{\text{Random Effects}} + \underbrace{\varepsilon_{tij}}_{\text{Error Term}} \quad (4)$$

In this equation, the fixed effects represent the average effect of beneficiary and provider characteristics (e.g. the average difference in rates between males and females). Random effects represent differences between beneficiaries and providers on the outcome that are not captured in the fixed effects. The cross-level interaction term, $\gamma_{101}W_j \times T_{tij}$, represents the HLM equivalent of a DiD regression coefficient where the treatment is defined via participation in TI (W_j) and impacts the outcome through an interaction with beneficiary-level changes over time. As briefly mentioned above, the coefficient γ_{101} represents the difference between TI and non-TI providers in the change in outcome between the baseline and remeasurement period(s), controlling for differences across practices. In other words, this coefficient represents the average incremental impact of the TI program across practices and patients.

The model specification above provides a general framework which the independent evaluator may build upon or modify to suit the specific data and evaluation needs, which may include determining the appropriate model specification regarding the inclusion or exclusion of specific elements of random or fixed effects.[3-46] The HLM framework can account for providers and beneficiaries who drop out of the study and allow for the estimation of resulting attrition effects.

Pre-Test/Post-Test

For measures with consistent specifications over time for which national or regional benchmarks are not available, and which have too few observations to support an interrupted time series analysis,[3-47] rates will be

[3-46] There are many advantages that this flexibility can provide. These advantages include but are not limited to: given only two time periods (e.g., baseline and remeasurement) equation (1) may be modified to remove the error term and the time component substituted into equation (2), effectively reducing the model to a two-level hierarchical model. Second, a non-linear link function may be added to equation (4) to create an HGLM that can evaluate multiple types of outcomes (e.g., binary or count data). Third, for multi-year post-implementation analyses, the independent evaluator may consider including flags indicating practices that dropped out of the TI program as a measure of attrition effects. Fourth, if the intervention and comparison groups have similar rates at baseline after propensity score matching, the independent evaluator can test the need for random intercepts in the model. Fifth, the independent evaluator may begin analysis by running an unconditional model (i.e., no practice- or beneficiary-level) covariates to determine the extent to which the outcome varies across beneficiaries and across practices. Finally, the HLM or HGLM framework is robust to missing data in the level (1) equation and can therefore accommodate a changing population over time; however, higher levels (e.g., beneficiary and practice) cannot have missing data.

[3-47] Because measures are calculated on an annual reporting period, the post-implementation period during the current demonstration approval period of three years is insufficient to support an interrupted time series analysis.

calculated and compared both before and after program integration. Statistical testing will be conducted through a chi-square analysis. A chi-square test allows for comparison between two groups that have a categorical outcome, such as survey results or numerator compliance, to determine if the observed counts are different than the expectation.

A pre-test/post-test analysis will be conducted for ACC, ALTCS, CMDP, PQC, and RBHA.

Comparison to National Benchmarks and/or Historical Rates

A comparison to national benchmarks and/or historical rates approach will be utilized for the evaluation of ACC and PQC.

To provide additional context of rates and changes in rates after the transition to integrated care under these plans, the independent evaluator may compare rates from ACC or PQC with both historical rates prior to integration and against national benchmarks without necessarily conducting formal statistical testing (e.g., DiD or pre-test/post-test approaches). By combining reference points from historical rates under Acute Care with contemporaneous national benchmarks, rates calculated for ACC/PQC can be reported in the context of historical Arizona-specific performance in addition to performance nationally, thus triangulating an impact of the program on outcomes. Although statistical testing through a DiD or pre-test/post-test approach would be preferable, these comparisons may be necessary if the level of data for the comparison group are not granular enough to support such statistical testing.

Qualitative Synthesis

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

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

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

To recruit providers for the focus groups, the independent evaluator will begin by requesting a list of any providers from AHCCCS with whom they have experienced an above average level of engagement and participation. Those providers most engaged in the program may also be those most able and willing to provide feedback on their experiences during implementation. The independent evaluator will attempt to recruit focus group participants from the providers suggested by AHCCCS initially. The independent evaluator will supplement the list provided by AHCCCS with participating providers in the demonstration stratified by

geographic region, location within each region (e.g., urban versus rural providers), and by specialty. Because the providers are participating in the demonstrations statewide, the independent evaluator will attempt to recruit focus group participants regionally across the AHCCCS-defined North, Central, and South geographical service areas within the state. Recruiting regionally, will allow for participation by providers operating in large metropolitan areas, as well as smaller rural locations. After stratifying the provider lists, the independent evaluator will sample to recruit providers representing the broadest spectrum of participating providers. By recruiting to maximize the variation in provider-types and locations, the data obtained are likely to represent perspectives from a wide variety of participating providers. The recruitment goal is to have five to eight providers participate in each focus group. Focus group meetings will last approximately 90 minutes to allow sufficient time for all participants to voice their perspectives and explore each topic in detail. To facilitate provider participation—particularly for rural providers—focus groups will be held via a WebEx teleconference with the option of participant video conferencing. Due to the self-selection of participants and the wide degree of variability across provider types, the focus group participants are not likely to constitute a statistically representative sample of providers within the state. The purpose of the focus group data collection, however, is not to obtain a statistically representative sample of respondents. Rather, the purpose of the focus group data collection is to obtain a rich set of contextualized description that cannot easily be obtained through administrative data or survey data collection efforts

It is not anticipated that financial incentives for participation would be required for current plan or agency employees, however, key informants who are no longer employed by the plan or agency might be offered an incentive such as a $100.00 gift card to encourage participation.

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

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

Early focus groups or interviews will inform the development and choice of topics and help inform the selection of additional interview subjects to round out the list of individuals to be interviewed for this project.

In both formats, open-ended questions will be used to maximize the diversity and richness of responses and ensure a more holistic understanding of the subject's experience. Probing follow-up questions will be used as appropriate to elicit additional detail and understanding of critical points, terminology, and perspectives. The sessions will be recorded and transcribed with participant consent.

The information obtained from these focus groups and interviews will be synthesized with the results from other quantitative data analyses providing an in-depth discussion of each of the domains/objectives to be considered. As the key informant interviews are being conducted, the independent evaluator will perform ongoing and iterative review of the interview responses and notes to identify overall themes and common response patterns. Unique responses that are substantively interesting and informative will also be noted and may be used to develop probing questions for future interviews. The results of these preliminary analyses will be used to document the emergent

and overarching themes related to each research question. The documentation of emergent themes will be reviewed in an iterative manner to determine if responses to interview questions are continuing to provide new perspectives and answers, or if the responses are converging on a common set of response patterns indicating saturation on a particular interview question. As additional interview data are collected, the categories, themes, and relationships will be adjusted to reflect the broader set of concepts and different types of relationships identified. The documentation of emergent themes will also be used as an initial starting point for organizing the analysis of the interview data once all interviews are completed.

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

In addition to the six methods listed above, the independent evaluator will use the following additional approaches:

Chi-Square Test

A chi-square test will be utilized for certain measures in the TI demonstration evaluation as it allows for comparison between two groups that have a categorical outcome, such as survey results, to determine if the observed counts are different than the expectation. A test statistic is calculated that compares the observed results to the expected results and a chi-square distribution is used to estimate the probability of the observed difference from the expected results being due to the demonstration.

Rapid Cycle Reporting – Statistical Process Control Chart

Measures in which outcomes can be collected monthly are also conducive to rapid cycle reporting. Rapid cycle reporting provides an early warning of possible unintended consequences. These measures are primarily intended for program impact monitoring prior to the analyses that will be contained in the evaluation reports. Rapid cycle reporting measures will be presented on a regular schedule as determined by the independent evaluator using statistical process control charts. Statistical process control charts will be utilized as the tool to identify changes in time series data—data points or trends that depart from a baseline level of variation. This will be helpful in quickly identifying concerns requiring further investigation. Rapid cycle reporting will be used for the TI demonstration evaluation and the PQC waiver evaluation.

Descriptive Impact Analysis

Measure for the TI demonstration will rely on program data reported at infrequent or irregular intervals but are nevertheless critical to determining the success of the program on changing practice behavior. Specifically, measures evaluating changes in providers' self-reported level of care integration as defined by the Substance Abuse and Mental Health Services Administration (SAMHSA) will likely be available at infrequent intervals

throughout the course of the demonstration.[3-48] As such, the evaluation of these measures will center on a descriptive analysis of the changes in care integration as the demonstration program matures, providing valuable insights as to the impact that the TI program may have had on care integration.

Comparison of Means

For PQC measures that do not have a comparison group and where no causal inference can be deducted, means between groups will be compared to show changes in outcomes over time.

Cost-Effectiveness Analysis

To evaluate the sustainability of the demonstration component and its impacts on costs, the independent evaluator will estimate costs and savings associated with the renewal of the waiver for all six programs. Total costs will be comprised of both medical costs and administrative costs.

Costs and savings will be estimated based on an actuarial approach. The actuarial method will create a "hypothetical comparison group" by trending the cost experience of a waiver population during a baseline period prior to renewal of the waiver forward in time to the evaluation period(s) following renewal of the waiver. The trended costs will represent an estimate of the costs for the waiver population during the evaluation period(s) as if the waiver had never been renewed. Thus, the actuarial method will compare the trended actual costs of the waiver population in a baseline period to the actual costs for the waiver population during the evaluation period(s) to estimate savings.

There are two separate definitions of "medical cost" that will be evaluated, resulting in two separate estimates of total costs and savings. "Expenditure costs" represent the direct expenditures by the state for the provision of Medicaid services, identified as the medical cost component of the capitation payments. "Service costs" represent the cost to the plans of providing the included Medicaid services. A different approach will be used for each type of medical cost.

The method to estimate "expenditure cost" savings will compare the trended medical cost component for the waiver population from baseline capitation rates to the average medical cost component paid in the evaluation period(s). The independent evaluator will ensure that the service packages included in the capitation rates are similar in both the baseline and evaluation period(s). If the service packages are different, adjustments will be made to ensure the capitation rates for both the trended baseline and the evaluation period(s) represent the same package of services. Typically, these adjustments will be made based on fee for service claims or specific medical cost components included in the capitation payments during the baseline period.

The medical cost component in both the baseline for the evaluation period(s) will be based on the carriers' filed premium rates or other available documents that identify medical costs. Other adjustments for other medical-cost-related components such as risk corridor payment adjustments, cost sharing reduction payments, deductible funding, changes in medical technology or clinical guidance, changes in reimbursement rates, and the cost of wraparound services, will be included in both the baseline and evaluation period(s) estimates. These adjustments will be done as appropriate based on state and federal Medicaid policies in place for each waiver population during the period for which costs are being calculated. For the comparison group (trended baseline medical cost

[3-48] Heath B, Wise Romero P, and Reynolds K. A Review and Proposed Standard Framework for Levels of Integrated Healthcare. Washington, D.C. SAMHSA-HRSA Center for Integrated Health Solutions. March 2013. https://www.integration.samhsa.gov/integrated-care-models/A_Standard_Framework_for_Levels_of_Integrated_Healthcare.pdf.

component), medical cost projections will be developed based on baseline program claims/encounter data that will be trended and adjusted for demographic changes, acuity differences, and programmatic changes as well as the other factors described above, as appropriate for specific periods, state policies, and waiver populations. The data for developing both the trended baseline and evaluation period cost estimates will be based on data provided to AHCCCS as a part of the capitation rate-setting and certification process.

The method for calculating "service cost" savings will involve comparing the trended baseline period medical cost component from the capitation rate to the plans' actual cost of providing Medicaid services to the waiver population in the evaluation period(s).

For both the baseline and evaluation periods, the average medical cost will be calculated based on claims/encounter data, while ensuring identical service packages in both periods. The baseline medical cost estimates will be trended forward from the baseline period and will be adjusted for the items listed above as necessary and appropriate.

Administrative costs will be estimated based on administrative amounts included in specific waiver premium rate filings in the baseline and evaluation period(s). This approach will be used since the allocation of actual administrative costs for waiver populations is typically difficult for plans to more accurately estimate. Adjustments will be made to account for changes in administrative activity requirements between the baseline and evaluation period(s). Adjustments will also be made to the baseline estimate to account for inflationary and state policy changes and waiver population factors as necessary and appropriate.

Total costs for both groups will be calculated as the sum of the medical and administrative cost estimates. This will result in two different total cost estimates, one for each of the approaches used to estimate medical costs described above.

The independent evaluator will work with AHCCCS to ensure that all cost calculations incorporate all appropriate adjustments to adequately account for changes in service packages, administrative cost structures, and/or national/state policy that directly or indirectly impact the costs of providing Medicaid services to the waiver population across the baseline and evaluation period(s).

Costs and benefits will be isolated to each individual AHCCCS program to the extent possible using the strategies described in the Disentangling Confounding Events section below.

Disentangling Confounding Events

During the current demonstration renewal period, AHCCCS has implemented several programs that could confound the estimated impact of the programs on measured outcomes. The TI program was implemented by October 2019. The TI program provides practices with funds specifically to encourage better care coordination and integrated care for their beneficiaries. As such, beneficiaries impacted by the TI program may receive higher levels of integrated care, thereby potentially confounding program effects from the care coordination efforts of ACC, ALTCS, CDMP, PQC, and RBHA. However, because each program was implemented at various times in comparison to TI, the evaluation may leverage the differential implementation of these programs to mitigate the confounding program effects. Additionally, the independent evaluator may identify those impacted by TI and utilize statistical controls to disentangle effects of TI beneficiaries on each program.

Beginning on July 1, 2019, AHCCCS eliminated PQC for most Medicaid adults.[3-49] This program may introduce confounding effects since impacted beneficiaries may alter their future care-seeking or enrollment and disenrollment decisions. The independent evaluator may leverage the differential timing between the introduction of each program and effective date of the elimination of PQC to help reduce the potential confounding effects. This is not expected to completely eliminate confounding effects. Without a valid comparison group, any observed changes (or lack thereof) in the rates cannot be completely separated from the impact of the elimination of PQC.

The coronavirus disease 2019 (COVID-19) widely impacted the healthcare system and socioeconomic conditions more broadly beginning in approximately March 2020 and is ongoing as of the writing of this evaluation design plan. The scope and scale of the COVID-19 pandemic has already impacted the planned execution of some components of this design plan, and appears that it may continue to do so in the near future. Additionally, the pandemic forces the independent evaluator to consider methods that would allow the disentanglement of the Arizona Health Care Cost Containment System (AHCCCS) program impacts from results driven by COVID-19 or the policy response within Arizona and other states. Please see Appendix F: Methodological Considerations of COVID-19 Pandemic for additional detail.

Additional confounding factors specific to each program are listed below:

ACC

Some ACC beneficiaries may be impacted by the introduction of AHCCCS Works, if implemented. This program may introduce confounding effects as impacted beneficiaries may leave Medicaid because of community engagement noncompliance or because they no longer meet the income eligibility requirements for Medicaid. AHCCCS Works only impacts adult Medicaid expansion beneficiaries up to age 49 and will be rolled out in three annual phases based on urbanicity. Further delays in implementing AHCCCS Works will reduce confounding effects with ACC. Additionally, once AHCCCS Works is implemented, the independent evaluator may leverage the staged rollout, and the differential impact across eligibility and age groups to further disentangle effects of AHCCCS Works and ACC.

PQC

The AHCCCS Works demonstration, if implemented, will include beneficiaries who are also part of the PQC demonstration. While AHCCCS Works could be confounded with the PQC demonstration, the stepped-wedge implementation design provides an opportunity to disentangle the impact of AHCCCS Works from the PQC demonstration by leveraging the differential timing of the demonstration phases. The AHCCCS Works demonstration is approved effective from January 18, 2019, through September 30, 2021.[3-50] However, on October 17, 2019, AHCCCS notified CMS that Arizona will be postponing the implementation of AHCCCS Works until further notice, citing ongoing litigation regarding Medicaid community engagement programs.[3-51]

[3-49] Pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age are excluded.

[3-50] CMS Approval Letter. Centers for Medicare & Medicaid Services. https://www.azahcccs.gov/Resources/Downloads/CMSApprovalLetter.pdf. Accessed on Jun 10, 2019.

[3-51] Snyder, J, (October 17, 2019) *RE: Implementation of AHCCCS Works*, letter to Acting Director Lynch, Center for Medicare and Medicaid Services. Available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-postponement-ltr-ahcccs-works-10172019.pdf. Accessed on Oct 23, 2019.

The ACC demonstration was implemented on October 1, 2018, and integrated physical health care and behavioral health services for beneficiaries who are adults not determined to have an SMI, and beneficiaries determined to have a serious mental illness (SMI). Both of these populations are also targeted populations in the PQC demonstration, potentially confounding the program impacts.

The ALTCS demonstration will target beneficiaries who are elderly and/or physically disabled and beneficiaries with a developmental disability. On October 1, 2019, physical and behavioral health services, as well as certain LTSS (i.e., nursing facilities services, emergency alert system services, and habilitative physical therapy for beneficiaries 21 years of age and older) for beneficiaries with DD were transitioned into ALTCS- DDD health plans.[3-52] These beneficiaries may also be targeted by the PQC waiver demonstration, thereby confounding the effects of the two demonstrations.

The RBHA waiver demonstration will target adult beneficiaries with an SMI, turning the integration of physical and behavioral health care for several other populations over to their respective programs. Beginning on October 1, 2019, the RBHAs will transition care for the elderly and/or physical disabled and beneficiaries with a developmental disability over to the ALTCS. The transition of this populations from RBHA to ALTCS may confound the effects of those programs with the widespread application of the PQC waiver.

The PQC waiver demonstration went into effect on July 1, 2019, representing a differential timing for implementation from the other waiver demonstrations, AHCCCS is implementing. The independent evaluator may, therefore, leverage the differential implementation of these programs to mitigate the confounding program effects. Additionally, the independent evaluator may identify those impacted by TI, AHCCCS Works, ACC, ALTCS, and RHBA and use statistical controls to disentangle effects of these programs on the beneficiaries in the PQC waiver demonstration.

TI

During the current demonstration renewal period, AHCCCS has implemented several programs that could confound the estimated impact of the Targeted Investments program on measured outcomes. ACC plans begin providing integrated care coverage for most beneficiaries on AHCCCS beginning on October 1, 2018. This could impact rates for TI beneficiaries covered through an ACC plan and potentially bias results since the implementation of ACC happened between the baseline and evaluation periods. To reduce this potential bias, the independent evaluator may leverage the differential timing between the implementation of ACC and TI, and the independent evaluator may leverage the differential enrollment in TI among ACC beneficiaries. That is, outcomes for TI beneficiaries impacted by ACC may be compared against outcomes for TI beneficiaries not impacted by ACC using statistical controls.

Similarly, CMDP provides physical care services for children in the custody of DCS, and it is anticipated that CMDP will begin providing integrated behavioral and physical care beginning on October 1, 2020. This may impact rates for TI beneficiaries covered through CMDP and potentially bias results after the provision of integrated care. To reduce this potential bias, the independent evaluator may leverage the differential timing between the implementation of CMDP and TI, and the independent evaluator may leverage the differential enrollment in TI among CMDP beneficiaries. That is, outcomes for CMDP beneficiaries impacted by TI may be compared against outcomes for CMDP beneficiaries not impacted by TI using statistical controls.

[3-52] DDD Health Plans. https://des.az.gov/services/disabilities/developmental-disabilities/new-ddd-health-plans. Accessed on Sep 30, 2019.

ALTCS provides coverage for EPD and beneficiaries who are DD. ALTCS has been providing integrated behavioral and physical care for its EPD population and physical care for its DD population since its inception in 1989. However, on October 1, 2019, ALTCS began providing integrated behavioral and physical care for its DD population. This could impact rates for TI beneficiaries covered through ALTCS-DD and potentially bias results since the implementation of ALTCS-DD integration happened at the beginning of the TI evaluation period. To reduce this potential bias, the independent evaluator may leverage the differential enrollment in TI among ALTCS beneficiaries.

RBHA provides integrated behavioral and physical care for its adult SMI population. This may impact the TI evaluation to the extent coverages and quality of care differs between the RBHA population and the non-RBHA population. In order disentangle the impact of the TI program on outcomes, the independent evaluator may utilize enrollment in RBHA as a statistical control in the final analysis.

Beginning on July 1, 2019, AHCCCS eliminated PQC for most Medicaid adults.[3-53] This program may introduce confounding effects since impacted beneficiaries may alter their future care-seeking or enrollment and disenrollment decisions. This may bias comparisons between the baseline and evaluation period as the PQC waiver was implemented just prior to the evaluation period. To disentangle the potential effects of the PQC waiver on TI outcomes, the independent evaluator may leverage differential enrollment in TI.

Some TI beneficiaries may be impacted by the introduction of AHCCCS Works, if implemented. This program may introduce confounding effects as impacted beneficiaries may leave Medicaid because of community engagement noncompliance or because they no longer meet the income eligibility requirements for Medicaid. AHCCCS Works only impacts adult Medicaid expansion beneficiaries up to age 49 and will be rolled out in three annual phases based on urbanicity. Once AHCCCS Works is implemented, the independent evaluator may leverage the staged rollout and the differential impact across eligibility and age groups to further disentangle effects of AHCCCS Works and TI.

[3-53] Pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age are excluded.

4. Methodology Limitations

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

- Arizona Health Care Cost Containment System (AHCCCS) Complete Care (ACC)—The ACC program enrolls most adults and children on Medicaid.
- Arizona Long Term Care System (ALTCS)—The ALTCS program covers all eligible Medicaid elderly and/or physically disabled (EPD) or developmental disabilities (DD) beneficiaries.
- Comprehensive Medical and Dental Program (CMDP)—All children in the custody of the Arizona Department of Child Safety (DCS) are covered by CMDP.
- Regional Behavioral Health Authority (RBHA)—virtually all adult Medicaid beneficiaries with an SMI are enrolled with a RBHA.
- Prior Quarter Coverage (PQC)—All non-pregnant or postpartum adults are subject to the waiver.

Another broad limitation relates to the complexity and interaction of the demonstration components among each other, impairing the ability to attribute changes to a specific component as described in the Disentangling Confounding Events section. The PQC waiver confounds several other demonstration components to a different extent. The evaluation for each component can leverage differential timing of the program and the elimination of PQC to help isolate the effect of the on measured outcomes; however, without a counterfactual, any changes (or lack thereof) are not necessarily indicative of effects from the elimination of PQC. There are additional program-specific considerations that should be taken into account.

- ACC—Because PQC was implemented within a year of ACC, rates calculated after ACC implementation may still contain effects from the elimination of PQC.
- ALTCS—With the integration of care occurring three months after elimination of PQC, effects of the integration of care for adult beneficiaries with DD could be challenging to disentangle from the elimination of PQC.
- RBHA—The evaluation of RBHA integration in 2014/2015 may be confounded with the introduction of PQC in January 2014. The independent evaluator can leverage trends from 2012 through the end of the demonstration period to examine the changes associated with the introduction of PQC in 2014 and its removal (via the waiver) in July 2019. Additionally, the PQC impacts may be better isolated by evaluating the integration of RBHA using only 2015 as the baseline period and allowing the PQC implementation to take precedence in 2014.

The following sections discuss the planned approach to addressing these limitations for each demonstration component.

ACC

The ACC plans enroll most adults and children on Medicaid, leaving little to no viability of an in-state comparison group to represent a counterfactual. This limitation restricts the ability to link the program's performance to changes in rates and outcomes. By using national benchmarks as a comparison, it is assumed that Arizona Medicaid beneficiaries enrolled in an ACC are similar to Medicaid beneficiaries nationally. A second, related limitation is that any statewide, Arizona-specific changes external to the ACC program that could have impacted rates between the baseline and evaluation periods would not be adequately controlled for in the difference-in-differences (DiD) approach and could therefore bias results. A third limitation pertains to the DiD statistical testing. Beneficiary-level rates would provide the greatest level of statistical power and granularity. However, if beneficiary-level data cannot be obtained or utilized for a comparison group and instead the comparison group consists of national or regional benchmark data, the level of granularity of the benchmark data will dictate the level of granularity of statistical testing possible. For example, if the independent evaluator has benchmark rates at the plan level, then ACC rates must be calculated at the plan level, reducing its statistical power and introducing information loss through aggregating beneficiary level data to the plan level.

ALTCS

The first major limitation of the proposed evaluation design for the ALTCS is the availability of a comparison group. Due to the unique population of ALTCS beneficiaries, finding an in-state comparison group is very challenging since all eligible Medicaid EPD or DD beneficiaries would receive care through ALTCS—removing any possibility for Medicaid beneficiaries who are elderly and/or with a physical disability or beneficiaries with DD to serve as a counterfactual. A related limitation is that because ALTCS serves such a unique population, it is impossible to compare ALTCS rates to national benchmarks since these are designed to represent the entire Medicaid population as opposed to EPD individuals or individuals with DD. Combined, this leaves only trending rates over time for much of the ALTCS population, or, obtaining comparative data from an out-of-state Medicaid authority. The independent evaluator will need to consider variation across performance measure year specifications since these differences could impact the rate calculation. Also, due to the recent introduction of some performance measures (i.e., measures relating to opioid use), rates might not be available for all years of the evaluation design, limiting the years for which rates can be trended. Trending rates also limit comparability between measurement years since the beneficiary population can vary. The independent evaluator will evaluate the eligibility requirements for analyses in order to perform a robust analysis.

Second, where comparative data is available from an out-of-state comparison group, and especially if those data are aggregate rates, the comparison to this counterfactual will be limited by two factors. First, if beneficiary-level data are not available, then the independent evaluator will not be able to perform any statistical matching or include statistical controls in the DiD models to account for differences in the underlying population characteristics. Additionally, the use of an out-of-state comparison will be limited by the inability to control for systematic differences is the underlying eligibility criteria, concept definitions, and programmatic policies and procedures in the Medicaid system of the comparison state.

CMDP

The first limitation to the CMDP design plan is the availability of a comparison group. Due to the unique needs and specialized care provided to CMDP beneficiaries, finding an in-state comparison group is very challenging. Children in the custody of DCS have designated case workers and care coordinators to ensure CMDP

beneficiaries are receiving timely immunizations, screenings, and check-ups. Therefore, when comparing to in-state non-CMDP beneficiaries these children will have higher rates for certain measures which is not necessarily a reflection of CMDP itself, but rather the unique population it serves. For these reasons, the independent evaluator should prioritize finding an out-of-state comparison group that also contains children in the custody of DCS.

A second limitation related to the use of an out-of-state comparison group is the comparability of that population, the design of the program delivering services to them, and the presence or absence of confounding quality improvement programs. While an out-of-state comparison group can provide a counterfactual design, the granularity of the data available may not allow for strong statistical controls over differences across the populations. Additionally, an independent evaluator is not likely to be able to control for additional quality improvement programs that may impact a comparison group population.

A third limitation is the availability of national benchmarks for this population, again due to the specialized care provided to CMDP beneficiaries, certain rates for this population will be higher or lower due to the unique needs of this population, not the care provided by CMDP. There when comparing to national benchmarks, it is important for the independent evaluation to account for such differences.

PQC

The first limitation of the evaluation design for PQC is that the comparison groups represent a unique challenge for this demonstration, particularly because the waiver affects almost all new members except for pregnant women, women who are 60 days or less postpartum, and infants and children less than 19 years of age. This greatly restricts the feasibility of an in-state comparison group. As a result, many measures listed in Table 3-13 above either do not have a viable comparison group or are contingent on the availability of out of state or aggregate data.

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

Additionally, the waiver will be implemented on July 1, 2019, which is prior to the Centers for Medicare & Medicaid Services' (CMS') review of the evaluation design plan. This will impact the survey baseline data collection since there is no opportunity to collect information about the evaluation prior to implementation directly. The survey can ask new members questions regarding the implementation after it has occurred, but these retrospective questions may introduce recall bias.

RBHA

There are three primary limitations to the proposed RBHA evaluation design. First, the RBHAs enroll all adult Medicaid beneficiaries with an SMI, leaving no viable in-state comparison group to estimate counterfactuals. This limitation restricts the ability to link the program's performance to changes in rates and outcomes. The use of national benchmarks for general Medicaid populations as a comparison group would result in inappropriate

comparisons, as beneficiaries with an SMI differ systematically from the general Medicaid population. No national data could be identified that would provide a reliable and accurate comparison group at the national level. For this reason, no national comparison group can be used to estimate counterfactual results, and thereby determine the causal impacts of the program.

Second, the use of an out-of-state comparison group comprised of aggregated rates from the adult Medicaid population designated with an SMI in another state is limited to the extent that the comparison state uses different criteria from Arizona to designate beneficiaries with an SMI. Additionally, this limitation expands to the extent that the policies and procedures of the Medicaid system in the comparison state do not align with those of Arizona.

TI

The first major limitation to the proposed evaluation design for the Targeted Investments (TI) program is that the comparison groups represent a unique challenge. Because non-TI participating providers could also receive Admission-Discharge-Transfer (ADT) alerts through an executed agreement with Health Current, it is possible the comparison group may receive partial treatment. If the non-TI participating providers act on the information received from the ADT alerts, then the comparison group is ultimately receiving a similar treatment to that of the intervention group, reducing the difference between the two. Currently, there are 520 organizations that are connected through Health Current, suggesting that there will be beneficiaries in the comparison group who are receiving care from non-TI participating providers that may receive the effects of the treatment that the ADT alerts may provide.[4-1]

The length of time between the baseline and the evaluation periods may result in bias due to intervening events external to the TI program. For example, the introduction of ACC in October 1, 2018, may lead to changes in rates that would otherwise be attributed to TI if not adequately controlled for. As discussed in the Disentangling Confounding Events section, the independent evaluator may leverage differential enrollment in TI and ACC to help isolate the effects of TI on outcomes; however, to the extent there is limited differential enrollment among TI members not impacted by ACC, this technique may not reduce this limitation. Additionally, to the extent the intervention group is defined by assignment to providers participating in TI, it is possible these beneficiaries may not choose to see their assigned provider and instead see a non-TI provider. This potential for crossover effects—that is, beneficiaries assigned to a TI participating provider may receive care from non-TI participating providers, and vice versa. The described attribution methodology linking beneficiaries to TI and non-TI providers will serve to reduce or eliminate this limitation.

Another limitation is the nature of the intervention and comparison groups for beneficiaries transitioning from the criminal justice system. The intervention group in this population would only receive the treatment from TI-participating providers during their probation period, which is much less time than the comparison group who can be enrolled in AHCCCS for the entirety of the measurement period. This discrepancy may dilute the impact of the demonstration on relative to the other populations due to the intervention group receiving a lower "dosage" of the intervention.

[4-1] Health Current. What is HIE? Available at: https://healthcurrent.org/hie/what-is-hie/. Accessed on: Aug 19, 2019.

5. Reporting

Following its evaluation of Arizona's 1115 waiver demonstration the independent evaluator will prepare two reports of the findings and how the results relate to each of the research hypotheses. Both the interim evaluation report and the final summative evaluation report will be produced in alignment with the Special Terms and Conditions (STCs) and the schedule of deliverables listed in Table 5-1 (See Appendix C for a detailed timeline.).

Table 5-1: Schedule of Deliverables

Deliverable	Date
Evaluation Design (STC #72)	
AHCCCS submits Evaluation Design Plan to Centers for Medicare & Medicaid Services (CMS)	November 13, 2019
AHCCCS to post Evaluation Design Plan on the State's website for public comment	TBD
AHCCCS to post final approved Evaluation Design Plan on the State's website within 30 days of approval by CMS	TBD
Evaluation Report(s)	
Quarterly: AHCCCS to report progress of Demonstration to CMS (STC #83)	30 days after the quarter
If Demonstration Continued, Interim Evaluation Report (STC #76)	TBD
If Demonstration Ended, Final Summative Evaluation Report (STC #77)	TBD
AHCCCS presentation to CMS on Final Summative Evaluation Report (STC #73)	As Requested

Each evaluation report will present results in a clear, accurate, concise, and timely manner. At minimum, all written reports will include the following nine sections:

1. The **Executive Summary** will concisely state the goals for the Demonstration, presenting the key findings, the context of policy-relevant implications, and recommendations.
2. The **General Background Information about the Demonstration** section will succinctly trace the development of the program from the recognition of need to the present degree of implementation. This section will also include a discussion of the State's implementation of the waiver demonstration along with its successes and challenges.
3. The **Evaluation Questions and Hypotheses** section will focus on programmatic goals and strategies with the research hypotheses and associated evaluation questions.
4. The **Methodology** section will include the evaluation design with the research hypotheses and associated measures, along with the type of study design; targeted and comparison populations and stakeholders; data sources that include data collection field, documents, and collection agreements; and analysis techniques with controls for differences in groups or with other State interventions, including sensitivity analyses when conducted.
5. The **Methodological Limitations** section will be a summary of the evaluation design limitations including its strengths and weaknesses.

6. The **Results** section will be a summary of the key findings and outcomes of each hypothesis and research question.
7. The **Conclusions** section will be a description of the effectiveness and impact of the Demonstration.
8. The **Interpretations, Policy Implications, and Interactions with Other State Initiatives** section will contain the policy-relevant and contextually appropriate interpretations of the conclusions, including the existing and expected impact of the Demonstration within the health care delivery system in Arizona in the context of the implications for state and federal health policy, including the potential for successful strategies to be replicated in other state Medicaid programs. In addition, this section will contain the interrelations between the Demonstration and other aspects of Arizona's Medicaid program, including interactions with other Medicaid waivers and other federal awards affecting service delivery, health outcomes, and the cost of care under Medicaid.
9. The **Lessons Learned and Recommendations** section will discuss the opportunities for revisions to future demonstrations, based on the information collected during the evaluation.

Content of Interim Report

The interim report will be made publicly available prior to the waiver renewal application deadline of December 31, 2020. Due to the abbreviated time for analysis, the interim report will consist of a status update regarding the execution of the evaluation design plan, preliminary analyses of key informant interviews conducted early enough for inclusion in the report, and a detailed and complete analytic plan for the waiver evaluation, including survey administration details (e.g., sampling frame, survey instrument, and sampling strategy to align surveys across programs). The independent evaluator will also provide summary results from the rapid-cycle assessment component of the design plan, as part of the evaluation for Prior Quarter Coverage.

Content of Summative Report

The final summative report will be delivered to CMS within 500 days of the Demonstration end and will contain the full results of all measures described in this evaluation design plan and in the final analytic plan contained in the Interim Report.

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

All reports, including the Evaluation Design Plan, will be posted on the State Website within 30 days of the approval of each document to ensure public access to evaluation documentation and to foster transparency. AHCCCS will notify CMS prior to publishing any results based on the Demonstration evaluation for CMS' review and approval. The reports' appendices will present more granular results and supplemental findings. AHCCCS will work with CMS to ensure the transmission of all required reports and documentation occurs within approved communication protocols.

Arizona Health Care Cost Containment System

Arizona's Section 1115 Waiver Independent Evaluation – Design Plan, Appendices

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

October 2020

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

Table of Contents

Evaluation Design Plan, Appendices – Structure

The evaluation design plan appendices (A through G) contain the expected qualifications of the independent evaluator, estimated budget and timeline, detailed measure specifications for each program, data sources considered, anticipated methodological adjustments for the coronavirus disease 2019 (COVID-19) pandemic, and the evaluation design plan for the Arizona Health Care Cost Containment System (AHCCCS) Works program, which has yet to be implemented.

A. Independent Evaluator

Arizona Health Care Cost Containment System (AHCCCS) will select an independent evaluator with experience and expertise to conduct a scientific and rigorous Medicaid Section 1115 waiver evaluation meeting all the requirements specified in the Special Terms and Conditions (STCs).[A-1] The independent evaluator will be required to have the following qualifications:

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

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

[A-1] Centers for Medicare & Medicaid Services. Arizona Medicaid Section 1115 Demonstration Special Terms and Conditions. Jan 18, 2017. Available at: https://www.azahcccs.gov/shared/Downloads/News/FORSTATEArizonaAHCCCSSTCAndAuthorities_W_TIPFinal.pdf. Accessed on Jun 20, 2019.

B. Evaluation Budget

Due to the complexity and resource requirements of Arizona's 1115 waiver demonstration, Arizona Health Care Cost Containment System (AHCCCS) will need to conduct a competitive procurement to obtain the services of an independent evaluator to perform the services outlined in this evaluation design. Upon selection of an evaluation vendor, a final budget will be prepared in collaboration with the selected independent evaluator. Table B-1 displays the proposed budget shell that will be used for submitting total costs for the waiver programs.

The costs presented in Table B-1 will include the total estimated cost, as well as a breakdown of estimated staff; administrative and other costs for all aspects of the evaluation, such as any survey and measurement development; quantitative and qualitative data collection and cleaning analyses and report generation. A final budget will be submitted once a final independent evaluator has been selected. The total estimated cost for this evaluation is $2,922,895. The estimate assumes that a single independent evaluator will conduct all required AHCCCS waiver evaluations. The independent evaluator will ensure all activities performed under the waiver evaluation take a synergistic approach and combine efforts, where feasible. The independent evaluator will collaborate with the State's external quality review organization (EQRO) to reduce burden and deduplicate efforts on activities such as the administration of surveys and performance measure calculations. Additionally, the independent evaluator will pool together data across various populations and pool programming code to simplify the effort required to calculate the many overlapping measures across the six AHCCCS programs. The detailed budgets by waiver program are presented below.

Table B-1: Proposed Budget

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 40,956	$ 5,809	$ 5,792	$ -	$ -
Administrative Costs	$ 29,754	$ 4,221	$ 4,208	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 70,710**	**$ 10,030**	**$ 10,000**	**$ -**	**$ -**
Administration					
Staff Costs	$ 64,930	$ 10,362	$ 10,345	$ -	$ -
Administrative Costs	$ 47,170	$ 7,528	$ 7,515	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 112,100**	**$ 17,890**	**$ 17,860**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 40,196	$ 6,533	$ 6,516	$ -	$ -
Administrative Costs	$ 29,204	$ 4,747	$ 4,734	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 69,400**	**$ 11,280**	**$ 11,250**	**$ -**	**$ -**
Administration					
Staff Costs	$ 48,618	$ 8,120	$ 8,103	$ -	$ -

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Administrative Costs	$ 35,322	$ 5,900	$ 5,887	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 83,940**	**$ 14,020**	**$ 13,990**	**$ -**	**$ -**
Member/Beneficiary Surveys					
Instrument Design					
Staff Costs	$ 18,120	$ 14,872	$ -	$ -	$ -
Administrative Costs	$ 13,165	$ 10,808	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 31,285**	**$ 25,680**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 25,724	$ 25,174	$ 8,688	$ -	$ -
Administrative Costs	$ 18,688	$ 18,288	$ 6,312	$ -	$ -
Other Costs	$ 74,003	$ 74,003	$ -	$ -	$ -
Total Costs	**$ 118,415**	**$ 117,465**	**$ 15,000**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 18,548	$ 7,468	$ -	$ -
Administrative Costs	$ -	$ 13,472	$ 5,422	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 32,020**	**$ 12,890**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 63,656	$ 34,890	$ -	$ -
Administrative Costs	$ -	$ 46,244	$ 25,350	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 109,900**	**$ 60,240**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 61,118	$ 177,015	$ 237,518	$ 356,190	$ 14,286
Administrative Costs	$ 44,402	$ 128,605	$ 172,562	$ 258,780	$ 10,374
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 105,520**	**$ 305,620**	**$ 410,080**	**$ 614,970**	**$ 24,660**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 98,962	$ 36,891	$ 9,522	$ 107,859	$ 34,443
Administrative Costs	$ 71,898	$ 26,799	$ 6,918	$ 78,361	$ 25,027

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 170,860**	**$ 63,690**	**$ 16,440**	**$ 186,220**	**$ 59,470**
Total	**$ 762,230**	**$ 707,595**	**$ 567,750**	**$ 801,190**	**$ 84,130**

Table B-2 through Table B-7 present the detailed budgets by waiver program.

Table B-2: Proposed Budget for ACC

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 8,520	$ -	$ -	$ -	$ -
Administrative Costs	$ 6,190	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 14,710**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 11,555	$ -	$ -	$ -	$ -
Administrative Costs	$ 8,395	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 19,950**	**$ -**	**$ -**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 6,516	$ -	$ -	$ -	$ -
Administrative Costs	$ 4,734	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 11,250**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 8,103	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,887	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ -**	**$ -**	**$ -**	**$ -**
Member/Beneficiary Surveys					
Instrument Design					
Staff Costs	$ 4,584	$ 3,718	$ -	$ -	$ -
Administrative Costs	$ 3,331	$ 2,702	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 7,915**	**$ 6,420**	**$ -**	**$ -**	**$ -**
Administration					

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Staff Costs	$ 6,550	$ 6,550	$ 2,896	$ -	$ -
Administrative Costs	$ 4,758	$ 4,758	$ 2,104	$ -	$ -
Other Costs	$ 21,450	$ 21,450	$ -	$ -	$ -
Total Costs	**$ 32,758**	**$ 32,758**	**$ 5,000**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,003	$ 29,319	$ 39,623	$ 59,310	$ 2,381
Administrative Costs	$ 7,267	$ 21,301	$ 28,787	$ 43,090	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 17,270**	**$ 50,620**	**$ 68,410**	**$ 102,400**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,310	$ 5,109	$ -	$ 17,793	$ 5,722
Administrative Costs	$ 11,850	$ 3,711	$ -	$ 12,927	$ 4,158
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 28,160**	**$ 8,820**	**$ -**	**$ 30,720**	**$ 9,880**
Total	**$ 146,003**	**$ 121,638**	**$ 85,440**	**$ 133,120**	**$ 13,990**

Table B-3: Proposed Budget for ALTCS

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 5,902	$ -	$ -	$ -	$ -
Administrative Costs	$ 4,288	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 10,190**	**$ -**	**$ -**	**$ -**	**$ -**

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Administration					
Staff Costs	$ 10,455	$ -	$ -	$ -	$ -
Administrative Costs	$ 7,595	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,050**	**$ -**	**$ -**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 6,516	$ -	$ -	$ -	$ -
Administrative Costs	$ 4,734	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 11,250**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 8,103	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,887	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ -**	**$ -**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,003	$ 29,319	$ 39,513	$ 59,310	$ 2,381
Administrative Costs	$ 7,267	$ 21,301	$ 28,707	$ 43,090	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 17,270**	**$ 50,620**	**$ 68,220**	**$ 102,400**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,310	$ 5,109	$ -	$ 17,793	$ 5,722
Administrative Costs	$ 11,850	$ 3,711	$ -	$ 12,927	$ 4,158

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 28,160**	**$ 8,820**	**$ -**	**$ 30,720**	**$ 9,880**
Total	**$ 98,910**	**$ 82,460**	**$ 80,250**	**$ 133,120**	**$ 13,990**

Table B-4: Proposed Budget for CMDP

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 7,727	$ 5,809	$ -	$ -	$ -
Administrative Costs	$ 5,613	$ 4,221	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,340**	**$ 10,030**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 11,555	$ 10,362	$ -	$ -	$ -
Administrative Costs	$ 8,395	$ 7,528	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 19,950**	**$ 17,890**	**$ -**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 6,516	$ 6,533	$ -	$ -	$ -
Administrative Costs	$ 4,734	$ 4,747	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 11,250**	**$ 11,280**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 8,103	$ 8,120	$ -	$ -	$ -
Administrative Costs	$ 5,887	$ 5,900	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ 14,020**	**$ -**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 4,008	$ 1,703	$ -	$ -
Administrative Costs	$ -	$ 2,912	$ 1,237	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 6,920**	**$ 2,940**	**$ -**	**$ -**
Code Development/Execution					

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Staff Costs	$ -	$ 11,526	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 8,374	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 19,900**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,553	$ 30,420	$ 39,513	$ 59,420	$ 2,381
Administrative Costs	$ 7,667	$ 22,100	$ 28,707	$ 43,170	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,220**	**$ 52,520**	**$ 68,220**	**$ 102,590**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,861	$ 4,998	$ -	$ 18,894	$ 5,833
Administrative Costs	$ 12,249	$ 3,632	$ -	$ 13,726	$ 4,237
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 29,110**	**$ 8,630**	**$ -**	**$ 32,620**	**$ 10,070**
Total	**$ 105,860**	**$ 141,190**	**$ 81,200**	**$ 135,210**	**$ 14,180**

Table B-5: Proposed Budget for RBHA

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 7,003	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,087	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 12,090**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 10,455	$ -	$ -	$ -	$ -
Administrative Costs	$ 7,595	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,050**	**$ -**	**$ -**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 7,616	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,534	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,150**	**$ -**	**$ -**	**$ -**	**$ -**

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Administration					
Staff Costs	$ 8,103	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,887	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ -**	**$ -**	**$ -**	**$ -**
Member/Beneficiary Surveys					
Instrument Design					
Staff Costs	$ 4,512	$ 3,718	$ -	$ -	$ -
Administrative Costs	$ 3,278	$ 2,702	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 7,790**	**$ 6,420**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 7,100	$ 6,550	$ 2,896	$ -	$ -
Administrative Costs	$ 5,158	$ 4,758	$ 2,104	$ -	$ -
Other Costs	$ 21,450	$ 21,450	$ -	$ -	$ -
Total Costs	**$ 33,708**	**$ 32,758**	**$ 5,000**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,553	$ 29,319	$ 39,623	$ 59,420	$ 2,381
Administrative Costs	$ 7,667	$ 21,301	$ 28,787	$ 43,170	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,220**	**$ 50,620**	**$ 68,410**	**$ 102,590**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,861	$ 5,109	$ -	$ 17,793	$ 5,722
Administrative Costs	$ 12,249	$ 3,711	$ -	$ 12,927	$ 4,158

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 29,110**	**$ 8,820**	**$ -**	**$ 30,720**	**$ 9,880**
Total	**$ 146,108**	**$ 121,638**	**$ 85,440**	**$ 133,310**	**$ 13,990**

Table B-6: Proposed Budget for PQC

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 5,902	$ -	$ -	$ -	$ -
Administrative Costs	$ 4,288	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 10,190**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 10,455	$ -	$ -	$ -	$ -
Administrative Costs	$ 7,595	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,050**	**$ -**	**$ -**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 6,516	$ -	$ -	$ -	$ -
Administrative Costs	$ 4,734	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 11,250**	**$ -**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 8,103	$ -	$ -	$ -	$ -
Administrative Costs	$ 5,887	$ -	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ -**	**$ -**	**$ -**	**$ -**
Member/Beneficiary Surveys					
Instrument Design					
Staff Costs	$ 4,512	$ 3,718	$ -	$ -	$ -
Administrative Costs	$ 3,278	$ 2,702	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 7,790**	**$ 6,420**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 5,524	$ 5,524	$ -	$ -	$ -

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Administrative Costs	$ 4,014	$ 4,014	$ -	$ -	$ -
Other Costs	$ 9,653	$ 9,653	$ -	$ -	$ -
Total Costs	**$ 19,191**	**$ 19,191**	**$ -**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,003	$ 29,319	$ 39,623	$ 59,310	$ 2,381
Administrative Costs	$ 7,267	$ 21,301	$ 28,787	$ 43,090	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 17,270**	**$ 50,620**	**$ 68,410**	**$ 102,400**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,310	$ 11,457	$ 9,522	$ 17,793	$ 5,722
Administrative Costs	$ 11,850	$ 8,323	$ 6,918	$ 12,927	$ 4,158
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 28,160**	**$ 19,780**	**$ 16,440**	**$ 30,720**	**$ 9,880**
Total	**$ 125,891**	**$ 119,031**	**$ 96,880**	**$ 133,120**	**$ 13,990**

Table B-7: Proposed Budget for TI

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ 5,902	$ -	$ 5,792	$ -	$ -
Administrative Costs	$ 4,288	$ -	$ 4,208	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 10,190**	**$ -**	**$ 10,000**	**$ -**	**$ -**
Administration					

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Staff Costs	$ 10,455	$ -	$ 10,345	$ -	$ -
Administrative Costs	$ 7,595	$ -	$ 7,515	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 18,050**	**$ -**	**$ 17,860**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ 6,516	$ -	$ 6,516	$ -	$ -
Administrative Costs	$ 4,734	$ -	$ 4,734	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 11,250**	**$ -**	**$ 11,250**	**$ -**	**$ -**
Administration					
Staff Costs	$ 8,103	$ -	$ 8,103	$ -	$ -
Administrative Costs	$ 5,887	$ -	$ 5,887	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 13,990**	**$ -**	**$ 13,990**	**$ -**	**$ -**
Member/Beneficiary Surveys					
Instrument Design					
Staff Costs	$ 4,512	$ 3,718	$ -	$ -	$ -
Administrative Costs	$ 3,278	$ 2,702	$ -	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 7,790**	**$ 6,420**	**$ -**	**$ -**	**$ -**
Administration					
Staff Costs	$ 6,550	$ 6,550	$ 2,896	$ -	$ -
Administrative Costs	$ 4,758	$ 4,758	$ 2,104	$ -	$ -
Other Costs	$ 21,450	$ 21,450	$ -	$ -	$ -
Total Costs	**$ 32,758**	**$ 32,758**	**$ 5,000**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -

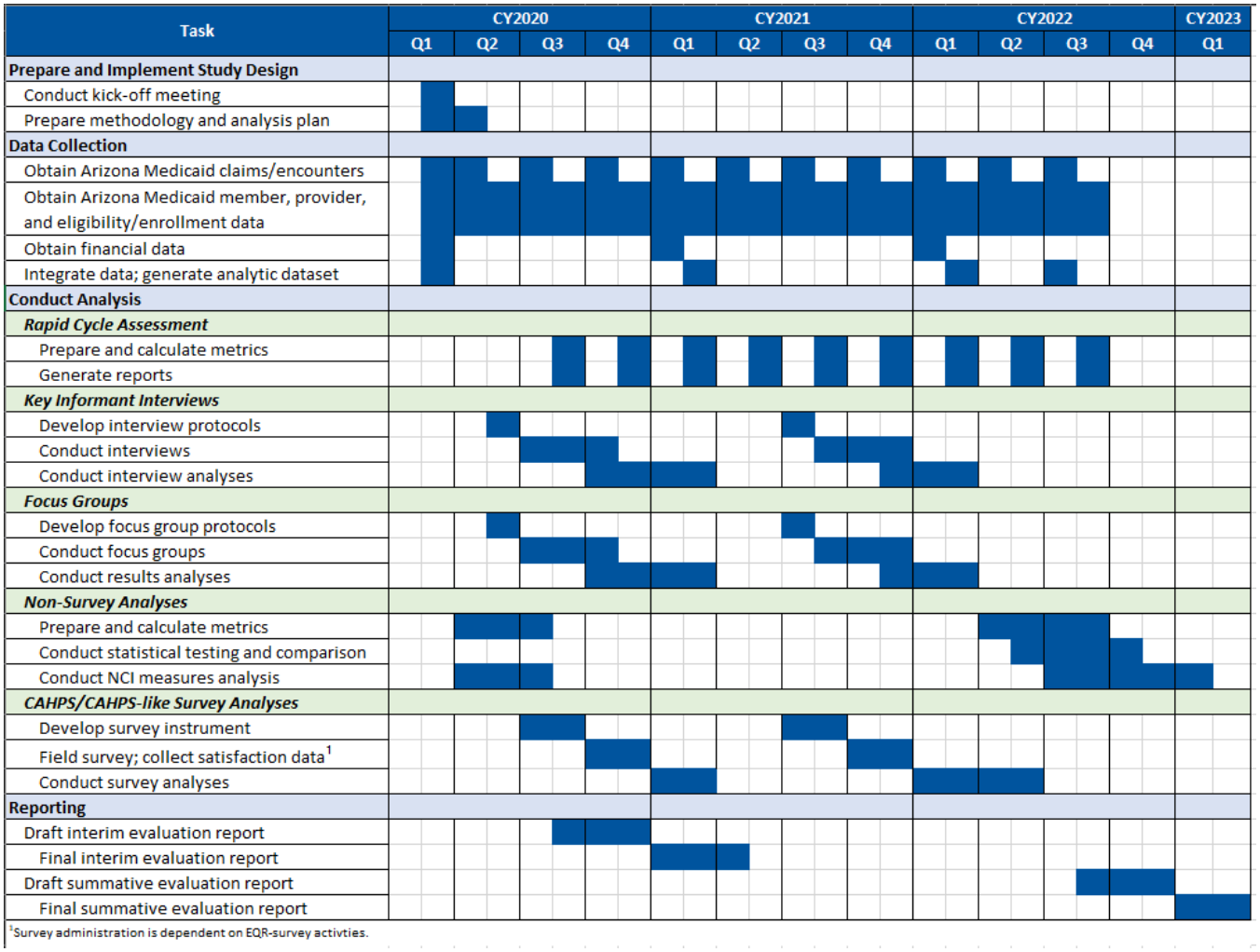
Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,003	$ 29,319	$ 39,623	$ 59,420	$ 2,381
Administrative Costs	$ 7,267	$ 21,301	$ 28,787	$ 43,170	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 17,270**	**$ 50,620**	**$ 68,410**	**$ 102,590**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,310	$ 5,109	$ -	$ 17,793	$ 5,722
Administrative Costs	$ 11,850	$ 3,711	$ -	$ 12,927	$ 4,158
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 28,160**	**$ 8,820**	**$ -**	**$ 30,720**	**$ 9,880**
Total	**$ 139,458**	**$ 121,638**	**$ 138,540**	**$ 133,310**	**$ 13,990**

C. Timeline and Milestones

The following project timeline has been prepared for Arizona's 1115 waiver demonstration evaluation outlined in the preceding sections. This timeline should be considered preliminary and subject to change based upon approval of the Evaluation Design and implementations of the waiver programs. A final detailed timeline will be developed upon selection of the independent evaluator tasked with conducting the evaluation.

Figure C-1 outlines the proposed timeline and tasks for conducting the waiver evaluation.

Figure C-1: Evaluation Project Timeline



Note: Timeline based on approval for the waiver after September 30, 2021.

D. Proposed Measure Specifications

The tables in this section provide the detailed measure specifications for the Arizona Health Care Cost Containment System (AHCCCS) waiver demonstration evaluation.

ACC

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

Research Question 1.1: What care coordination strategies did the plans implement as a result of ACC?

Health Plans' Reported Care Coordination Activities (Measure 1-1)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 1.2: Did the plans encounter barriers to implementing care coordination strategies?

Health Plans' Reported Barriers to Implementing Care Coordination Strategies (Measure 1-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 1.3: Did the plans encounter barriers not related specifically to implementing care coordination strategies during the transition to ACC?

Health Plans' Reported Barriers Not Related Specifically to Implementing Care Coordination Strategies During the Transition to ACC (Measure 1-3)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A

Health Plans' Reported Barriers Not Related Specifically to Implementing Care Coordination Strategies During the Transition to ACC (Measure 1-3)	
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 1.4: Did AHCCCS encounter barriers related to the transition to ACC?

AHCCCS' Reported Barriers Before, During, and Shortly Following the Transition to ACC (Measure 1-4)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 1.5: Did providers encounter barriers related to the transition to ACC?

Providers' Reported Barriers Before, During, and Shortly Following the Transition to ACC (Measure 1-5)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Provider Focus Groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 1.6: Do beneficiaries perceive their doctors to have better care coordination as a result of ACC?

Percentage of Beneficiaries Who Reported Their Doctor Seemed Informed about the Care They Received from Other Health Providers (Measure 1-6)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating their personal doctor seemed informed about the care they received from other health providers Denominator: Number of respondents to survey question regarding whether their doctor seemed informed about the care they received from other health providers
Comparison Population	National/regional benchmarks
Measure Steward	National Committee for Quality Assurance (NCQA)

Percentage of Beneficiaries Who Reported Their Doctor Seemed Informed about the Care They Received from Other Health Providers (Measure 1-6)	
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	• Beneficiary survey • National/regional benchmarks
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

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

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

Percentage of Adults Who Accessed Preventive/Ambulatory Health Services (Measure 2-1)	
Numerator/Denominator	Numerator: Number of beneficiaries with an ambulatory or preventive care visit Denominator: Number of beneficiaries 20 years and older
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Adults' Access to Preventive/Ambulatory Health Services (AAP)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Children and Adolescents Who Accessed PCPs (Measure 2-2)	
Numerator/Denominator	Numerator: One or more visits with a PCP during the measurement year for beneficiaries 1-6 years of age. One or more visits with a PCP during the measurement year or the year prior for beneficiaries 7-19 years of age Denominator: beneficiaries 1-19 years of age with continuous enrollment of: • The measurement year for beneficiaries 1-6 years of age with no more than one gap in enrollment of up to 45 days • The measurement year and the year prior for beneficiaries 7-19 years of age with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment

Percentage of Children and Adolescents Who Accessed PCPs (Measure 2-2)	
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child Core Set
Measure Name	Children and Adolescents' Access to Primary Care Practitioners
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Beneficiaries under 21 with an Annual Dental Visit (Measure 2-3)	
Numerator/Denominator	Numerator: One or more dental visits with a dental practitioner during the measurement year. Any visit with a dental practitioner during the measurement year meets criteria Denominator: beneficiaries 2–20 years of age continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Annual Dental Visit (ADV)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Who Reported They Received Care as Soon as They Needed (Measure 2-4)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: In the last 6 months, when your child needed care right away, how often did your child get care as soon as he or she needed? Adult: In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?
Data Source	• Beneficiary survey

Percentage of Beneficiaries Who Reported They Received Care as Soon as They Needed (Measure 2-4)	
	• National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment for a Checkup or Routine Care at a Doctor's Office or Clinic as Soon as They Needed (Measure 2-5)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get an appointment for routine care as soon as they needed Denominator: Number of respondents to getting appointment for routine care survey question
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: In the last 6 months, when you made an appointment for a check-up or routine care for your child at a doctor's office or clinic, how often did you get an appointment as soon as your child needed? Adult: In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
Data Source	• Beneficiary survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment with a Specialist as Soon as They Needed (Measure 2-6)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get an appointment with a specialist as soon as they needed Denominator: Number of respondents to getting appointment with a specialist survey question
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: In the last six months, how often did you get an appointment for your child to see a specialist as soon as you needed? Adult: In the last six months, how often did you get an appointment to see a specialist as soon as you needed?
Data Source	• Beneficiary survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment with a Specialist as Soon as They Needed (Measure 2-6)	
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Research Question 2.2: Do beneficiaries enrolled in an ACC plan have the same or better access to substance abuse treatment compared to prior to integrated care?

Percentage of Beneficiaries Who Had Initiation of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-7)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis and 60 days continuous enrollment prior to the episode and 48 days after the index episode.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment: Initiation of AOD Treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Who Had Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-8)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis and 60 days continuous enrollment prior to the episode and 48 days after the index episode.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment: Engagement of AOD Treatment (IET)
Data Source	• State eligibility and enrollment data

Percentage of Beneficiaries Who Had Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-8)	
	• Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

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

Research Question 3.1: Do beneficiaries enrolled in an ACC plan have the same or higher rates of preventive or wellness services compared to prior to integrated care?

Percentage of Beneficiaries with a Well-Child Visit in the First 15 Months of Life (Measure 3-1)	
Numerator/Denominator	Numerator: Number of beneficiaries who turned 15 months old during the measurement year and had at least one well-child visit Denominator: Number of beneficiaries who turned 15 months old during the measurement year and continuous enrollment from 31 days to 15 months and continuously enrolled with no more than one gap in enrollment of up to 45 days during the continuous enrollment period
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child Core Set
Measure Name	Well-Child Visits in the First 15 Months of Life (W15)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Beneficiaries with a Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 3-2)	
Numerator/Denominator	Numerator: Number of beneficiaries with at least one well-child visit with a PCP during the measurement year Denominator: Number of beneficiaries 3-6 years of age and continuously enrolled with no more than one gap in enrollment of up to 45 days during the measurement year
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child Core Set
Measure Name	Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life (W34)

Percentage of Beneficiaries with a Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 3-2)	
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Beneficiaries with an Adolescent Well-Care Visit (Measure 3-3)	
Numerator/Denominator	Numerator: Number of beneficiaries with at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year Denominator: Number of beneficiaries aged 12-21 and continuously enrolled with no more than one gap of up to 45 days during the measurement year
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child Core Set
Measure Name	Adolescent Well-Care Visits (AWC)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Children Two Years of Age with Appropriate Immunization Status (Measure 3-4)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had: four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); three haemophilus influenza type B (HiB); three hepatitis B (HepB), one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The measure calculates a rate for each vaccine and nine separate combination rates. Denominator: Number of children who turn 2 years of age during the measurement year.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child Core Set
Measure Name	Childhood Immunization Status
Data Source	• State eligibility and enrollment data • Arizona State Immunization Information System
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences

	• Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Adolescents 13 Years of Age with Appropriate Immunizations (Measure 3-5)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had: one dose of meningococcal vaccine, one tetanus, diphtheria toxoids and acellular pertussis (Tdap) vaccine, and have completed the human papillomavirus (HPV) vaccine series by their 13th birthday. The measure calculates a rate for each vaccine and two combination rates. Denominator: Number of adolescents 13 years of age.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child Core Set
Measure Name	Immunizations for Adolescents
Data Source	• State eligibility and enrollment data • Arizona State Immunization Information System
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Adult Beneficiaries Who Reported Having a Flu Shot or Nasal Flu Spray Since July 1 (Measure 3-6)	
Numerator/Denominator	Numerator: Number of beneficiaries stating they had a flu shot or nasal flu spray since July 1 Denominator: Number of respondents to survey question about flu shot or spray
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: N/A Adult: Have you had either a flu shot or flu spray in the nose since July 1, <year>?
Data Source	• Beneficiary survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Research Question 3.2: Do beneficiaries enrolled in an ACC plan have the same or better management of chronic conditions compared to prior to integrated care?

Percentage of Beneficiaries with Persistent Asthma Who Had a Ratio of Controller Medications to Total Asthma Medications of at least 50 Percent (Measure 3-7)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a ratio of controller medications to total asthma medications of 0.50 or greater

Percentage of Beneficiaries with Persistent Asthma Who Had a Ratio of Controller Medications to Total Asthma Medications of at least 50 Percent (Measure 3-7)	
	Denominator: Number of beneficiaries aged 5-64 who were identified as having persistent asthma who were continuously enrolled during the measurement year and the year prior to the measurement year with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child and Adult Core Set
Measure Name	Asthma Medication Ratio (AMR)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Research Question 3.3: Do beneficiaries enrolled in an ACC plan have the same or better management of behavioral health conditions compared to prior to integrated care?

Percentage of Adult Beneficiaries Who Remained on an Antidepressant Medication Treatment (Measure 3-8)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who remained on an antidepressant medication treatment for: 1) at least 84 days, and 2) at least 180 days Denominator: Number of beneficiaries aged 18 and older who were treated with antidepressant medication and had a diagnosis of major depression who were continuously enrolled from 105 days prior to the index prescription start date (IPSD) through 231 days after the IPSD with no more than one gap in enrollment of up to 45 days during the continuous enrollment period
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set
Measure Name	Antidepressant Medication Management (AMM)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Beneficiaries with a Follow-up Visit After Hospitalization for Mental Illness (Measure 3-9)	
Numerator/Denominator	Numerator: Number of beneficiaries with a discharge for mental illness and a follow-up visit with a mental health practitioner within 7 days after discharge

Percentage of Beneficiaries with a Follow-up Visit After Hospitalization for Mental Illness (Measure 3-9)	
	Denominator: Number of beneficiaries 6 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child & Adult Core Set
Measure Name	Follow-Up After Hospitalization for Mental Illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries with a Follow-up Visit After Emergency Department (ED) Visit for Mental Illness (Measure 3-10)	
Numerator/Denominator	Numerator: Number of ED visits in the denominator with a follow-up visit for mental illness within 7 days of the ED visit. Denominator: Number of ED visits for beneficiaries 6 years of age and older with a principal diagnosis of mental illness or intentional self-harm with continuous enrollment from the date of the ED visit through 30 days after the ED visit
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Follow-Up After Emergency Department Visit for Mental Illness (FUM)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries with a Follow-up Visit After ED Visit for Alcohol and Other Drug Abuse or Dependence (Measure 3-11)	
Numerator/Denominator	Numerator: Number of ED visits in the denominator with a follow-up visit for alcohol or other drug (AOD) abuse within 7 days of the ED visit. Denominator: Number of ED visits for beneficiaries 13 years of age and older with a principal diagnosis of AOD abuse or dependence and continuously enrolled from the date of the ED visit through 30 days after the ED visit
Comparison Population	National/regional benchmarks

Percentage of Beneficiaries with a Follow-up Visit After ED Visit for Alcohol and Other Drug Abuse or Dependence (Measure 3-11)	
Measure Steward	NCQA
Measure Name	Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries with a Screening for Clinical Depression and Follow-up Plan (Measure 3-12)	
Numerator/Denominator	Numerator: Number of beneficiaries age 12 and older with a positive screen and follow-up plan documented. Denominator: Number of beneficiaries age 12 and older screened for depression
Comparison Population	National/regional benchmarks
Measure Steward	CMS Child & Adult Core Set
Measure Name	Screening for Depression and Follow-Up Plan (CDF)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Receiving Mental Health Services (inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth) (Measure 3-13)	
Numerator/Denominator	Numerator: Number of beneficiaries utilizing mental health services Denominator: Number of member months, divided by 12
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Mental Health Utilization (MPT)
Data Source	• State eligibility and enrollment data • Claims/encounter data

Percentage of Beneficiaries Receiving Mental Health Services (inpatient, intensive outpatient or partial hospitalization, outpatient, ED, or telehealth) (Measure 3-13)	
	• National/regional benchmarks
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Research Question 3.4: Do beneficiaries enrolled in an ACC plan have the same or better management of opioid prescriptions compared to prior to integrated care?

Percentage of Adult Beneficiaries Who Have a Prescription for Opioids at High Dosage (Measure 3-14)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who received prescriptions for opioids with an average daily dosage greater than or equal to 90 morphine milligram equivalents (MME) over a period of 90 days or more. Denominator: Number of beneficiaries age 18 and older with two or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set
Measure Name	Use of Opioids at High Dosage in Persons Without Cancer (OHD)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Percentage of Adult Beneficiaries with a Concurrent Use of Opioids and Benzodiazepines (Measure 3-15)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator with concurrent use of prescription opioids and benzodiazepines. Denominator: Number of beneficiaries age 18 and older with 2 or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set
Measure Name	Concurrent Use of Opioids and Benzodiazepines (COB)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or a decrease in the rate supports the hypothesis

Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

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

Number of ED Visits per 1,000 Member Months (Measure 3-16)	
Numerator/Denominator	Numerator: Number of ED Visits. Denominator: Number of member months, divided by 1,000.
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Ambulatory Care (AMB): ED Visits
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Number of Inpatient Stays per 1,000 Member Months (Measure 3-17)	
Numerator/Denominator	Numerator: Number of total inpatient stays. Denominator: Number of member months, divided by 1,000.
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
Measure Name	Inpatient Utilization—General Hospital/Acute Care (IPU)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Adult Inpatient Discharges with an Unplanned Readmission within 30 Days (Measure 3-18)	
Numerator/Denominator	Numerator: Number of acute inpatient stays in the denominator followed by an unplanned acute readmission within 30 days. Denominator: Number of acute inpatient stays for beneficiaries aged 18 to 64.
Comparison Population	National/regional benchmarks
Measure Steward	CMS Adult Core Set
Measure Name	Plan All-Cause Readmissions (PCR)
Data Source	• State eligibility and enrollment data • Claims/encounter data • National/regional benchmarks
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

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

Research Question 4.1: Do beneficiaries enrolled in an ACC plan have the same or higher overall health rating compared to prior to integrated care?

Percentage of Beneficiaries Who Reported a High Rating of Overall Health (Measure 4-1)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of overall health Denominator: Number of respondents to survey question regarding overall health
Comparison Population	National/regional benchmarks; Out-of-state comparison
Measure Steward	NCQA
CAHPS Question	Child: In general, how would you rate your child's overall health? Adult: In general, how would you rate your overall health?
Data Source	• Beneficiary Survey • National/regional benchmarks • BRFSS
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

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

Percentage of Beneficiaries Who Reported a High Rating of Overall Mental or Emotional Health (Measure 4-2)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of mental or emotional health Denominator: Number of respondents to survey question regarding mental or emotional health
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: In general, how would you rate your child's overall mental or emotional health? Adult: In general, how would you rate your overall mental or emotional health?
Data Source	• Beneficiary Survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

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

Research Question 5.1: Are beneficiaries equally or more satisfied with their health care as a result of integrated care?

Percentage of Beneficiaries Who Reported a High Rating of Health Plan (Measure 5-1)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of their health plan Denominator: Number of respondents to survey question regarding satisfaction of health plan
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your child's health plan? Adult: Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?
Data Source	• Beneficiary Survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

Percentage of Beneficiaries Who Reported a High Rating of Overall Health care (Measure 5-2)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of their overall health care Denominator: Number of respondents to survey question regarding satisfaction of overall health care

Percentage of Beneficiaries Who Reported a High Rating of Overall Health care (Measure 5-2)	
Comparison Population	National/regional benchmarks
Measure Steward	NCQA
CAHPS Question	Child: Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your child's health care in the last 6 months? Adult: Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 6 months?
Data Source	• Beneficiary Survey • National/regional benchmarks
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national/regional benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test • Subgroup analysis of children and adults

ALTCS

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

Research Question 1.1: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with developmental disabilities (DD) have the same or higher rates of access to care compared to compared to baseline rates and out-of-state comparisons?

Percentage of Beneficiaries Who Accessed Preventive/Ambulatory Health Services (Measure 1-1)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries with an ambulatory or preventive care visit Denominator: Number of beneficiaries 20 years and older continuously enrolled throughout the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State Comparison
Measure Steward	National Committee for Quality Assurance (NCQA)
Measure Name	Adults' Access to Preventive/Ambulatory Health Services (AAP)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 1.2: Do child beneficiaries with DD have the same or higher rates of access to care compared to baseline rates and out-of-state comparisons?

Percentage of Children and Adolescents Who Accessed Primary Care Practitioners (Measure 1-2)	
Evaluation Population	Beneficiaries with DD
Age Group	Children
Numerator/Denominator	Numerator: One or more visits with a primary care practitioner (PCP) during the measurement year for beneficiaries 1-6 years of age. One or more visits with a PCP during the measurement year or the year prior for beneficiaries 7-19 years of age Denominator: Beneficiaries 1-19 years of age with continuous enrollment of: • The measurement year for beneficiaries 1-6 years of age with no more than one gap in enrollment of up to 45 days • The measurement year and the year prior for beneficiaries 7-19 years of age with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	Out-of-State Comparisons
Measure Steward	Centers for Medicare & Medicaid Services (CMS) Child Core Set
Measure Name	Children and Adolescents' Access to Primary Care Practitioners (CAP)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries Under 21 with an Annual Dental Visit (Measure 1-3)	
Evaluation Population	Beneficiaries with DD
Age Group	Children
Numerator/Denominator	Numerator: One or more dental visits with a dental practitioner during the measurement year. Any visit with a dental practitioner during the measurement year meets criteria Denominator: Beneficiaries 2–20 years of age continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Annual Dental Visit (ADV)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 1.3: Do adult beneficiaries with DD have the same or improved rates of access to care as a result of the integration of care for beneficiaries with DD?

Percentage of Beneficiaries Who Have a Primary Care Doctor or Practitioner (Measure 1-4)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they do have a primary care doctor or practitioner Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from National Core Indicator (NCI) survey in other states
Measure Steward	NCI
Measure Name	Has a primary care doctor or practitioner
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences

Percentage of Beneficiaries Who Had a Complete Physical Exam in the Past Year (Measure 1-5)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they had a physical exam in the past year Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Had a complete physical exam in the past year
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Had a Dental Exam in the Past Year (Measure 1-6)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they had a dental exam in the past year Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states

Percentage of Beneficiaries Who Had a Dental Exam in the Past Year (Measure 1-6)	
Measure Steward	NCI
Measure Name	Had a dental exam in the past year
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Had an Eye Exam in the Past Year (Measure 1-7)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they had an eye exam in the past year Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Had an eye exam in the past year
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Had an Influenza Vaccine in the Past Year (Measure 1-8)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they had a flu vaccine in the past year Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Had a flu vaccine in the past year
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

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

Research Question 2.1: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of preventative care compared to baseline rates and out-of-state comparisons?

Percentage of Adult Beneficiaries with a Breast Cancer Screening (Measure 2-1)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had one or more mammograms in the measurement period Denominator: Number of women aged 52 to 74 continuously enrolled from October 1 two years prior to the measurement year through December 31 of the measurement year with no more than one gap in enrollment of up to 45 days for each full calendar year of continuous enrollment
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Breast Cancer Screening (BCS)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Adult Beneficiaries with a Cervical Cancer Screening (Measure 2-2)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had cervical cytology in the measurement period Denominator: Number of women aged 21 to 64
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Cervical Cancer Screening (CCS)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Persistent Asthma Who had a Ratio of Controller Medications to Total Asthma Medications of at least 50 Percent (Measure 2-3)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a ratio of controller medications to total asthma medications of 0.50 or greater Denominator: Number of beneficiaries aged 5-64 who were identified as having persistent asthma who were continuously enrolled during the measurement year and the year prior to the measurement year with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child and Adult Core Sets
Measure Name	Asthma Medication Ratio (AMR)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 2.2: Do child beneficiaries with DD have the same or higher rates of preventative care compared to baseline rates and out-of-state comparisons?

Percentage of Beneficiaries with Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 2-4)	
Evaluation Population	Beneficiaries with DD
Age Group	Children
Numerator/Denominator	Numerator: Number of beneficiaries with at least one well-child visit with a PCP during the measurement year Denominator: Number of beneficiaries 3-6 years of age and continuously enrolled with no more than one gap in enrollment of up to 45 days during the measurement year
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child Core Set
Measure Name	Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life (W34)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with an Adolescent Well-Care Visit (Measure 2-5)	
Evaluation Population	Beneficiaries with DD

Percentage of Beneficiaries with an Adolescent Well-Care Visit (Measure 2-5)	
Age Group	Children
Numerator/Denominator	Numerator: Number of beneficiaries with at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year Denominator: Number of beneficiaries aged 12-21 and continuously enrolled during the measurement year with no more than one gap of up to 45 days
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child Core Set
Measure Name	Adolescent Well-Care Visits (AWC)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with an Influenza Vaccine (Measure 2-6)	
Evaluation Population	Beneficiaries with DD
Age Group	Children
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had an influenza vaccine during the measurement year Denominator: Number of beneficiaries aged 18 and younger
Comparison Population	N/A
Measure Steward	N/A
Data Source	• State eligibility and enrollment data • Arizona State Immunization Information System
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Research Question 2.3: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or better management of behavioral health conditions compared to baseline rates and out-of-state comparisons?

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 2-7)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator and a follow-up visit with a mental health practitioner within 7 days after discharge Denominator: Number of beneficiaries 6 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 2-7)	
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child and Adult Core Sets
Measure Name	Follow-Up After Hospitalization for Mental Illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Adult Beneficiaries Who Remained on an Antidepressant Medication Treatment (Measure 2-8)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who remained on an antidepressant medication treatment for: 1) at least 84 days, and 2) at least 180 days Denominator: Number of beneficiaries aged 18 and older who were treated with antidepressant medication and had a diagnosis of major depression who were continuously enrolled from 105 days prior to the index prescription start date (IPSD) through 231 days after the IPSD with no more than one gap in enrollment of up to 45 days during the continuous enrollment period
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Antidepressant Medication Management (AMM)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with a Screening for Depression and Follow-Up Plan (Measure 2-9)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of beneficiaries age 12 and older with a positive screen and follow-up plan documented Denominator: Number of beneficiaries age 12 and older screened for depression using and agree appropriate standardized depression tool
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child and Adult Core Sets
Measure Name	Screening for Depression and Follow-Up Plan (CDF)

Percentage of Beneficiaries with a Screening for Depression and Follow-Up Plan (Measure 2-9)	
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries Receiving Mental Health Services (Inpatient, Intensive Outpatient or Partial Hospitalization, Outpatient, Emergency Department [ED], or Telehealth) (Measure 2-10)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of beneficiaries utilizing mental health services Denominator: Number of member months, divided by 12
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Mental Health Utilization (MPT)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 2.4: Do adult beneficiaries who are elderly and/or with a physical disability and adult beneficiaries with DD have the same or better management of prescriptions compared to baseline rates and out-of-state comparisons?

Percentage of Adult Beneficiaries with Monitoring for Persistent Medications (Measure 2-11)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had at least one therapeutic monitoring test in the measurement period Denominator: Number of beneficiaries aged 18 and older who received at least 180 treatment days of ambulatory medication in the measurement period continuously enrolled in the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Annual Monitoring for Patients on Persistent Medications (MPM)
Data Source	• State eligibility and enrollment data • Claims/encounter data

Percentage of Adult Beneficiaries with Monitoring for Persistent Medications (Measure 2-11)	
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Opioid Use at High Dosage (Measure 2-12)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who received prescriptions for opioids with an average daily dosage greater than or equal to 90 morphine milligram equivalents (MME) over a period of 90 days or more Denominator: Number of beneficiaries age 18 and older with two or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more with continuous enrollment during the measurement year with no more than one gap of up to 31 days
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Use of Opioids at High Dosage in Persons Without Cancer (OHD)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or a decrease in the rate supports the hypothesis Integration evaluation: no change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-Differences

Percentage of Beneficiaries with a Concurrent Use of Opioids and Benzodiazepines (Measure 2-13)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator with concurrent use of prescription opioids and benzodiazepines Denominator: Number of beneficiaries age 18 and older with 2 or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more with continuous enrollment during the measurement year with no more than one gap of up to 31 days
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Concurrent Use of Opioids and Benzodiazepines (COB)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or a decrease in the rate supports the hypothesis Integration evaluation: no change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test

	• Difference-in-differences

Research Question 2.5: Do beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD have the same or higher rates of utilization of care compared to baseline rates and out-of-state comparisons?

Number of ED Visits Per 1,000 Member Months (Measure 2-14)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of ED visits Denominator: Number of member months, divided by 1,000
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Child Code Set and NCQA
Measure Name	Ambulatory Care (AMB): ED Visits
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Number of Inpatient Stays Per 1,000 Member Months (Measure 2-15)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of total inpatient stays Denominator: Number of member months, divided by 1,000
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Inpatient Utilization—General Hospital/Acute Care (IPU)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Adult Inpatient Discharges with an Unplanned Readmission within 30 Days (Measure 2-16)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Adults

Percentage of Adult Inpatient Discharges with an Unplanned Readmission within 30 Days (Measure 2-16)	
Numerator/Denominator	Numerator: Number of acute inpatient stays in the denominator followed by an unplanned acute readmission within 30 days Denominator: Number of acute inpatient stays for beneficiaries aged 18 to 64
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Plan All-Cause Readmissions (PCR)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	Renewal evaluation: no change or a decrease in the rate supports the hypothesis Integration evaluation: no change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-Differences

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

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

Percentage of Beneficiaries Residing in Their Own Home (Measure 3-1)	
Evaluation Population	Beneficiaries who are elderly and/or with a physical disability and beneficiaries with DD
Age Group	Children and Adults
Numerator/Denominator	Numerator: Number of AHCCCS beneficiaries who live in their own home Denominator: AHCCCS beneficiaries
Comparison Population	N/A
Measure Steward	Arizona Health Care Cost Containment System (AHCCCS)
Data Source	• Prepaid Medical Management Information System (PMMIS) • AHCCCS Customer Eligibility (ACE)
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Type of Residence for Adult Beneficiaries with DD (Measure 3-2)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they reside in their own home Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI

Type of Residence for Adult Beneficiaries with DD (Measure 3-2)	
Measure Name	Type of Residence
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Research Question 3.2: Do adult beneficiaries have the same or higher rates of feeling satisfied with their living arrangements as a result of the integration of care for beneficiaries with DD?

Percentage of Beneficiaries Who Want to Live Somewhere Else (Measure 3-3)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they want to live somewhere else Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Wants to live somewhere else
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Believe Services and Supports Help Them Live a Good Life (Measure 3-4)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated services and supports help them live a good life Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Services and supports help the person live a good life
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Research Question 3.3: Do adult beneficiaries have the same or higher rates of feeling engaged as a result of the integration of care for beneficiaries with DD?

Percentage of Beneficiaries Able to Go Out and Do Things S/He Likes to Do in the Community (Measure 3-5)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they are able to go out and do things in the community Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Able to go out and do the things s/he like to do in the community
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Have Friends Who are Not Staff or Family Members (Measure 3-6)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they have friends who are not staff or family members Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Has friends who are not staff or family members
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

Percentage of Beneficiaries Who Decide or Has Input in Deciding Their Daily Schedule (Measure 3-7)	
Evaluation Population	Beneficiaries with DD
Age Group	Adults
Numerator/Denominator	Numerator: Number of respondents to NCI survey who indicated they have input in deciding their daily schedule Denominator: Number of respondents to NCI survey
Comparison Population	Respondents from NCI survey in other states
Measure Steward	NCI
Measure Name	Decides or has input in deciding daily schedule

Percentage of Beneficiaries Who Decide or Has Input in Deciding Their Daily Schedule (Measure 3-7)	
Data Source	NCI survey
Desired Direction	Renewal evaluation: no change or an increase in the rate supports the hypothesis Integration evaluation: no change or an increase in the rate supports the hypothesis
Analytic Approach	Difference-in-differences

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

Research Question 4.1: Did Department of Economic Security/Division of Developmental Disabilities (DES/DDD) or its contracted plans encounter barriers during the integration of care for beneficiaries with DD?

DES/DDD and Its Contracted Plans' Barriers During Transition (Measure 4-1)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews with AHCCCS, DES/DDD, and plans
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

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

DES/DDD and Its Contracted Plans' Care Coordination Activities (Measure 4-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews with AHCCCS, DES/DDD, and plans
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 4.3: Did DES/DDD or its contracted plans encounter barriers to implementing care coordination strategies?

DES/DDD and Its Contracted Plans' Barriers to Implementing Care Coordination Strategies (Measure 4-3)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A

DES/DDD and Its Contracted Plans' Barriers to Implementing Care Coordination Strategies (Measure 4-3)	
Measure Steward	N/A
Data Source	Key informant interviews with AHCCCS, DES/DDD, and plans
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 4.4: Did AHCCCS encounter barriers related to integration of care for beneficiaries with DD?

AHCCCS' Reported Barriers Before, During, and Shortly After the Integration of Care (Measure 4-4)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews with AHCCCS
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 4.5: Did providers encounter barriers related to integration of care for beneficiaries with DD?

Providers' Reported Barriers Before, During, and Shortly After the Integration of Care (Measure 4-5)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

CMDP

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

Research Question 1.1: Do CMDP beneficiaries have the same or increased access to primary care practitioners (PCPs) and specialists in the remeasurement period compared to the baseline?

Percentage of Children and Adolescents with Access to Primary Care Practitioners (Measure 1-1)	
Numerator/Denominator	Numerator: One or more visits with a PCP during the measurement year for beneficiaries 1-6 years of age. One or more visits with a PCP during the measurement year or the year prior for beneficiaries 7-19 years of age Denominator: Beneficiaries 1-19 years of age with continuous enrollment of: • The measurement year for beneficiaries 1-6 years of age with no more than one gap in enrollment of up to 45 days • The measurement year and the year prior for beneficiaries 7-19 years of age with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	Similar beneficiaries in another state
Measure Steward	Centers for Medicare & Medicaid Services (CMS) Child Core Set
Measure Name	Children and Adolescents' Access to Primary Care Practitioners (CAP-CH)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Beneficiaries with an Annual Dental Visit (Measure 1-2)	
Numerator/Denominator	Numerator: One or more dental visits with a dental practitioner during the measurement year. Any visit with a dental practitioner during the measurement year meets criteria Denominator: Beneficiaries 2–20 years of age continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Annual Dental Visit (ADV)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

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

Research Question 2.1: Do CMDP beneficiaries have the same or higher rates of preventive or wellness services in the remeasurement period compared to the baseline?

Percentage of Beneficiaries with Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 2-1)	
Numerator/Denominator	Numerator: Number of beneficiaries with at least one well-child visit with a PCP during the measurement year

Percentage of Beneficiaries with Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 2-1)	
	Denominator: Number of beneficiaries 3-6 years of age with continuous enrollment during the measurement year and with no more than one gap in enrollment of up to 45 days
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life (W34)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Beneficiaries with an Adolescent Well-Care Visit (Measure 2-2)	
Numerator/Denominator	Numerator: Number of beneficiaries with at least one comprehensive well-care visit with a PCP or an OB/GYN practitioner during the measurement year Denominator: Number of beneficiaries aged 12-21 and continuously enrolled with no more than one gap of up to 45 days during the measurement year
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Adolescent Well-Care Visits
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Children Two Years of Age with Appropriate Immunization Status (Measure 2-3)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had: four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); three Hemophilus influenza type B (HiB); three hepatitis B (HepB), one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The measure calculates a rate for each vaccine and nine separate combination rates. Denominator: Number of children who turn 2 years of age during the measurement year.
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Data Source	• State eligibility and enrollment data • Arizona State Immunization Information System
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences

Percentage of Children Two Years of Age with Appropriate Immunization Status (Measure 2-3)	
	• Pre-test/post-test

Percentage of Adolescents 13 Years of Age with Appropriate Immunizations (Measure 2-4)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had: one dose of meningococcal vaccine, one tetanus, diphtheria toxoids and acellular pertussis (Tdap) vaccine, and have completed the human papillomavirus (HPV) vaccine series by their 13th birthday. The measure calculates a rate for each vaccine and two combination rates. Denominator: Number of adolescents 13 years of age.
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Data Source	• State eligibility and enrollment data • Arizona State Immunization Information System
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

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

Percentage of Beneficiaries Ages 5 to 18 Who Were Identified as Having Persistent Asthma and Had a Ratio of Controller Medications of 0.50 or Greater During the Measurement Year (Measure 2-5)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who were identified as having persistent asthma and had a ratio of controller medications to total asthma medication of 0.50 or greater during the measurement year Denominator: Number of beneficiaries aged 5-18 who were identified as having persistent asthma and continuously enrolled during the measurement year and year prior to the measurement year, with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	Similar beneficiaries in another state
Measure Steward	National Committee for Quality Assurance (NCQA)
Measure Name	Asthma Medication Ratio (AMR)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Research Question 2.3: Do CMDP beneficiaries have the same or better management of behavioral health conditions in the remeasurement period compared to the baseline?

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 2-6)	
Numerator/Denominator	Numerator: Number of beneficiaries with a discharge for mental illness and a follow-up visit with a mental health practitioner within 7 days after discharge Denominator: Number of beneficiaries 6 to 17 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Follow-Up After Hospitalization for Mental Illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Children and Adolescents on Antipsychotics with Metabolic Monitoring (Measure 2-7)	
Numerator/Denominator	Numerator: Number of children and adolescents 1 – 17 years of age who had two or more antipsychotic prescriptions and had metabolic testing Denominator: Number of beneficiaries aged 1 to 17 with at least two antipsychotic medication dispensing events of the same or different mediations, on different dates of service during the measurement year, and continuous enrollment during the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Similar beneficiaries in another state
Measure Steward	NCQA
Measure Name	Metabolic Monitoring for Children and Adolescents on Antipsychotics (APM)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Beneficiaries with Screening for Depression and Follow-Up Plan (Measure 2-8)	
Numerator/Denominator	Numerator: Number of beneficiaries screened for depression using a standardized tool and, if positive, a follow-up plan is documented on the date of the positive screen Denominator: Number of beneficiaries age 12 to 17 with an outpatient visit during the measurement year
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Screening for Depression and Follow-Up Plan: Ages 12 – 17 (CDF-CH)
Data Source	• State eligibility and enrollment data • Claims/encounter data

Percentage of Beneficiaries with Screening for Depression and Follow-Up Plan (Measure 2-8)	
	• Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of Children and Adolescents with Use of Multiple Concurrent Antipsychotics (Measure 2-9)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator on two or more concurrent antipsychotic medications for at least 90 consecutive days during the measurement period Denominator: Number of beneficiaries aged 1 to 17 with 90 days of continuous antipsychotic mediation treatment during the measurement period and with no more than one gap in enrollment of up to 45 days during the measurement year
Comparison Population	Similar beneficiaries in another state
Measure Steward	CMS Child Core Set
Measure Name	Use of Multiple Concurrent Antipsychotics in Children and Adolescents (APC-CH)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	The same rate or a decrease in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Number of Beneficiaries Receiving Mental Health Services (inpatient, intensive outpatient or partial hospitalization, outpatient, emergency department [ED], or telehealth) (Measure 2-10)	
Numerator/Denominator	Numerator: Number of inpatient mental health services Denominator: Number of member months, divided by 1,000
Comparison Population	Similar beneficiaries in another state
Measure Steward	NCQA
Measure Name	Mental Health Utilization—Inpatient (MPT)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Research Question 2.4: Do CMDP beneficiaries have the same or lower hospital utilization in the remeasurement period compared to the baseline?

Number of ED Visits Per 1,000 Member Months (Measure 2-11)	
Numerator/Denominator	Numerator: Number of ED visits Denominator: Number of member months, divided by 1,000
Comparison Population	Similar beneficiaries in another state
Measure Steward	NCQA
Measure Name	Ambulatory Care—ED Visits (AMB)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Number of Inpatient Stays Per 1,000 Member Months (Measure 2-12)	
Numerator/Denominator	Numerator: Number of total inpatient stays Denominator: Number of member months, divided by 1,000
Comparison Population	Similar beneficiaries in another state
Measure Steward	NCQA
Measure Name	Inpatient Utilization—General Hospital/Acute Care (IPU)
Data Source	• State eligibility and enrollment data • Claims/encounter data • Aggregate rates for similar beneficiaries in other states
Desired Direction	N/A
Analytic Approach	• Difference-in-differences • Pre-test/post-test

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

Research Question 3.1: What barriers did CMDP anticipate/encounter during the integration?

CMDP's Anticipated/Reported Barriers During Transition (Measure 3-1)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	• Key informant interviews • Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 3.2: What care coordination strategies did CMDP plan/implement during integration?

CMDP's Planned/Reported Care Coordination Activities (Measure 3-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	• Key informant interviews • Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 3.3: What barriers to implementing care coordination strategies did the CMDP anticipate/encounter?

CMDP's Anticipated/Reported Barriers in Implementing Care Coordination Strategies (Measure 3-3)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	• Key informant interviews • Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

RBHA

Hypothesis 1—Access to care for adult beneficiaries with a serious mental illness (SMI) enrolled in a RBHA will be maintained or increase during the demonstration

Research Question 1.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or increased access to primary care services compared to prior to the demonstration renewal?

Percentage of Adults Who Accessed Preventive/Ambulatory Health Services (Measure 1-1)	
Numerator/Denominator	Numerator: Number of beneficiaries with an ambulatory or preventive care visit Denominator: Number of beneficiaries 20 years and older continuously enrolled for the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State comparison group
Measure Steward	National Committee for Quality Assurance (NCQA)
Measure Name	Adults' Access to Preventive/Ambulatory Health Services (AAP)
Data Source	• State eligibility and enrollment data

Percentage of Adults Who Accessed Preventive/Ambulatory Health Services (Measure 1-1)	
	• Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries Who Reported They Received Care as Soon as They Needed (Measure 1-2)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?
Data Source	Beneficiary survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment for a Checkup or Routine Care at a Doctor's Office or Clinic as Soon as They Needed (Measure 1-3)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get an appointment for routine care as soon as they needed Denominator: Number of respondents to getting appointment for routine care survey question
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
Data Source	Beneficiary survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment with a Specialist as Soon as They Needed (Measure 1-4)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get an appointment with a specialist as soon as they needed Denominator: Number of respondents to getting appointment with a specialist survey question
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In the last 6 months, how often did you get an appointment to see a specialist as soon as you needed?
Data Source	Beneficiary survey

Percentage of Beneficiaries Who Reported They Were Able to Schedule an Appointment with a Specialist as Soon as They Needed (Measure 1-4)	
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

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

Percentage of Beneficiaries Who Had Initiation of Alcohol and Other Drug (AOD) Abuse or Dependence Treatment (Measure 1-5)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis and 60 days continuous enrollment prior to the episode and 48 days after the index episode
Comparison Population	Out-of-State Comparison
Measure Steward	Centers for Medicare & Medicaid Services (CMS) Adult Core Set
Measure Name	Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment: Initiation of AOD Treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries Who Had Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 1-6)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis and 60 days continuous enrollment prior to the episode and 48 days after the index episode
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment: Engagement of AOD Treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

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

Research Question 2.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rates of preventive or wellness services compared to prior to demonstration renewal?

Percentage of Beneficiaries Who Reported Having a Flu Shot or Nasal Flu Spray (Measure 2-1)	
Numerator/Denominator	Numerator: Number of beneficiaries stating they had a flu shot or nasal flu spray since July 1 Denominator: Number of respondents to survey question about flu shot or spray
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	Have you had either a flu shot or flu spray in the nose since July 1, <year>?
Data Source	Beneficiary survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Research Question 2.2: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of chronic conditions compared to prior to the demonstration renewal?

Percentage of Beneficiaries with Persistent Asthma Who Had a Ratio of Controller Medications to Total Asthma Medications of at Least 50 Percent? (Measure 2-2)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a ratio of controller medications to total asthma medications of 0.50 or greater Denominator: Number of beneficiaries aged 19-64 who were identified as having persistent asthma who were continuously enrolled during the measurement year and the year prior to the measurement year with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Asthma Medication Ratio (AMR)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Schizophrenia or Bipolar Disorder Using Antipsychotic Medications Who Had a Diabetes Screening Test (Measure 2-3)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator with a diabetes screening test Denominator: Number of beneficiaries age 18-64 with schizophrenia, schizoaffective disorder or bipolar disorder, who were dispensed an antipsychotic medication and who were continuously enrolled for the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State Comparison

Percentage of Beneficiaries with Schizophrenia or Bipolar Disorder Using Antipsychotic Medications Who Had a Diabetes Screening Test (Measure 2-3)	
Measure Steward	CMS Adult Core Set
Measure Name	Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications (SSD)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Schizophrenia Who Adhered to Antipsychotic Medications (Measure 2-4)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who remained on an antipsychotic medication for at least 80 percent of their treatment period Denominator: Number of beneficiaries aged 19 to 64 with schizophrenia or schizoaffective disorder and were dispensed antipsychotic medication and who were continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 2.3: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of behavioral health conditions compared to prior to the demonstration renewal?

Percentage of Beneficiaries Who Remained on Antidepressant Medication Treatment (Measure 2-5)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who remained on an antidepressant medication treatment for: 1) at least 84 days, and 2) at least 180 days Denominator: Number of beneficiaries aged 18 and older who were treated with antidepressant medication and had a diagnosis of major depression who were continuously enrolled from 105 days prior to the index prescription start date (IPSD) through 231 days after the IPSD with no more than one gap in enrollment of up to 45 days during the continuous enrollment period
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Antidepressant Medication Management (AMM)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis

Percentage of Beneficiaries Who Remained on Antidepressant Medication Treatment (Measure 2-5)	
Analytic Approach	• Pre-test/post-test • Difference-in-difference

Percentage of Beneficiaries with a Follow-up Visit After Hospitalization for Mental Illness (Measure 2-6)	
Numerator/Denominator	Numerator: Number of beneficiaries with a discharge for mental illness and a follow-up visit with a mental health practitioner within 7 days after discharge. Denominator: Number of beneficiaries 18 years of age or older who were hospitalized for treatment of selected mental illness or intentional self-harm with continuous enrollment 30 days after discharge.
Comparison Population	NCQA
Measure Steward	CMS Adult Core Set
Measure Name	Follow-Up After Hospitalization for Mental Illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with a Follow-up Visit After Emergency Department (ED) Visit for Mental Illness (Measure 2-7)	
Numerator/Denominator	Numerator: Number of ED visits in the denominator with a follow-up visit for mental illness within 7 days of an ED visit for mental illness. Denominator: Number of ED visits for beneficiaries 18 years of age and older with a principal diagnosis of mental illness or intentional self-harm with continuous enrollment from the date of the ED visit through 30 days after the ED visit
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Follow-Up After Emergency Department Visit for Mental Illness (FUM)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Follow-up After ED Visit for Alcohol and Other Drug Abuse or Dependence (Measure 2-8)	
Numerator/Denominator	Numerator: Number of ED visits in the denominator with a follow-up visit for alcohol or other drug (AOD) abuse within 7 days of the ED visit. Denominator: Number of ED visits for beneficiaries 18 years of age and older with a principal diagnosis of AOD abuse or dependence and continuously enrolled from the date of the ED visit through 30 days after the ED visit
Comparison Population	Out-of-State Comparison

Percentage of Beneficiaries with Follow-up After ED Visit for Alcohol and Other Drug Abuse or Dependence (Measure 2-8)	
Measure Steward	NCQA
Measure Name	Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with a Screening for Clinical Depression and Follow-up Plan (Measure 2-9)	
Numerator/Denominator	Numerator: Number of beneficiaries age 18 and older with a positive screen and follow-up plan documented. Denominator: Number of beneficiaries age 18 and older screened for depression
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Screening for Depression and Follow-Up Plan (CDF)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries Receiving Mental Health Services (Total and by Inpatient, Intensive Outpatient or Partial Hospitalization, Outpatient, ED, or Telehealth) (Measure 2-10)	
Numerator/Denominator	Numerator: Number of beneficiaries utilizing mental health services. Stratified by the following services: • Inpatient. • Intensive outpatient or partial hospitalization. • Outpatient. • ED. • Telehealth. • Any service. Denominator: Number of member months, divided by 12
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Mental Health Utilization (MPT)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A

Percentage of Beneficiaries Receiving Mental Health Services (Total and by Inpatient, Intensive Outpatient or Partial Hospitalization, Outpatient, ED, or Telehealth) (Measure 2-10)	
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 2.4: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or better management of opioid prescriptions compared to prior to the demonstration renewal?

Percentage of Beneficiaries Who Have Prescriptions for Opioids at a High Dosage (Measure 2-11)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who received prescriptions for opioids with an average daily dosage greater than or equal to 90 morphine milligram equivalents (MME) over a period of 90 days or more. Denominator: Number of beneficiaries age 18 and older with two or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more.
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Use of Opioids at High Dosage in Persons Without Cancer (OHD)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Beneficiaries with Concurrent Use of Opioids and Benzodiazepines (Measure 2-12)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator with concurrent use of prescription opioids and benzodiazepines. Denominator: Number of beneficiaries age 18 and older with 2 or more prescriptions for opioids on different days with a cumulative days' supply of 15 or more.
Comparison Population	Out-of-State Comparisons
Measure Steward	CMS Adult Core Set
Measure Name	Concurrent Use of Opioids and Benzodiazepines (COB)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Research Question 2.5: Do adult beneficiaries with an SMI enrolled in a RBHA have the same lower tobacco usage compared to prior to the demonstration renewal?

Percentage of beneficiaries who indicated smoking cigarettes or using tobacco (Measure 2-13)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they smoked every day or some days Denominator: Number of respondents to smoking and tobacco use survey question
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	Do you now smoke cigarettes or use tobacco every day, some days, or not at all?
Data Source	Beneficiary survey
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Research Question 2.6: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or lower hospital utilization compared to prior to the demonstration renewal?

Number of ED Visits per 1,000 Member Months (Measure 2-14)	
Numerator/Denominator	Numerator: Number of ED Visits Denominator: Number of member months, divided by 1,000
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Ambulatory Care (AMB): ED Visits
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Number of Inpatient Stays per 1,000 Member Months (Measure 2-15)	
Numerator/Denominator	Numerator: Number of total inpatient stays. Denominator: Number of member months, divided by 1,000.
Comparison Population	Out-of-State Comparison
Measure Steward	NCQA
Measure Name	Inpatient Utilization—General Hospital/Acute Care (IPU)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Pre-test/post-test • Difference-in-differences

Percentage of Inpatient Discharges with An Unplanned Readmission Within 30 days (Measure 2-16)	
Numerator/Denominator	Numerator: Number of acute inpatient stays in the denominator followed by an unplanned acute readmission within 30 days. Denominator: Number of acute inpatient stays for beneficiaries aged 18 to 64.
Comparison Population	Out-of-State Comparison
Measure Steward	CMS Adult Core Set
Measure Name	Plan All-Cause Readmissions (PCR)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	No change or a decrease in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test • Difference-in-differences

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

Research Question 3.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher rating of health compared to prior to the demonstration renewal?

Percentage of Beneficiaries Who Reported a High Rating of Overall Health (Measure 3-1)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of overall health Denominator: Number of respondents to survey question regarding overall health
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In general, how would you rate your overall health?
Data Source	Beneficiary Survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

Percentage of Beneficiaries Who Reported a High Rating of Overall Mental or Emotional Health (Measure 3-2)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating they had a high rating of mental or emotional health Denominator: Number of respondents to survey question regarding mental or emotional health
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In general, how would you rate your overall mental or emotional health?
Data Source	Beneficiary Survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

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

Research Question 4.1: Do adult beneficiaries with an SMI enrolled in a RBHA have the same or higher satisfaction in their health care compared to prior to the demonstration renewal?

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

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

Research Question 4.2: Do adult beneficiaries with an SMI enrolled in a RBHA perceive their doctors to have the same or better care coordination compared to prior to the demonstration renewal?

Percentage of Beneficiaries Who Reported Their Doctor Seemed Informed About the Care They Received from Other Health Providers (Measure 4-3)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating their personal doctor seemed informed about the care they received from other health providers Denominator: Number of respondents to survey question regarding whether their doctor seemed informed about the care they received from other health providers
Comparison Population	N/A
Measure Steward	NCQA
CAHPS Question	In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?

Percentage of Beneficiaries Who Reported Their Doctor Seemed Informed About the Care They Received from Other Health Providers (Measure 4-3)	
Data Source	Beneficiary survey
Desired Direction	No change or an increase in the rate supports the hypothesis
Analytic Approach	Pre-test/post-test

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

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

Health Plans' Reported Care Coordination Activities for Beneficiaries with an SMI (Measure 5-1)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 5.2: Have care coordination strategies for beneficiaries with an SMI changed as a result of AHCCCS Complete Care?

Reported Changes in Health Plans' Care Coordination Strategies for Beneficiaries with an SMI (Measure 5-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

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

AHCCCS's Reported Care Coordination Strategies and Activities for the SMI Population Served by the RBHAs (Measure 5-3)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A

AHCCCS's Reported Care Coordination Strategies and Activities for the SMI Population Served by the RBHAs (Measure 5-3)	
Measure Steward	N/A
Data Source	Key informant interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

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

Providers' Reported Care Coordination Strategies and Activities for Their Medicaid Patients with an SMI (Measure 5-4)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

PQC

Hypothesis 1—Eliminating prior quarter coverage will increase the likelihood and continuity of enrollment.

Research Question 1.1: Do eligible people without prior quarter coverage enroll in Medicaid at the same rates as other eligible people with prior quarter coverage?

Percentage of Medicaid Enrollees by Eligibility Group Out of Estimated Eligible Medicaid Recipients (Measure 1-1)	
Numerator/Denominator	Numerator: Number of beneficiaries covered by Medicaid (HINSCAID). Denominator: Number of individuals likely eligible for Medicaid last year based on IPUMS survey data on family income (FTOTINC), number of own children in household (NCHILD) and disability (DIFFREM, DIFFCARE, DIFFPHYS, DIFFMOB, DIFFSENS,).
Comparison Population	Out-of-State Comparison
Measure Steward	N/A
Data Source	Integrated Public Use Microdata Series (IPUMS) American Community Surveys (ACS)
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Percentage of New Medicaid Enrollees by Eligibility Group, As Identified by Those Without a Recent Spell of Medicaid Coverage Out of Estimated Eligible Medicaid Recipients (Measure 1-2)	
Numerator/Denominator	Numerator: Number of beneficiaries beginning enrollment in Medicaid.

Percentage of New Medicaid Enrollees by Eligibility Group, As Identified by Those Without a Recent Spell of Medicaid Coverage Out of Estimated Eligible Medicaid Recipients (Measure 1-2)	
	Denominator: Number of individuals likely eligible for Medicaid based on IPUMS survey data on family income (FTOTINC), number of own children in household (NCHILD) and disability (DIFFREM, DIFFCARE, DIFFPHYS, DIFFMOB, DIFFSENS). Re-weighted to represent full Arizona population.
Comparison Population	N/A
Measure Steward	N/A
Data Source	State enrollment and eligibility data; IPUMS ACS
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Pre-test/post-test

Number of Medicaid Enrollees Per Month by Eligibility Group and/or Per-Capita of State (Measure 1-3)	
Numerator/Denominator	Numerator: Number of beneficiaries beginning enrollment in Medicaid Denominator: Estimated current year population of Arizona
Comparison Population	N/A
Measure Steward	N/A
Data Source	State enrollment and eligibility data; State of Arizona Office of Economic Opportunity
Desired Direction	N/A
Analytic Approach	Rapid-cycle reporting—Statistical process control chart

Number of New Medicaid Enrollees Per Month by Eligibility Group, as Identified by Those Without a Recent Spell of Medicaid Coverage (Measure 1-4)	
Numerator/Denominator	Numerator: Number of beneficiaries beginning enrollment in Medicaid who did not have Medicaid coverage for at least six months prior Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	State enrollment and eligibility data
Desired Direction	N/A
Analytic Approach	Rapid-cycle reporting—Statistical process control chart

Research Question 1.2: What is the likelihood of enrollment continuity for those without prior quarter coverage compared to other Medicaid beneficiaries with prior quarter coverage?

Percentage of Medicaid Beneficiaries Due for Renewal Who Complete the Renewal Process (Measure 1-5)	
Numerator/Denominator	Numerator: Beneficiaries completing the renewal process Denominator: Beneficiaries enrolled in Medicaid who were due for renewal during previous 12 months
Comparison Population	Aggregate Data for Other State

Percentage of Medicaid Beneficiaries Due for Renewal Who Complete the Renewal Process (Measure 1-5)	
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test • Interrupted time series

Average Number of Months with Medicaid Coverage (Measure 1-6)	
Numerator/Denominator	Numerator: Number of full months with Medicaid coverage Denominator: Number of Medicaid beneficiaries
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	An increase in the number of months supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test • Interrupted time series

Research Question 1.3: Do beneficiaries without prior quarter coverage who disenroll from Medicaid have shorter enrollment gaps than other beneficiaries with prior quarter coverage?

Percentage of Medicaid Beneficiaries Who Re-enroll After A Gap of Up to Six Months (Measure 1-7)	
Numerator/Denominator	Numerator: Number of beneficiaries who re-enrolled in Medicaid during evaluation period after a gap of up to 6 months Denominator: Number of beneficiaries who disenrolled from Medicaid during the first six months of evaluation period
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test • Interrupted time series

Average Number of Months Without Medicaid Coverage for Beneficiaries Who Re-Enroll After a Gap of Up to Six Months (Measure 1-8)	
Numerator/Denominator	Numerator: Number of months without Medicaid coverage after disenrolling Denominator: Number of beneficiaries who disenrolled from Medicaid during the first six months of evaluation period and subsequently re-enrolled

Average Number of Months Without Medicaid Coverage for Beneficiaries Who Re-Enroll After a Gap of Up to Six Months (Measure 1-8)	
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	A decrease in the number of months without coverage supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test • Interrupted time series

Average Number of Gaps in Medicaid Coverage for Beneficiaries Who Re-Enroll After a Gap of Up to Six Months (Measure 1-9)	
Numerator/Denominator	Numerator: Number of gaps in Medicaid coverage. A gap is defined as one day or more without Medicaid enrollment Denominator: Number of beneficiaries who disenrolled from Medicaid during the first six months of evaluation period and subsequently re-enrolled
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	A decrease in the number of gaps supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Average Number of Days Per Gap in Medicaid Coverage for Beneficiaries Who Re-Enroll After a Gap of Up to Six Months (Measure 1-10)	
Numerator/Denominator	Numerator: Number of gap days in Medicaid coverage Denominator: Number of gaps in coverage for beneficiaries who disenrolled from Medicaid during the first six months of evaluation period and subsequently re-enrolled. A gap is defined as one day or more without Medicaid enrollment
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; other state aggregate data
Desired Direction	A decrease in the number of days per gap supports the hypothesis
Analytic Approach	• Difference-in-differences • Pre-test/post-test

Hypothesis 2—Eliminating prior quarter coverage will increase enrollment of eligible people when they are healthy relative to those eligible people who have the option of prior quarter coverage.

Research Question 2.1: Do newly enrolled beneficiaries without prior quarter coverage have higher self-assessed health status than continuously enrolled beneficiaries?

Beneficiary Reported Rating of Overall Health (Measure 2-1)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall health survey question among beneficiaries who have not had Medicaid coverage for the first six months of evaluation period
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rating of overall health supports the hypothesis
Analytic Approach	Comparison of means

Beneficiary Reported Rating of Overall Mental or Emotional Health (Measure 2-2)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall mental or emotional health rating in response to Consumer Assessment of Healthcare Providers and Systems (CAHPS®) question regarding overall mental or emotional health[D-1] Denominator: Number of respondents to overall mental or emotional health survey question among beneficiaries who have not had Medicaid coverage for the first six months of evaluation period
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rating of overall mental or emotional health supports the hypothesis
Analytic Approach	Comparison of means

Percentage of Beneficiaries Who Reported Prior Year Emergency Room (ER) Visit (Measure 2-3)	
Numerator/Denominator	Numerator: Number of beneficiaries who reported any ER visits during previous 12 months Denominator: Number of respondents to ER visit survey question among beneficiaries who have not had Medicaid coverage for the first six months of evaluation period
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Comparison of means

Percentage of Beneficiaries Who Reported Prior Year Hospital Admission (Measure 2-4)	
Numerator/Denominator	Numerator: Number of beneficiaries who reported any overnight hospital stays during previous 12 months Denominator: Number of respondents to overnight hospital stay survey question among beneficiaries who have not had Medicaid coverage for the first six months of evaluation period

[D-1] CAHPS is a registered trademark of the Agency for Healthcare Quality and Research.

Percentage of Beneficiaries Who Reported Prior Year Hospital Admission (Measure 2-4)	
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Comparison of means

Percentage of Beneficiaries Who Reported Getting Healthcare Three or More Times for The Same Condition or Problem (Measure 2-5)	
Numerator/Denominator	Numerator: Number of beneficiaries who received healthcare services three or more times for the same condition Denominator: Number of respondents to multiple services for same condition survey question among beneficiaries who have not had Medicaid coverage for the first six months of evaluation period
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Comparison of means

Hypothesis 3—Health outcomes will be better for those without prior quarter coverage compared to other Medicaid beneficiaries with prior quarter coverage.

Research Question 3.1: Do beneficiaries without prior quarter coverage have better health outcomes than compared to baseline rates and out-of-state comparisons with prior quarter coverage?

Beneficiary Reported Rating of Overall Health for All Beneficiaries (Measure 3-1)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall health survey question
Comparison Population	Aggregate Data for Other State; Out-of-State Comparison
Measure Steward	N/A
Data Source	State beneficiary survey; other state aggregate data; BRFSS
Desired Direction	An increase in the rating of overall health supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Beneficiary Reported Rating of Overall Mental or Emotional Health for All Beneficiaries (Measure 3-2)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall mental or emotional health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall mental or emotional health survey question
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State beneficiary survey; other state aggregate data
Desired Direction	An increase in the rating of overall mental or emotional health supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Hypothesis 4—Eliminating prior quarter coverage will not have adverse financial impacts on consumers.

Research Question 4.1: Does the prior quarter coverage waiver lead to changes in the incidence of beneficiary medical debt?

Percentage of Beneficiaries Who Reported Medical Debt (Measure 4-1)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating outstanding medical debt or difficulty paying medical bills Denominator: Number of respondents to outstanding medical debt or difficulty paying medical bills survey question
Comparison Population	Out-of-State Comparison
Measure Steward	N/A
Data Source	State beneficiary survey; Behavioral Risk Factors Surveillance System (BRFSS)
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Comparison to other states

Hypothesis 5—Eliminating prior quarter coverage will not adversely affect access to care.

Research Question 5.1: Do beneficiaries without prior quarter coverage have the same or higher rates of office visits compared to baseline rates and out-of-state comparisons with prior quarter coverage?

Beneficiary Response to Getting Needed Care Right Away (Measure 5-1)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question
Comparison Population	Aggregate Data for Other State
Measure Steward	National Committee for Quality Assurance (NCQA)
Data Source	State beneficiary survey; other state aggregate data
Desired Direction	An increase in the rate supports the hypothesis

Beneficiary Response to Getting Needed Care Right Away (Measure 5-1)	
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Beneficiary Response to Getting an Appointment for a Check-Up or Routine Care at a Doctor's Office or Clinic (Measure 5-2)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get an appointment for a check-up or routine care at a doctor's office or clinic Denominator: Number of respondents to get an appointment for a check-up or routine care at a doctor's office or clinic survey question
Comparison Population	Aggregate Data for Other State
Measure Steward	NCQA
Data Source	State beneficiary survey; other state aggregate data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Research Question 5.2: Do beneficiaries without prior quarter coverage have the same or higher rates of service and facility utilization compared to baseline rates and out-of-state comparisons with prior quarter coverage?

Percentage of Beneficiaries with A Visit to A Specialist (e.g., Eye Doctor, ENT, Cardiologist) (Measure 5-3)	
Numerator/Denominator	Numerator: Number of beneficiaries with a visit to a specialist during previous 12 months Denominator: Number of beneficiaries enrolled in Medicaid during previous 12 months
Comparison Population	Aggregate Data for Other State
Measure Steward	N/A
Data Source	State eligibility and enrollment data; claims/encounter data; other state aggregate data
Desired Direction	No difference/an increase in the rate supports the hypothesis
Analytic Approach	• Difference-in-differences • Comparison to national benchmarks • Comparison to historical AHCCCS rates • Pre-test/post-test

Hypothesis 6—Eliminating prior quarter coverage will not result in reduced member satisfaction.

Research Question 6.1: Do beneficiaries without prior quarter coverage have the same or higher satisfaction with their healthcare compared to baseline rates and out-of-state comparisons with prior quarter coverage?

Beneficiary Rating of Overall Healthcare (Measure 6-1)	
Numerator/Denominator	Numerator: Number of beneficiaries reporting a high-level of satisfaction with overall healthcare Denominator: Number of respondents to overall healthcare satisfaction survey question
Comparison Population	N/A
Measure Steward	NCQA
Data Source	State beneficiary survey
Desired Direction	No difference/an increase in the rating of overall healthcare supports the hypothesis
Analytic Approach	Pre-test/post-test

Hypothesis 7—Eliminating prior quarter coverage will generate cost savings over the term of the waiver.

Research Question 7.3: Do costs to non-AHCCCS entities stay the same or decrease after implementation of the waiver compared to before?

Reported Costs for Uninsured and/or Likely Eligible Medicaid Recipients Among Potentially Impacted Providers and/or Provider Networks (Measure 7-1)	
Numerator/Denominator	Numerator: Total reported uncompensated care costs among likely Medicaid population, including Medicaid shortfalls. Denominator: Total number of facilities reporting uncompensated care costs.
Comparison Population	Out-of-State Comparison
Measure Steward	N/A
Data Source	• HCRIS • HCUP-SID • Provider Focus Groups
Desired Direction	Lower is better
Analytic Approach	• Difference-in-differences • Interrupted time series • Qualitative synthesis

Hypothesis 8—Education and outreach activities by AHCCCS will increase provider understanding about the elimination of PQC.

Research Question 8.1: What activities did AHCCCS perform to educate beneficiaries and providers about changes to retroactive eligibility?

AHCCCS' Education Activities (Measure 8-1)	
Numerator/Denominator	N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key Informant Interviews
Desired Direction	N/A

AHCCCS' Education Activities (Measure 8-1)	
Analytic Approach	Qualitative synthesis

Providers' Knowledge on Eliminating Prior Quarter Coverage (Measure 8-2)	
Numerator/Denominator	N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Provider Focus Groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

AHCCCS' Reported Barriers to Providing Education on Eliminating Prior Quarter Coverage (Measure 8-3)	
Numerator/Denominator	N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key Informant Interviews
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

TI

Hypothesis 1—The TI program will improve physical and behavioral health care integration for children.

Research Question 1.1: What is the percentage of providers that have an executed agreement with Health Current and receive Admission-Discharge-Transfer (ADT) alerts?

Percentage of Participating Pediatric Primary Care and Behavioral Health care Practices That Have an Executed Agreement with Health Current (Measure 1-1)	
Numerator/Denominator	Numerator: Number of pediatric primary care and behavioral health care practices with an executed agreement with Health Current Denominator: Number of pediatric primary care and behavioral health care practices
Comparison Population	Practitioners not participating in TI
Measure Steward	Not Applicable (N/A)
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Percentage of Participating Pediatric Primary Care and Behavioral Health care Practices That Routinely Receives ADT Alerts (Measure 1-2)	
Numerator/Denominator	Numerator: Number of pediatric primary care and behavioral health care practices with an executed agreement with Health Current and Health Current confirmation of routine receipt of ADT alerts Denominator: Number of pediatric primary care and behavioral health care practices
Comparison Population	Practitioners not participating in TI
Measure Steward	N/A
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Research Question 1.2: Do children subject to the TI program have higher rates of screening and well-child visits compared to those who are not subject to the demonstration?

Percentage of Beneficiaries with a Well-Child Visit in the Third, Fourth, Fifth, and Sixth Years of Life (Measure 1-3)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who have at least one well-child visit with any primary care provider during the measurement year Denominator: Number of beneficiaries with a behavioral health diagnosis who are age 3–6 years as of the last calendar day of the measurement year
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	Centers for Medicare & Medicaid Services (CMS) Child Core Set
Measure Name	Well-child visits in the third, fourth, fifth and sixth years of life (W34)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Beneficiaries with a Depression Screening and Follow-Up Plan (Measure 1-4)	
Numerator/Denominator	Numerator: Number of beneficiaries who were screened for depression using a standardized tool and, if positive, a follow-up plan is documented on the date of the positive screen Denominator: Number of beneficiaries aged 12-17 during the measurement year who had an outpatient visit
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Child Core Set
Measure Name	Screening for depression and follow-up plan (CDF)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model

Percentage of Beneficiaries with a Depression Screening and Follow-Up Plan (Measure 1-4)	
	• Difference-in-differences • Interrupted time series

Percentage of Beneficiaries with an Adolescent Well-Care Visit (Measure 1-5)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had at least one well-care visit during the measurement year Denominator: Number of beneficiaries aged 12 to 21 during the measurement year who had no more than 1 gap of up to 45 days and were enrolled on the anchor date
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Child Core Set
Measure Name	Adolescent well-care visits (AWC)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Beneficiary Response to Getting Needed Care Right Away (Measure 1-6)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get needed car right away Denominator: Number of respondents to getting needed care survey question
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	National Committee for Quality Assurance (NCQA)
CAHPS Question	In the last 6 months, when your child needed care right away, how often did your child get care as soon as he or she needed?
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Research Question 1.3: Do children subject to the TI program have higher rates of follow-up after hospitalization or an emergency department (ED) visit for mental illness than those who are not subject to the demonstration?

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 1-7)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a follow-up visit with a mental health provider within seven days of discharge Denominator: Number of beneficiaries aged 6 to 17 during the measurement year who had continuous enrollment for 30 days after a discharge for mental illness
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Child Core Set

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 1-7)	
Measure Name	Follow-up after hospitalization for mental illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question 1.4: Do parents/guardians of children subject to the program perceive their doctors have better care coordination than those not subject to the demonstration?

Beneficiary Response to Their Child's Doctor Seeming Informed About the Care Their Child Received from Other Health Providers (Measure 1-8)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating that their child's doctor seemed informed about the care their child received from other health providers Denominator: Number of respondents to survey questions regarding whether their child's doctor seemed informed about the care their child received from other health providers
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	NCQA
CAHPS Question	In the last 6 months, how often did your child's personal doctor seem informed and up-to-date about the care your child got from these doctors or other health providers?
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Hypothesis 2—The TI program will improve physical and behavioral health care integration for adults.

Research Question 2.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?

Percentage of Participating Adult Primary Care and Behavioral Health care Practices That Have an Executed Agreement with Health Current (Measure 2-1)	
Numerator/Denominator	Numerator: Number of adult primary care and behavioral health care practices with an executed agreement with Health Current Denominator: Number of adult primary care and behavioral health care practices
Comparison Population	Practitioners not participating in TI
Measure Steward	N/A
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Percentage of Participating Adult Primary Care and Behavioral Health care Practices that Routinely Receives ADT Alerts (Measure 2-2)	
Numerator/Denominator	Numerator: Number of adult primary care and behavioral health care practices with an executed agreement with Health Current Denominator: Number of adult primary care and behavioral health care practices
Comparison Population	Practitioners not participating in TI
Measure Steward	N/A
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Research Question 2.2: Do adults subject to the TI program have higher rates of screening than those who are not subject to the demonstration?

Percentage of Beneficiaries with a Depression Screening and Follow-Up Plan if Positive (Measure 2-3)	
Numerator/Denominator	Numerator: Number of beneficiaries who were screened for depression using a standardized tool and, if positive, a follow-up plan is documented on the date of the positive screen Denominator: Number of beneficiaries aged 18 and over during the measurement year who had an outpatient visit
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Adult Core Set
Measure Name	Screening for depression and follow-up plan (CDF)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Beneficiary Response to Getting Needed Care Right Away (Measure 2-4)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating the ability to get needed care right away Denominator: Number of respondents to getting needed care survey question
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	NCQA
CAHPS Question	In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Research Question 2.3: Do adults subject to the TI program have lower rates of ED utilization than those who are not subject to the demonstration?

Number of ED Visits per 1,000 Member Months (Measure 2-5)	
Numerator/Denominator	Numerator: Number of ED visits Denominator: Number of beneficiary months in intervention/comparison group aged 18 and older, divided by 1,000
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	NCQA
Measure Name	Ambulatory care (AMB): emergency department visits
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Chi-square test

Number of ED Visits for Substance Use Disorder (SUD) or Opioid Use Disorder (OUD) per 1,000 Member Months (Measure 2-6)	
Numerator/Denominator	Numerator: Number of ED visits with a SUD or OUD-related diagnosis Denominator: Number of beneficiary months in intervention/comparison group aged 18 and older, divided by 1,000
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Adult Core Set
Measure Name	Follow-up after emergency department visit for alcohol and other drug abuse or dependence (FUA)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series • Chi-square test

Research Question 2.4: Do adults subject to the TI program have higher rates of follow-up after hospitalization or an ED visit for mental illness than those who are not subject to the demonstration?

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 2-7)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a follow-up visit with a mental health provider within seven days of discharge Denominator: Number of beneficiaries aged 18 and over during the measurement year who had continuous enrollment for 30 days after a discharge for mental illness
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers

Percentage of Beneficiaries with a Follow-Up Visit After Hospitalization for Mental Illness (Measure 2-7)	
Measure Steward	CMS Adult Core Set
Measure Name	Follow-up after hospitalization for mental illness (FUH)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Beneficiaries with a Follow-Up Visit After an ED Visit for Mental Illness (Measure 2-8)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had a follow-up visit with any provider within seven days of discharge Denominator: Number of beneficiaries aged 18 and older who had continuous enrollment for 30 days after an ED visit for mental illness
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Adult Core Set
Measure Name	Follow-up after emergency department visit for mental illness (FUM)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question 2.5: Do adults subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence than those who were not subject to the demonstration?

Percentage of Beneficiaries Who Had Initiation of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-9)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode. Rates will be reported separately for alcohol, opioid, other drug, and total. Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis, 60 days continuous enrollment prior to the episode and 48 days after the index episode, with no gaps during the enrollment period
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and engagement of alcohol and other drug abuse or dependence treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model

Percentage of Beneficiaries Who Had Initiation of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-9)	
	• Difference-in-differences • Interrupted time series

Percentage of Beneficiaries Who Had Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 2-10)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode. Rates will be reported separately for alcohol, opioid, other drug, and total. Denominator: Number of beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis, 60 days continuous enrollment prior to the episode and 48 days after the index episode, with no gaps during the enrollment period
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and engagement of alcohol and other drug abuse or dependence treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Beneficiaries with OUD Receiving Any Medication Assisted Treatment (MAT) (Measure 2-11)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator receiving any kind of MAT Denominator: Number of beneficiaries aged 18 and over during the measurement year diagnosed with OUD
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers
Measure Steward	N/A
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question 2.6: Do adults subject to the TI program perceive their doctors have better care coordination than those not subject to the demonstration?

Beneficiary Response to Their Doctor Seeming Informed About the Care They Received from Other Health Providers (Measure 2-12)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating their doctor seemed informed about the care they received from other health care providers Denominator: Number of respondents to the survey question of whether their doctor seemed informed about the care they received from other health care providers
Comparison Population	Beneficiaries not assigned to, nor received care from TI participating providers

Beneficiary Response to Their Doctor Seeming Informed About the Care They Received from Other Health Providers (Measure 2-12)	
CAHPS Question	In the last 6 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?
Measure Steward	NCQA
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Hypothesis 3—The TI program will improve care coordination for Arizona Health Care Cost Containment System (AHCCCS) enrolled adults released from criminal justice facilities.

Research Question 3.1: What is the percentage of providers that have an executed agreement with Health Current and receive ADT alerts?

Percentage of Integrated Practices Participating in the Justice Transition Project That Have an Executed Agreement with Health Current (Measure 3-1)	
Numerator/Denominator	Numerator: Number of practices participating in the justice transition project with an executed agreement with Health Current Denominator: Number of practices participating in the justice transition project
Comparison Population	Practitioners participating in justice transition project not participating in TI
Measure Steward	N/A
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Percentage of Integrated Practices Participating in the Justice Transition Project That Routinely Receives ADT Alerts (Measure 3-2)	
Numerator/Denominator	Numerator: Number of practices participating in the justice transition project with an executed agreement with Health Current and Health Current confirmation of routine receipt of ADT alerts Denominator: Number of practices participating in the justice transition project
Comparison Population	Practitioners participating in justice transition project not participating in TI
Measure Steward	N/A
Data Source	Administrative program data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Rapid cycle reporting

Research Question 3.2: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of access to care than those who were not subject to the demonstration?

Percentage of Recently Released Beneficiaries Who Had a Preventive/Ambulatory Health Service Visit (Measure 3-3)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator who had one or more ambulatory or preventive care visits during the measurement year Denominator: Number of recently released beneficiaries age 20-44 years during the measurement period recently released from a criminal justice facility and assigned to a probation or parole office
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	NCQA
Measure Name	Adults' access to preventative/ambulatory health services (AAP)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Recently Released Beneficiary Response to Getting Needed Care Right Away (Measure 3-4)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries indicating getting needed care right away Denominator: Number of recently released respondents to the survey question regarding getting needed care right away
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	NCQA
CAHPS Question	In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Recently Released Beneficiary Response to Getting Routine Care Right Away (Measure 3-5)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries indicating getting routine care right away Denominator: Number of recently released respondents to the survey question regarding getting routine care right away
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	NCQA
CAHPS Question	In the last 6 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
Data Source	Beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Chi-square test

Research Question 3.3: Do adult beneficiaries who are recently released from a criminal justice facility and subject to the TI program have higher rates of alcohol and drug abuse treatment and adherence to treatment than those who were not subject to the demonstration?

Percentage of Recently Released Beneficiaries Who Had Initiation of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 3-6)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode Denominator: Number of recently released beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis, 60 days continuous enrollment prior to the episode and 48 days after the index episode, with no gaps during the enrollment period
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and engagement of alcohol and other drug abuse or dependence treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Recently Released Beneficiaries Who Had Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (Measure 3-7)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator who had initiation of treatment within 14 days of the index episode and two or more engagement episodes within 34 days of the initiation episode Denominator: Number of recently released beneficiaries aged 18 and over during the measurement year with an alcohol or opioid diagnosis, 60 days continuous enrollment prior to the episode and 48 days after the index episode, with no gaps during the enrollment period
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	CMS Adult Core Set
Measure Name	Initiation and engagement of alcohol and other drug abuse or dependence treatment (IET)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Recently Released Beneficiaries with OUD Receiving Any Medication Assisted Treatment (MAT) (Measure 3-8)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator receiving any kind of MAT Denominator: Number of recently released beneficiaries aged 18 and over during the measurement year diagnosed with OUD

Percentage of Recently Released Beneficiaries with OUD Receiving Any Medication Assisted Treatment (MAT) (Measure 3-8)	
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	N/A
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question 3.4: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have lower rates of ED utilization than those who were not subject to the demonstration?

Number ED Visits per 1,000 Member Months for Recently Released Beneficiaries (Measure 3-9)	
Numerator/Denominator	Numerator: Number of ED visits for recently released beneficiaries Denominator: Number of beneficiary months for recently released beneficiaries aged 18 and older, divided by 1,000
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	NCQA
Measure Name	Ambulatory care (AMB): emergency department visits
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Number of ED Visits for SUD or OUD per 1,000 Member Months for Recently Released Beneficiaries (Measure 3-10)	
Numerator/Denominator	Numerator: Number of ED visits with a SUD or OUD-related diagnosis for recently released beneficiaries Denominator: Number of beneficiary months for recently released beneficiaries aged 18 and older, divided by 1,000
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	CMS Adult Core Set
Measure Name	Follow-up after emergency department visit for alcohol and other drug abuse or dependence (FUA)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A

Number of ED Visits for SUD or OUD per 1,000 Member Months for Recently Released Beneficiaries (Measure 3-10)	
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Research Question 3.5: Do adult beneficiaries recently released from a criminal justice facility and subject to the TI program have better management of opioid prescriptions than those who were not subject to the demonstration?

Percentage of Recently Released Beneficiaries Who Have a Prescription for Opioids at a High Dosage (Measure 3-11)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator with an average daily dosage ≥ 90 Morphine Milligram Equivalent during the opioid episode Denominator: Number of recently released beneficiaries aged 18 and older who had no more than a 1-month gap in enrollment and had 2 or more prescription claims for opiates on different dates of service with a cumulative supply of 15 or more days during the measurement year
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	CMS Adult Core Set
Measure Name	Use of opioids at high dosage in persons without cancer (OHD)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	N/A
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Percentage of Recently Released Beneficiaries Who Have Prescriptions for Concurrent use of Opioids and Benzodiazepines (Measure 3-12)	
Numerator/Denominator	Numerator: Number of recently released beneficiaries in the denominator with two or more claims for benzodiazepines with different dates of service and concurrent use of opioids and benzodiazepines for 30 or more cumulative days Denominator: Number of recently released beneficiaries aged 18 and older during the measurement year with no more than one gap of up to 31 days and had 2 or more prescription claims for opiates on different dates of service with a cumulative days' supply of 15 or more days
Comparison Population	Beneficiaries transitioning from the criminal justice system who are not assigned to, nor received care from practitioners participating in the justice transition project and participating in TI
Measure Steward	CMS Adult Core Set
Measure Name	Concurrent use of opioids and benzodiazepines (COB)
Data Source	• State eligibility and enrollment data • Claims/encounter data
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	• Hierarchical linear/generalized linear model • Difference-in-differences • Interrupted time series

Hypothesis 5—Providers will increase the level of care integration over the course of the demonstration.

Research Question 5.1: Do providers progress across the Substance Abuse and Mental Health Services Administration (SAMHSA) national standard of six levels of integrated health care?

Percentage of Providers Transitioning from Level 1 or Level 2 (Coordinated Care) to Level 3 or Level 4 (Co-Located Care) (Measure 5-1)	
Numerator/Denominator	Numerator: Number of providers who indicated their integration level is Level 3 or Level 4 (co-located care) at the end of the measurement year Denominator: Number of providers who indicated their integration level is Level 1 or Level 2 (coordinated care) in the previous measurement year
Comparison Population	N/A
Measure Steward	N/A
Data Source	Program data from provider attestations
Desired Direction	An increase in rate supports the hypothesis
Analytic Approach	Descriptive impact analysis

Percentage of Providers Transitioning from Level 3 or Level 4 (Co-Located Care) to Level 5 or Level 6 (Integrated Care) (Measure 5-2)	
Numerator/Denominator	Numerator: Number of providers who indicated their integration level is Level 5 or Level 6 (integrated care) at the end of the measurement year Denominator: Number of providers who indicated their integration level is Level 3 or Level 4 (co-located care) in the previous measurement year
Comparison Population	N/A
Measure Steward	N/A
Data Source	Program data from provider attestations
Desired Direction	An increase in rate supports the hypothesis
Analytic Approach	Descriptive impact analysis

Research Question 5.2: Do providers increase level of integration within each broader category (i.e., coordinated, co-located, and integrated care) during the demonstration period?

Percentage of Providers Transitioning from Level 1 to Level 2 Integration (Measure 5-3)	
Numerator/Denominator	Numerator: Number of providers who indicated their integration level is level 2 at the end of the measurement year Denominator: Number of providers who indicated their integration level is level 1 in the previous measurement year
Comparison Population	N/A
Measure Steward	N/A
Data Source	Program data from provider attestations
Desired Direction	An increase in rate supports the hypothesis
Analytic Approach	Descriptive impact analysis

Percentage of Providers Transitioning from Level 3 to Level 4 Integration (Measure 5-4)	
Numerator/Denominator	Numerator: Number of providers who indicated their integration level is level 4 at the end of the measurement year Denominator: Number of providers who indicated their integration level is level 3 in the previous measurement year
Comparison Population	N/A
Measure Steward	N/A
Data Source	Program data from provider attestations
Desired Direction	An increase in rate supports the hypothesis
Analytic Approach	Descriptive impact analysis

Percentage of Providers Transitioning from Level 5 to Level 6 Integration (Measure 5-5)	
Numerator/Denominator	Numerator: Number of providers who indicated their integration level is level 6 at the end of the measurement year Denominator: Number of providers who indicated their integration level is level 5 in the previous measurement year
Comparison Population	N/A
Measure Steward	N/A
Data Source	Program data from provider attestations
Desired Direction	An increase in rate supports the hypothesis
Analytic Approach	Descriptive impact analysis

Hypothesis 6—Providers will conduct care coordination activities.

Research Question 6.1: Did AHCCCS encounter barriers related to the pre-implementation and implementation phases of TI?

AHCCCS' Reported Barriers Before, During, and Shortly Following the Implementation of TI (Measure 6-1)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Key informant interview
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 6.2: Did providers encounter barriers related to the pre-implementation and implementation phases of TI?

Providers' Reported Barriers Before, During, and Shortly Following the Implementation of TI (Measure 6-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Provider focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

E. Beneficiary-Level Data Sources Reviewed

Numerous out-of-state sources of beneficiary-level data were considered for each evaluation design plan. Most data sources do not contain key data elements necessary for inclusion in the design plans. A description of these data sources and rationale for inclusion or exclusion is provided in the Comparison Populations—Out-of-State Comparison Groups section. There are two primary uses for each data source: (1) including the same survey questions in an Arizona member beneficiary survey conducted for this evaluation and utilizing the out-of-state data as a comparison group, or (2) utilizing the out-of-state data for both the intervention and comparison groups. There are significant limitations to either approach. Under the first approach, since the survey was not fielded during the baseline period, only a single, post-implementation data point would be included in the summative evaluation. This would not provide the basis from which to draw any causal inferences. Under the second approach, many of these data sources are limited by the absence of a state identifier (on public use data) and by a sufficient number of Arizona Medicaid respondents to generate sufficient statistical power for meaningful analysis without pooling multiple years together. Additionally, some data sources are limited in relevant health-related outcomes pertinent to the demonstration. Table E-1 provides a summary of each data source considered, its applicability, and its limitations.

Legend for Table E-1

	Subpopulation Identification	Outcomes Measures/Matching Factors
○	Not available	None
◔	Low approximation	Few weak variables
◑	Partial identification or approximation	Many weak variables
◕	Good approximation	Few strong variables
●	Highly accurate identification	Many strong variables

Table E-1: Summary of Data Sources Considered

Requirement	BRFSS	NHIS (National Health Interview Survey)	NHANES (National Health and Nutrition Examination Survey)	NSCH (National Survey of Children's Health)	MEPS (Medical Expenditure Panel Survey)	IPUMS-ACS	NSDUH (National Survey on Drug Use and Health)
Beneficiary Level	✓	✓	✓	✓	✓	✓	✓
Medicaid Indicator	✗	✓	✓	✗	✓	✓	✓
State	✓	✗	✗	✓	✗	✓	✗
Subpopulations							
Medicaid expansion (AW)	◑	◔	◑	○	◑	◑	○
Foster children (CMDP)	○	●	○	●	○	○	○
SMI adults (RBHA)	○	○	○	○	○	○	◑
DD/EPD (ALTCS)	○	◕	○	◕	◑	◔	○
High-risk BH (TI)	○	○	○	○	○	○	○
Relevant Outcomes/Measures	◕	●	◑	◕	●	◕	◑
Adjustment/Matching Factors	◑	◑	◑	●	●	◔	◔
Survey Administration Period	Annual	Annual	Annual	Annual	Annual	Annual	Annual
Survey Lag/Latest Year	2018	2018	2015-2016	2017	2017	2018	2018
Anticipated Medicaid sample sizes from most recent year	3,954 (Nationally)[1]	11,666 (Nationally)	2,474 (Nationally)	90 (Arizona)[2] 4,202 (Nationally)[2]	~8,400 (Nationally)	28,773 (Arizona)[2] 1,204,557 (Nationally)[2]	7,831 (Nationally)
Notes on Limitations for Use	Medicaid indicator is collected as part of an optional module. State participation varies year to year, and Arizona has not collected this information during relevant time period.	The state indicator is not provided as part of public use files.	During a single survey year, about 15 counties are selected out of approximately 3,100 counties in the United States. NHANES was not designed to produce regional or sub-regional estimates and no geographic data are released on the publicly available data files.	No indicator specifically for Medicaid.	The state indicator is not provided as part of public use files.		The state indicator is not provided as part of public use files.
Program Application	PQC, ACC	None	None	None	None	AW, PQC	None

[1]Anticipated Medicaid sample sizes are derived from responses from states which contained the optional Healthcare Access module.

[2]Anticipated Medicaid sample sizes are derived from responses to a question pertaining to public health insurance coverage.

F. Methodological Considerations of COVID-19 Pandemic

Pandemic Methodology Adjustments

The coronavirus disease 2019 (COVID-19) pandemic in the United States began in approximately March 2020 and is ongoing at the time of drafting the evaluation design plan. The extent of the COVID-19 infection rate is geographically variable, both within Arizona, as well as across the United States. The rate of positive cases throughout Arizona according to the Arizona Department of Health Services is 759.3 per 100,000, with county-level rates varying from 125 per 100,000 in Greenlee County to 2,954 per 100,000 in Apache County.[F-1] According to the Centers for Disease Control and Prevention (CDC), within the Southwest region of the United States, Arizona has a demonstrably higher rate of COVID infection per 100,000 population, at 730.5, with comparisons rates per 100,000 of 439.4 (California), 442.7 (Nevada), 563.9 (Utah), 536.2 (Colorado) and 504.2 (New Mexico).[F-2] Additionally, social distancing and stay at home orders to curb the severity and intensity of the pandemic across state and local jurisdictions were enacted with variable timing across the United States and the Southwest region. Arizona's stay at home order took effect on March 31, 2020, while surrounding states enacted their order as early as March 19 (California), March 24 (New Mexico), March 26 (Colorado), March 27 (Utah), and April 1 (Nevada).[F-3]

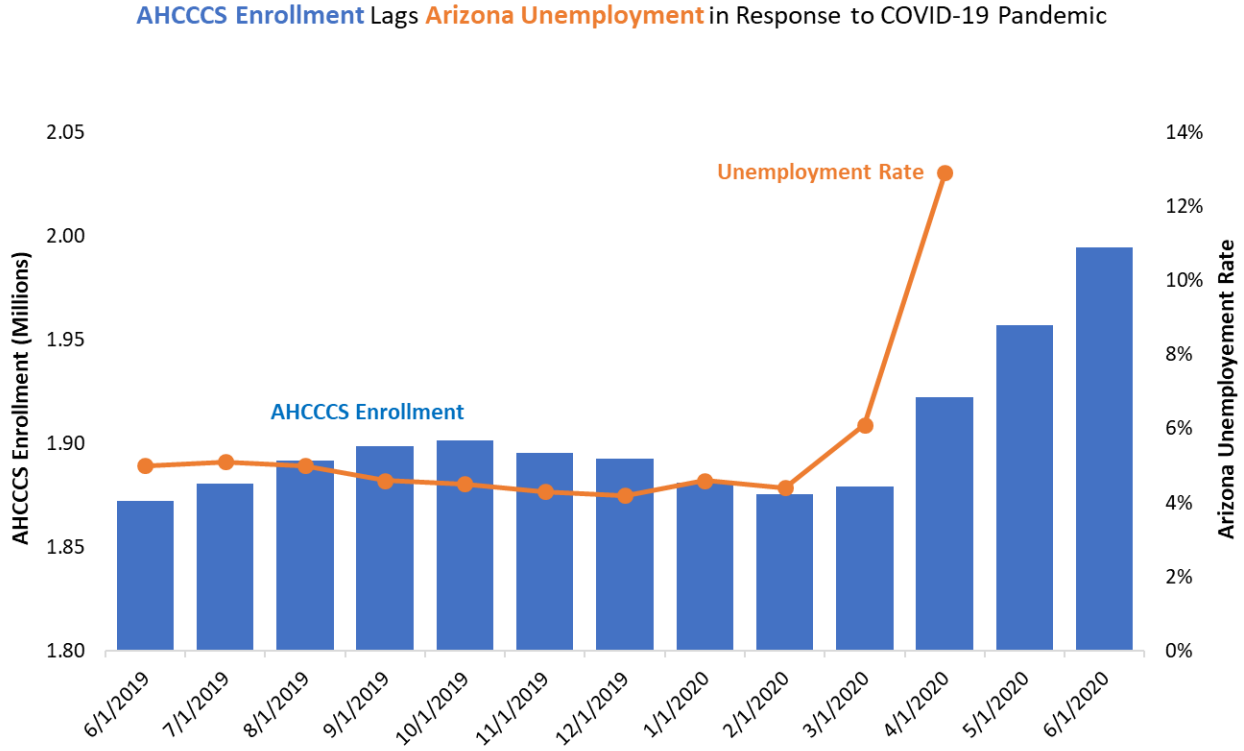
The scope and scale of the COVID-19 pandemic has already impacted the planned execution of some components of this design plan, and appears that it may continue to do so in the near future. Additionally, the pandemic forces the independent evaluator to consider methods that would allow the disentanglement of the Arizona Health Care Cost Containment System (AHCCCS) program impacts from results driven by COVID-19 or the policy response within Arizona and other states. The next section details the aspects of the COVID-19 pandemic that are most likely to impact the execution of data collection efforts. The subsequent section describes the methodological considerations would ideally be addressed in any study to disentangle program impacts from COVID impacts.

Impacts on Data Collection Efforts

The unprecedented loss of jobs and subsequent instability in the economy have resulted in a substantial increase in Medicaid enrollment. Figure F-1 shows the initial spike in unemployment followed by an increase in AHCCCS enrollment in the wake of COVID-19, as expected.

[F-1] Data obtained on June 22, 2020 from https://www.azdhs.gov/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/covid-19/dashboards/index.php.
[F-2] Data obtained on June 22, 2020 from https://www.cdc.gov/covid-data-tracker/index.html#cases.
[F-3] Data obtained on June 22, 2020 from https://www.nytimes.com/interactive/2020/us/coronavirus-stay-at-home-order.html.

Figure F-1: AHCCCS Enrollment and Unemployment



Source: AHCCCS Population by Category Report (June 2020); Arizona Office of Economic Opportunity. Unemployment rate is not seasonally adjusted for accurate comparison to AHCCCS enrollment.

The influx of members is consistent with a shift in demographics toward a more commercial base of members. This is not dissimilar to the increase in Medicaid enrollment following the 2008/2009 Great Recession, albeit on a substantially more compressed time frame. Furthermore, the increase in unemployment directly and indirectly results in lower state revenue through reduced state income tax and reduced sales tax due, in part to loss of jobs and economic hardship among consumers but also due to social distancing efforts and statewide stay-at-home orders. Therefore, the financial impact of COVID-19, while not directly tied to the evaluation of Arizona's demonstration, is important to factor into the evaluation particularly as it relates to the cost-effectiveness component.[F-4, F-5] Increased enrollments are likely to be tied to substantial shifts in the disease conditions and comorbidities of the Medicaid population during the pandemic, and to increase the demand on aggregate spending by AHCCCS. Additionally, to the extent that increases in enrollments are not met with concomitant increases in network capacity, there may be increased expenditures for care and barriers to the access and delivery of care that should be accounted for in the cost effectiveness analysis. To the extent that the increased spending is experienced

[F-4] For example, in order to assist providers in responding to the pandemic, AHCCCS advanced $41 million of provider incentive payments as part of the Targeted Investments program for disbursement in May 2020, ahead of the planned distribution in Fall 2020.

[F-5] "Arizona Medicaid Program Advances $41 Million in Provider Payments to Address COVID-19 Emergency." April 27, 2020. AHCCCS News Release, Available at: https://azahcccs.gov/shared/News/GeneralNews/AHCCCSAdvancesFortyOneMilProviderPayments.html. Accessed on: Jun 23, 2020.

by specific programs such as AHCCCS Complete Care (ACC), cost sustainability calculations will need to be adjusted to account for a denominator consistent with the non-pandemic population.

Beyond increasing Medicaid enrollments and expenditures, the COVID-19 pandemic is likely to impact the delivery of care in many direct ways. For example, social distancing efforts and stay at home orders have created a period during which the demand for many services were effectively reduced to near zero through interruptions in routine care. Second, managed care plans are likely to have experienced greater demand in handling increased enrollments and ensuring timely payment to contracted providers. Third, many program-specific strategies to assist with the integration of care may have been curtailed due to COVID-19. The combinations of the sustained increase in enrollment and delays or gaps in routine care may increase rate denominators while simultaneously decreasing numerators, leading to reduced performance measure rates.

Beneficiary surveys will also be impacted by the pandemic, both in terms of timing, and in potential responses. If, the beneficiary composition has changed or is not representative of a non-COVID Medicaid population then responses may not be generalizable. Additionally, beneficiaries may be impacted by disruptions in health care and their experience of care may be different than had they been surveyed either before COVID, or sufficiently after the impacts of COVID had dissipated. AHCCCS is planning on conducting a large-scale survey as part of its external quality review (EQR) contract in mid-2020, which will provide the independent evaluator an opportunity to leverage large sample sizes across many of the populations planned for surveys. The delay in fielding the survey; however, means that the data collected will be less proximate to the implementation of the AHCCCS programs being evaluated, and could result in rates that are less reflective of the experience of care associated with the AHCCCS programs, and more reflective of the experience of care during the COVID-19 pandemic.

While the COVID-19 pandemic will also impact provider focus groups and key informant interviews, the independent evaluator will follow the State's guidance on whether the State is comfortable proceeding with such data collection. The potential disruption among providers and key informants must be balanced alongside expedient data collection to minimize recall bias on several important programs. For example, one important aspect of the evaluation is to assess stakeholders' perspectives regarding the integration of care that took place under ACC, which, as of the drafting of this evaluation design plan, occurred approximately 21 months ago. Additional significant delays in qualitative data collection will worsen not only the recollection of key informants but also the reliability of contact information for individuals who may have left the organization(s).

The COVID-19 pandemic has already exerted an arguably substantial force on the State of Arizona, its health care system, and its Medicaid population. In an ideal evaluation, the independent evaluator would be able to control for many of these issues during the analysis. The ability to do so in the current context of AHCCCS' Section 1115 Waiver evaluation will be dependent on the availability of data, and how long the pandemic may be extended by multiple waves of infections throughout the United States. The next section provides details on potential methodological tools that could be used to disentangle program impacts from COVID-19 impacts.

Impacts on Methodology

Lacking random assignment to treatments, the evaluation approached outlined in this evaluation design plan represents a number of strong quasi-experimental designs, including propensity score matching (PSM) with difference-in-differences (DiD) regression, interrupted time series (ITS) analysis, and regression discontinuity (RD) models. One of the strongest quasi-experimental designs, PSM with DiD, makes use of a matched comparison group of Medicaid members that are similar to those receiving treatment under the various AHCCCS programs in terms of demographics, disease conditions, and comorbidities. For programs that were implemented

across their respective populations of eligible members in Arizona (e.g., ACC, Regional Behavioral Health Authority [RBHA], Comprehensive Medical and Dental Program [CMDP], Arizona Long Term Care System [ALTCS], and Prior Quarter Coverage [PQC]), no eligible comparison group realistically exists within the State. An eligible population could therefore be drawn from another state, provided specific criteria were met. Ideally, the comparison state would have Medicaid members demographically similar to Arizona; a Medicaid system that was similar to Arizona in terms of eligibility, enrollment, and pre-integration policies and programs; a COVID-19 infection rate or likely infection rate (accounting for differentials in testing) comparable to Arizona; and have had a state policy response to COVID-19 that was similar to Arizona. This combination of factors represents a particularly difficult challenge to surmount in identifying an eligible comparison group. The independent evaluator continues to work toward identifying states that could be suitable candidates, either individually or combined and weighted to better reflect Arizona's unique characteristics for inclusion in the evaluation, under the assumption that data will be available if such a comparator state or states are identified.

In addition to identifying eligible populations of members from other states that can suitably serve as counterfactuals to the AHCCCS treatment populations, several analytic tools can be used to attempt to disentangle the impact of COVID-19 from the impacts of the AHCCCS programs.

For measures that utilize monthly data points, months in which COVID-19 was expected to impact outcomes may be removed from the analysis. This analysis can serve as a robustness test, identifying how sensitive the conclusions are to the inclusion or exclusion of the COVID-19 months. If such a difference is identified, the independent evaluator will need to explore the data further to understand the detailed nature of the results, and ascertain the mechanisms by which the removal of the COVID-19 months makes a difference in results.

As an alternative to removing COVID-19 months, controls may be used to assess the severity and/or duration of effects from the pandemic. Measures such as monthly case counts, intensive care unit (ICU) utilization, or monthly unemployment rates could serve as potential instrumental variables to control for the impact of COVID-19. To the extent that eligible comparison group members are drawn from different states, this approach could be confounded by the differential preparedness of states to respond to the COVID-19 pandemic, as well as their differential policy responses.

For measures that do not utilize monthly data points, results for calendar year ending (CYE) 2020 and possibly CYE 2021 may be excluded or evaluated separately. Ideally, a comparison group would be used to support an analytic approach such as DiD. The choice of time frames to exclude, and ultimate impact on the statistical power of the data and model used will depend, in large part, on how long the impacts of the COVID-19 pandemic continue into the future.

Finally, results may be stratified by geography, age, race/ethnicity and other demographic factors to assess the external validity of differential responses to demonstration policies that may be influenced by the pandemic. To the extent that COVID-19 impacts were differentially experienced by subgroups of the Medicaid populations being evaluated, the independent evaluator could assess the impact of AHCCCS programs on stratified subgroups, controlling for COVID-19. All results will be interpreted in context of the pandemic and its likely impact on outcomes using both theory and similar outcomes from other states and/or national benchmarks where possible.

While each of the approaches outlined is seated in standard quasi-experimental design methods, many rely on the strong assumption of having valid and reliable data available for the populations and measures of interest. Furthermore, as the COVID-19 pandemic continues, and Arizona continues to worsen as of June 22, 2020, it is unclear how long the pandemic will impact outcomes for beneficiaries receiving services through AHCCCS and its managed care plans and providers. To the extent that data is available, and the COVID-19 pandemic is limited

in time, the independent evaluator will have an increased chance to isolate program effects from pandemic effects. The longer that the pandemic impacts are drawn out over time, the more difficult it will be to disentangle program impacts from pandemic impacts.

The evaluation reports will describe any deviations from the written design plan or other adjustments and modifications necessary to account for the impact of the pandemic on the evaluation.

G. AHCCCS Works Evaluation Design Plan

Appendix G contains the Arizona Health Care Cost Containment System (AHCCCS) Works evaluation design plan.

Arizona Health Care Cost Containment System

AHCCCS Works

Evaluation Design Plan

October 2020

This program is operated under an 1115 Research and Demonstration Waiver initially approved by the Centers for Medicare & Medicaid Services (CMS) on January 18, 2019.

Table of Contents

1. Background

On January 18, 2019, Centers for Medicare & Medicaid Services (CMS) approved Arizona's request to amend its Section 1115 Demonstration project, entitled "Arizona Health Care Cost Containment System (AHCCCS)," in accordance with Section 1115(a) of the Social Security Act. The federal approval authorized Arizona's Medicaid Program to implement community engagement requirements for able bodied adult beneficiaries who are 19 to 49 years old and fall within the Group VIII population (individuals with incomes between 0 and 138 percent of the Federal Poverty Level who are not otherwise eligible for Medicaid in any other category).

Arizona's community engagement program, known as "AHCCCS Works," is designed to encourage qualifying beneficiaries to use existing community services and resources in order to gain and maintain meaningful employment, job training, education, or volunteer service experience. Beneficiaries who are required to comply with AHCCCS Works will participate in at least 80 hours of community engagement activities per month. Beneficiaries may satisfy community engagement requirements through a variety of qualifying activities including:

- Employment (including self-employment)
- Education (less than full-time education)
- Job or life skills training
- Job search activities
- Community service

Upon becoming subject to the community engagement requirements, beneficiaries will receive an initial three - month orientation period in which to become familiar with the AHCCCS Works program. During this period, the beneficiary will receive information about the community engagement requirements, how to comply, and how to access available community engagement resources. After the three-month orientation period, beneficiaries who do not complete at least 80 hours of community engagement per month will be suspended from AHCCCS coverage for two months, and then be automatically reinstated. The AHCCCS Works requirements will not apply to individuals who meet any of the following conditions:

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

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

The AHCCCS Works demonstration is approved effective from January 18, 2019, through September 30, 2021.[1-1] However, on October 17, 2019, AHCCCS notified CMS that Arizona will be postponing the implementation of AHCCCS Works until further notice, citing ongoing litigation regarding Medicaid community engagement programs.[1-2] If and when implemented, the evaluation of this demonstration will test, in part, whether the demonstration increases the employment rates, income, and health status for those beneficiaries. As of October 2017, there were 398,519 individuals in the Group VIII eligibility category, including members eligible for exemption.[1-3] AHCCCS had originally requested to implement AHCCCS Works through a three staged phase-in approach, beginning with the most urbanized counties in Spring/Summer 2020, semi-urbanized counties in Spring/Summer 2021, and ending with least urbanized counties in Spring/Summer 2022. When the program is implemented, these dates will be revised accordingly.

AHCCCS' goal is to increase employment, employment opportunities, and activities to enhance employability, increase financial independence, and improve health outcomes of beneficiaries.[1-4] The objectives include increasing the number of beneficiaries with earned income and/or the capacity to earn income, reducing enrollment, and reducing the amount of "churn" (individuals moving on and off Medicaid repeatedly) by encouraging of greater access to employment and employer sponsored health insurance or health insurance through the Federally-Facilitated Marketplace.[1-5]

[1-1] CMS Approval Letter. Centers for Medicare & Medicaid Services. https://www.azahcccs.gov/Resources/Downloads/CMSApprovalLetter.pdf. Accessed on Jun 10, 2019.

[1-2] Snyder, J, (October 17, 2019) *RE: Implementation of AHCCCS Works*, letter to Acting Director Lynch, Center for Medicare and Medicaid Services. Available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/Health-Care-Cost-Containment-System/az-hccc-postponement-ltr-ahcccs-works-10172019.pdf. Accessed on Oct 23, 2019.

[1-3] Arizona Section 1115 Waiver Amendment Request: AHCCCS Works Waiver. Arizona Health Care Cost Containment System. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/az-hccc-pa6.pdf, Page 6 of 683. Accessed on Jun 10, 2019.

[1-4] CMS Approval Letter. Centers for Medicare & Medicaid Services. https://www.azahcccs.gov/Resources/Downloads/CMSApprovalLetter.pdf, Page 4 of 19. Accessed on Jun 10, 2019.

[1-5] Arizona Section 1115 Waiver Amendment Request: AHCCCS Works Waiver. Arizona Health Care Cost Containment System. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/az/az-hccc-pa6.pdf, Page 11 of 683. Accessed on Jun 10, 2019.

2. Evaluation Questions and Hypotheses

The overarching goals of the Arizona Health Care Cost Containment System (AHCCCS) Works demonstration are to encourage beneficiaries to obtain employment and undertake additional community engagement activities to reduce beneficiaries' reliance on public assistance programs and promote health and wellness.

The primary purpose of this evaluation is to determine whether the AHCCCS Works demonstration waiver is achieving these goals. To develop hypotheses and research questions associated with these goals, AHCCCS developed a logic model which relates the inputs and activities of the program (i.e., requiring 80 hours of community engagement activities per month) to anticipated initial, intermediate, and long-term outcomes, which are associated with hypotheses.

Logic Model

As the Centers for Medicare & Medicaid Services (CMS) notes in its letter to State Medicaid Directors dated January 11, 2018, engaging in the activities required by AHCCCS Works has been shown to improve health and well-being.[2-1] For instance, education "can lead to improved health by increasing health knowledge and healthy behaviors."[2-2] A growing body of literature relates broader social determinants of health, including specific factors that AHCCCS Works targets such as employment, income, and education.[2-3] Therefore, increased employment, income, and education resulting from the community engagement requirements should lead to improved health outcomes and reduced reliance on Medicaid, thereby promoting sustainability of the program.

Figure 2-1 illustrates that, given resources to allow AHCCCS beneficiaries subject to the demonstration requirements to log qualifying hours, the intended outcome is for these recipients to engage in and report 80 or more hours of community engagement activities per month.[2-4] Since these activities include employment, job-seeking activities, job training or education, AHCCCS anticipates that initial outcomes of the demonstration will raise rates of beneficiaries engaging in these activities. With increased rates of beneficiaries gaining employment or engaging in educational activities, beneficiaries' income and educational attainment will increase in the intermediate term. In the long term, this will reduce reliance on public assistance and improve beneficiaries' health and well-being. Hypotheses associated with these outcomes are denoted in parentheses in the logic model (hypotheses descriptions can be found in Table 2-1).

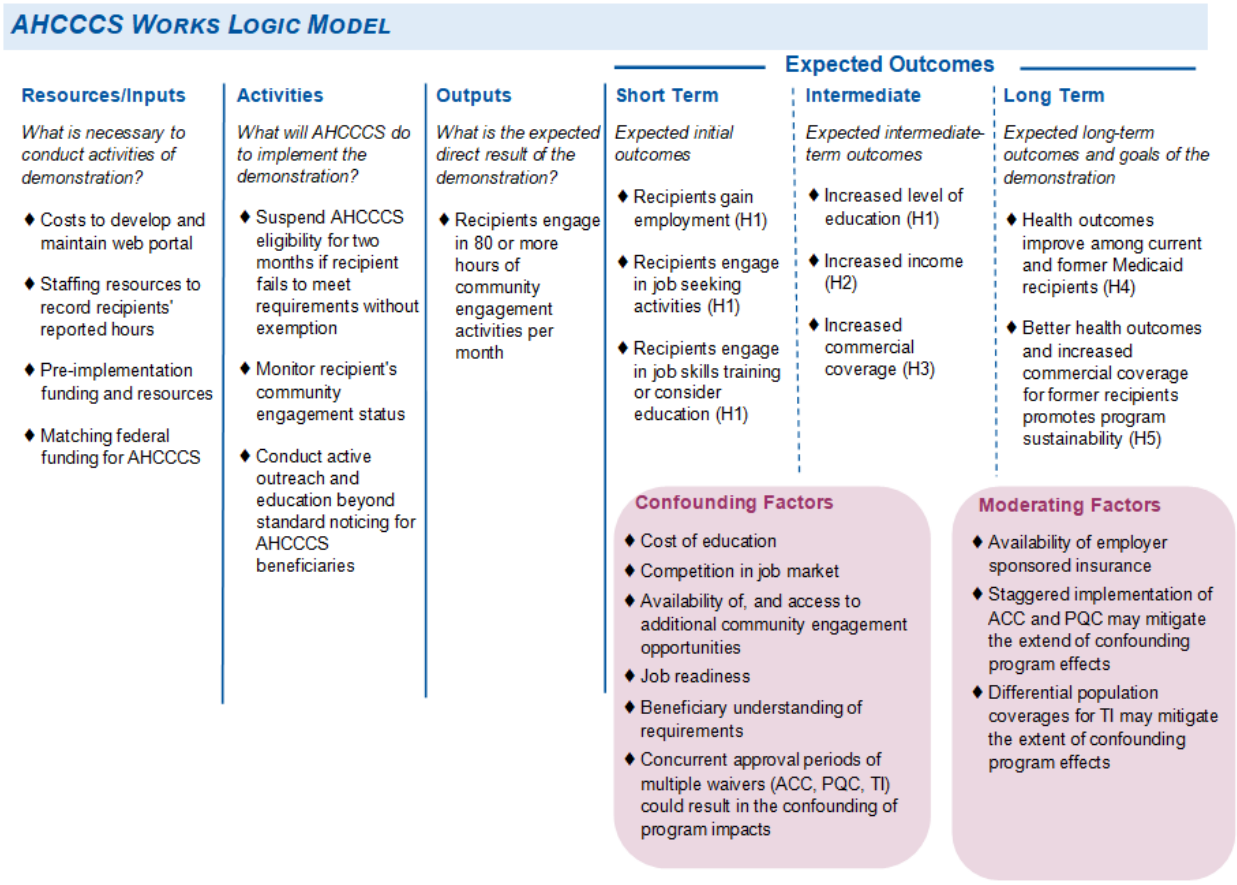
[2-1] Centers for Medicare & Medicaid Services. Opportunities to Promote Work and Community Engagement Among Medicaid Directors. Jan 11, 2018. Available at: https://www.medicaid.gov/federal-policy-guidance/downloads/smd18002.pdf. Accessed on Jun 14, 2019.

[2-2] Ibid.

[2-3] Braveman, P., & Gottlieb, L. (2014). The social determinants of health: it's time to consider the causes of the causes. Public health reports (Washington, D.C.: 1974), 129 Suppl 2(Suppl 2), 19–31. doi:10.1177/00333549141291S206.

[2-4] Beneficiaries can log hours either through a web-based portal, through telephone, or in-person.

Figure 2-1: AHCCCS Works Logic Model



Note: PQC: Prior Quarter Coverage, TI: Targeted Investments, ACC: AHCCCS Complete Care

As shown in the logic model above under "Confounding Factors" and "Moderating Factors", there are several concurrent programs and components to the demonstration that may affect certain groups of beneficiaries. The figure below depicts the relationship between demonstration components, AHCCCS programs and policy changes, and populations covered by AHCCCS.

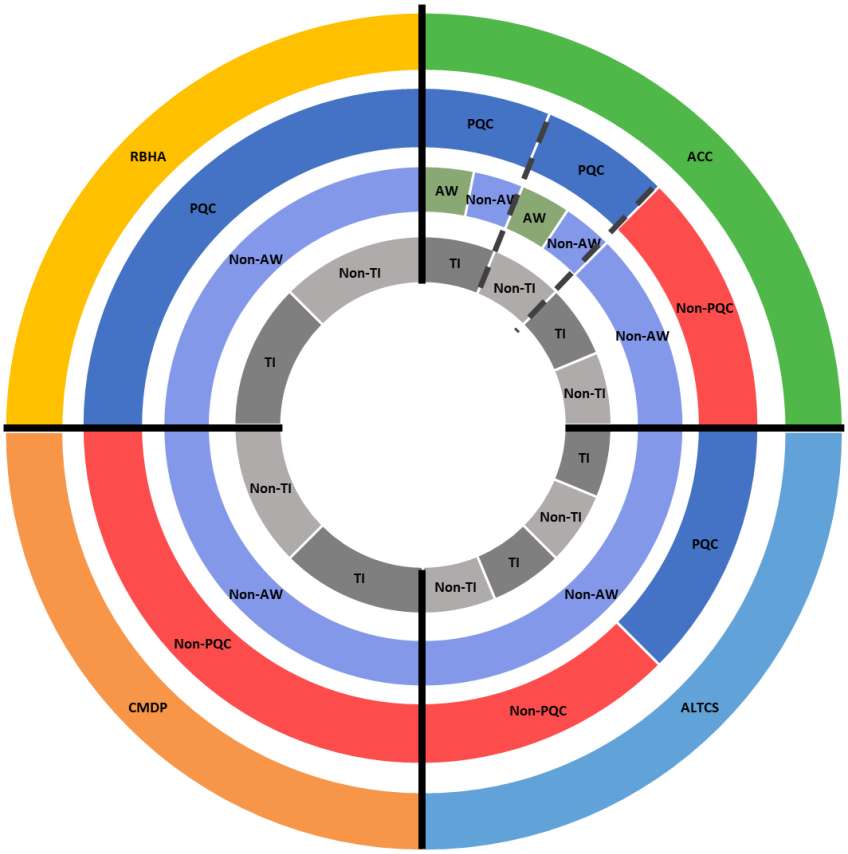
Most AHCCCS beneficiaries in the managed care system have coverage through one of four different programs:

1. **AHCCCS Complete Care (ACC)**—Covers the following populations:
   a. Adults who are not determined to have an SMI (excluding beneficiaries enrolled with Department of Economic Security/Division of Developmental Disabilities [DES/DDD]);
   b. Children, including those with special health care needs (excluding beneficiaries enrolled with DES/DDD and Department of Child Safety/CMDP); and
   c. Beneficiaries determined to have an SMI who opt out of a Regional Behavioral Health Authority (RBHA) and transfer to an ACC for the provision of physical health services.
2. **Arizona Long Term Care System (ALTCS)**—Covers beneficiaries with an intellectual or developmental disability (ALTCS-DD) and beneficiaries who are elderly or physically disabled (ALTCS-EPD).

3. **Comprehensive Medical and Dental Program (CMDP)**—Covers beneficiaries in custody of the Department of Child Safety (DCS).
4. **Regional Behavioral Health Authority (RBHA)**—Covers adult beneficiaries with a serious mental illness (SMI).

AHCCCS Works will impact all Group VIII adults with the exception of those meeting certain exemption criteria. All Group VIII beneficiaries receive their behavioral and medical health care through an ACC plan. The Prior Quarter Coverage (PQC) waiver impacts all adults on AHCCCS.[2-5] Therefore, evaluations that only cover children (i.e., CMDP) will not be affected by PQC, and evaluations that only cover adults (i.e., AHCCCS Works, RBHA) will be impacted entirely by PQC (with few exceptions). The Targeted Investments (TI) program is designed to encourage participating practitioners to provide integrated care for their beneficiaries. This impacts all children and adult beneficiaries attributed or assigned to TI-participating practitioners; however, it does not impact beneficiaries who are not attributed or assigned to practitioners who are not participating in TI. Therefore, the TI program is expected to impact every eligibility category. Figure 2-2 illustrates that the populations covered by ACC, CMDP, ALTCS, and RBHA are mutually exclusive and that each of these may have a subset impacted by AHCCCS Works, PQC, and/or TI.

Figure 2-2: Population Relationships Across Waivers



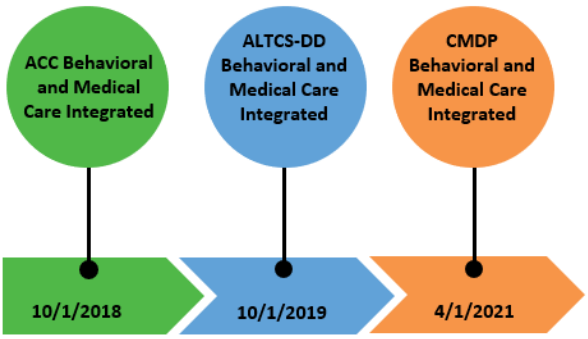
Note: The size of each segment does not represent population size. AW: AHCCCS Works.

2-5 Exceptions include children under the age of 19 and women who are pregnant or 60 days post-partum.

The four broad populations for each evaluation, with few exceptions, are distinct and mutually exclusive. For example, beneficiaries with an SMI may opt-out of RBHA coverage and instead choose an ACC plan that is available in their region. Children in the custody of DCS with an intellectual or developmental disability are covered through ALTCS-DD.

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

Figure 2-3: Timeline of Payer-Level Integration of Behavioral Health and Medical Health Care



Hypotheses and Research Questions

To comprehensively evaluate the AHCCCS Works demonstration waiver, six hypotheses will be tested using 22 research questions. Table 2-1 lists the six hypotheses and Table 2-2 through Table 2-6 lists research questions and measures for each hypothesis.

Table 2-1: AHCCCS Works Hypotheses

Hypotheses	
1	Medicaid beneficiaries subject to the community engagement requirement will have higher employment and education levels than Medicaid beneficiaries not subject to the requirement.
2	Medicaid beneficiaries subject to the community engagement requirement will have higher average income than Medicaid beneficiaries not subject to the requirement.

Hypotheses	
3	Medicaid beneficiaries subject to the community engagement requirement will have a higher likelihood of transitioning to commercial health insurance after separating from Medicaid than Medicaid beneficiaries not subject to the requirement.
4	Current and former Medicaid beneficiaries subject to the community engagement requirement will have better health outcomes than Medicaid beneficiaries not subject to the requirement.
5	The community engagement requirement will promote Medicaid program sustainability through cost-effective care.
6	Assessment of AHCCCS Works Implementation.

Where possible, outcomes among beneficiaries subject to the demonstration will be compared against outcomes among beneficiaries not subject to the demonstration—either those meeting exemption criteria, or those in traditional, Non-group VIII eligibility groups.

Hypothesis 1 will test whether the demonstration ultimately results in higher employment and education levels for beneficiaries subject to the requirements. The measures to test this hypothesis and answer associated research questions are listed below in Table 2-2. Improvements in these outcomes would support the demonstration's goal of increasing employment and education opportunities among its targeted beneficiaries.

Table 2-2: Hypothesis 1 Research Questions and Measures

Hypothesis 1—Medicaid beneficiaries subject to the community engagement requirement will have higher employment and education levels than Medicaid beneficiaries not subject to the requirement.	
Research Question 1.1: Does the community engagement requirement lead to increased job seeking activities for those subject to the requirements compared to those who are not?	
1-1	Percentage of beneficiaries who did not work during the previous week who actively sought a job during the past four weeks
1-2	Percentage of beneficiaries who met community engagement criteria through job search activities
Research Question 1.2: Does the community engagement requirement lead to increased rates of education enrollment or employment training programs?	
1-3	Percentage of beneficiaries attending school or an Employment Support and Development program
1-4	Percentage of beneficiaries who met community engagement criteria through attending school or an Employment Support and Development program
Research Question 1.3: Are beneficiaries subject to the community engagement requirement more likely to be employed (including new and sustained employment) compared to those who are not?	
1-5	Percentage of beneficiaries who usually worked at least 20 hours per week during previous year
1-6	Percentage of beneficiaries employed during each month of measurement year
1-7	Number of weeks worked last year (including as unpaid family worker, and paid vacation/sick leave)
Research Question 1.4: Do beneficiaries who initially comply through activities other than employment gain employment within certain time periods?	
1-8	Percentage of beneficiaries initially compliant through activities other than employment employed at 6 months, 1 year, and 2 years after enrollment or implementation.

Hypothesis 1—Medicaid beneficiaries subject to the community engagement requirement will have higher employment and education levels than Medicaid beneficiaries not subject to the requirement.	
Research Question 1.5: Is employment among individuals subject to community engagement requirements sustained over time, including after separating from Medicaid?	
1-9	Percentage of beneficiaries employed continuously for a year or more since enrollment or implementation.
Research Question 1.6: Does the community engagement requirement lead to better education outcomes?	
1-10	Beneficiaries' reported highest grade or level of education completed

Through increased rates of employment and/or hours worked, Hypothesis 2 will test whether the income among beneficiaries subject to the demonstration increases as a result. The measure and associated research question are presented in Table 2-3.

Table 2-3: Hypothesis 2 Research Questions and Measures

Hypothesis 2—Medicaid beneficiaries subject to the community engagement requirement will have higher average income than Medicaid beneficiaries not subject to the requirement.	
Research Question 2.1: Does the community engagement requirement increase income?	
2-1	Average monthly earnings
2-2	Average beneficiary reported personal income

A core theoretical underpinning of the AHCCCS Works demonstration program is that increased rates of employment and income should lead to decreased reliance on the Medicaid program, a stated goal of the program. Hypothesis 3 seeks to determine the impact of the demonstration on uptake of commercial insurance. The measures and associated research questions are presented in Table 2-4. Increases in commercial coverage among former Medicaid beneficiaries who were subject to the community engagement requirements could suggest that the demonstration had its intended impact to successfully reduce their reliance on Medicaid while maintaining healthcare coverage. A possible unintended consequence, however, is for these beneficiaries to separate from Medicaid but not maintain healthcare coverage. To measure this, the independent evaluator will survey former Medicaid beneficiaries who recently separated to determine whether they had periods where they were not covered by any health insurance.

Table 2-4: Hypothesis 3 Research Questions and Measures

Hypothesis 3—Medicaid beneficiaries subject to the community engagement requirement will have a higher likelihood of transitioning to commercial health insurance after separating from Medicaid than Medicaid beneficiaries not subject to the requirement.	
Research Question 3.1: Does the community engagement requirement lead to increased take-up of commercial insurance, including employer-sponsored insurance (ESI) and Marketplace plans?	
3-1	Enrollment in commercial coverage within one year after Medicaid disenrollment
3-2	Percentage of beneficiaries with a job that offers ESI
3-3	Percentage of beneficiaries with a job that offers ESI and who enroll in ESI
Research Question 3.2: Is new ESI coverage sustained over time after implementation of community engagement requirements?	

Hypothesis 3—Medicaid beneficiaries subject to the community engagement requirement will have a higher likelihood of transitioning to commercial health insurance after separating from Medicaid than Medicaid beneficiaries not subject to the requirement.	
3-4	Percentage of beneficiaries who still have ESI coverage 1 and 2 years after initial take-up of ESI
3-5	Percentage of beneficiaries with Medicaid coverage 1 and 2 years after initial take-up of ESI
3-6	Percentage of beneficiaries uninsured 1 and 2 years after initial take-up of ESI
Research Question 3.3: Are beneficiaries with ESI able to pay premiums and meet other cost-sharing responsibilities, such as deductibles and copayments?	
3-7	Percentage of beneficiaries with ESI who reported problems paying insurance or medical bills
3-8	Reported out-of-pocket medical spending among beneficiaries with ESI
Research Question 3.4: Is the community engagement requirement associated with coverage losses (if people transition off Medicaid and do not enroll in commercial health insurance?)	
3-9	Average number of months beneficiaries reported being uninsured
3-10	Average number of months uninsured
Research Question 3.5: Are beneficiaries subject to the community engagement requirement more likely to lose eligibility due to increased income than beneficiaries not subject to the requirement?	
3-11	Percentage of beneficiaries disenrolling from Medicaid due to income exceeding limit
3-12	Percentage of non-exempt AHCCCS Works beneficiaries losing Medicaid eligibility per month, by discontinuance category
Research Question 3.6: At what rates are beneficiaries subject to the community engagement requirement suspended due to noncompliance?	
3-13	Percentage of non-exempt AHCCCS Works beneficiaries suspended due to noncompliance per month

Hypothesis 4 seeks to determine the impact of the demonstration on health outcomes among both current and former beneficiaries who recently separated from Medicaid. One of the overarching goals of the demonstration waiver is to increase the health outcomes of those subject to the community engagement requirements through increased rates of employment, education, and other community engagement activities. Table 2-5 presents the measures and survey questions that will be used to measure health outcomes.

Table 2-5: Hypothesis 4 Research Questions and Measures

Hypothesis 4—Current and former Medicaid beneficiaries subject to the community engagement requirement will have better health outcomes than Medicaid beneficiaries not subject to the requirement.	
Research Question 4.1: Does the community engagement requirement lead to improved health outcomes?	
4-1	Beneficiary reported rating of overall health
4-2	Beneficiary reported rating of overall mental or emotional health
4-3	Percentage of beneficiaries who reported prior year emergency room (ER) visit

Hypothesis 4—Current and former Medicaid beneficiaries subject to the community engagement requirement will have better health outcomes than Medicaid beneficiaries not subject to the requirement.	
4-4	Percentage of beneficiaries who reported prior year hospital admission

A key requirement of a section 1115 waiver evaluation is to assess the impact of the demonstration on a state Medicaid program's financial sustainability.[2-6, 2-7] To that end, the independent evaluator will assess cost effectiveness of the demonstration with Hypothesis 5. Because cost effectiveness will not be evaluated solely based on the outcome of specific financial measurements, no specific measures are included under Hypothesis 5. The independent evaluator will calculate costs and savings associated with administrative activities and service expenditures. The cost of the program will include costs greater than the projected costs had the demonstration not been implemented. Program savings will be identified as reductions in administrative and/or service expenditures beyond those projected had the integration of care not been implemented. Additional non-monetary benefits (costs) will also be identified related to improvements (declines) in any of the above measures for which a monetary value cannot be assigned. The approach for assessing cost-effectiveness of the program is described in detail in the Cost-Effectiveness Analysis section. The measures and associated research questions are presented in Table 2-6.

Table 2-6: Hypothesis 5 Research Questions and Measures

Hypothesis 5—The community engagement requirement will promote Medicaid program sustainability through cost-effective care.
Research Question 5.1: What are the costs associated with implementation and maintenance of AHCCCS Works?
Research Question 5.2: What are the benefits/savings associated with the AHCCCS Works program?

Part of the evaluation of the AHCCCS Works demonstration will consist of an implementation assessment. The following research questions will be answered through a range of data sources, including administrative program data, beneficiary surveys and/or focus groups, and key informant interviews with subject matter experts at AHCCCS. The measures and associated research questions are presented in Table 2-7.

Table 2-7: Hypothesis 6 Research Questions and Measures

Hypothesis 6—Assessment of AHCCCS Works Implementation	
Research Question 6.1: What is the distribution of activities beneficiaries engage in to meet community engagement requirements? How have these changed over time?	
6-1	Breakdown of community engagement compliance by category, over time (e.g. monthly)
Research Question 6.2: What are common barriers to compliance with community engagement requirements?	
6-2	Beneficiaries' reported barriers to community engagement compliance

[2-6] Centers for Medicare & Medicaid Services. Evaluation Design Guidance for Section 1115 Eligibility and Coverage Demonstrations. Available at: https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/ce-evaluation-design-guidance.pdf. Accessed on: Jun 14, 2019.

[2-7] Centers for Medicare & Medicaid Services. Arizona Medicaid Section 1115 Demonstration Special Terms and Conditions. Jan 18, 2017. Available at: https://www.azahcccs.gov/shared/Downloads/News/FORSTATEArizonaAHCCCSSTCAndAuthorities_W_TIPFinal.pdf. Accessed on Jun 20, 2019.

Hypothesis 6—Assessment of AHCCCS Works Implementation	
Research Question 6.3: Do beneficiaries report that they have the necessary support services to meet community engagement requirements?	
6-3	Beneficiaries' reported support services for meeting community engagement requirements
Research Question 6.4: Do beneficiaries understand the requirements, including how to satisfy them and the consequences of noncompliance?	
6-4	Beneficiaries' reported awareness of community engagement requirements, how to report hours, and consequences of noncompliance
Research Question 6.5: How many beneficiaries are required to actively report their status, including exemptions, good cause circumstances, and qualifying activities?	
6-5	Number and percentage of beneficiaries required to actively report exemptions
6-6	Number and percentage of beneficiaries required to actively report good cause circumstances
6-7	Number and percentage of beneficiaries required to report qualifying activities
Research Question 6.6: Are beneficiaries who are disenrolled for noncompliance with community engagement requirements more or less likely to re-enroll than beneficiaries who disenroll for other reasons?	
6-8	Percentage of beneficiaries re-enrolling in Medicaid after a gap in coverage of at least 1 month and 3 months

3. Methodology

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

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

Table 3-1: Sampling of Analytic Approaches

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

Given that Arizona Health Care Cost Containment System (AHCCCS) Works only impacts the Group VIII Medicaid expansion population between ages 19 and 49, Group VIII beneficiaries aged 50 and over may serve as a counterfactual in a regression discontinuity design. To account for differences between the two groups, propensity score matching, or weighting may be used to identify comparison group beneficiaries who share similar characteristics to those in the intervention (i.e., Group VIII beneficiaries between the ages of 19 and 49 subject to the waiver requirements).

Evaluation Design Summary

For measures in which a valid comparison group and baseline data are available, a difference-in-differences (DiD) study design will be used as the foundation for the analysis. The DiD study design will leverage two additional aspects of the demonstration that can help establish causality. The DiD study design will incorporate a regression discontinuity (RD) analysis by utilizing beneficiaries above the cutoff age of 49 as a comparison group. In addition, the stepped wedge implementation of the program will allow for the use of AHCCCS Works beneficiaries aged 19 to 49 in regions yet to implement the program as a comparison group. By leveraging pre-implementation baseline data, the independent evaluator can effectively conduct an RD analysis in the baseline to identify any "jumps" in the outcome at the age cutoff prior to implementation. This will serve as an expected change in rates during the evaluation period.

Outcomes that rely on state administrative data pertaining to employment and income have the potential to have repeated intra-year (e.g., monthly) measurements taken both prior to and after implementation. This can serve to build pre- and post-implementation trends in outcomes. With this frequency of data, a comparative interrupted time series or repeated measures DiD analysis can be utilized. A comparative interrupted time series design is similar to the DID approach, but with the benefit of being able to assess changes in *trends* in the outcome in addition to changes in the *level* of the outcome (averaged across pre- and post- implementation time periods), as given by a two-time period DiD approach.

Intervention and Comparison Populations

For purposes of the evaluation, some measures rely on capturing outcomes among former Medicaid beneficiaries in addition to current Medicaid beneficiaries. Former Medicaid beneficiaries from both groups will be included in the evaluation of these measures.

Intervention Population

As described in the Background, the intervention group will consist of "able-bodied" Group VIII beneficiaries. Specifically, beneficiaries aged 19 to 49 eligible through Medicaid expansion will be the intervention population. In Arizona, the adult expansion population is defined by the following eligibility categories:

- Childless adults, 0-100 percent Federal Poverty Level (FPL) (Prop 204 Restoration)
- Adult expansion, 100-133 percent FPL

However, not all beneficiaries in these eligibility categories will be subject to the demonstration requirements. Specifically, those meeting the following criteria will be exempt:[3-1]

- Pregnant women and women up to the end of the month in which the 60th day of post-pregnancy occurs
- Former foster care youth up to age 26
- Beneficiaries who are members of a federally recognized tribe
- Beneficiaries determined to have a serious mental illness (SMI)

[3-1] Note, some exemptions are listed explicitly for full transparency as to certain groups that will not be impacted, such as those aged 50 or above.

- Beneficiaries currently receiving temporary or permanent long-term disability benefits from a private insurer or from the state or federal government, including workers compensation benefits
- Beneficiaries who are medically frail
- Beneficiaries who are in active treatment with respect to a substance use disorder (SUD)
- Full time high school, trade school, college or graduate students
- Victims of domestic violence
- Beneficiaries who are homeless
- Designated caretakers of a child under age 18
- Caregivers who are responsible for the care of an individual with a disability
- Beneficiaries who have an acute medical condition
- Beneficiaries who are receiving Supplemental Nutrition Assistance Program (SNAP), Cash Assistance, or Unemployment Insurance income benefits
- Beneficiaries participating in other AHCCCS approved work programs
- Beneficiaries not mentioned above who have a disability as defined by federal disabilities rights laws (ADA, Section 504, and Section 1557) who are unable to participate in AW Requirements for disability-related reasons

Comparison Populations

AHCCCS does not maintain or have access to an all-payer claims database from which to feasibly pull commercial insurance claims and enrollment information to identify low income commercial insurance enrollees. As a result, the evaluation design will rely on:

- AHCCCS beneficiaries above the eligibility threshold of age 49
- Prospective AHCCCS Works beneficiaries in other regions resulting from staged rollout of implementation

Identification of AHCCCS beneficiaries above the eligibility threshold of age 49

Adult Medicaid expansion beneficiaries aged 50 or above who would otherwise be eligible for AHCCCS Works will be used as a comparison group in a regression discontinuity (RD) design. Medicaid eligibility categories will be used to identify beneficiaries in the Group VIII population and beneficiary date of birth will be used to identify those who are aged 50 or above. Although the RD design can allow for causal inferences when the age threshold is not associated with any other changes, the results are typically not generalizable to beneficiaries far from the age cutoff. The independent evaluator will determine the appropriate bandwidth around the age threshold for both the comparison and target groups for inclusion in the final analysis.

Propensity score matching may be used to identify a subset of the eligible comparison group that is most similar to the intervention population based on observable characteristics, including demographic factors and health conditions prior to implementation of the waiver.[3-2] Propensity score matching has been used extensively to match

[3-2] See, e.g., Selecting the Best Comparison Group and Evaluation Design: A Guidance Document for State Section 1115 Demonstration Evaluations" for a detailed discussion of appropriate evaluation designs based on comparison group strategies (https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/comparison-grp-evaldsgn.pdf).

individuals from an eligible comparison group to individuals in the intervention group.[3-3] However, there are several risks to the use of propensity scores and subsequent matching on the propensity score (Table 3-2).

Table 3-2: Propensity Score Risks

Risk	Description
Insufficient coverage	Not enough individuals in the eligible comparison group similar enough to intervention population for 1:1 matching.
Unbalanced groups	Observable characteristics of the intervention and comparison groups after matching are not balanced.

When confronted with insufficient coverage, the independent evaluator should first explore alternative specifications in either the propensity score model and/or the matching algorithm before moving to alternative approaches. For example, instead of a typical 1:1 greedy matching algorithm, the independent evaluator could explore matching with replacement or optimal matching algorithms.[3-4] If alternative matching algorithms do not yield a matched comparison group with sufficient coverage and balance, then propensity score weighting can be explored as the next step. Propensity score weighting utilizes the full eligible comparison group and assigns a higher statistical weight to beneficiaries who are predicted to be part of the intervention but were not. A risk of this methodology is that the analysis may be dominated by a handful of beneficiaries with extremely high weights.

Balance between the matched comparison and intervention groups will be assessed using a three-pronged approach to evaluate the similarity between the intervention group and comparison groups across observable characteristics, or covariates. Table 3-3 summarizes each of the three prongs.

Table 3-3: Assessment Approaches

Assessment Approach	Advantage	Cautionary Note
Covariate-level statistical testing	Provides quantitative evidence, or lack thereof, of significant differences between matched groups	Susceptible to false positives for large sample sizes and false negatives for small sample sizes
Standardized differences	Does not rely on sample size	No universal threshold to indicate balance or unbalance
Omnibus test	Provides a single quantitative assessment of balance across all covariates as a whole	Susceptible to false positives for large sample sizes and false negatives for small sample sizes

Each of these approaches ultimately assesses the similarity of the *mean* of the distribution for each covariate. Additional metrics pertaining to the distribution should also be considered as part of the balance assessment, such as reporting the standard deviations.[3-5]

[3-3] Guo, S., and Fraser, M.W., (2010) *Propensity Score Analysis: Statistical Methods and Applications*, SAGE Publications, Inc., Thousand Oaks, CA; or Austin, P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/

[3-4] See, e.g., Austin P. C. (2014). A comparison of 12 algorithms for matching on the propensity score. *Statistics in medicine*, 33(6), 1057–1069. doi:10.1002/sim.6004; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4285163/

[3-5] Austin P. C. (2011). An Introduction to Propensity Score Methods for Reducing the Effects of Confounding in Observational Studies. *Multivariate behavioral research*, *46*(3), 399–424. doi:10.1080/00273171.2011.568786; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144483/

Prospective AHCCCS Works Beneficiaries in Other Regions Resulting from Staged Rollout of Implementation

AHCCCS anticipates implementing AHCCCS Works through a three-stage phase-in approach, beginning with the most urbanized counties, semi-urbanized counties a year later, and ending with least urbanized counties one year after that. This provides an opportunity to leverage beneficiaries not yet subject to the waiver requirements as a comparison group for beneficiaries who are subject to the requirements for early phase-in stages. However, since the geographical phase-in is based on urbanicity there may be systematic differences between the groups. The independent evaluator will assess the viability of utilizing beneficiaries not yet subject to the requirements from the staged rollout as a potential comparison group. The independent evaluator may also leverage the regression discontinuity design and the stepped wedge design as a comparative regression discontinuity using beneficiaries in regions that have yet to implement the program as a comparison group across all age ranges.

Out-of-State Comparison Groups

The independent evaluator will consider utilizing an out-of-state comparison group if data are available and complete enough to support rigorous statistical testing of outcomes. One possible data source for beneficiary-level data is through national surveys, such as the Behavioral Risk Factors Surveillance System (BRFSS), the National Health Interview Survey (NHIS), or Integrated Public Use Microdata Series American Community Survey (IPUMS ACS). When considering such data sources, there are several pieces that need to align in order to leverage the data source in the evaluation. First, ideally beneficiary-level data should be available, which will allow for identification of additional key features to control for in statistical testing. Second, the data source must include a method to identify Medicaid beneficiaries. Third, the data source must include state indicators to separate Medicaid beneficiaries in Arizona from other states. Fourth, the data source should include a method to identify specific subpopulations of interest, specifically Medicaid expansion beneficiaries. Fifth, the data source must contain relevant outcomes to measure that are pertinent to the waiver evaluation. Finally, the timing of survey administration and lag time in data availability should be taken into consideration as it relates to the implementation of AHCCCS Works and the demonstration renewal period.

Each of the above datasets provide beneficiary level data and state indicators, BRFSS, however, does not contain a Medicaid indicator for all states. The Medicaid indicator in BRFSS is part of an optional module collected by only six states in 2017 and 11 states in 2016, and Arizona is not included in either year. It is possible for future analyses to consider this data source if Arizona participates in the optional module to identify Medicaid beneficiaries. Responses from Medicaid beneficiaries in other states may be used as an out of state comparison group for measures from state beneficiary surveys asking the same questions; specifically, data for AHCCCS Works beneficiaries for Measure 4-1 (*Beneficiary reported rating of overall health for all beneficiaries*).

IPUMS ACS contains Medicaid and state indicators, and data on family income and number of children, which could be used to proxy Medicaid expansion beneficiaries. The independent evaluator will consider utilizing this data source for a selection of measures, as indicated in Table 3-5. A comparison of possible data sources, their requirements, limitations, and anticipated utility is described in Appendix E. A difference-in-differences study design will be used to compare changes in rates for comparison states against changes in rates for Arizona respondents before and after implementation of the demonstration. Due to the staged rollout of the demonstration in Arizona, the independent evaluator may leverage county codes in the IPUMS ACS data to further refine the estimated eligible population in Arizona based on county urbanicity and additional county characteristics to support a triple differences-in-differences study design.

Another potential source for beneficiary-level data is the Transformed Medicaid Statistical Information System (T-MSIS) maintained and collected by the Centers for Medicare & Medicaid Services (CMS). It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support individual-level matching to AHCCCS Works beneficiaries. However, as

of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group. If these data become available in time for the summative evaluation report, the independent evaluator will examine the completeness and viability of using these data in the analyses. With robust beneficiary-level data covering the baseline period and multiple years during the demonstration period (if not the entire demonstration period), then more robust methods can be employed to estimate the effect of the demonstration on outcomes. Measures that utilize administrative claims/encounter data or enrollment and eligibility data may use methods such as propensity score matching or reweighting to construct a valid out-of-state comparison group from similar states with a Medicaid expansion population that have not implemented a work requirement waiver.

Identifying Comparison States

For measures in which individual level data are not available, the selection of states used for an out-of-state comparison group will be based on similarity to Arizona in terms of overall demographics and Medicaid programs and policies. In addition to sharing demographic factors and similar Medicaid policies, comparison state(s) should not have a major change in Medicaid policies during either the baseline or evaluation period. Selection of states will be conducted on a measure-by-measure basis depending on the available data and state willingness to share data.

Evaluation Periods

AHCCCS Works is anticipated to be in effect beginning Spring/Summer 2020 with the initial demonstration approved through September 2021. Due to the timing of the Interim Evaluation Report the time period to be covered by the interim evaluation has yet to be determined at the time of writing this Evaluation Design Plan. The baseline period will be the year prior to implementation. The Summative Evaluation Report will cover one full year of the waiver with six months of claims/encounter data run out. Table 3-4 presents time frames for each of the evaluation periods.

Table 3-4: AHCCCS Works Evaluation Periods

Evaluation Periods	Time Frame
Baseline	Year prior to implementation
Interim Evaluation*	To Be Determined
Summative Evaluation	First two years of demonstration

*Approval for the waiver ends September 30, 2021.

Propensity score matching will be used to identify a valid comparison group, which will rely on administrative claims data collected during the baseline period. Claims data for AHCCCS typically have a six- to nine-month lag, which would allow adequate time to identify the comparison group prior to the end of the first demonstration year.

Evaluation Measures

Table 3-5 details the proposed measure(s), study populations, data sources and proposed analytic methods that will be used to evaluate the AHCCCS Works program. Detailed measure specifications can be found in Appendix D.

Table 3-5: AHCCCS Works Evaluation Design Measures

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Hypothesis 1—Medicaid beneficiaries subject to the community engagement requirement will have higher employment and education levels than Medicaid beneficiaries not subject to the requirement.				
Research Question 1.1: Does the community engagement requirement lead to increased job seeking activities for those subject to the requirements compared to those who are not?	1-1: Percentage of beneficiaries who did not work during the previous week who actively sought a job during the past four weeks	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
	1-2: Percentage of beneficiaries who met community engagement criteria through job search activities	N/A	Eligibility and program monitoring data	• Compare outcomes during first three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart
Research Question 1.2: Does the community engagement requirement lead to increased rates of education enrollment or employment training programs?	1-3: Percentage of beneficiaries attending school or an Employment Support and Development program	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
	1-4: Percentage of beneficiaries who met community engagement criteria through attending school or an Employment Support and Development program	N/A	Eligibility and program monitoring data	• Compare outcomes during first three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart
Research Question 1.3: Are beneficiaries subject to the community engagement requirement more likely to be employed (including new and sustained employment) compared to those who are not?	1-5: Percentage of beneficiaries who usually worked at least 20 hours per week during previous year	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
	1-6: Percentage of beneficiaries employed during each month of measurement year	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	Eligibility and income data	• Regression discontinuity • Comparative interrupted time series • Difference-in-differences • Rapid cycle reporting – statistical process control chart

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	1-7: Number of weeks worked last year (including as unpaid family worker, and paid vacation/sick leave)	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
Research Question 1.4: Do beneficiaries who initially comply through activities other than employment gain employment within certain time periods?	1-8: Percentage of beneficiaries initially compliant through activities other than employment employed at 6 months, 1 year, and 2 years after enrollment or implementation	N/A	Eligibility and program monitoring data	Descriptive analysis of employment status at 6 months, 1 year, and 2 years post-enrollment among those who initially met requirement through non-employment activities
Research Question 1.5: Is employment among individuals subject to community engagement requirements sustained over time, including after separating from Medicaid?	1-9: Percentage of beneficiaries employed continuously for a year or more since enrollment or implementation	N/A	State beneficiary survey	Comparison of regression-adjusted means in employment 1- and 2-years post-enrollment among: 1. Those who were already employed at enrollment or implementation 2. Those who gained employment in the first six months of enrollment 3. Those who did not gain employment in the first six months of enrollment
Research Question 1.6: Does the community engagement requirement lead to better education outcomes?	1-10: Beneficiaries' reported highest grade or level of education completed	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
Hypothesis 2—Medicaid beneficiaries subject to the community engagement requirement will have higher average income than Medicaid beneficiaries not subject to the requirement.				
Research Question 2.1: Does the community engagement requirement increase income?	2-1: Average monthly earnings	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	• Eligibility and income data • HEAplus	• Regression discontinuity • Comparative interrupted time series • Difference-in-differences • Rapid cycle reporting – statistical process control chart

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	2-2: Average beneficiary reported personal income	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group	• State beneficiary survey • IPUMS ACS	• Regression discontinuity • Difference-in-differences
Hypothesis 3—Medicaid beneficiaries subject to the community engagement requirement will have a higher likelihood of transitioning to commercial health insurance after separating from Medicaid than Medicaid beneficiaries not subject to the requirement.				
Research Question 3.1: Does the community engagement requirement lead to increased take-up of commercial insurance, including employer-sponsored insurance (ESI) and Marketplace plans?	3-1: Enrollment in commercial coverage within one year after Medicaid disenrollment	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences
	3-2: Percentage of beneficiaries with a job that offers ESI	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences
	3-3: Percentage of beneficiaries with a job that offers ESI and who enroll in ESI	N/A	State beneficiary survey	Descriptive analysis of ESI take-up among those offered and eligible for ESI
Research Question 3.2: Is new ESI coverage sustained over time after implementation of community engagement requirements?	3-4: Percentage of beneficiaries who still have ESI coverage 1 and 2 years after initial take-up of ESI	N/A	State beneficiary survey	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up
	3-5: Percentage of beneficiaries with Medicaid coverage 1 and 2 years after initial take-up of ESI	N/A	State beneficiary survey	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up
	3-6: Percentage of beneficiaries uninsured 1 and 2 years after initial take-up of ESI	N/A	State beneficiary survey	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up
Research Question 3.3: Are beneficiaries with ESI able to pay premiums and meet other cost-sharing responsibilities,	3-7: Percentage of beneficiaries with ESI who reported problems paying insurance or medical bills	N/A	State beneficiary survey	Descriptive analysis of reported beneficiary cost sharing for former demonstration beneficiaries who transitioned to ESI

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
such as deductibles and copayments?	3-8: Reported out-of-pocket medical spending among beneficiaries with ESI	N/A	State beneficiary survey	Descriptive analysis of reported beneficiary cost sharing for former demonstration beneficiaries who transitioned to ESI
Research Question 3.4: Is the community engagement requirement associated with coverage losses (if people transition off Medicaid and do not enroll in commercial health insurance?)	3-9: Average number of months beneficiaries reported being uninsured	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences
	3-10: Average number of months uninsured	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State tax data (1095B)	• Regression discontinuity • Difference-in-differences
Research Question 3.5: Are beneficiaries subject to the community engagement requirement more likely to lose eligibility due to increased income than beneficiaries not subject to the requirement?	3-11: Percentage of beneficiaries disenrolling from Medicaid due to income exceeding limit	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	Eligibility and enrollment data	• Comparative interrupted time series • Regression discontinuity • Difference-in-differences
	3-12: Percentage of non-exempt AHCCCS Works beneficiaries losing Medicaid eligibility per month, by discontinuance category	N/A	Eligibility and enrollment data	Rapid cycle reporting – statistical process control chart
Research Question 3.6: At what rates are beneficiaries subject to the community engagement requirement suspended due to noncompliance?	3-13: Percentage of non-exempt AHCCCS Works beneficiaries suspended due to noncompliance per month	N/A	Eligibility and program monitoring data	Rapid cycle reporting – statistical process control chart
Hypothesis 4—Current and former Medicaid beneficiaries subject to the community engagement requirement will have better health outcomes than Medicaid beneficiaries not subject to the requirement.				
Research Question 4.1: Does the community engagement requirement lead to improved health outcomes?	4-1: Beneficiary reported rating of overall health	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-State Comparison	• State beneficiary survey • BRFSS	• Regression discontinuity • Difference-in-differences

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
	4-2: Beneficiary reported rating of overall mental or emotional health	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences
	4-3: Percentage of beneficiaries who reported prior year emergency room (ER) visit	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences
	4-4: Percentage of beneficiaries who reported prior year hospital admission	• Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout	State beneficiary survey	• Regression discontinuity • Difference-in-differences
Hypothesis 5—The community engagement requirement will promote Medicaid program sustainability through cost-effective care.				
Research Question 5.1: What are the costs associated with implementation and maintenance of AHCCCS Works?	There are no specific measures associated with this hypothesis; see Cost-Effectiveness Analysis Section for additional detail	N/A	N/A	Cost-effectiveness analysis
Research Question 5.2: What are the benefits/savings associated with the AHCCCS Works program?				
Hypothesis 6—Assessment of AHCCCS Works Implementation.				
Research Question 6.1: What is the distribution of activities beneficiaries engage in to meet community engagement requirements? How have these changed over time?	6-1: Breakdown of community engagement compliance by category, over time (e.g. monthly)	N/A	Compliance and monitoring data	• Compare outcomes during first three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart

Research Question	Measure(s)	Comparison Group(s)	Data Source(s)	Analytic Approach
Research Question 6.2: What are common barriers to compliance with community engagement requirements?	6-2: Beneficiaries' reported barriers to CE compliance	N/A	Beneficiary focus groups	Qualitative synthesis
Research Question 6.3: Do beneficiaries report that they have the necessary support services to meet community engagement requirements?	6-3: Beneficiaries' reported support services for meeting CE requirements	N/A	• Beneficiary focus groups • State beneficiary survey	• Qualitative synthesis • Post-implementation trend analysis
Research Question 6.4: Do beneficiaries understand the requirements, including how to satisfy them and the consequences of noncompliance?	6-4: Beneficiaries' reported awareness of CE requirements, how to report hours, and consequences of noncompliance	N/A	Beneficiary focus groups	Qualitative synthesis
Research Question 6.5: How many beneficiaries are required to actively report their status, including exemptions, good cause circumstances, and qualifying activities?	6-5: Number and percentage of beneficiaries required to actively report exemptions	N/A	Compliance and monitoring data	Post-implementation trend analysis
	6-6: Number and percentage of beneficiaries required to actively report good cause circumstances	N/A	Compliance and monitoring data	Post-implementation trend analysis
	6-7: Number and percentage of beneficiaries required to report qualifying activities	N/A	Compliance and monitoring data	Post-implementation trend analysis
Research Question 6.6: Are beneficiaries who are disenrolled for noncompliance with community engagement requirements more or less likely to re-enroll than beneficiaries who disenroll for other reasons?	6-8: Percentage of beneficiaries re-enrolling in Medicaid after a gap in coverage of at least 1 month and 3 months	N/A	• Eligibility and enrollment data • Compliance and monitoring data	Comparison of regression-adjusted probability of re-enrollment among AHCCCS Works beneficiaries who were: 1) Disenrolled for noncompliance 2) Disenrolled for reasons other than noncompliance

Data Sources

Multiple data sources will be utilized to evaluate the six research hypotheses for the AHCCCS Works evaluation. Data collection will include administrative and survey-based data such as Consumer Assessment of Healthcare

Providers and Systems (CAHPS®), CAHPS-like survey questions. Administrative data sources include information extracted from Prepaid Medical Management Information System (PMMIS) and Health-e-Arizona Plus (HEAplus).[3-6] PMMIS and HEAplus will be used to collect, manage and maintain Medicaid recipient files (i.e., eligibility, enrollment, demographics, income, community engagement compliance), fee-for-service (FFS) claims, managed care encounter data, income and program compliance data. The combination of survey and the administrative data sources mentioned earlier will be used to assess the six research hypotheses.

State Beneficiary Survey Data

State beneficiary surveys will be used to assess beneficiaries' healthcare coverage and employment status before and during the AHCCCS Works program implementation. These surveys will be an important data source for community engagement demonstration evaluations because the independent evaluator will need to capture information from beneficiaries after they separate from Medicaid in order to answer pertinent questions to the demonstration. Therefore, these instruments will include specific survey items designed to elicit information that addresses research hypotheses regarding member employment, income, health status and coverage transitions.

The survey questions will be designed to capture elements of the waiver Special Terms and Conditions (STCs) that cannot be addressed through administrative data. These surveys will be particularly crucial for former Medicaid beneficiaries as there will be limited administrative data for those individuals. The following concepts and hypotheses will be addressed in the beneficiary surveys:

1. **Employment status**—Hypothesis 1 states that Medicaid beneficiaries subject to community engagement requirements will have higher employment levels, including work in subsidized, unsubsidized, or self-employed settings, than Medicaid beneficiaries not subject to the requirements.
2. **Income**—Hypothesis 2 states that community engagement requirements will increase the average income of Medicaid beneficiaries subject to the requirements, compared to Medicaid beneficiaries not subject to the requirements.
3. **Transition to commercial health**—Hypothesis 3 states that community engagement requirements will increase the likelihood that Medicaid beneficiaries' transition to commercial health insurance after separating from Medicaid, compared to Medicaid beneficiaries not subject to the requirements.
4. **Health outcomes**—Hypothesis 4 states that community engagement requirements will improve the health outcomes of current and former Medicaid beneficiaries subject to the requirements, compared to Medicaid beneficiaries not subject to the requirements.

The independent evaluator will conduct longitudinal surveys during the baseline and measurement periods. Ideally, the independent evaluator will survey beneficiaries at the baseline before demonstration implementation; however, if the independent evaluator is unable to do so, they will conduct a baseline survey after implementation with retrospective survey questions clearly indicating time periods before demonstration policies are expected to affect beneficiaries' behavior or other outcomes. AHCCCS and its independent evaluator will aim to collect baseline data before the effective date of AHCCCS Works. The sampling frame for the survey will be identified through eligibility and enrollment data, with specific enrollment requirements being finalized upon inspection of the data. Typically, beneficiaries are drawn from beneficiaries continuously enrolled during the last six months of the measurement period, with no more than a one-month gap in enrollment. However, due to the special nature of this demonstration, surveys will also be sent to eligible beneficiaries who recently disenrolled from Medicaid. The independent evaluator will leverage several strategies to identify current contact information for beneficiaries who disenroll from Medicaid. These strategies include cross-referencing addresses with the National Change of

[3-6] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

Address database or requesting email and phone information. This contact information would serve to build follow-up surveys in longitudinal data collection.

Stratified random sampling by managed care organization (MCO) will be used to construct a statistically valid sample at the plan level. The typical sample size, as recommended by the National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®) Specifications for Survey Measures requires a sample size of 1,350 beneficiaries for the CAHPS 5.0 Adult Medicaid Health Plan Survey, which will serve as a template for the survey instrument used in this evaluation. An oversample of at least 10 percent for each plan will be applied to ensure an adequate number of respondents to each CAHPS measure. The maximum number of surveys that need to be sent per plan is estimated to be 1,485. Historical response rates for the Arizona Acute Care Adult population are approximately 22 percent, which would correspond to 327 completed adult surveys per plan. Across seven plans, the total number of completed surveys is anticipated to be approximately 2,289. An adult sample of 2,289 would have 0.8 power to identify a single percentage estimate of a 50 percent rate with a margin of error of 2.05 percent, or be able to identify a difference of rates between 50 percent and 54.1 percent with an alpha level of 0.05 and a two-tailed test. Because plan sampling will be disproportionate to overall plan membership statewide, plan-level weights will be reweighted to adjust for proportionality when calculating aggregate rates. Because evaluations for several concurrent waivers are planned, the State and its independent evaluator will seek to streamline survey administration across evaluations to minimize the number of separate survey rounds required, thereby minimizing the burden on beneficiaries and maximizing the response rate. Therefore, the sampling strategy described above may be revised based on enrollment across waivers. The instrument content will be derived from a number of sources. The format will be similar to the CAHPS Adult Medicaid Health Plan Survey, including elements as necessary from national surveys (e.g., IPUMS ACS) as suggested in CMS evaluation and monitoring guidance and detailed in Appendix D.[3-7]

To maximize response rates, a mixed-mode methodology for survey data collection will be used. The addition of email reminders, when data are available, or pre-notification letters to beneficiaries, has shown to increase response rates and will be incorporated into survey administration. Additionally, to the extent possible, the independent evaluator will align multiple demonstration surveys to minimize the number of surveys members receive and to increase response rates across all demonstrations with overlapping populations. A range of sampling protocols will be considered including simple random samples, stratified random samples, multistage stratifications (i.e., cluster), and targeted oversamples.

One of the anticipated challenges is contacting the hard-to-reach and disenrolled populations. Collection of data for beneficiaries who have left Medicaid will be critical to understanding the impact of the community engagement requirements associated with AHCCCS Works. The independent evaluator's approach will rely on identifying those who recently disenrolled and developing a robust set of survey questions targeted at this group. This method of primary data collection will allow the independent evaluator to measure outcomes for beneficiaries for whom AHCCCS no longer has administrative data.

One limitation to sending surveys for those who have left Medicaid is that these methods are subject to data reliability concerns. Only the recently disenrolled can be considered for survey sampling in the event an individual moves in the intervening time between disenrollment and survey administration. To the extent data are available in the HEAplus system and can be linked to former Medicaid beneficiaries, contact information from

[3-7] Matulewicz. H., Bradley, K., Wagner, S., "Beneficiary Survey Design and Administration for Eligibility and Coverage Demonstration Evaluations," *Mathematica*, June 2018. Available at: https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/1115-beneficiary-survey-guide.pdf. Accessed Oct 22, 2019.

this system can be used for these individuals. Additionally, data in the HEAplus system can be leveraged to gather information on the employment status and financial well-being of beneficiaries who leave the Medicaid program.

Administrative Data

AHCCCS's demonstration evaluation will allow the opportunity to utilize data from several sources (i.e., PMMIS and HEAplus) to determine the impact of AHCCCS Works. The administrative data sources are necessary to address the six research hypotheses primarily relating to income, insurance coverage, search for employment, educational activities, Medicaid enrollment, Medicaid eligibility, and cost savings, and to identify a valid comparison group.

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

Beneficiary Focus Groups and Key Informant Interviews

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

National Datasets

Data from the Integrated Public Use Microdata Series American Community Survey (IPUMS ACS) may be utilized for certain measures pertaining to health insurance coverage, income, education, and labor force to provide an out of state comparison group. The IPUMS ACS is a "database providing access to over sixty integrated, high-precision samples of the American population drawn from sixteen federal censuses, from the American Community Surveys of 2000-present."[3-8] The independent evaluator will extract data that include demographic information, employment, disability, income data and program participation such as Medicaid enrollment information in order to identify a suitable comparison group.

The independent evaluator will consider utilizing an out-of-state comparison group using beneficiary-level data if data are available and complete enough to support rigorous statistical testing of outcomes. One such source for beneficiary-level data, is the Transformed Medicaid Statistical Information System (T-MSIS) maintained and collected by the Centers for Medicare & Medicaid Services (CMS). All 50 states and Washington D.C., and two territories are currently submitting data monthly.[3-9] It is expected that T-MSIS will provide microdata containing information on eligibility, enrollment, demographics, and claims/encounters, which will support individual-level matching to AHCCCS Works beneficiaries. However, as of the submission date of this evaluation design plan, these data are not yet available, and the independent evaluator should be prepared to rely on alternative data sources for the comparison group.

One measure may utilize data from BRFSS as out-of-state comparison groups. BRFSS is a health-focused telephone survey developed by the Centers for Disease Control and Prevention (CDC) that collects data from

[3-8] IPUMS. Available at: https://usa.ipums.org/usa/intro.shtml. Accessed on: Feb 11, 2020.
[3-9] "Transformed Medicaid Statistical Information System (T-MSIS)," Centers for Medicare and Medicaid Services. Available at: https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/index.html. Accessed on: Feb 11, 2020.

approximately 400,000 adults annually across all 50 states, Washington D.C., and three territories.[3-10] The questionnaire generally consists of two components: a core component and an optional component. Measure 4-1 (Beneficiary reported rating of overall health) will utilize data from BRFSS core module Health Status in conjunction with Medicaid coverage indicator from optional module Healthcare Access to compare against responses for a similar question among AHCCCS Works beneficiaries [3-11], with the recognition that the target population of AHCCCS Works – adult Medicaid expansion beneficiaries – may be systematically different from Medicaid respondents identified in BRFSS.

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

Analytic Methods

The evaluation reporting will meet traditional standards of scientific and academic rigor, as appropriate and feasible for each aspect of the evaluation (e.g., for the evaluation design, data collection and analysis, and the interpretation and reporting of findings). The Demonstration evaluation will use the best available data, will use controls and adjustments where appropriate and available, and will report the limitations of data and the limitations' effects on interpreting the results. Several analytic approaches will be considered for this evaluation, including:

1. Regression discontinuity (RD)
2. Difference-in-differences (DiD)
3. Comparative interrupted time series (CITS)
4. Post-implementation trend analysis
5. Rapid cycle reporting – statistical process control chart
6. Qualitative Synthesis

Regression Discontinuity

RD design can be used in situations where selection for the intervention is determined by a cutoff value. Because the demonstration will only impact Group VIII adults between the ages of 19 and 49, it is possible to use a regression discontinuity design consisting of beneficiaries aged 50 or older as a comparison group. There are two primary approaches that can be taken when using an RD design, which are not necessarily mutually exclusive. Indeed, the independent evaluator is encouraged to follow both to assess the robustness of findings and sensitivity in results to alternative specifications.

The first approach is a parametric estimation of the outcome; that is, all individuals in the eligible population are included in the analysis, such that those over 49 years of age will serve as a comparison group to those aged between 19 and 49 years. Under this approach, the relationship between the assignment variable, age, and the outcome will need to be carefully inspected to assess for nonlinearity. The advantage of this approach is that all,

[3-10] "About BRFSS," Centers for Disease Control and Prevention; https://www.cdc.gov/brfss/about/index.htm; last accessed Feb 11, 2020.
[3-11] CAHPS surveys for this evaluation will be administered through both mail and telephone, while BRFSS is administered exclusively through telephone. This difference in survey administration mode may lead to biased comparisons.

or most, individuals can be included in the analysis, which results in greater statistical power and external validity if the functional form between the assignment variable and outcome is accurately specified.

The second approach restricts the sample pool to those only just below or just above the threshold, sometimes referred to as a nonparametric approach or local linear regression. Because the sample pool is restricted to those within some bandwidth around the threshold, any bias resulting from the potentially unknown relationship between the assignment variable and the outcome are mitigated. To support survey-based measures under this approach, individuals on either side of the threshold age (49) will be oversampled to ensure adequate survey responses and sample size. The cost of restricting the sample population is reduced external validityas the resulting estimates often will not apply to those far from the threshold. In other words, findings from an analysis using only those between, for example, 45 and 55 years of age are not expected to apply for younger or older individuals far from the threshold.

The basic estimation of the parametric model is:

$$Y = \beta_0 + \beta_1 D + \beta_2(f(X - c)) + \varepsilon$$

Where D is a dummy indicator for intervention group, *X* is the individual's age, and *c* is the cutoff value, which in this application is 50, and $f(\cdot)$ is a functional form specification. The parameter β_0 is the average outcome at the cutoff point, and β_1 represents the difference in outcomes between the two groups at the cutoff point, or more simply, the effect of the demonstration on the outcome Y.[3-12]

The basic nonparametric model estimation is:

$$Y = \alpha + \tau D + \beta_l(X - c) + (\beta_r - \beta_l)D(X - c) + \varepsilon$$

where $c - h \leq X \leq c + h$ and β_l represents the slope coefficient on the left-hand side of the cutoff (i.e., those younger than 50) and β_r represents the slope coefficient on the right-hand side of the cutoff (i.e., those age 50 or older).

In this specification, *h* is a given bandwidth or window around the cutoff point. The independent evaluator will ultimately determine this value and test alternative specifications with wider or narrower windows.

Additional covariates can be incorporated into the parametric and nonparametric models to control for observable differences across individuals.

There are three primary assumptions and threats to the RD design:[3-13]

- The relationship between the assignment variable (i.e., age) and outcome must be identifiable and accurately modeled.
- All other factors that affect the outcome should not also jump at the threshold value.
- The effect of the demonstration is constant across all values of the assignment variable (i.e., age).

[3-12] Lee, D.S., and Lemieux, T., (2010) "Regression Discontinuity Designs in Economics," *Journal of Economic Literature*, 48(2): 281-355.
[3-13] Ibid.

Difference-in-Differences

A DiD analysis will be performed on all measures for which baseline and evaluation period data are available for both the intervention and comparison groups. This analysis will compare the changes in the rates or outcomes between the baseline period and the evaluation period for the two populations. This allows for expected costs and rates for the matched intervention group to be calculated by considering expected changes in outcomes had the policy not been implemented. This is done by subtracting the average change in the comparison group from the average change in the intervention group, thus removing biases from the evaluation period comparisons due to permanent differences between the two groups. In other words, any changes in the outcomes caused by factors external to the policy would apply to both groups equally, and the DiD methodology will remove the potential bias. The result is a clearer picture of the actual effect of the program on the evaluated outcomes. The generic DiD model is:

$$Y_{it} = \beta_0 + \beta_1 X_i + \beta_2 R_t + \beta_3 (R_t * X_i) + \boldsymbol{\gamma} \mathbf{D'}_{\boldsymbol{it}} + u_{it}$$

where Y_{it} is the outcome of interest for individual i in time period t. R_t is a dummy variable for the remeasurement time period (i.e., evaluation period). The dummy variable X_i identifies the intervention group with a 1 and the comparison group with a 0. The vector **D'** will include all covariates used in the propensity score matching to ensure comparability of the groups for any measure-specific subgrouping (e.g., to address non-response bias) and $\boldsymbol{\gamma}$ is the related coefficient vector. The coefficient, β_1, identifies the average difference between the groups prior to the effective date of the policy. The time period dummy coefficient, β_2, captures the change in outcome between baseline and evaluation time periods. The coefficient of interest, β_3, is the coefficient for the interaction term, $R_t * X$, which is the same as the dummy variable equal to one for those observations in the intervention group in the remeasurement period. This represents the estimated effect of the waiver on the intervention group, conditional on the included observable covariates. The final DiD estimate is:

$$\hat{\beta}_3 = \left(\bar{y}_{T,R} - \bar{y}_{\mathrm{T,B}}\right) - \left(\bar{y}_{\mathrm{C,R}} - \bar{y}_{\mathrm{C,B}}\right) \mid \mathbf{D'}$$

Assuming trends in the outcome between the comparison and intervention groups are approximately parallel during the baseline period, the estimate will provide the expected costs and rates without intervention. If the β_3 coefficient is significantly different from zero, then it is reasonable to conclude that the outcome differed between the intervention and comparison group after the policy went into effect. In addition to assessing the degree of statistical significance for the result, as represented by the p-value associated with β_3, the results will be interpreted in a broader context of clinical and practical significance.[3-14]

Triple Difference-in-Differences

For measures that use an out-of-state comparison group, comparisons can be made through a triple difference-in-differences (DDD) approach, which is a more robust analysis than the conventional DiD approach described above.[3-15] The conventional DiD approach will use an in-state comparison group consisting of counties that have yet to implement AHCCCS Works based on urbanicity. If changes in the measured outcomes are caused by differences in urbanicity rather than the policy change, then the DiD results will be biased. A DDD design would introduce an additional comparison group consisting of individuals residing in counties out-of-state with similar

[3-14] Results from statistical analyses will be presented and interpreted in a manner that is consistent with the spirit of recent guidance put forth in *The American Statistician.* Ronald L. Wasserstein, Allen L. Schirm & Nicole A. Lazar (2019) Moving to a World Beyond "p < 0.05", The American Statistician, 73:sup1, 1-19, DOI: 10.1080/00031305.2019.1583913.

[3-15] Wing, C., Simon, K., and Bello-Gomez, R.A., "Designing Difference in Difference Studies: Best Practices for Public Health Policy Research," *Annu. Rev. Public Health* 2018. 39:453–69.

urbanicity and other characteristics to counties implementing AHCCCS Works. Let *U* denote out-of-state counties with similar characteristics as AHCCCS Works counties, the DDD regression model is given by:

$$Y_{it} = \beta_0 + \beta_1 X_i + \beta_2 U_i + \beta_3 (X_i * U_i) + \beta_4 R_t + \beta_5 (X_i * R_t) + \beta_6 (U_i * R_t) + \beta_7 (X_i * R_t * U_i) + \boldsymbol{\gamma} \mathbf{D'}_{\boldsymbol{it}} + u_{it}$$

The coefficient of interest in this equation is the triple-differences estimator β_7 which represents the incremental difference between AHCCCS Works counties and non-AHCCCS Works counties, while netting out the changes among out of state counties with similar urbanicity. This approach is designed to control for changes in outcomes between counties of similar urbanicity across states and changes in outcomes within the state.

Comparative Interrupted Time Series

Measures for which data are collected with sufficient frequency prior to and after policy implementation, can use a CITS approach.[3-16] The CITS approach yields several advantages over a two-time period DiD. First, it controls for differences in baseline trends between the intervention and comparison groups. Second, the CITS approach can estimate changes in both the level of the outcome at the point of intervention and trends in the outcome, whereas the typical DiD approach evaluates changes in the outcomes averaged across the pre- and post-implementation periods. Finally, by virtue of additional data points, the statistical power of the analysis is increased. However, this may not necessarily translate into improved precision of the estimates due to the potential for increased variability in the outcome as the time between measurement decreases. The generic CITS regression model is:

$$Y_{it} = \beta_0 + \beta_1 X_i + \beta_2 R_t + \beta_3 (R_t X_i) + \beta_4 T_t + \beta_5 (T_t X_i) + \beta_6 (T_t R_t) + \beta_7 (X_i R_t T_t) + \boldsymbol{\gamma} \mathbf{D'}_{\boldsymbol{it}} + u_{it}$$

Where Y_{it} is the outcome of interest for individual *i* in time period *t* and X_i, R_t and $\mathbf{D'}_{\boldsymbol{it}}$ are as previously defined in the DiD section. The addition of the variable T_t represents a liner time trend since the start of the baseline period, where the first time period is coded as 0. The coefficient β_3 indicates the difference between intervention and comparison groups in the level of the outcome immediately after the intervention. The coefficient β_4 is the pre-intervention trend for the comparison group, β_5 represents the difference in the trend of the outcome between intervention and comparison groups prior to intervention, β_6 represents the change in the trend for the comparison group after intervention, and β_7 represents the difference between comparison and intervention groups in the trend of the outcome after implementation compared to the pre-implementation trends (similar to a DiD estimate in the slopes).[3-17] Importantly, both the CITS and DiD models can be extended to include multiple comparison groups, allowing for the possibility to use both potential comparison groups simultaneously in the evaluation.

Post-Implementation Trend Analysis

Beneficiary survey data will be utilized to evaluate measures pertaining to job seeking activities and education or job skills using a DiD framework. While survey data allows for the collection of data among former Medicaid beneficiaries and comparison groups, these outcomes may also be collected more frequently through administrative program data for the post-implementation intervention group. As such, the higher frequency and alternative data source can be used to supplement the findings from these measures. Although these data will only be collected after implementation of the program, the fact that beneficiaries will have a three-month orientation

[3-16] The independent evaluator will determine the viability of using monthly data in the analysis by evaluating the number of data points and variability in the outcome. It is possible for data collected at a relatively high-frequency to yield a large degree of variation, rendering this approach less viable.

[3-17] See, e.g., Linden, A., (2015) "Conducting interrupted time-series analysis for single- and multiple-group comparisons," *The Stata Journal*, 15(2), pp. 480-500. https://journals.sagepub.com/doi/pdf/10.1177/1536867X1501500208.

period before they are liable to lose Medicaid coverage due to noncompliance, does allow in effect a brief quasi-pre-implementation period. Three data points is not enough to reliably determine a trend, but these data can be leveraged to compare against future data points through trending analysis; such analysis may include:

- Statistical test of three-month "baseline" against time period after the three-month orientation period.
- Statistical test of three-month "baseline" against last three months in the data series.
- Linear or non-linear regression of outcomes over time.

This analysis is designed to leverage additional data to supplement the primary findings for these measures to provide additional context and detail pertaining to trends in the intervention population's compliance with community engagement requirements. This analysis is not meant to determine the impact of the demonstration on employment, education, or job readiness training.

Rapid Cycle Reporting – Statistical Process Control Chart

Measures in which outcomes can be collected monthly are also conducive to rapid cycle reporting. Rapid cycle reporting provides an early warning of possible unintended consequences. These measures are primarily intended for waiver impact monitoring prior to the analyses that will be contained in the evaluation reports. Rapid cycle reporting measures will be presented on a regular schedule as determined by the independent evaluator using statistical process control charts. Statistical process control charts will be utilized as the tool to identify changes in time series data—data points or trends that depart from a baseline level of variation. This will be helpful in quickly identifying concerns requiring further investigation.

Qualitative Synthesis

To answer important questions related to implementation of AHCCCS Works, and to identify and understand barriers encountered by beneficiaries and AHCCCS, a series of semi-structured focus groups with beneficiaries and key informant interviews with representatives from ACCCHS will be conducted to obtain results for three measures. Focus group participants will be randomly selected from each implementation county.

Focus Group Methodology

The independent evaluator will work with AHCCCS to identify potential locations and demographic characteristics desired for focus group attendees and may attempt to identify community partners willing to aid in focus group facilitation and recruitment. Two to three locations will be selected to correspond with the populations targeted in the three successive waves of implementation planned for the AHCCCS Works program, beginning with intensely urbanized and ending with rural communities. In addition, members will be recruited who represent appropriate race/ethnicity and socioeconomic status, as well as current enrollment in AHCCCS or recent disenrollment from AHCCCS. Candidates will be between the ages of 19 and 49, and not be members of any of the groups specifically excused from compliance with AHCCCS Works, (those categories listed on p. 3-3 above.)

To increase the probability of having adequate attendance for each focus group discussion, the independent evaluator will attempt to work with community-based organizations who have an established history of working with the AHCCCS population in each geographic area to identify a convenience sample of up to 10 possible focus group participants for each discussion. If there are not at least 10 willing participants identified through the CBO recruitment process, other sources of data such as AHCCCS enrollment data may be used to pull a random sample of potential participants who meet the focus group participant criteria. During the focus group participant scheduling process, schedulers will collect demographic information to confirm participant criteria are met. Each

focus group participant will be asked to complete, sign, and submit a standard consent form for participation in the voluntary focus group, which will be reviewed in person with each participant to confirm their understanding prior to collecting the signed form. Copies of each participant's signed form will be mailed upon request.

The independent evaluator recommends providing all focus group participants with a $25 gift card to a specific grocery store or Walmart. Participants should also be offered transportation to and from the focus group location, either by select vendors or ride share services, or otherwise according to a plan developed with AHCCCS. The independent evaluator will confirm transportation appointments, including all special needs, with the transportation vendor prior to focus group dates/times, and will provide a phone number to focus group participants to call or text if they experienced any issues with the scheduled transportation.

Focus groups will last approximately 90 minutes. The selected facilitator should have prior experience in quality improvement, conducting focus group discussions with AHCCCS or Medicaid recipients, performing barrier analyses, and providing innovative program improvement recommendations. Focus group questions will be semi-structured allowing for open-ended responses and drilled down using relevant prompts following the Six Sigma "5 Whys" technique for root cause analysis. The questions will focus on beneficiaries' own descriptions of the barriers they encountered, the support services they needed to meet CE requirements, and their understanding of the CE requirements, including how to satisfy them and the consequences of noncompliance. The question protocol will be reviewed and approved by AHCCCS. The focus group discussions will be audio recorded and transcribed.

Key Informant Interviews

Key informant interviewees will be recruited from nominees identified by AHCCCS, with a goal of recruiting up to five interviewees. A limited number of key informant interviews should be sufficient in this scenario because there will be a limited number of staff at the agency with a working knowledge of the activities associated with the demonstration, and the challenges and successes that accompanied the implementation. Interviews will invite input from appropriate individuals identified by AHCCCS as having experience and subject matter expertise regarding the barriers and support services necessary to meet CE requirements and their perception of AHCCCS beneficiaries' understanding of the requirements for compliance and the consequences of noncompliance. Key informant interviews will be used efficiently to help frame appropriate questions for focus groups and to help identify potential community partners for recruiting focus group attendees, in addition to their primary goal of gaining their subject matter expertise regarding the beneficiary barriers to compliance with the AHCCCS Works program.

A flexible protocol will be developed for the semi-structured interviews. Early focus groups or interviews will inform the development and choice of topics and help inform the selection of additional interview subjects to round out the list of individuals to be interviewed for this project. It is not anticipated that financial incentives for participation would be required for current agency employees, however, key informants who are no longer employed might be offered an incentive such as a $100.00 gift card to encourage participation. Open-ended questions will be used to maximize the diversity and richness of responses and ensure a more holistic understanding of the subject's experience. Probing follow-up questions will be used as appropriate to elicit additional detail and understanding of critical points, terminology, and perspectives. The sessions will be recorded and transcribed with participant consent.

Synthesis

The information obtained from these focus groups and interviews will be synthesized with the results from other quantitative data analyses to provide an in-depth discussion of each of the domains/objectives to be considered. As the key informant interviews are being conducted, the independent evaluator will perform ongoing and

iterative review of the interview responses and notes to identify overall themes and common response patterns. Unique responses that are substantively interesting and informative will also be noted and may be used to develop probing questions for future interviews. The results of these preliminary analyses will be used to document the emergent and overarching themes related to each research question. The documentation of emergent themes will be reviewed in an iterative manner to determine if responses to interview questions are continuing to provide new perspectives and answers, or if the responses are converging on a common set of response patterns indicating saturation on a particular interview question. As additional interview data are collected, the categories, themes, and relationships will be adjusted to reflect the broader set of concepts and different types of relationships identified. The documentation of emergent themes will also be used as an initial starting point for organizing the analysis of the interview data once all interviews are completed.

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

Cost-Effectiveness Analysis

To evaluate the sustainability of the demonstration component and its impacts on costs, the independent evaluator will estimate costs and savings associated with the renewal of the waiver. Total costs will be comprised of both medical costs and administrative costs.

Costs and savings will be estimated based on an actuarial approach. The actuarial method will create a "hypothetical comparison group" by trending the cost experience of a waiver population during a baseline period prior to renewal of the waiver forward in time to the evaluation period(s) following renewal of the waiver. The trended costs will represent an estimate of the costs for the waiver population during the evaluation period(s) as if the waiver had never been renewed. Thus, the actuarial method will compare the trended actual costs of the waiver population in a baseline period to the actual costs for the waiver population during the evaluation period(s) to estimate savings.

There are two separate definitions of "medical cost" that will be evaluated, resulting in two separate estimates of total costs and savings. "Expenditure costs" represent the direct expenditures by the state for the provision of Medicaid services, identified as the medical cost component of the capitation payments. "Service costs" represent the cost to the plans of providing the included Medicaid services. A different approach will be used for each type of medical cost.

The method to estimate "expenditure cost" savings will compare the trended medical cost component for the waiver population from baseline capitation rates to the average medical cost component paid in the evaluation period(s). The independent contractor will ensure that the service packages included in the capitation rates are similar in both the baseline and evaluation period(s). If the service packages are different, adjustments will be made to ensure the capitation rates for both the trended baseline and the evaluation period(s) represent the same package of services. Typically, these adjustments will be made based on fee for service claims or specific medical cost components included in the capitation payments during the baseline period.

The medical cost component in both the baseline for the evaluation period(s) will be based on the carriers' filed premium rates or other available documents that identify medical costs. Other adjustments for other medical-cost-related components such as risk corridor payment adjustments, cost sharing reduction payments, deductible funding, changes in medical technology or clinical guidance, changes in reimbursement rates, and the cost of wraparound services, will be included in both the baseline and evaluation period(s) estimates. These adjustments will be done as appropriate based on state and federal Medicaid policies in place for each waiver population during the period for which costs are being calculated. For the comparison group (trended baseline medical cost component), medical cost projections will be developed based on baseline program claims/encounter data that will be trended and adjusted for demographic changes, acuity differences, and programmatic changes as well as the other factors described above, as appropriate for specific periods, state policies, and waiver populations. The data for developing both the trended baseline and evaluation period cost estimates will be based on data provided to AHCCCS as a part of the capitation rate-setting and certification process.

The method for calculating "service cost" savings will involve comparing the trended baseline period medical cost component from the capitation rate to the plans' actual cost of providing Medicaid services to the waiver population in the evaluation period(s).

For both the baseline and evaluation periods, the average medical cost will be calculated based on claims/encounter data, while ensuring identical service packages in both periods. The baseline medical cost estimates will be trended forward from the baseline period and will be adjusted for the items listed above as necessary and appropriate.

Administrative costs will be estimated based on administrative amounts included in specific waiver premium rate filings in the baseline and evaluation period(s). This approach will be used since the allocation of actual administrative costs for waiver populations is typically difficult for plans to more accurately estimate. Adjustments will be made to account for changes in administrative activity requirements between the baseline and evaluation period(s). Adjustments will also be made to the baseline estimate to account for inflationary and state policy changes and waiver population factors as necessary and appropriate.

Total costs for both groups will be calculated as the sum of the medical and administrative cost estimates. This will result in two different total cost estimates, one for each of the approaches used to estimate medical costs described above.

The independent evaluator will work with AHCCCS to ensure that all cost calculations incorporate all appropriate adjustments to adequately account for changes in service packages, administrative cost structures, and/or national/state policy that directly or indirectly impact the costs of providing Medicaid services to the waiver population across the baseline and evaluation period(s).

Costs and benefits will be isolated to the AHCCCS Works demonstration component to the extent possible using the strategies described in the Disentangling Confounding Events section below.

Disentangling Confounding Events

During the current demonstration renewal period, AHCCCS has implemented several programs that could confound the estimated impact of AHCCCS Works on measured outcomes. The Targeted Investments (TI) program was implemented by October 2019. The TI program provides practices with funds specifically to encourage better care coordination and integrated care for their beneficiaries. As such, beneficiaries impacted by the TI program may receive higher levels of integrated care, thereby introducing potentially confounding program effects if the target and comparison groups are differentially impacted by TI. The independent evaluator may

identify those impacted by TI and utilize statistical controls to disentangle effects of TI beneficiaries on the AHCCCS Works program.

Beginning on July 1, 2019, AHCCCS eliminated prior quarter coverage (PQC) for most Medicaid adults.[3-18] This program may introduce confounding effects since impacted beneficiaries may alter their future care-seeking or enrollment and disenrollment decisions. The independent evaluator may leverage the differential timing between the introduction of AHCCCS Works and effective date of the elimination of PQC to help reduce the potential confounding effects.

[3-18] Pregnant women, women who are 60 days or less postpartum, and infants and children under 19 years of age are excluded.

4. Methodology Limitations

There are several limitations to the proposed evaluation design. First, many hypotheses and research questions pertain to measuring outcomes for former Medicaid beneficiaries. Arizona Health Care Cost Containment System (AHCCCS) does not maintain an all-payor claims database (APCD) in which data from commercial insurance may be available. Instead of utilizing Medicaid and APCD administrative data, the primary data source for much of the evaluation will rely on surveys. This should not preclude causal inferences about the effects of the demonstration but could introduce biases during the execution phase of the evaluation. For example, if response rates are materially and structurally different between intervention and comparison groups, and more importantly, between current and former Medicaid beneficiaries, these differences can bias the final evaluation if inadequately accounted for in the evaluation.

Another limitation or risk to the analysis is the availability of a comparison group. Because AHCCCS Works impacts virtually all able-bodied adults in Medicaid expansion eligibility groups, those who are exempt or eligible for non-expansion Medicaid may be systematically different. Propensity score matching will be the primary tool used to identify members from the exempt and/or non-expansion population who share similar characteristics to those in the intervention. While this is a proven technique and has been used in the past to conduct evaluations on a Medicaid expansion population, there are analytical risks to this technique that may ultimately hinder the ability to draw causal inferences. These risks and mitigation strategies are discussed above in the Intervention and Comparison Populations section.

5. Reporting

Following its annual evaluation of the Arizona Health Care Cost Containment System (AHCCCS) Works and subsequent synthesis of the results, AHCCCS and its independent evaluator will prepare two reports of the findings and how the results compare to the research hypotheses. Both the interim evaluation report and the final summative evaluation report will be produced in alignment with Special Terms and Conditions (STCs) and the schedule of deliverables listed in Table 5-1 (See Appendix C for a detailed timeline.).

Table 5-1: Schedule of Deliverables for the AHCCCS Works Evaluation

Deliverable	Date
AHCCCS Works Evaluation Design (STC #72)	
AHCCCS submits AHCCCS Works Waiver Evaluation Design Plan to Centers for Medicare & Medicaid Services (CMS)	07/17/2019
AHCCCS submits a revised draft Evaluation Design within sixty (60) calendar days after receipt of CMS' comments.	TBD
AHCCCS to post final approved AHCCCS Works Waiver Evaluation Design Plan on the State's website within 30 days of approval by CMS	TBD
AHCCCS presentation to CMS on approved Evaluation Design	As Requested
Evaluation Report(s)	
Quarterly: AHCCCS to report progress of Demonstration to CMS (STC #52)	60 days after the quarter
AHCCCS to post AHCCCS Works Interim Evaluation Report on the State's website for public comment	TBD
Interim Evaluation Report (STC #76)	TBD
AHCCCS submits a Final Interim Evaluation Report within sixty (60) calendar days after receipt of CMS' comments.	TBD
Final Summative Evaluation Report (STC #77)	March 30, 2023
AHCCCS submits a Final Summative Evaluation Report within sixty (60) calendar days after receipt of CMS' comments.	TBD
AHCCCS presentation to CMS on Final Summative Evaluation Report (STC #73)	As Requested

Each evaluation report will present results in a clear, accurate, concise, and timely manner. At minimum, all written reports will include the following nine sections:

1. The **Executive Summary** concisely states the goals for the Demonstration, presenting the key findings, the context of policy-relevant implications, and recommendations.
2. The **General Background Information about the Demonstration** section succinctly traces the development of the program from the recognition of need to the present degree of implementation. This section will also include a discussion of the State's implementation of the AHCCCS Works program along with its successes and challenges.
3. The **Evaluation Questions and Hypotheses** section focuses on programmatic goals and strategies with the research hypotheses and associated evaluation questions.

4. The **Methodology** section will include the evaluation design with the research hypotheses and associated measures, along with the type of study design; targeted and comparison populations and stakeholders; data sources that include data collection field, documents, and collection agreements; and analysis techniques with controls for differences in groups or with other State interventions, including sensitivity analyses when conducted.
5. The **Methodological Limitations** section is a summary of the evaluation designs limitations including its strengths and weaknesses.
6. The **Results** section is a summary of the key findings and outcomes of each hypothesis and research question.
7. The **Conclusions** section is a description of the effectiveness and impact of the Demonstration.
8. The **Interpretations, Policy Implications, and Interactions with Other State Initiatives** section contains the policy-relevant and contextually appropriate interpretations of the conclusions, including the existing and expected impact of the Demonstration within the health delivery system in Arizona in the context of the implications for state and federal health policy, including the potential for successful strategies to be replicated in other state Medicaid programs. In addition, this section contains the interrelations between the Demonstration and other aspects of Arizona's Medicaid program, including interactions with other Medicaid waivers and other federal awards affecting service delivery, health outcomes, and the cost of care under Medicaid.
9. The **Lessons Learned and Recommendations** section discusses the opportunities for revisions to future demonstrations, based on the information collected during the evaluation.

All reports, including the Evaluation Design, will be posted on the State Website within 30 days of the approval of each document to ensure public access to evaluation documentation and to foster transparency. AHCCCS will notify the Centers for Medicare & Medicaid Services (CMS) prior to publishing any results based on the Demonstration evaluation for CMS' review and approval. The reports' appendices will present more granular results and supplemental findings. AHCCCS will work with CMS to ensure the transmission of all required reports and documentation occurs within approved communication protocols.

Content of Interim Report

The interim report will be made publicly available prior to the waiver renewal application deadline of December 31, 2020. Due to the abbreviated time for analysis, the interim report will consist of a status update regarding the execution of the evaluation design plan, preliminary analyses of key informant interviews conducted early enough for inclusion in the report, and a detailed and complete analytic plan for the waiver evaluation, including survey administration details (e.g., sampling frame, survey instrument, and sampling strategy to align surveys across programs).

Content of Summative Report

The final summative report will be delivered to CMS within 500 days of the demonstration end and will contain the full results of all measures described in this evaluation design plan and in the final analytic plan contained in the Interim Report.

A. Independent Evaluator

Arizona Health Care Cost Containment System (AHCCCS) will select an independent evaluator with experience and expertise to conduct a scientific and rigorous Medicaid Section 1115 waiver evaluation meeting all of the requirements specified in the Special Terms and Conditions (STCs).[A-1] The independent evaluator will be required to have the following qualifications:

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

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

[A-1] Centers for Medicare & Medicaid Services. Arizona Medicaid Section 1115 Demonstration Special Terms and Conditions. Jan 18, 2017. Available at: https://www.azahcccs.gov/shared/Downloads/News/FORSTATEArizonaAHCCCSSTCAndAuthorities_W_TIPFinal.pdf. Accessed on Jun 20, 2019.

B. Evaluation Budget

Due to the complexity and resource requirements of the Arizona Health Care Cost Containment System (AHCCCS) Works, AHCCCS will need to conduct a competitive procurement to obtain the services of an independent evaluator to perform the services outlined in this evaluation design. Upon selection of an evaluation vendor, a final budget will be prepared in collaboration with the selected independent evaluator if or when the program is ultimately implemented. Table B-1 displays the proposed budget shell that will be used for submitting total costs for AHCCCS Works.

The costs presented in Table B-1 will include the total estimated cost, as well as a breakdown of estimated staff, administrative and other costs for all aspects of the evaluation such as any survey and measurement development, quantitative and qualitative data collection and cleaning analyses and report generation. A final budget will be submitted once a final independent evaluator has been selected. The total estimated cost for this evaluation is $513,573, the estimate assumes that a single independent evaluator will conduct all required AHCCCS waiver evaluations.

Table B-1: Proposed Budget AHCCCS Works

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Key Informant Interviews					
Instrument Design					
Staff Costs	$ -	$ -	$ 5,792	$ -	$ -
Administrative Costs	$ -	$ -	$ 4,208	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ -**	**$ 10,000**	**$ -**	**$ -**
Administration					
Staff Costs	$ -	$ -	$ 10,345	$ -	$ -
Administrative Costs	$ -	$ -	$ 7,515	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ -**	**$ 17,860**	**$ -**	**$ -**
Provider Focus Groups					
Instrument Design					
Staff Costs	$ -	$ -	$ 6,516	$ -	$ -
Administrative Costs	$ -	$ -	$ 4,734	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ -**	**$ 11,250**	**$ -**	**$ -**
Administration					
Staff Costs	$ -	$ -	$ 8,103	$ -	$ -
Administrative Costs	$ -	$ -	$ 5,887	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ -**	**$ 13,990**	**$ -**	**$ -**
Member/Beneficiary Surveys					

Evaluation Area/Task	Year 1	Year 2	Year 3	Year 4	Year 5
Instrument Design					
Staff Costs	$ 4,512	$ 3,718	$ 3,718	$ -	$ -
Administrative Costs	$ 3,278	$ 2,702	$ 2,702	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 7,790**	**$ 6,420**	**$ 6,420**	**$ -**	**$ -**
Administration					
Staff Costs	$ 5,524	$ 5,524	$ 5,524	$ -	$ -
Administrative Costs	$ 4,014	$ 4,014	$ 4,014	$ -	$ -
Other Costs	$ 9,653	$ 9,653	$ 9,653		
Total Costs	**$ 19,191**	**$ 19,191**	**$ 19,191**	**$ -**	**$ -**
Claims Data Measure Calculations					
Claims Data Collection/Validation					
Staff Costs	$ -	$ 2,908	$ 1,153	$ -	$ -
Administrative Costs	$ -	$ 2,112	$ 837	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 5,020**	**$ 1,990**	**$ -**	**$ -**
Code Development/Execution					
Staff Costs	$ -	$ 10,426	$ 5,815	$ -	$ -
Administrative Costs	$ -	$ 7,574	$ 4,225	$ -	$ -
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ -**	**$ 18,000**	**$ 10,040**	**$ -**	**$ -**
Analysis and Reporting					
Interviews/Surveys/Claims Data Analysis					
Staff Costs	$ 10,003	$ 29,209	$ 39,513	$ 59,310	$ 2,381
Administrative Costs	$ 7,267	$ 21,221	$ 28,707	$ 43,090	$ 1,729
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 17,270**	**$ 50,430**	**$ 68,220**	**$ 102,400**	**$ 4,110**
Interim/Summative/Rapid-Cycle Reports					
Staff Costs	$ 16,310	$ 11,347	$ 9,522	$ 17,793	$ 5,722
Administrative Costs	$ 11,850	$ 8,243	$ 6,918	$ 12,927	$ 4,158
Other Costs	$ -	$ -	$ -	$ -	$ -
Total Costs	**$ 28,160**	**$ 19,590**	**$ 16,440**	**$ 30,720**	**$ 9,880**
Total	**$ 72,411**	**$ 118,651**	**$ 175,401**	**$ 133,120**	**$ 13,990**

C. Timeline and Milestones

The following project timeline has been prepared for the Arizona Health Care Cost Containment System (AHCCCS) Works program evaluation outlined in the preceding sections. This timeline should be considered preliminary and subject to change based upon approval of the Evaluation Design and implementations of the AHCCCS Works program. A final detailed timeline will be developed upon selection of the independent evaluator tasked with conducting the evaluation if or when the program is ultimately implemented.

Figure C-1 outlines the proposed timeline and tasks for conducting the AHCCCS Works program evaluation.

Figure C-1: AHCCCS Works Evaluation Project Timeline

Task	CY2019	CY2020				CY2021				CY2022				CY2023			
	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 methodology and analysis plan																	
Data Collection																	
Obtain Arizona Medicaid claims/encounter																	
Obtain Arizona Medicaid member, provider, and eligibility/enrollment data																	
Obtain financial data																	
Integrate data; generate analytic dataset																	
Conduct Analysis																	
Rapid Cycle Assessment																	
Prepare and calculate metrics																	
Generate reports																	
Non-Survey Analyses																	
Prepare and calculate metrics																	
Conduct statistical testing and comparison																	
CAHPS/CAHPS-like 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: Timeline based on approval for the waiver after September 30, 2021.

D. Proposed Measure Specifications

The tables in this section provide the detailed measure specifications for the Arizona Health Care Cost Containment System (AHCCCS) Works program evaluation.

Hypothesis 1—Medicaid beneficiaries subject to the community engagement requirement will have higher employment and education levels than Medicaid beneficiaries not subject to the requirement.

Research Question 1.1: Does the community engagement requirement lead to increased job seeking activities for those subject to the requirements compared to those who are not?

Percentage of Beneficiaries Who Did Not Work During the Previous Week Who Actively Sought a Job During the Past Four Weeks (Measure 1-1)	
Numerator/Denominator	Numerator: Number of beneficiaries responding they actively sought a job within the past four weeks (and did not work during the previous week) Denominator: Number of respondents to survey question who did not work during the previous week
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group
Measure Steward	N/A
Data Source	• State beneficiary survey • Integrated Public Use Microdata Series American Community Survey (IPUMS ACS)
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries Who Met Community Engagement Criteria Through Job Search Activities (Measure 1-2)	
Numerator/Denominator	Numerator: Number of beneficiaries who met the community engagement criteria through job search activities Denominator: Number of non-exempt AHCCCS Works beneficiaries
Comparison Population	N/A
Measure Steward	N/A
Data Source	Eligibility and program monitoring data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Compare outcomes during first month or three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart

Research Question 1.2: Does the community engagement requirement lead to increased rates of education enrollment or employment training programs?

Percentage of Beneficiaries Attending School or an Employment Support and Development Program (Measure 1-3)	
Numerator/Denominator	Numerator: Number of beneficiaries reported attendance of school or an Employment Support and Development program, or both, full time Denominator: Number of respondents to attendance of school or an Employment Support and Development program survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out of state comparison group
Measure Steward	N/A
Data Source	• State beneficiary survey • IPUMS ACS
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries Who Met Community Engagement Criteria Through Attending School or an Employment Support and Development Program (Measure 1-4)	
Numerator/Denominator	Numerator: Number of beneficiaries who met community engagement criteria through less than full-time education and job or life skills training Denominator: Number of non-exempt AHCCCS Works beneficiaries
Comparison Population	N/A
Measure Steward	N/A
Data Source	Eligibility and program monitoring data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Compare outcomes during first month or three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart

Research Question 1.3: Are beneficiaries subject to the community engagement requirement more likely to be employed (including new and sustained employment) compared to those who are not?

Percentage of Beneficiaries Who Usually Worked at Least 20 Hours per Week During Previous Year (Measure 1-5)	
Numerator/Denominator	Numerator: Number of beneficiaries who reported usually working at least 20 hours per week during the time they were working, including paid vacation and sick leave Denominator: Number of respondents to hours usually worked per week survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group

Percentage of Beneficiaries Who Usually Worked at Least 20 Hours per Week During Previous Year (Measure 1-5)	
Measure Steward	N/A
Data Source	• State beneficiary survey • IPUMS ACS
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries Employed During Each Month of the Measurement Year (Measure 1-6)	
Numerator/Denominator	Numerator: Number of beneficiaries indicating employment, including part-time, full-time, or self-employed Denominator: Number of beneficiaries in intervention/comparison group
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	Eligibility and income data
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Comparative interrupted time series • Difference-in-differences • Rapid cycle reporting – statistical process control chart

Number of Weeks Worked Last Year (Including as Unpaid Family Worker, and Paid Vacation/Sick Leave) (Measure 1-7)	
Numerator/Denominator	Numerator: Beneficiaries reported number of weeks worked last year (including as unpaid family worker, and paid vacation/sick leave) Denominator: Number of respondents to weeks worked survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group
Measure Steward	N/A
Data Source	• State beneficiary survey • IPUMS ACS
Desired Direction	An increase in the number of weeks worked supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Research Question 1.4: Do beneficiaries who initially comply through activities other than employment gain employment within certain time periods?

Percentage of Beneficiaries Initially Compliant Through Activities Other Than Employment Employed at 6 Months, 1 Year, and 2 Years After Enrollment or Implementation (Measure 1-8)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who are compliant through employment 6 months, 1 year, or 2 years after enrollment or implementation Denominator: Number of beneficiaries compliant through activities other than employment during the first three months of enrollment or implementation
Comparison Population	N/A
Measure Steward	N/A
Data Source	Eligibility and program monitoring data
Desired Direction	An increase supports the hypothesis
Analytic Approach	Descriptive analysis of employment status at 6 months, 1 year, and 2 years post-enrollment among those who initially met requirement through non-employment activities

Research Question 1.5: Is employment among individuals subject to community engagement requirements sustained over time, including after separating from Medicaid?

Percentage of Beneficiaries Employed Continuously for a Year or More Since Enrollment or Implementation (Measure 1-9)	
Numerator/Denominator	Numerator: Number of beneficiaries in the denominator who are employed, 1 year or 2 years after enrollment or implementation. Denominator: Three denominators will be calculated. Number of beneficiaries who: (1) were already employed at enrollment or implementation, (2) gained employment in the first six months of enrollment or implementation, and (3) did not gain employment in the first six months of enrollment or implementation.
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase supports the hypothesis
Analytic Approach	Comparison of regression-adjusted means in employment 1- and 2-years post-enrollment among: 1) Those who were already employed at enrollment or implementation 2) Those who gained employment in the first six months of enrollment 3) Those who did not gain employment in the first six months of enrollment

Research Question 1.6: Does the community engagement requirement lead to better education outcomes?

Beneficiaries Reported Highest Grade or Level of Education Completed (Measure 1-10)	
Numerator/Denominator	Numerator: Beneficiaries reported highest grade or level of education completed Denominator: Number of respondents to highest grade or level of education completed survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group
Measure Steward	N/A
Data Source	• State beneficiary survey

Beneficiaries Reported Highest Grade or Level of Education Completed (Measure 1-10)	
	• IPUMS ACS
Desired Direction	An increase in the level of education supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Hypothesis 2—Medicaid beneficiaries subject to the community engagement requirement will have higher average income than Medicaid beneficiaries not subject to the requirement.

Research Question 2.1: Does the community engagement requirement increase income?

Average Monthly Earnings (Measure 2-1)	
Numerator/Denominator	Numerator: Beneficiaries monthly earnings as reported in Health-e-Arizona Plus (HEAplus) Denominator: Number of beneficiaries in intervention/comparison group
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	• Eligibility and income data • HEAplus
Desired Direction	An increase in earnings supports the hypothesis
Analytic Approach	• Regression discontinuity • Comparative interrupted time series • Difference-in-differences • Rapid cycle reporting – statistical process control chart

Average Beneficiary Reported Personal Income (Measure 2-2)	
Numerator/Denominator	Numerator: Beneficiaries reported personal income Denominator: Number of respondents to personal income survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group
Measure Steward	N/A
Data Source	• State beneficiary survey • IPUMS ACS, variable INCTOT
Desired Direction	An increase in income supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Hypothesis 3—Medicaid beneficiaries subject to the community engagement requirement will have a higher likelihood of transitioning to commercial health insurance after separating from Medicaid than Medicaid beneficiaries not subject to the requirement.

Research Question 3.1: Does the community engagement requirement lead to increased take-up of commercial insurance, including employer-sponsored insurance (ESI) and Marketplace plans?

Enrollment in Commercial Coverage Within One Year After Medicaid Disenrollment (Measure 3-1)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated gaining commercial coverage within one year after Medicaid disenrollment Denominator: Number of respondents to commercial coverage survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries with a Job That Offers ESI (Measure 3-2)	
Numerator/Denominator	Numerator: Number of respondents who indicated their job offers ESI Denominator: Number of respondents who are employed
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries with a Job That Offers ESI and Who Enroll in ESI (Measure 3-3)	
Numerator/Denominator	Numerator: Number of respondents who enroll in ESI Denominator: Number of respondents who are employed at a job that offers ESI (Measure 3-2 numerator)
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of ESI take-up among those offered and eligible for ESI

Research Question 3.2: Is new ESI coverage sustained over time after implementation of community engagement requirements?

Percentage of Beneficiaries who Still Have ESI Coverage 1 and 2 Years After Initial Take-up of ESI (Measure 3-4)	
Numerator/Denominator	Numerator: Number of respondents who remained in ESI coverage 1 and 2 years after initial take-up of ESI Denominator: Number of respondents who enrolled in ESI
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up

Percentage of Beneficiaries with Medicaid Coverage 1 and 2 Years After Initial Take-up of ESI (Measure 3-5)	
Numerator/Denominator	Numerator: Number of respondents who are enrolled in Medicaid 1 and 2 years after initial take-up of ESI Denominator: Number of respondents who enrolled in ESI
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up

Percentage of Beneficiaries Uninsured 1 and 2 Years After Initial Take-up of ESI (Measure 3-6)	
Numerator/Denominator	Numerator: Number of respondents who are uninsured 1 and 2 years after initial take-up of ESI Denominator: Number of respondents who enrolled in ESI
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of coverage at 1 and 2 years after initial ESI take-up

Research Question 3.3: Are beneficiaries with ESI able to pay premiums and meet other cost-sharing responsibilities such as deductibles and copayments?

Percentage of Beneficiaries with ESI Who Reported Problems Paying Insurance or Medical Bills (Measure 3-7)	
Numerator/Denominator	Numerator: Number of respondents who indicated problems paying premiums for insurance or medical bills Denominator: Number of respondents who enrolled in ESI
Comparison Population	N/A

Percentage of Beneficiaries with ESI Who Reported Problems Paying Insurance or Medical Bills (Measure 3-7)	
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of reported beneficiary cost sharing for former demonstration beneficiaries who transitioned to ESI

Reported Out-of-Pocket Medical Spending Among Beneficiaries with ESI (Measure 3-8)	
Numerator/Denominator	Numerator: Reported out-of-pocket medical spending among respondents to survey question Denominator: Number of respondents who enrolled in ESI
Comparison Population	N/A
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	Descriptive analysis of reported beneficiary cost sharing for former demonstration beneficiaries who transitioned to ESI

Research Question 3.4: Is the community engagement requirement associated with coverage losses (if people transition off Medicaid and do not enroll in commercial health insurance)?

Average Number of Months Beneficiaries Reported Being Uninsured (Measure 3-9)	
Numerator/Denominator	Numerator: Beneficiaries response to number of full months without insurance coverage Denominator: Number of respondents to full months without insurance survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in months uninsured supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Average Number of Months Uninsured (Measure 3-10)	
Numerator/Denominator	Numerator: Number of full months without insurance coverage Denominator: Number of beneficiaries in intervention/comparison group
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A

Average Number of Months Uninsured (Measure 3-10)	
Data Source	State tax data (1095B)
Desired Direction	A decrease in months uninsured supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Research Question 3.5: Are beneficiaries subject to the community engagement requirement more likely to lose eligibility due to increased income than beneficiaries not subject to the requirement?

Percentage of Beneficiaries Disenrolling from Medicaid Due to Income Exceeding Limit (Measure 3-11)	
Numerator/Denominator	Numerator: Number of full months without insurance coverage Denominator: Number of beneficiaries in intervention/comparison group
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	Eligibility and enrollment data
Desired Direction	N/A
Analytic Approach	• Comparative interrupted time series • Regression discontinuity • Difference-in-differences

Percentage of Non-Exempt AHCCCS Works Beneficiaries Losing Medicaid Eligibility per Month, by Discontinuance Category (Measure 3-12)	
Numerator/Denominator	Numerator: Number of beneficiaries who have a Medicaid eligibility end date within the month Denominator: Number of non-exempt AHCCCS Works beneficiaries
Comparison Population	N/A
Measure Steward	N/A
Data Source	Eligibility and enrollment data
Desired Direction	N/A
Analytic Approach	Rapid cycle reporting – statistical process control chart

Research Question 3.6: At what rates are beneficiaries subject to the community engagement requirement suspended due to noncompliance?

Percentage of Non-exempt AHCCCS Works Beneficiaries Suspended Due to Noncompliance Per Month (Measure 3-13)	
Numerator/Denominator	Numerator: Number of beneficiaries who were suspended from Medicaid during the month due to noncompliance Denominator: Number of non-exempt AHCCCS Works beneficiaries
Comparison Population	N/A

Percentage of Non-exempt AHCCCS Works Beneficiaries Suspended Due to Noncompliance Per Month (Measure 3-13)	
Measure Steward	N/A
Data Source	Eligibility and program monitoring data
Desired Direction	N/A
Analytic Approach	Rapid cycle reporting – statistical process control chart

Hypothesis 4—Current and former Medicaid beneficiaries subject to the community engagement requirement will have better health outcomes than Medicaid beneficiaries not subject to the requirement.

Research Question 4.1: Does the community engagement requirement lead to improved health outcomes?

Beneficiary Reported Rating of Overall Health (Measure 4-1)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall health rating in response to Consumer Assessment of Healthcare Providers and Systems (CAHPS®) question regarding overall health[D-1] Denominator: Number of respondents to overall health survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout • Out-of-state comparison group
Measure Steward	NCQA
Data Source	State beneficiary survey; Behavioral Risk Factors Surveillance System (BRFSS)
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Beneficiary Reported Rating of Overall Mental or Emotional Health (Measure 4-2)	
Numerator/Denominator	Numerator: Number of beneficiaries who indicated high overall mental or emotional health rating in response to CAHPS question regarding overall health Denominator: Number of respondents to overall mental or emotional health survey question
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	NCQA
Data Source	State beneficiary survey
Desired Direction	An increase in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

[D-1] CAHPS is a registered trademark of the Agency for Healthcare Research and Quality.

Percentage of Beneficiaries Who Reported Prior Year Emergency Room (ER) Visit (Measure 4-3)	
Numerator/Denominator	Numerator: Number of beneficiaries who reported ER visits during previous 12 months Denominator: Number of respondents to ER visit survey questions
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Percentage of Beneficiaries Who Reported Prior Year Hospital Admission (Measure 4-4)	
Numerator/Denominator	Numerator: Number of beneficiaries who reported overnight hospital stays during previous 12 months Denominator: Number of respondents to overnight hospital stay survey questions
Comparison Population	Similar members not subject to community engagement requirements • Beneficiaries above the eligibility threshold of age 49 • Beneficiaries from staged rollout
Measure Steward	N/A
Data Source	State beneficiary survey
Desired Direction	A decrease in the rate supports the hypothesis
Analytic Approach	• Regression discontinuity • Difference-in-differences

Hypothesis 6—Assessment of AHCCCS Works Implementation.

Research Question 6.1: What is the distribution of activities beneficiaries engage in to meet community engagement requirements? How have these changed over time?

Breakdown of Community Engagement Compliance by Category, Over Time (e.g., Monthly) (Measure 6-1)	
Numerator/Denominator	Numerator: Number of beneficiaries meeting community engagement criteria by category Denominator: Number of beneficiaries meeting community engagement criteria
Comparison Population	N/A
Measure Steward	N/A
Data Source	Compliance and monitoring data
Desired Direction	N/A
Analytic Approach	• Compare outcomes during first three months (i.e., orientation period) against outcomes for subsequent months • Rapid cycle reporting – statistical process control chart

Research Question 6.2: What are common barriers to compliance with community engagement requirements?

Beneficiaries' Reported Barriers to Community Engagement Compliance (Measure 6-2)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Beneficiary focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 6.3: Do beneficiaries report that they have the necessary support services to meet community engagement requirements?

Beneficiaries' Reported Support Services for Meeting Community Engagement Requirements (Measure 6-3)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	• Beneficiary focus groups • State beneficiary survey
Desired Direction	N/A
Analytic Approach	• Qualitative synthesis • Post-implementation trend analysis

Research Question 6.4: Do beneficiaries understand the requirements, including how to satisfy them and the consequences of noncompliance?

Beneficiaries' Reported Awareness of Community Engagement Requirements, How to Report Hours, and Consequences of Noncompliance (Measure 6-4)	
Numerator/Denominator	Numerator: N/A Denominator: N/A
Comparison Population	N/A
Measure Steward	N/A
Data Source	Beneficiary focus groups
Desired Direction	N/A
Analytic Approach	Qualitative synthesis

Research Question 6.5: How many beneficiaries are required to actively report their status, including exemptions, good cause circumstances, and qualifying activities (i.e. what is the reporting burden on beneficiaries)?

Number and Percentage of Beneficiaries Required to Actively Report Exemptions (Measure 6-5)	
Numerator/Denominator	Numerator: Number of beneficiaries who are actively reporting exemptions to AHCCCS Denominator: Number of exempt beneficiaries
Comparison Population	N/A
Measure Steward	N/A
Data Source	Compliance and monitoring data
Desired Direction	N/A
Analytic Approach	Post-implementation trend analysis

Number and Percentage of Beneficiaries Required to Actively Report Good Cause Circumstances (Measure 6-6)	
Numerator/Denominator	Numerator: Number of beneficiaries who are actively reporting good cause circumstances to waive suspension Denominator: Number of nonexempt beneficiaries
Comparison Population	N/A
Measure Steward	N/A
Data Source	Compliance and monitoring data
Desired Direction	N/A
Analytic Approach	Post-implementation trend analysis

Number and Percentage of Beneficiaries Required to Report Qualifying Activities (Measure 6-7)	
Numerator/Denominator	Numerator: Number of beneficiaries who are actively reporting qualifying activities Denominator: Number of beneficiaries in compliance
Comparison Population	N/A
Measure Steward	N/A
Data Source	Compliance and monitoring data
Desired Direction	N/A
Analytic Approach	Post-implementation trend analysis

Research Question 6.6: Are beneficiaries who are disenrolled for noncompliance with community engagement requirements more or less likely to re-enroll than beneficiaries who disenroll for other reasons?

Percentage of Beneficiaries Re-Enrolling in Medicaid After a Gap in Coverage of At Least 1 Month and 3 Months (Measure 6-8)	
Numerator/Denominator	Numerator: Number of beneficiaries who re-enroll in Medicaid Denominator: Number of beneficiaries with a gap in Medicaid coverage of at least 1 or 3 months.
Comparison Population	N/A
Measure Steward	N/A
Data Source	• Eligibility and enrollment data • Compliance and monitoring data

Percentage of Beneficiaries Re-Enrolling in Medicaid After a Gap in Coverage of At Least 1 Month and 3 Months (Measure 6-8)	
Desired Direction	N/A
Analytic Approach	Comparison of regression-adjusted probability of re-enrollment among AHCCCS Works beneficiaries who were: 1) Disenrolled for noncompliance 2) Disenrolled for reasons other than noncompliance

E. Beneficiary-Level Data Sources Reviewed

Numerous out-of-state sources of beneficiary-level data were considered for each evaluation design plan. Most data sources do not contain key data elements necessary for inclusion in the design plans. A description of these data sources and rationale for inclusion or exclusion is provided in the Comparison Populations—Out-of-State Comparison Groups section. There are two primary uses for each data source: (1) including the same survey questions in an Arizona member beneficiary survey conducted for this evaluation and utilizing the out-of-state data as a comparison group, or (2) utilizing the out-of-state data for both the intervention and comparison groups. There are significant limitations to either approach. Under the first approach, since the survey was not fielded during the baseline period, only a single, post-implementation data point would be included in the summative evaluation. This would not provide the basis from which to draw any causal inferences. Under the second approach, many of these data sources are limited by the absence of a state identifier (on public use data) and by a sufficient number of Arizona Medicaid respondents to generate sufficient statistical power for meaningful analysis without pooling multiple years together. Additionally, some data sources are limited in relevant health-related outcomes pertinent to the demonstration. Table E-1 provides a summary of each data source considered, its applicability, and its limitations.

Legend for Table E-1

	Subpopulation Identification	Outcomes Measures/Matching Factors
○	Not available	None
◔	Low approximation	Few weak variables
◑	Partial identification or approximation	Many weak variables
◕	Good approximation	Few strong variables
●	Highly accurate identification	Many strong variables

Table E-1: Summary of Data Sources Considered

Requirement	BRFSS	NHIS (National Health Interview Survey)	NHANES (National Health and Nutrition Examination Survey)	NSCH (National Survey of Children's Health)	MEPS (Medical Expenditure Panel Survey)	IPUMS-ACS	NSDUH (National Survey on Drug Use and Health)
Beneficiary Level	✓	✓	✓	✓	✓	✓	✓
Medicaid Indicator	✗	✓	✓	✗	✓	✓	✓
State	✓	✗	✗	✓	✗	✓	✗
Subpopulations							
Medicaid expansion (AW)	◑	◔	◑	○	◑	◑	○
Foster children (CMDP)	○	●	○	●	○	○	○
SMI adults (RBHA)	○	○	○	○	○	○	◑
DD/EPD (ALTCS)	○	◕	○	◕	◑	◔	○
High-risk BH (TI)	○	○	○	○	○	○	○
Relevant Outcomes/Measures	◕	●	◑	◕	●	◕	◑
Adjustment/Matching Factors	◑	◑	◑	●	●	◔	◔
Survey Administration Period	Annual	Annual	Annual	Annual	Annual	Annual	Annual
Survey Lag/Latest Year	2018	2018	2015-2016	2017	2017	2018	2018
Anticipated Medicaid sample sizes from most recent year	3,954 (Nationally)[1]	11,666 (Nationally)	2,474 (Nationally)	90 (Arizona)[2] 4,202 (Nationally)[2]	~8,400 (Nationally)	28,773 (Arizona)[2] 1,204,557 (Nationally)[2]	7,831 (Nationally)
Notes on Limitations for Use	Medicaid indicator is collected as part of an optional module. State participation varies year to year, and Arizona has not collected this information during relevant time period.	The state indicator is not provided as part of public use files.	During a single survey year, about 15 counties are selected out of approximately 3,100 counties in the United States. NHANES was not designed to produce regional or sub-regional estimates and no geographic data are released on the publicly available data files.	No indicator specifically for Medicaid.	The state indicator is not provided as part of public use files.		The state indicator is not provided as part of public use files.
Program Application	PQC, ACC	None	None	None	None	AW, PQC	None

[1]Anticipated Medicaid sample sizes are derived from responses from states which contained the optional Healthcare Access module

[2]Anticipated Medicaid sample sizes are derived from responses to a question pertaining to public health insurance coverage.

F. Methodological Considerations of COVID-19 Pandemic

Pandemic Methodology Adjustments

The coronavirus disease 2019 (COVID-19) pandemic in the United States began in approximately March 2020 and is ongoing at the time of drafting the evaluation design plan. The extent of the COVID-19 infection rate is geographically variable, both within Arizona, as well as across the United States. The rate of positive cases throughout Arizona according to the Arizona Department of Health Services is 759.3 per 100,000, with county-level rates varying from 125 per 100,000 in Greenlee County to 2,954 per 100,000 in Apache County.[F-1] According to the Centers for Disease Control and Prevention (CDC), within the Southwest region of the United States, Arizona has a demonstrably higher rate of COVID infection per 100,000 population, at 730.5, with comparisons rates per 100,000 of 439.4 (California), 442.7 (Nevada), 563.9 (Utah), 536.2 (Colorado) and 504.2 (New Mexico).[F-2] Additionally, social distancing and stay at home orders to curb the severity and intensity of the pandemic across state and local jurisdictions were enacted with variable timing across the United States and the Southwest region. Arizona's stay at home order took effect on March 31, 2020, while surrounding states enacted their order as early as March 19 (California), March 24 (New Mexico), March 26 (Colorado), March 27 (Utah), and April 1 (Nevada).[F-3]

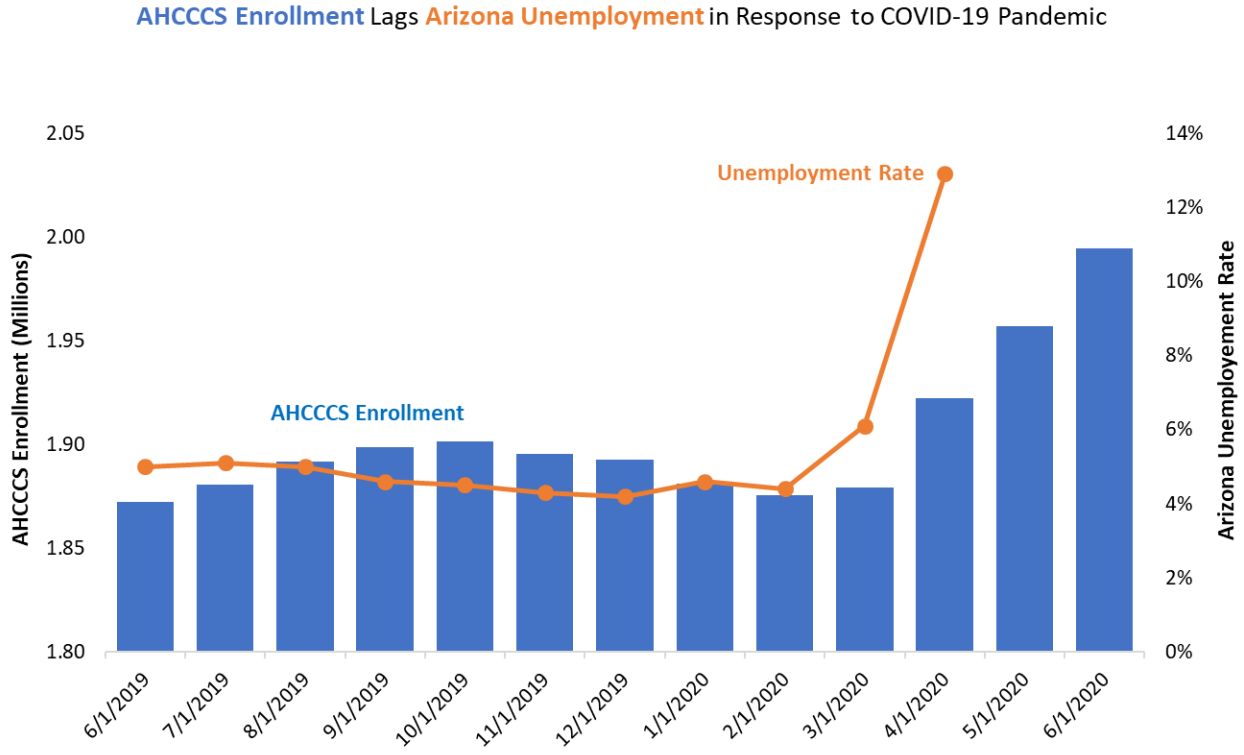
The scope and scale of the COVID-19 pandemic has already impacted the planned execution of some components of this design plan, and appears that it may continue to do so in the near future. Additionally, the pandemic forces the independent evaluator to consider methods that would allow the disentanglement of the Arizona Health Care Cost Containment System (AHCCCS) program impacts from results driven by COVID-19 or the policy response within Arizona and other states. The next section details the aspects of the COVID-19 pandemic that are most likely to impact the execution of data collection efforts. The subsequent section describes the methodological considerations would ideally be addressed in any study to disentangle program impacts from COVID impacts.

Impacts on Data Collection Efforts

The unprecedented loss of jobs and subsequent instability in the economy have resulted in a substantial increase in Medicaid enrollment. Figure F-1 shows the initial spike in unemployment followed by an increase in AHCCCS enrollment in the wake of COVID-19, as expected.

[F-1] Data obtained on June 22, 2020 from https://www.azdhs.gov/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/covid-19/dashboards/index.php.
[F-2] Data obtained on June 22, 2020 from https://www.cdc.gov/covid-data-tracker/index.html#cases.
[F-3] Data obtained on June 22, 2020 from https://www.nytimes.com/interactive/2020/us/coronavirus-stay-at-home-order.html.

Figure F-1: AHCCCS Enrollment and Unemployment



Source: AHCCCS Population by Category Report (June 2020); Arizona Office of Economic Opportunity. Unemployment rate is not seasonally adjusted for accurate comparison to AHCCCS enrollment.

The influx of members is consistent with a shift in demographics toward a more commercial base of members. This is not dissimilar to the increase in Medicaid enrollment following the 2008/2009 Great Recession, albeit on a substantially more compressed time frame. Furthermore, the increase in unemployment directly and indirectly results in lower state revenue through reduced state income tax and reduced sales tax due, in part to loss of jobs and economic hardship among consumers but also due to social distancing efforts and statewide stay-at-home orders. Therefore, the financial impact of COVID-19, while not directly tied to the evaluation of Arizona's demonstration, is important to factor into the evaluation particularly as it relates to the cost-effectiveness component.[F-4, F-5] Increased enrollments are likely to be tied to substantial shifts in the disease conditions and comorbidities of the Medicaid population during the pandemic, and to increase the demand on aggregate spending by AHCCCS. Additionally, to the extent that increases in enrollments are not met with concomitant increases in network capacity, there may be increased expenditures for care and barriers to the access and delivery of care that should be accounted for in the cost effectiveness analysis. To the extent that the increased spending is experienced

[F-4] For example, in order to assist providers in responding to the pandemic, AHCCCS advanced $41 million of provider incentive payments as part of the Targeted Investments program for disbursement in May 2020, ahead of the planned distribution in Fall 2020.

[F-5] "Arizona Medicaid Program Advances $41 Million in Provider Payments to Address COVID-19 Emergency." April 27, 2020. AHCCCS News Release, Available at: https://azahcccs.gov/shared/News/GeneralNews/AHCCCSAdvancesFortyOneMilProviderPayments.html. Accessed on: Jun 23, 2020.

by specific programs such as AHCCCS Complete Care (ACC), cost sustainability calculations will need to be adjusted to account for a denominator consistent with the non-pandemic population.

Beyond increasing Medicaid enrollments and expenditures, the COVID-19 pandemic is likely to impact the delivery of care in many direct ways. For example, social distancing efforts and stay at home orders have created a period during which the demand for many services were effectively reduced to near zero through interruptions in routine care. Second, managed care plans are likely to have experienced greater demand in handling increased enrollments and ensuring timely payment to contracted providers. Third, many program-specific strategies to assist with the integration of care may have been curtailed due to COVID-19. The combinations of the sustained increase in enrollment and delays or gaps in routine care may increase rate denominators while simultaneously decreasing numerators, leading to reduced performance measure rates.

Beneficiary surveys will also be impacted by the pandemic, both in terms of timing, and in potential responses. If, the beneficiary composition has changed or is not representative of a non-COVID Medicaid population then responses may not be generalizable. Additionally, beneficiaries may be impacted by disruptions in health care and their experience of care may be different than had they been surveyed either before COVID, or sufficiently after the impacts of COVID had dissipated. AHCCCS is planning on conducting a large-scale survey as part of its external quality review (EQR) contract in mid-2020, which will provide the independent evaluator an opportunity to leverage large sample sizes across many of the populations planned for surveys. The delay in fielding the survey; however, means that the data collected will be less proximate to the implementation of the AHCCCS programs being evaluated, and could result in rates that are less reflective of the experience of care associated with the AHCCCS programs, and more reflective of the experience of care during the COVID-19 pandemic.

While the COVID-19 pandemic will also impact provider focus groups and key informant interviews, the independent evaluator will follow the State's guidance on whether the State is comfortable proceeding with such data collection. The potential disruption among providers and key informants must be balanced alongside expedient data collection to minimize recall bias on several important programs. For example, one important aspect of the evaluation is to assess stakeholders' perspectives regarding the integration of care that took place under ACC, which, as of the drafting of this evaluation design plan, occurred approximately 21 months ago. Additional significant delays in qualitative data collection will worsen not only the recollection of key informants but also the reliability of contact information for individuals who may have left the organization(s).

The COVID-19 pandemic has already exerted an arguably substantial force on the State of Arizona, its health care system, and its Medicaid population. In an ideal evaluation, the independent evaluator would be able to control for many of these issues during the analysis. The ability to do so in the current context of AHCCCS' Section 1115 Waiver evaluation will be dependent on the availability of data, and how long the pandemic may be extended by multiple waves of infections throughout the United States. The next section provides details on potential methodological tools that could be used to disentangle program impacts from COVID-19 impacts.

Impacts on Methodology

Lacking random assignment to treatments, the evaluation approached outlined in this evaluation design plan represents a number of strong quasi-experimental designs, including propensity score matching (PSM) with difference-in-differences (DiD) regression, interrupted time series (ITS) analysis, and regression discontinuity (RD) models. One of the strongest quasi-experimental designs, PSM with DiD, makes use of a matched comparison group of Medicaid members that are similar to those receiving treatment under the various AHCCCS programs in terms of demographics, disease conditions, and comorbidities. For programs that were implemented across their respective populations of eligible members in Arizona (e.g., ACC, Regional Behavioral Health Authority [RBHA], Comprehensive Medical and Dental Program [CMDP], Arizona Long Term Care System

[ALTCS], and Prior Quarter Coverage [PQC]), no eligible comparison group realistically exists within the State. An eligible population could therefore be drawn from another state, provided specific criteria were met. Ideally, the comparison state would have Medicaid members demographically similar to Arizona; a Medicaid system that was similar to Arizona in terms of eligibility, enrollment, and pre-integration policies and programs; a COVID-19 infection rate or likely infection rate (accounting for differentials in testing) comparable to Arizona; and have had a state policy response to COVID-19 that was similar to Arizona. This combination of factors represents a particularly difficult challenge to surmount in identifying an eligible comparison group. The independent evaluator continues to work toward identifying states that could be suitable candidates, either individually or combined and weighted to better reflect Arizona's unique characteristics for inclusion in the evaluation, under the assumption that data will be available if such a comparator state or states are identified.

In addition to identifying eligible populations of members from other states that can suitably serve as counterfactuals to the AHCCCS treatment populations, several analytic tools can be used to attempt to disentangle the impact of COVID-19 from the impacts of the AHCCCS programs.

For measures that utilize monthly data points, months in which COVID-19 was expected to impact outcomes may be removed from the analysis. This analysis can serve as a robustness test, identifying how sensitive the conclusions are to the inclusion or exclusion of the COVID-19 months. If such a difference is identified, the independent evaluator will need to explore the data further to understand the detailed nature of the results, and ascertain the mechanisms by which the removal of the COVID-19 months makes a difference in results.

As an alternative to removing COVID-19 months, controls may be used to assess the severity and/or duration of effects from the pandemic. Measures such as monthly case counts, intensive care unit (ICU) utilization, or monthly unemployment rates could serve as potential instrumental variables to control for the impact of COVID-19. To the extent that eligible comparison group members are drawn from different states, this approach could be confounded by the differential preparedness of states to respond to the COVID-19 pandemic, as well as their differential policy responses.

For measures that do not utilize monthly data points, results for calendar year ending (CYE) 2020 and possibly CYE 2021 may be excluded or evaluated separately. Ideally, a comparison group would be used to support an analytic approach such as DiD. The choice of time frames to exclude, and ultimate impact on the statistical power of the data and model used will depend, in large part, on how long the impacts of the COVID-19 pandemic continue into the future.

Finally, results may be stratified by geography, age, race/ethnicity and other demographic factors to assess the external validity of differential responses to demonstration policies that may be influenced by the pandemic. To the extent that COVID-19 impacts were differentially experienced by subgroups of the Medicaid populations being evaluated, the independent evaluator could assess the impact of AHCCCS programs on stratified subgroups, controlling for COVID-19. All results will be interpreted in context of the pandemic and its likely impact on outcomes using both theory and similar outcomes from other states and/or national benchmarks where possible.

While each of the approaches outlined is seated in standard quasi-experimental design methods, many rely on the strong assumption of having valid and reliable data available for the populations and measures of interest. Furthermore, as the COVID-19 pandemic continues, and Arizona continues to worsen as of June 22, 2020, it is unclear how long the pandemic will impact outcomes for beneficiaries receiving services through AHCCCS and its managed care plans and providers. To the extent that data is available, and the COVID-19 pandemic is limited in time, the independent evaluator will have an increased chance to isolate program effects from pandemic effects. The longer that the pandemic impacts are drawn out over time, the more difficult it will be to disentangle program impacts from pandemic impacts. The evaluation reports will describe any deviations from the written design plan or other adjustments and modifications necessary to account for the impact of the pandemic on the evaluation.