MEDICAID 1115 DEMONSTRATION AND SUBSTANCE USE DISORDER WAIVER EVALUATION DESIGN PLAN

CENTENNIAL CARE 2.0 — 11W 00285/6

JANUARY 9, 2020

State of New Mexico Human Services Department
Medical Assistance Division

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A
GENERAL BACKGROUND INFORMATION

HISTORY AND OVERVIEW

In 2013, prior to the introduction of New Mexico's 1115 demonstration waiver, approximately 520,000 individuals, more than a quarter of the state's population, received health care through the Medicaid program. At that time, New Mexico sought to improve the Medicaid system to address the following challenges:

- An administratively complex program operating under 12 separate federal waivers in addition to a fee-for-service program for those who either opted out of or were exempt from managed care.
- A fragmented program, with seven different health plans administering different benefit packages for defined populations, making it difficult for individuals, providers, and managed care organizations (MCOs) to manage complex medical and behavioral conditions.
- A system that paid for the quantity of services delivered without emphasis on the quality of care that was being delivered.
- An expensive program, consuming about 16% of the state budget, up from 12% the previous year.

Since launching the Centennial Care Program in January 2014, New Mexico's goals for reforming Medicaid have been to:

- Assure that Medicaid beneficiaries in the program receive the right amount of care, delivered at the right time and in the right setting.
- Ensure that the care and services being provided are measured in a manner that will improve quality and not solely reimbursed based on quantity.
- Show the growth rate of costs or "bend the cost curve" over time without reductions in benefits, eligibility or provider rates.
- Streamline and modernize the Medicaid program.

New Mexico's Section 1115 demonstration waiver, commonly referred to as the Centennial Care program featured an integrated, comprehensive Medicaid delivery system in which the member's

MCO was responsible for coordinating the member's full array of services: acute care (including pharmacy), behavioral health services, institutional service and home- and community-based services (HCBS). The original Section 1115 waiver was effective through December 2018 when an extension of the waiver was requested and approved by the Center for Medicare and Medicaid Services. In the extension of the demonstration, known as Centennial Care 2.0, the goals, as stated above for the original waiver, continue to be in place. The extension allows New Mexico to continue to advance initiatives begun under the previous demonstration while implementing new, targeted initiatives to address specific gaps in care and improve healthcare outcomes for its most vulnerable members.

As of February 2019, 831,398 members were enrolled in the Medicaid program. Centennial Care 2.0 became effective January 1, 2019 and will build on the strengths of Centennial Care 1.0 while supporting improvements to achieve four aims:

- Continue the use of appropriate services by members to enhance member access to services and quality of care.
- Manage the pace at which costs are increasing while sustaining or improving quality, services, eligibility and provider rates.
- Streamline processes and modernize the Centennial Care health delivery system through use of data, technology and a member focus.
- Improve access to, and quality of, treatment for Medicaid beneficiaries with Substance Use Disorder (SUD).

Initiatives to improve SUD services will ensure the appropriate level of treatment is provided, increase the availability of medication assisted treatment (MAT), and enhance coordination between levels of care. In addition, New Mexico will launch new supportive housing services for individuals with serious mental illness.

The need to address substance disorders in New Mexico is based on statistics that exceed those of the nation and the impact of SUD on the health of members in Medicaid[1]:

- Over the past 30 years, New Mexico has consistently had among the highest alcohol-related death rates in the United States;

[1] New Mexico Substance Use Epidemiology Profile, December 2018. https://nmhealth.org/data/view/substance/2201/

- New Mexico's rate of death due to alcohol-related chronic disease was more than twice the national rate in 2017. American Indians, both male and female, and Hispanic males have extremely high rates;
- Alcohol related injury deaths were 1.6 times the national average in 2016;
- In the reporting period 2012-2016, drug overdoses surpassed alcohol related motor vehicle traffic crashes;
- Unintentional drug overdoses account for almost 86% of drug overdose deaths with the most common drugs accounting for deaths in descending order being prescription opioids, benzodiazepines, cocaine and methamphetamines;
- New Mexico had the seventeenth highest drug overdose death rate in the nation;
- Opioid overdose related emergency department (ED) visits increased by 51% in New Mexico between 2013 and 2017;
- The negative consequences of excessive alcohol use in New Mexico are not limited to death but also include domestic violence, crime, poverty, and unemployment as well as chronic liver disease, motor vehicle crash and other injuries, mental illness and a variety of other medical problems.

New Mexico has made significant advances in recent years in services to both prevent and treat opioid use disorder (OUD) and SUD, halting the increasing overdose trend from the highest rate among states to 17th[2], however, high substance use and related health consequences require more aggressive intervention that the waiver will support. Initiatives to improve SUD services will ensure the appropriate level of treatment is provided, increase the availability of MAT and enhance coordination between levels of care.

DEMONSTRATION APPROVAL

The New Mexico "Centennial care 2.0 Medicaid 1115 Demonstration" renewal, was approved on December 14, 2018, became effective January 1, 2019 and will continue through December 31, 2023 (five years).

DESCRIPTION OF THE DEMONSTRATION

This waiver renewal builds upon the Centennial Care program's accomplishments and maximizes opportunities for targeted improvements and other modifications in key areas such as care

[2] https://www.nmpharmacy.org/resources/2018%2006%2023%20-%20NMPhA%20Law%20Update.pdf

coordination, benefit and delivery system refinements, payment reform, member engagement and administrative simplification. Improvements and modifications to the program include:

- Refining care coordination to better meet the needs of high-cost, high-need members, especially during transitions in settings of care;
- Continuing to expand access to Long-Term Services and Supports (LTSS) and maintain the progress achieved in rebalancing efforts;
- Improving the integration of behavioral and physical health services, with greater emphasis on other social factors that impact population health and improving the continuum of care for SUDs;
- Expanding payment reform through value-based purchasing (VBP) arrangements to achieve improved quality and better health outcomes;
- Building upon and incorporating policies that seek to enhance members' ability to become more active participants in their own health care

The demonstration extension will provide home visiting services focusing on prenatal care, post-partum care and early childhood development as well as enhanced services for SUD.

Rationale for including home visitation is based on research that show that home-visitation programs positively impact maternal, prenatal and postnatal care and infant care. The results from research involving Medicaid members receiving maternal and infant healthcare, such as a study in Michigan, provide strong evidence for the effectiveness of a Medicaid-sponsored population-based home-visitation program in improving maternal prenatal and postnatal care and infant care[3].

Rationale for emphasis on SUDs and improving the integration of behavioral and physical health services, is based on research and evidence based practice. Research reported by Ritchie and Roser suggests that "the transition from intermittent or regular use toward addiction and relapse are most strongly influenced by a mixture of stress response, environmental factors, genetic predisposition to addiction and importantly the drug-induced effects which often create a cycle of addiction and relapse." The Ritchie/Roser article also relates mental health as a risk factor for SUD postulating that a person with a mental health condition is 1.1 to 6.3 times more likely to develop a SUD. ADHD, bipolar disorder, intermittent explosive disorder, and PTSD are among the top diagnoses signaling risk.

[3] Maghea, C.Ci, Raffo, J.E., Zhu, Q, and Roman, L (2013). Medicaid home visitation and maternal and infant healthcare utilization. American Journal of Preventive Medicine 45(4), October 2013, 441-447.

For these reasons New Mexico's 1115 waiver extension improves the continuum of SUD services with an implementation plan that includes:

- Treatment of co-occurring mental health conditions with a primary diagnosis of SUD;
- A focus on the integration of SUD screening in physical health provider locations;
- The introduction of behavioral health counselors in primary care agencies, and primary care practitioners in behavioral health agencies; and
- Interdisciplinary teaming with the Medicaid beneficiary and his/her natural supports to treat not only the person with the SUD, but also the family or natural support system.

POPULATION IMPACTED

Table 1 represents the eligibility groups currently served in Centennial Care. As of February 2019, New Mexico's Medicaid program covered 831,398 individuals, with approximately 700,000 enrolled in Centennial Care. Since the end of 2013, New Mexico's Human Services Department, Medical Assistance Division has enrolled more than 390,000 new individuals into the program, with the largest growth attributed to the Medicaid adult expansion program.

Table 1 – Eligibility Groups Covered in Centennial Care

POPULATION GROUP	POPULATIONS
TANF and Related	• Newborns, infants and children • Children's Health Insurance Program • Foster children • Adopted children • Pregnant women • Low income parent(s)/caretaker(s) and families • Breast and Cervical Cancer • Refugees • Transitional Medical Assistance
SSI Medicaid	• Aged, blind, and disabled • Working disabled
SSI Dual Eligible	• Aged, blind, and disabled • Working disabled
Medicaid Expansion	• Adults between 19 – 64 years old up to 133% of MAGI

The following populations are excluded from Centennial Care:

- Qualified Medicare Beneficiaries;
- Specified Low Income Medicare Beneficiaries;
- Qualified Individuals;
- Qualified Disabled Working Individuals;
- Non-citizens only eligible for emergency medical services;
- Program of All-inclusive Care for the Elderly;
- Individuals residing in ICF/IIDs;
- Medically Fragile 1915(c) waiver participants for HCBS;
- Developmentally Disabled 1915(c) waiver participants for HCBS;
- Individuals eligible for family planning services only; and
- Mi Via 1915 (c) Waiver participants for HCBS.

B
EVALUATION QUESTIONS AND HYPOTHESES

EVALUATION FRAMEWORK INTRODUCTION

The evaluation of the New Mexico 1115 Demonstrative Waiver renewal will utilize a mixed-methods evaluation design with three main goals:

1. Describe the progress made on specific waiver-supported activities (process/implementation evaluation);

2. Demonstrate change/accomplishments in the waiver; and

3. Demonstrate progress in meeting the overall project goals/aims.

Evaluation methods will include descriptive statistics showing change over time in both counts and rates for specific metrics and interrupted time series analysis to assess the degree to which the timing of waiver interventions affect changes across specific outcome measures.

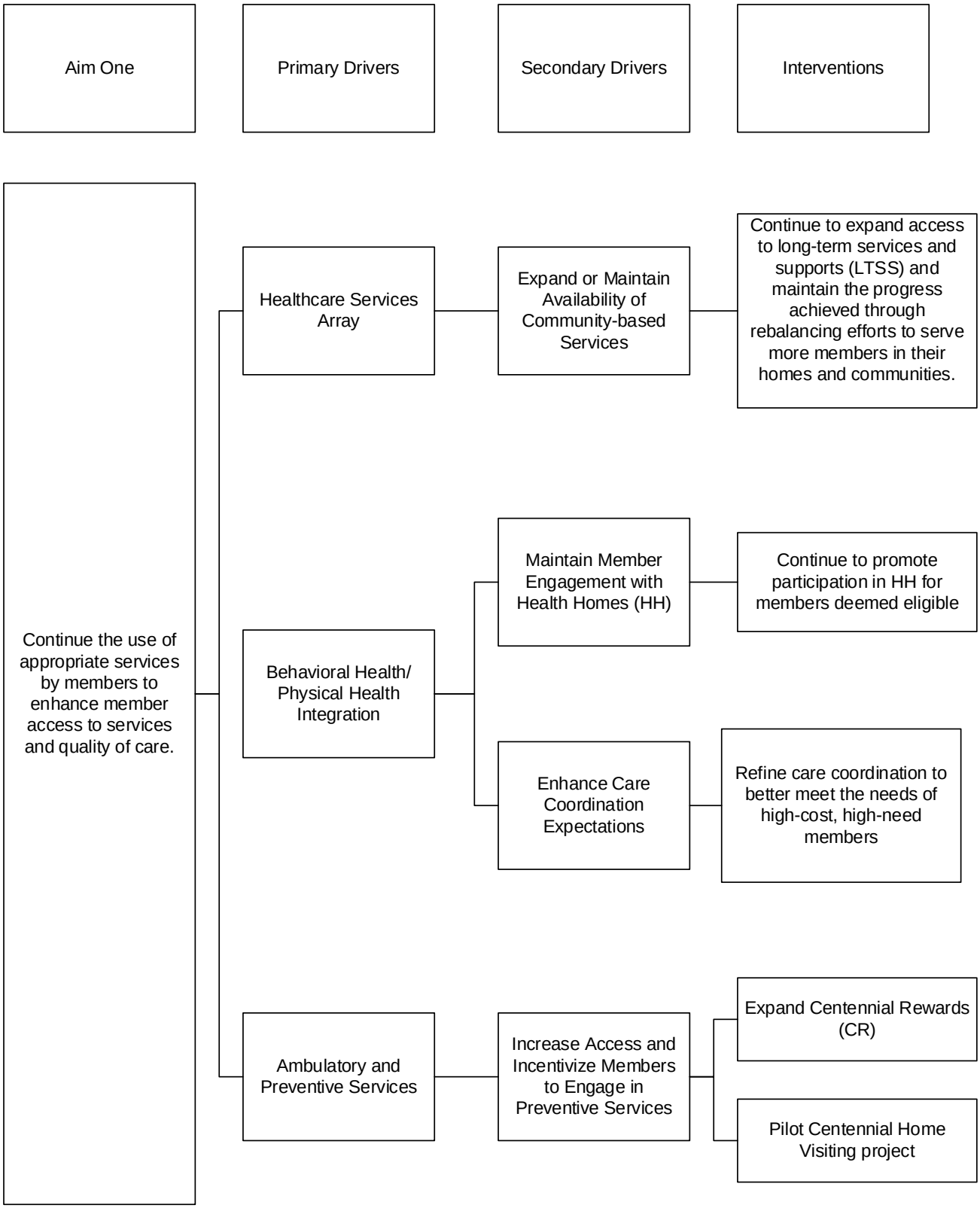
TARGETS FOR IMPROVEMENT

PROGRAM OBJECTIVES	QUANTIFIABLE TARGET
Assure that Medicaid members in the program receive the right amount of care, delivered at the right time and in the right setting. Ensure that the care and services being provided are measured in terms of their quality and not solely by quantity.	I. Continue the use of appropriate services by members to enhance member access to services and quality of care.
Slow the growth rate of costs or “bend the cost curve” over time without inappropriate reductions in benefits, eligibility or provider rates.	II. Manage the pace of cost increases while sustaining or improving quality, services, and eligibility.
Streamline and modernize the Medicaid program in the State of New Mexico.	III. Streamline processes and modernize the Centennial Care health delivery system through use of data, technology and person-centered care.
Ensure members have access to high quality, evidence-based OUD and other SUD treatment services ranging from medically supervised withdrawal management to ongoing chronic care for these conditions in cost-effective settings.	IV. Improve access to, and quality of treatment for Medicaid beneficiaries with SUD.

DRIVER DIAGRAMS, RESEARCH QUESTIONS AND HYPOTHESES

The program aims represent the goals of the waiver. The primary drivers represent concepts related to the aims which lead to strategic initiatives (secondary drivers) put into action through interventions. The driver diagrams below present the connections between the interventions, initiatives, healthcare concepts and program goals.

Evaluation questions and hypotheses for each aim were derived from and organized based on the Driver Diagrams below. The overall aims of the project are to: 1) Continue the use of appropriate services by members and to enhance member access to services and quality of care; 2) Manage the pace at which costs are increasing while sustaining or improving quality, services, eligibility and provider rates; 3) Streamline processes and modernize the Centennial Care health delivery system through use of data, technology and person centered care; 4) Improve quality of care and outcomes for Medicaid beneficiaries with SUD. To accomplish these goals, the demonstration includes several key activities and interventions to maintain current levels or improve performance and health outcomes for Centennial Care 2.0 members. The hypotheses were developed based on the potential for improvement, the ability to measure performance (including baseline measurement) and, where appropriate, use of comparison groups to isolate the effects of the Demonstration and interventions.


Aim One
Primary Drivers
Secondary Drivers
Interventions
Continue the use of appropriate services by members to enhance member access to services and quality of care.
Healthcare Services Array
Expand or Maintain Availability of Community-based Services
Continue to expand access to long-term services and supports (LTSS) and maintain the progress achieved through rebalancing efforts to serve more members in their homes and communities.
Behavioral Health/ Physical Health Integration
Maintain Member Engagement with Health Homes (HH)
Continue to promote participation in HH for members deemed eligible
Enhance Care Coordination Expectations
Refine care coordination to better meet the needs of high-cost, high-need members
Ambulatory and Preventive Services
Increase Access and Incentivize Members to Engage in Preventive Services
Expand Centennial Rewards (CR)
Pilot Centennial Home Visiting project

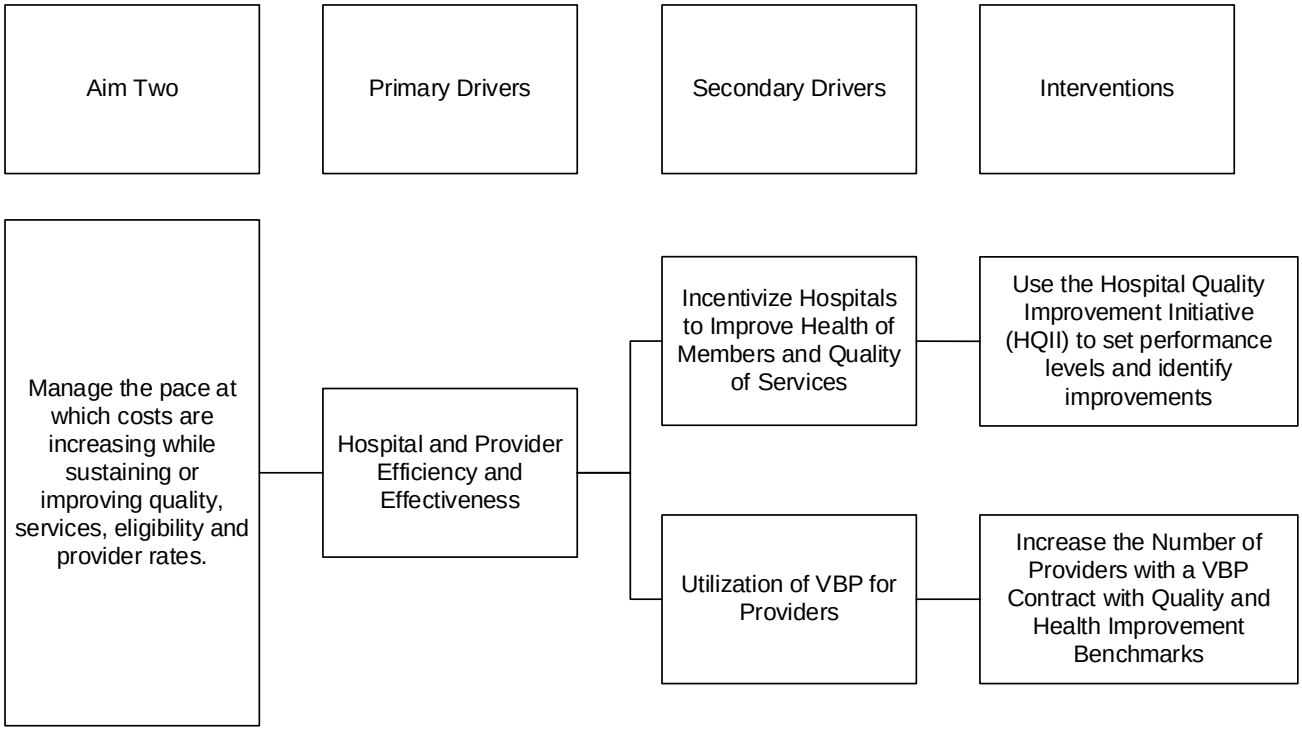
Aim One: Continue the use of appropriate services by members to enhance member access to services and quality of care.

PRIMARY DRIVER: HEALTHCARE SERVICES ARRAY
Hypothesis 1: Continuing to expand access to LTSS and maintaining the progress achieved through rebalancing efforts to serve more members in their homes and communities will maintain the number of members accessing Community Benefit (CB) services.
Q1: Has the number of members accessing CB services been maintained year-over-year?
PRIMARY DRIVER: BEHAVIORAL HEALTH/PHYSICAL HEALTH INTEGRATION
Hypothesis 2: Promoting participation in a health home will result in increased member engagement with the Health Home and increase access to integrated physical and behavioral health care in the community.
Q1: Is there an increase in the number/percentage of members enrolled in a Health Home?
Q2: Is the proportion of members engaged in a Health Home receiving any PH services higher than those not engaged in a Health Home?
Hypothesis 3: Enhanced care coordination supports integrated care interventions, which lead to higher levels of access to preventative/ ambulatory health services
Q1: Is there an increase in Centennial Care members who have at least one claim for preventative/ambulatory care in a year?
Q2: Does engagement in a Health Home result in beneficiaries receiving more ambulatory/ preventative health services?
Hypothesis 4: Engagement in a Health Home and care coordination support Integrative care interventions, which improve quality of care.
Q1: To what extent is Health Home engagement associated with improved disease management?
Q2: Does Health Home engagement result in increased follow up after hospitalization for mental illness?
PRIMARY DRIVER: PREVENTIVE SERVICES
Hypothesis 5: Expanding member access to and incentives for preventative care through the Centennial Home Visitation (CHV) pilot program and Centennial Rewards (CR) will encourage members to engage in preventative care services
Q1: Has the percentage of Centennial Care members participating in CR increased?
Q2: Are CR incentive redeeming members likely to receive more preventative/ ambulatory services on an annual basis than those who have not redeemed incentives in the 12 month period following the initial redemption?
Q3: Does use of CR encourage members to improve their health and make healthy choices?

PRIMARY DRIVER: HEALTHCARE SERVICES ARRAY

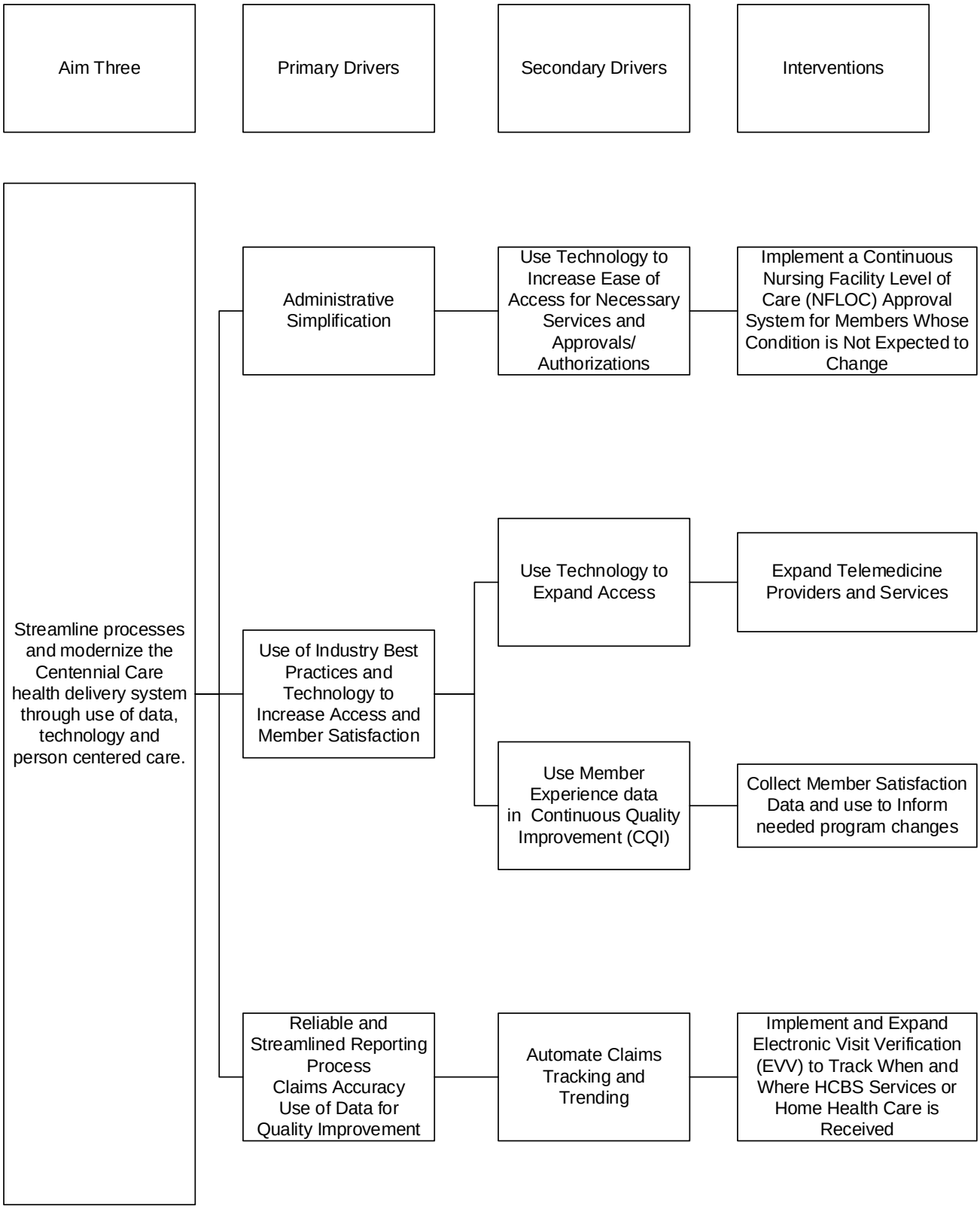
Q4: Is the percentage of babies born with low birth weight (< 2,500 grams[4]) to mothers participating in the CHV pilot program lower than the percentage of low birth weight babies born to Medicaid mothers who do not participate in the CHV pilot program?

[4] Specifications from the Medicaid Child Core Set.



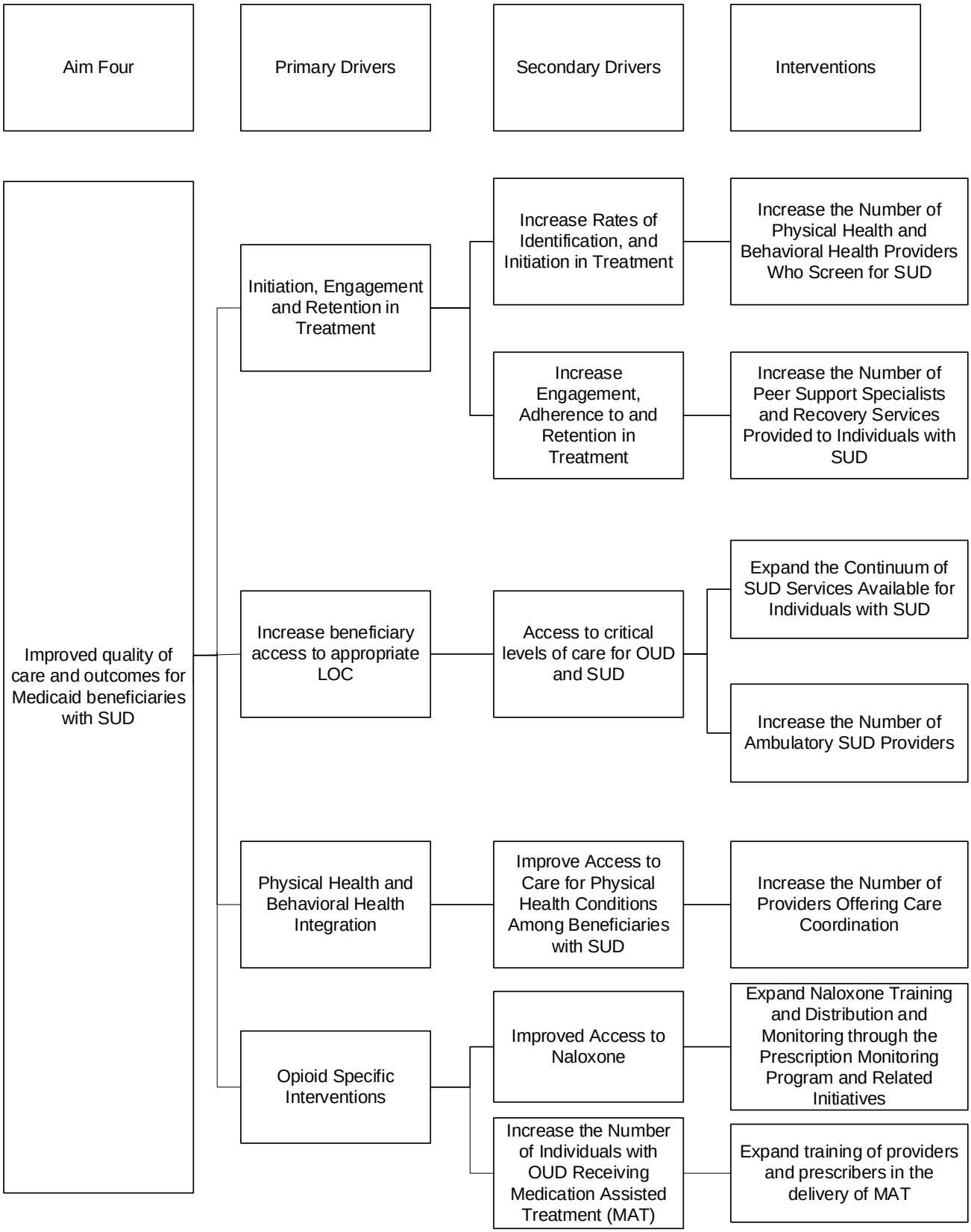
Aim Two: Manage the pace at which costs are increasing while sustaining or improving quality, services and eligibility.

PRIMARY DRIVER: HOSPITAL AND PROVIDER EFFICIENCY AND EFFECTIVENESS
Hypothesis 1: Incentivizing hospitals to improve health of members and quality of services and increasing the number of providers with VBP contracts will manage costs while sustaining or improving quality.
Q1: Has the number of providers with VBP contracts increased?
Q2: Has the number of providers participating in VBP arrangements, who meet quality metric targets increased?
Q3: Has the amount paid in VBP arrangements increased?
Q4: Has reported performance of Domain 1 measures in the Safety Net Care Pool (SNCP) Hospital Quality Improvement Program been maintained or improved?
Q5: Do cost trends align with expected reimbursement and benefit changes?


Aim Three
Primary Drivers
Secondary Drivers
Interventions
Streamline processes and modernize the Centennial Care health delivery system through use of data, technology and person centered care.
Administrative Simplification
Use Technology to Increase Ease of Access for Necessary Services and Approvals/ Authorizations
Implement a Continuous Nursing Facility Level of Care (NFLOC) Approval System for Members Whose Condition is Not Expected to Change
Use of Industry Best Practices and Technology to Increase Access and Member Satisfaction
Use Technology to Expand Access
Expand Telemedicine Providers and Services
Use Member Experience data in Continuous Quality Improvement (CQI)
Collect Member Satisfaction Data and use to Inform needed program changes
Reliable and Streamlined Reporting Process
Claims Accuracy
Use of Data for Quality Improvement
Automate Claims Tracking and Trending
Implement and Expand Electronic Visit Verification (EVV) to Track When and Where HCBS Services or Home Health Care is Received

Aim Three: Streamline processes and modernize the Centennial Care health delivery system through use of data, technology and person-centered care.

PRIMARY DRIVER: ADMINISTRATIVE SIMPLIFICATION
Hypothesis 1: The Demonstration will relieve administrative burden by implementing a continuous Nursing Facility Level of Care approval with specific criteria for members whose condition is not expected to change over time.
Q1: Has the number of continuous NFLOC approvals increased during the Demonstration?
PRIMARY DRIVER: USE OF INDUSTRY BEST PRACTICES AND TECHNOLOGY TO INCREASE ACCESS AND MEMBER SATISFACTION
Hypothesis 2: The use of technology and CQI processes align with increased access to services and member satisfaction.
Q1: Has the number of telemedicine providers increased during Centennial Care 2.0?
Q2: Has the number of unduplicated members with a telemedicine visit increased during Centennial Care 2.0?
Q3: Has member satisfaction increased during Centennial Care 2.0?
PRIMARY DRIVER: RELIABLE AND STREAMLINED REPORTING PROCESS, CLAIMS ACCURACY, USE OF DATA FOR QUALITY IMPROVEMENT
Hypothesis 3: Implementation of EVV is associated with increased accuracy in reporting services rendered.
Q1: Has the number of claims submitted through EVV increased?
Q2: Has the proportion of paid or unpaid hours retrieved due to false reporting decreased?


Aim Four
Primary Drivers
Secondary Drivers
Interventions
Improved quality of care and outcomes for Medicaid beneficiaries with SUD
Initiation, Engagement and Retention in Treatment
Increase Rates of Identification, and Initiation in Treatment
Increase the Number of Physical Health and Behavioral Health Providers Who Screen for SUD
Increase Engagement, Adherence to and Retention in Treatment
Increase the Number of Peer Support Specialists and Recovery Services Provided to Individuals with SUD
Increase beneficiary access to appropriate LOC
Access to critical levels of care for OUD and SUD
Expand the Continuum of SUD Services Available for Individuals with SUD
Increase the Number of Ambulatory SUD Providers
Physical Health and Behavioral Health Integration
Improve Access to Care for Physical Health Conditions Among Beneficiaries with SUD
Increase the Number of Providers Offering Care Coordination
Opioid Specific Interventions
Improved Access to Naloxone
Expand Naloxone Training and Distribution and Monitoring through the Prescription Monitoring Program and Related Initiatives
Increase the Number of Individuals with OUD Receiving Medication Assisted Treatment (MAT)
Expand training of providers and prescribers in the delivery of MAT

Aim Four: Improved quality of care and outcomes for Medicaid beneficiaries with SUD.

PRIMARY DRIVER: INITIATION, ENGAGEMENT AND RETENTION IN TREATMENT
Hypothesis 1: The demonstration will increase the number of providers that provide SUD screening, which will result in an increase in the number of individuals screened and the percentage of individuals who initiate treatment for Alcohol and Other Drug (AOD) Dependence Treatment.
Q1: Did the number of Behavioral Health and Physical Health providers who screen beneficiaries for SUD increase?
Q2: Did the number of individuals screened for SUD increase?
Q3: Has the percentage of individuals with SUD who received any SUD related service increased?
Q4: Did the percentage of individuals who initiated AOD treatment increase?
Hypothesis 2: The demonstration will increase peer support services which will result in more individuals engaging in and retained in AOD Dependence Treatment.
Q1: Has the percentage of individuals with a SUD diagnosis who received peer support services increased?
Q2: Does receiving peer support increase the percentage of individuals engaged in AOD treatment?
Q3: Does receiving peer support increase the treatment tenure for individuals receiving AOD treatment?
Q4: Does receiving peer support increase the treatment tenure for MAT for OUD?
PRIMARY DRIVER: INCREASE BENEFICIARY ACCESS TO APPROPRIATE LEVEL OF CARE
Hypothesis 3: The Demonstration will improve access to a comprehensive continuum of SUD care which will result in decreased utilization of ED and inpatient hospitalization and SUD inpatient readmissions.
Q1: Has the continuum of services available for individuals with SUD expanded in terms of which services are available?
Q2: Has capacity for ambulatory SUD services increased?
Q3: Has the utilization of EDs by individuals with SUD decreased?
Q4: Has the utilization of inpatient hospital settings for SUD related treatment decreased?
Q5: Has the utilization of inpatient hospital settings for withdrawal management decreased?
Q6: Have inpatient SUD readmissions decreased for individuals with SUD diagnoses?
Q7: Have increasing trends in total cost of care been slowed for individuals with SUD diagnoses?
Q8: Have SUD costs for individuals with SUD diagnoses changed proportionally as expected with increased identification and engagement in treatment?

PRIMARY DRIVER: PHYSICAL HEALTH AND BEHAVIORAL HEALTH INTEGRATION
Hypothesis 4: The Demonstration will Increase the number of individuals with fully delegated care coordination which includes screening for co-morbid conditions, which will result in increased utilization for physical health conditions.
Q1: Has the percentage of individuals diagnosed with SUD receiving care coordination increased?
Q2: Has the number of individuals with SUD receiving preventive health care increased?
PRIMARY DRIVER: OPIOID SPECIFIC INTERVENTIONS
Hypothesis 5: Hypothesis 5: The Demonstration will Increase use of naloxone, MAT and enhanced monitoring and reporting of opioid prescriptions through the prescription monitoring program, which will result in fewer overdose deaths due to opioid use.
Q1: Has there been an expansion of naloxone distribution and training?
Q2: Has the number of providers using MAT services increased?
Q3: Has the number of individuals with SUD receiving MAT increased?
Q4: Is there evidence of enhanced policies and practices related to the prescription monitoring program, real time prescription monitoring program updates, member/provider lock-in programs and limits/edits at pharmacy points-of-sale?
Q5: Is there a decrease in the number of deaths due to overdose?

C
METHODOLOGY

EVALUATION DESIGN

The evaluation design of the 1115 demonstration waiver will utilize a mixed-methods evaluation design. Quantitative methods will include descriptive statistics showing change over time in both counts and rates for specific metrics, interrupted time series analysis to assess the degree to which the timing of waiver interventions effect changes across specific outcome measures, and logistic regression to study characteristics of waiver intervention participants. Where possible, comparison groups will be used to demonstrate that effects are likely due to the waiver demonstration. For some evaluation questions, a comparison group may be possible. The research tables below describe the comparison group, if any, that will be used to answer each question. In some cases, a valid comparison group cannot be used, given the lack of a comparable population not targeted by the intervention for whom data is available. This occurs for interventions that will be implemented for all members throughout the state simultaneously. Where possible, national and regional benchmarks will be used for comparison for those measures for which data are available (e.g. HEDIS measures). Qualitative evaluation methods will include review of policy guides and provider education and outreach.

TARGET AND COMPARISON POPULATIONS

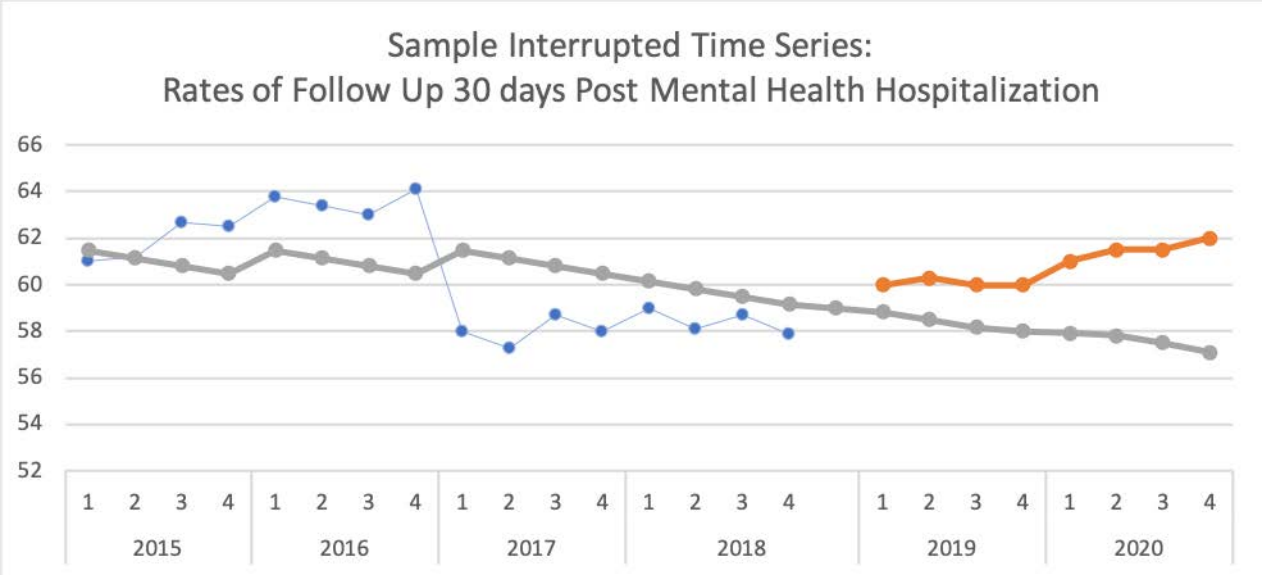
The target populations for the hypotheses in Aims 1 through 4 are managed care Centennial Care 2.0 members, subgroups of managed care members receiving the demonstration interventions and providers serving Centennial Care members.

Within Aims 1 through 3, the specific member subgroups to be studied include: long-term care members, LTSS members enrolled in CB (approximately 25,000), members enrolled in Health Homes (approximately 2,300), members receiving fully delegated care coordination from VBP contracted providers, members engaged in the CR program (approximately 313,000 participating, approximately 57,000 redeeming rewards), and members enrolled in the CHV pilot program (approximately 100 in three participating counties). Provider subgroups to be studied include: SNCP Hospital Quality Improvement incentivized hospitals, and providers with VBP contracts.

Within Aim 4, specific member subgroups to be studied are Centennial Care members with a SUD diagnosis (approximately 93,800), and members with a SUD diagnosis that are receiving MAT (approximately 77,000). The subgroup of members receiving peer support/recovery services is approximately 600. Providers serving members with a SUD diagnosis will also be studied.

The evaluation design does not include a treatment and a control group. That is, there is not a group of managed care members who would be eligible for the waiver interventions but who will not receive them based on random assignment. There are waiver programs (e.g. CHV Pilot) that do

allow for comparisons between groups. These groups are based on member self-selection, not randomization. The interrupted time series design will link events during the evaluation period, forecasting the trajectory of counts and rates over time, without any program changes and comparing this forecast to actual changes over time. To strengthen this design as many data points pre- and post- waiver implementation will be collected as possible across multiple years preceding waiver changes. A graphic example of an interrupted time series is below. While the dates for which certain measures are available vary, the overall evaluation design will examine the period from 2013 (one year prior to implementation of Centennial Care 1.0) through 2023 (the end of the demonstration). This will allow for adjustment of seasonal or other, cyclical variations in the data. Additionally, the design will examine multiple change points, identifying key areas of major program and policy adjustments, so that with each accomplishment (i.e. improved access to and quality of treatment, improved health outcomes, etc.), corresponding changes to metrics can be observed. Comparison groups will be matched to demonstration participants based on key individual characteristics (demographics, diagnoses, prior utilization) and geographic location (e.g. urban vs. rural residence).



EVALUATION PERIOD

The evaluation period is January 1, 2014 through December 31, 2023. The Final Evaluation Report analysis will allow for six months run out of encounter data; analysis will focus on the Centennial Care 2.0 period (2019 – 2023). Results across this time period will be included in the Draft Summative Evaluation Report due to CMS by June 30th, 2025. Draft interim results derived from a portion of this evaluation period, January 1, 2019 through December 2021 (with six months run out of encounter data) will be reported in the Draft Interim Evaluation Report due to CMS on December 31, 2022.

EVALUATION MEASURES AND DATA SOURCES

The evaluation design and evaluation measures are based on data sources that provide valid and reliable data that will be readily available throughout the Demonstration and final evaluation. To determine if data to be used for the evaluation are complete and accurate, an independent evaluator will review the quality and completeness of data sources (including but not limited to encounters for pharmacy, professional and facility services as well as eligibility data). Example analyses the evaluator will use to determine reliability and accuracy of encounter data include, but are not limited to: referential integrity, lag triangles, frequency reports, valid values, missing values, date and numerical distributions duplicates, and encounter to cost report comparisons.

Consistent with recommendations in the CMS State Toolkit for Validating Medicaid Managed Care Encounter Data (August 2019) HSD currently has a comprehensive standardized reporting framework for the Centennial Care program quarterly and annual MCO financial reports that:

- Are specific to the Centennial Care program;
- Include comprehensive instructions, including detailed service categorization criteria;
- Are specific to each program (physical health (PH), behavioral health (BH), LTSS);
- Align with capitation rate structure (e.g., cohort and service category);
- Include monthly lag reports by date of service and date of payment by program and service category grouping;
- Capture paid claim amounts separate from estimated amounts for unpaid claims liability and separate from amounts for payments made outside the MCO's claims system;
- Capture MCO paid amounts for sub-capitated services separate from services paid on a fee-for-service basis;
- Capture medical expenses separate from non-medical/administrative expenses;
- Require MCOs to explain differences identified in the encounter/financial comparison report;
- Are reconciled to the MCO's audited financials; and
- Require a certification statement to be submitted with each report that's signed by the MCO's CFO or CEO attesting that the information submitted in the financial reports is current, complete, and accurate.

As often as possible, measures in the evaluation have been selected from nationally recognized measure stewards for which there are strict data collection processes and audited results. Information from additional data sources, such as the Department of Health, Office of the Medical

Investigator, Hospital Associations, and Pharmacy Boards will be assessed for completeness and accuracy to the best of the ability of the independent evaluator and based on State knowledge of the provider community and experience in New Mexico.

The following tables state the primary drivers, hypotheses, describe both process (implementation) and outcome measures for the evaluation, the measure steward (if applicable), defines the numerators and denominators where appropriate, the types of data (quantitative or qualitative) and the data sources.

Aim One: Continue the use of appropriate services by members to enhance member access to services and quality of care.

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Primary Driver: Healthcare services array						
Hypothesis 1: Continuing to expand access to LTSS and maintaining the progress achieved through rebalancing efforts to serve more members in their homes and communities will maintain the number of members accessing CB services.						
Q1: Has the number of members accessing CB services been maintained year-over-year?	• Number of Centennial Care members enrolled and receiving CB services.	N/A	Number of LTSS-eligible Centennial Care members enrolled and receiving CB services.	N/A	Medical Management Information System (MMIS)	Descriptive time series analysis. 2013-2023 Annual
Primary Driver: Behavioral health/physical health integration						
Hypothesis 2: Promoting participation in a Health Home will result in increased member engagement with a Health Home and increase access to integrated physical and behavioral health care in the community.						
Q1: Is there an increase in the number/ percentage of members enrolled in a Health Home?	• Number/percentage of Centennial Care members enrolled in a Health Home	N/A	Number of Centennial Care members enrolled in a Health Home.	Number of all eligible Centennial Care members	MMIS	Descriptive time series analysis 2015 (baseline) - 2023 Annual

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q2. Is the proportion of members engaged in a Health Home receiving any PH services higher than those not engaged in a Health Home?	• Number of Health Home members with at least 1 claim for PH service in the CY (confirm this time period)	N/A	**Treatment group:** Centennial Care members enrolled in a Health Home with at least 1 claim for PH service in the CY.	**Treatment group:** Centennial Care members enrolled in a Health Home.	MMIS	Interrupted time series analysis with comparison group 2015 (baseline) - 2023 Annual
			Comparison group: Centennial Care members not enrolled in a Health Home (matched) with at least 1 claim for PH service in the CY.	**Comparison group:** Centennial Care members not enrolled in a Health Home (matched).		
Hypothesis 3: Enhanced care coordination supports integrated care interventions, which lead to higher levels of access to preventative/ ambulatory health services						
Q1: Is there an increase in Centennial Care members who have at least one claim for preventative/ ambulatory care in a year?	Adults' access to preventive/ ambulatory health services (AAP). • The percentage of members 20 years and older who had an ambulatory or preventive care visit. The total rate will be reported; reporting	NCQA	Centennial Care members 20 years and older who had an ambulatory or preventive care visit	Centennial Care members 20 years and older	MMIS	Interrupted time series analysis 2015 (baseline) - 2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
	will not be stratified by age.					
	Children and adolescents' access to primary care practitioners (CAP). • The percentage of members 12 months–19 years of age who had a visit with a PCP.	NCQA	Centennial Care members 12 months–19 years of age who had a visit with a PCP.	Centennial Care members 12 months–19 years of age.	MMIS	Interrupted time series analysis 2015 (baseline) - 2023 Quarterly
	Well-child visits in the third, fourth, fifth and sixth years of life (W34). • The percentage of members 3–6 years of age who had one or more well-child visits with a PCP during the measurement year.	NCQA	Centennial Care members 3–6 years of age who had one or more well-child visits with a PCP during the measurement year.	Centennial Care members 3–6 years of age.	MMIS	Interrupted time series analysis 2015 (baseline) - 2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q2: Does engagement in a Health Home result in beneficiaries receiving more ambulatory/ preventative health services?	Adults' access to preventive/ ambulatory health services (AAP). • The percentage of Health Home members 20 years and older who had an ambulatory or preventive care visit. The total rate will be reported; reporting will not be stratified by age.	NCQA	**Treatment group:** Centennial Care members 20 years and older enrolled in a Health Home who had an ambulatory or preventive care visit.	**Treatment group:** Centennial Care members 20 years and older enrolled in a Health Home.	MMIS	Interrupted time series analysis with comparison group 2015 (baseline)-2023 Quarterly
			Comparison group: Centennial Care members 20 years and older not enrolled in a Health Home (matched) who had an ambulatory or preventive care visit.	**Comparison group:** Centennial Care members 20 years and older not enrolled in a Health Home (matched)		
	Children and adolescents' access to primary care practitioners (CAP). • The percentage of Health Home members 12 months–19 years of	NCQA	**Treatment group:** Centennial Care members 12 months – 19 years of age enrolled in a Health Home who had an ambulatory or preventive care visit.	**Treatment group:** Centennial Care members 12 months – 19 years of age enrolled in a Health Home.	MMIS	Interrupted time series analysis with comparison group 2015 (baseline)-2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
	age who had a visit with a PCP.		**Comparison group:** Centennial Care members 12 months – 19 years of age not enrolled in a Health Home (matched) who had an ambulatory or preventive care visit.	**Comparison group:** Centennial Care members 12 months - 19 years of age not enrolled in a Health Home (matched)		
Hypothesis 4: Engagement in a Health Home and care coordination support integrative care interventions, which improve quality of care.						
Q1: To what extent is Health Home engagement associated with improved disease management?	Diabetes screening for members with schizophrenia or bipolar disorder who are using antipsychotic medications (SSD). • The percentage of Health Home members 18 – 64	NCQA	**Treatment group:** Members in the treatment group denominator who were dispensed an antipsychotic medication and had a diabetes screening test during the measurement year.	**Treatment group:** Centennial Care members 18 – 64 years of age with SMI (schizophrenia or bipolar disorder) enrolled in a Health Home.	MMIS	Interrupted time series analysis with comparison group 2015 (baseline) - 2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
	years of age with schizophrenia or bipolar disorder, who were dispensed an antipsychotic medication and had a diabetes screening test during the measurement year.		**Comparison group:** Members in the comparison group denominator who were dispensed an antipsychotic medication and had a diabetes screening test during the measurement year.	**Comparison group:** Centennial Care members 18 – 64 years of age with SMI (schizophrenia or bipolar disorder) not enrolled in a Health Home (matched).		
	Anti-depressant medication management (AMM) Effective Acute Phase Treatment • The percentage of Health Home members 18 years of age and older who were treated with antidepressant	NCQA	**Treatment group:** Members in the treatment group denominator who remained on an antidepressant medication treatment for at least 84 days.	**Treatment group:** Centennial Care members 18 years of age and older enrolled in a Health Home who were treated with antidepressant medication, had a diagnosis of major depression.	MMIS	Interrupted time series analysis with comparison group 2015 (baseline) - 2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
	medication, had a diagnosis of major depression and who remained on an antidepressant medication treatment for at least 84 days (12 weeks).		**Comparison group:** Members in the comparison group denominator who remained on an antidepressant medication treatment for at least 84 days.	**Comparison group:** Centennial Care members 18 years of age and older not enrolled in a Health Home (matched) who were treated with antidepressant medication, had a diagnosis of major depression.		
	Anti-depressant medication management (AMM) Effective Continuation Phase Treatment • The percentage of Health Home members 18 years of age and older who were treated with antidepressant medication, had a	NCQA	**Treatment group:** Members in the treatment group denominator who remained on an antidepressant medication treatment for at least 180 days.	**Treatment group:** Centennial Care members 18 years of age and older enrolled in a Health Home who were treated with antidepressant medication, had a diagnosis of major depression.	MMIS	Interrupted time series analysis with comparison group 2015 (baseline) - 2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
	diagnosis of major depression and who remained on an antidepressant medication treatment for at least 180 days (6 months).		**Comparison group:** Members in the comparison group denominator who remained on an antidepressant medication treatment for at least 180 days.	**Comparison group:** Centennial Care members 18 years of age and older not enrolled in a Health Home (matched) who were treated with antidepressant medication, had a diagnosis of major depression.		
Q2: Does Health Home engagement result in increased follow up after hospitalization for mental illness?	7 – day follow up after hospitalizations for mental illness (FUH). • The percentage of discharges for members 6 years of age and older who were hospitalized for treatment of selected mental illness diagnoses	NCQA	**Treatment group:** Members in the treatment group denominator who had a follow-up visit with a mental health practitioner within 7 days after discharge.	**Treatment group:** Centennial Care members 6 years of age and older enrolled in a Health Home who were hospitalized for treatment of selected mental illness diagnoses.	MMIS	Interrupted time series analysis with comparison group 2015 (baseline)-2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
	and who had a follow-up visit within 7 days after discharge.		**Comparison group:** Members in the comparison group denominator who had a follow-up visit with a mental health practitioner within 7 days after discharge.	**Comparison group:** Centennial Care members 6 years of age and older not enrolled in a Health Home (matched) who were hospitalized for treatment of selected mental illness diagnoses.		
	30 – day follow up after hospitalizations for mental illness (FUH). • The percentage of discharges for members 6 years of age and older who were hospitalized for treatment of selected mental	NCQA	**Treatment group:** Members in the treatment group denominator who had a follow-up visit with a mental health practitioner within 30 days after discharge.	**Treatment group:** Centennial Care members 6 years of age and older enrolled in a Health Home who were hospitalized for treatment of selected mental illness diagnoses.	MMIS	Interrupted time series analysis with comparison group 2015 (baseline)-2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
	illness diagnoses and who had a follow-up visit within 30 days after discharge.		**Comparison group:** Members in the comparison group denominator who had a follow-up visit with a mental health practitioner within 30 days after discharge.	**Comparison group:** Centennial Care members 6 years of age and older not enrolled in a Health Home (matched) who were hospitalized for treatment of selected mental illness diagnoses.		
Primary Driver: Preventive services						
Hypothesis 5: Expanding member access to and incentives for preventative care through the CHV pilot program and CR will encourage members to engage in preventative care services						
Q1: Has the percentage of Centennial Care members participating in CR increased?	Percentage of CC members participating in CR.	N/A	Centennial Care members participating in CR. A participating member would be someone who has engaged (i.e. registered) and has earned points.	Total number of enrolled Centennial Care members	MMIS Finity	Descriptive time series. 2013-2023

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q2: Are CR incentive redeeming members likely to receive more preventative/ ambulatory services on an annual basis than those who have not redeemed incentives in the 12 month period following the initial redemption?	Percentage of CR participating members with an annual preventive/ ambulatory service.	N/A	**Treatment group:** Centennial Care members redeeming rewards with preventative/ ambulatory services in the 12-month period following the initial redemption.	**Treatment group:** Centennial Care members redeeming CR rewards during the calendar year.	MMIS & Finity	Interrupted time series analysis with comparison group. 2013-2023 Annual
			Comparison group: CC members not redeeming rewards with preventative/ ambulatory services in the 12-month period (matched with members redeeming rewards).	**Comparison group:** Centennial Care members not redeeming CR rewards during the calendar year (matched)		
Q3: Does use of CR encourage members to improve their health and make healthy choices?	Percent of CR users responding positively on satisfaction survey to question regarding if the program helped to improve their health and make healthy choices.	N/A	Number of CR user satisfaction survey respondents answering yes to question: Has the program helped to improve your health? Number of CR use satisfaction survey answering yes to	Number of CR user satisfaction survey respondents	Finity Satisfaction Survey data	Descriptive time series analysis 2018-2023

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
			question: Do rewards encourage you to make healthy choices?			
Q4: Is the percentage of babies born with low birth weight (< 2,500 grams[5]) to mothers participating in the CHV pilot program lower than the percentage of low birth weight babies born to Medicaid mothers who do not participate in the CHV pilot program?	Live births weighing less than 2,500 grams (low birth weight).	Centers for Disease Control and Prevention	**Treatment group:** Number of resident live births in the treatment denominator weighing less than 2,500 grams (low birth weight). **Comparison group:** Number of resident live births in the comparison denominator weighing less than 2,500 grams (low birth weight).	**Treatment group:** Number of resident live births in the state in the reporting period who are CHV pilot participants. **Comparison group:** Number of resident live births in the state in the reporting period who are non-CHV pilot participants (matched).	MMIS	Interrupted time series analysis with comparison group. 2018-2023 Annual Benchmark Comparison: Eligible CHV birth outcome with national benchmarks

[5] Specifications from the Medicaid Child Core Set.

Aim Two: Manage the pace at which costs are increasing while sustaining or improving quality, services and eligibility.

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Primary Driver: Hospital and provider efficiency and effectiveness						
Hypothesis 1: Incentivizing hospitals to improve health of members and quality of services and increasing the number of providers with VBP contracts will manage costs while sustaining or improving quality.						
Q1: Has the number of providers with VBP contracts increased?	Total number of providers with VBP contracts.	N/A	Centennial Care providers with VBP contracts.	N/A	MCO Report	Descriptive time series (annual) using CY2018 as baseline year.
Q2: Has the number of providers participating in VBP arrangements, who meet quality metric targets increased?	Number/ percentage of providers meeting quality threshold.	N/A	Centennial Care providers with VBP contracts who meet quality metric targets.	Centennial Care providers with VBP contracts.	MCO Report	Descriptive time series analysis. 2019 - 2023
Q3: Has the amount paid in VBP arrangements increased?	Percentage of total payments that are for providers in VBP arrangements	N/A	Total payments to Centennial Care providers with VBP contracts	Total payments to Centennial Care providers	MCO Report	Descriptive time series analysis. Jan 2017 - 2023

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q4: Has reported performance of Domain 1 measures in the SNCP Hospital Quality Improvement Program been maintained or improved?	Percentage of qualified Domain 1 SNCP Hospital Quality Incentive measures that have maintained or improved their reported performance rates over the previous year.	N/A	Number of Domain 1 SNCP Hospital Quality Incentive measures that have maintained or improved the reported performance rate.	Number of Domain 1 SNCP Hospital Quality Incentive performance measures.	DOH HIT, NM Hospital Association	Descriptive time series (annual) using CY2018 as baseline year with control chart.
Q5: Do cost trends align with expected reimbursement and benefit changes?	Cost per member trend.	N/A	Total cost of Centennial Care	Centennial Care managed care members.	MMIS CMS Report 64	Descriptive time series (annual) with control chart; using CY2013 as baseline year.
	Cost per user trend.	N/A	Total cost of Centennial Care	Centennial Care managed care users.	MMIS CMS Report 64	Descriptive time series (annual) with control chart; using CY2013 as baseline year.

Aim Three: Streamline processes and modernize the Centennial Care health delivery system through use of data, technology and person-centered care.

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Primary Driver: Administrative simplification						
Hypothesis 1: The Demonstration will relieve administrative burden by implementing a continuous Nursing Facility Level of Care (NFLOC) approval with specific criteria for members whose condition is not expected to change over time.						
Q1: Has the number of continuous NFLOC approvals increased during the Demonstration?	Number of continuous NFLOC approvals.	N/A	Number of continuous NFLOC approvals for Centennial Care members eligible for LTSS.	N/A	MCO Report	Descriptive time series analysis. 2018 (baseline) – 2023 Quarterly
Primary Driver: Use of industry best practices and technology to increase access and member satisfaction						
Hypothesis 2: The use of technology and CQI processes align with increased access to services and member satisfaction.						
Q1: Has the number of telemedicine providers increased during Centennial Care 2.0?	Number of telemedicine providers.		Number of Centennial Care telemedicine providers.	N/A	MCO Report	Descriptive time series. 2013 – 2023 Annually

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q2: Has the number of unduplicated members with a telemedicine visit increased during Centennial Care 2.0?	Number of members receiving telemedicine services.	N/A	Number of unduplicated Centennial Care members with a telemedicine visit.	N/A	MMIS	Descriptive time series. 2013 – 2023 Quarterly
Q3: Has member satisfaction increased during Centennial Care 2.0?	Member rating of health care.	NCQA CAHPS	Composite score CAHPS survey that reflects overall satisfaction with health care for Centennial Care members.	Number of Centennial Care CAHPS respondents rating overall satisfaction with health care.	CAHPS	Interrupted time series. 2014 – 2023 Annually
	Member rating of health plan.	NCQA	Composite score that reflects satisfaction with health plan for Centennial Care members.	Number of Centennial Care CAHPS respondents rating satisfaction with health plan.	CAHPS	Descriptive time series. 2014 – 2023 Annually
	Member rating of personal doctor.	NCQA	Composite score that reflects satisfaction with personal doctor for Centennial Care members.	Number of Centennial Care CAHPS respondents rating satisfaction with personal doctor.	CAHPS	Descriptive time series. 2014 – 2023 Annually
Primary Driver: Reliable and streamlined reporting process, claims accuracy, use of data for quality improvement						
Hypothesis 3: Implementation of electronic visit verification (EVV) is associated with increased accuracy in reporting services rendered.						

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q1: Has the number of claims submitted through EVV increased?	Number of claims submitted through EVV.	N/A	Number of Centennial Care claims submitted through EVV.	N/A	MCO Report	Descriptive time series. 2018 (baseline) – 2023 Quarterly
Q2: Has the proportion of paid or unpaid hours retrieved due to false reporting decreased?	Percent of paid or unpaid hours retrieved due to false reporting.	N/A	Number of paid or unpaid hours retrieved due to false reporting.	Centennial Care claims paid and unpaid hours reported	MCO Report	Descriptive time series. 2018 (baseline) – 2023 Quarterly

Aim Four: Improved quality of care and outcomes for Medicaid beneficiaries with SUD.

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Primary Driver: Initiation, engagement and retention in treatment						
Hypothesis 1: The demonstration will increase the number of providers that provide SUD screening, which will result in an increase in the number of individuals screened and the percentage of individuals who initiate treatment for AOD dependence treatment.						
Q1: Did the number of Behavioral Health and Physical Health providers who screen beneficiaries for SUD increase?	Number of providers who provide SUD screening.	N/A	Number of Centennial Care Physical Health and Behavioral Health providers who provide SUD screening	N/A	MMIS	Descriptive time series analysis. 2018 -2023 Quarterly
Q2: Did the number of individuals screened for SUD increase?	Number of individuals screened for SUD.	N/A	Centennial Care members screened for SUD	N/A	MMIS	Descriptive time series analysis. 2018 -2023 Quarterly
Q3: Has the percentage of individuals with SUD who received any SUD related service increased?	Percentage of individuals with a SUD diagnosis who received any SUD service during the measurement year.	N/A	Centennial Care Individuals with a SUD diagnosis who received any SUD service during the measurement year	Centennial Care Individuals with a SUD diagnosis	MMIS	Descriptive time series analysis. 2018 -2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q4: Did the percentage of individuals who initiated AOD treatment increase?	Initiation of AOD Abuse or Dependence Treatment (IET). • The percentage of members who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth or MAT within 14 days of diagnosis.	NCQA	Centennial Care individuals with SUD diagnosis who initiate AOD treatment through an inpatient admission, outpatient visit, telemedicine, intensive outpatient encounter or partial hospitalization or MAT within 14 days of the IESD.	Centennial Care adolescent and adult members (13 years and older) with a new episode of AOD abuse or dependence.	MMIS	Interrupted time series analysis. 2018 -2023 Quarterly National or other state benchmarks change over time
Hypothesis 2: The demonstration will increase peer support services which will result in more individuals engaging in and retained in AOD Dependence Treatment.						

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q1: Has the percentage of individuals with a SUD diagnosis who received peer support services increased?	Percentage of individuals with a SUD diagnosis who received peer support.	N/A	Centennial Care members with a SUD diagnosis who receive peer support.	Centennial Care members with a SUD diagnosis.	MMIS	Interrupted time series analysis. 2018-2023 Quarterly
Q2: Does receiving peer support increase the percentage of individuals engaged in AOD treatment?	Engagement of AOD Abuse or Dependence Treatment (IET) • The percentage of members who initiated treatment and who had two or more additional AOD services or MAT within 34 days of the initiation visit.	NCQA	Centennial Care adolescent and adult members (13 years and older), with SUD diagnosis, receiving peer support, who initiated treatment and who had two or more additional AOD services or MAT within 34 days of the initiation visit.	Centennial Care adolescent and adult members (13 years and older) with a new episode of AOD abuse or dependence.	MMIS	Interrupted time series analysis. 2018 -2023 Quarterly National or other state benchmarks change over time
Q3: Does receiving peer support increase the treatment tenure for individuals receiving AOD treatment?	Average Length of Stay (ALOS).	N/A	Average Length of Stay for Centennial Care individuals with SUD in AOD treatment, receiving peer support.		MMIS	Interrupted time series analysis. 2018 -2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q4: Does receiving peer support increase the treatment tenure for MAT for OUD?	Continuity of Pharmaco-therapy for OUD. USC	USC	Individuals in the denominator who have at least 180 days of continuous pharmacotherapy with a medication prescribed for OUD without a gap of more than seven days.	Centennial Care members 18-64 years of age who had a diagnosis of OUD and at least one claim for an OUD medication.	MMIS	Interrupted time series analysis. 2018 -2023 Quarterly
Primary Driver: Increase beneficiary access to appropriate level of care						
Hypothesis 3: The Demonstration will improve access to a comprehensive continuum of SUD care which will result in decreased utilization of ED and inpatient hospitalization and SUD inpatient readmissions.						
Q1: Has the continuum of services available for individuals with SUD expanded in terms of which services are available?	Continuum of services available.[6]	N/A	Centennial Care continuum of care.	N/A	BHSD GeoMap reports, MCO Report	Descriptive data analysis. 2018-2023

[6] SBIRT, and other screening, HH, peer support, recovery services, CCSS, crisis stabilization, outpatient, intensive outpatient, partial hospitalization, MAT, residential, inpatient, pharmacy services, supported housing and transitional living services.

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q2: Has capacity for ambulatory SUD services increased?	Number of providers and capacity for ambulatory SUD services.	N/A	Number of Centennial Care providers and capacity for SUD services.	N/A	MMIS and MCO Report	Interrupted time series analysis. 2018 -2023 Quarterly
Q3: Has the utilization of EDs by individuals with SUD decreased?	Percentage of ED visits of individuals with SUD diagnoses.	N/A	Number of ED visits of Centennial Care members with a SUD diagnosis.	ED visits for Centennial Care members.	MMIS	Interrupted time series analysis. 2018 -2023 Quarterly
Q4: Has the utilization of inpatient hospital settings for SUD related treatment decreased?	Percentage of Inpatient admissions for SUD related treatment.		Inpatient admissions for SUD related treatment for Centennial Care members.	Inpatient admissions for Centennial Care members.	MMIS	Interrupted time series analysis. 2018 -2023 Quarterly
Q5: Has the utilization of inpatient hospital settings for withdrawal management decreased?	Percentage of Inpatient admissions of individuals with SUD for withdrawal management.	N/A	Inpatient admissions of individuals with SUD for withdrawal management for Centennial Care members.	Inpatient admissions of individuals with SUD for Centennial Care members.	MMIS	Descriptive time series analysis. 2018 -2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q6: Have inpatient SUD readmissions decreased for individuals with SUD diagnoses?	7 and 30 day inpatient and residential SUD readmission rates	N/A	7-day inpatient and residential readmission rates for Centennial Care users discharged with SUD diagnosis and readmitted with SUD diagnosis. 30-day inpatient and residential readmission rates for Centennial Care users discharged with SUD diagnosis. and readmitted with SUD diagnosis.	Unique Centennial Care Inpatient with discharge diagnosis of SUD diagnosis.	MMIS	Interrupted time series analysis. 2018 -2023 Quarterly
Q7: Have increasing trends in total cost of care been slowed for individuals with SUD diagnoses?	Total and PMPM cost (medical, behavioral and pharmacy) for members with SUD diagnosis.	N/A	Total cost (medical, behavioral and pharmacy) for Centennial Care members with SUD diagnosis	Number of Centennial Care members (and member months) with SUD diagnosis	MMIS	Descriptive time series analysis. 2018 -2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
	Total and PMPM costs (medical, behavioral and pharmacy) for members with SUD diagnosis by SUD source of care	N/A	Total cost (medical, behavioral and pharmacy) for Centennial Care members with SUD diagnosis by source of care	Number of Centennial Care members (and member months) with SUD diagnosis	MMIS	Descriptive time series analysis. 2018 -2023 Quarterly
Q8: Have SUD costs for individuals with SUD diagnoses changed proportionally as expected with increased identification and engagement in treatment?	Total and PMPM cost for SUD services for members with SUD diagnosis	N/A	Total SUD service cost for Centennial Care members with SUD diagnosis	Number of Centennial Care members (and member months) with SUD diagnosis	MMIS	Descriptive time series analysis. 2018 -2023 Quarterly
	Total and PMPM cost for SUD services by type of care (IP, OP, RX, etc.)	N/A	Total SUD service cost for Centennial Care members with SUD diagnosis by type of care (IP, OP, RX, etc.)	Number of Centennial Care members (and member months) with SUD diagnosis	MMIS	Descriptive time series analysis. 2018 -2023 Quarterly
Primary Driver: Physical health and behavioral health integration						
Hypothesis 4: The Demonstration will Increase the number of individuals with fully delegated care coordination which includes screening for co-morbid conditions, which will result in increased utilization of physical health services.						
Q1: Has the percentage of individuals diagnosed with SUD receiving care coordination increased?	Percentage of individuals diagnosed with SUD receiving care coordination.	N/A	Centennial Care members with SUD diagnosis in fully delegated care coordination.	Centennial Care members with SUD diagnosis.	MMIS Health Home enrollment roster	Interrupted time series analysis. 2018 -2023 Quarterly

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q2: Has the number of individuals with SUD receiving preventive health care increased?	Percentage of individuals with SUD receiving preventive/ ambulatory health services (AAP). The percentage of individuals with SUD who are 20 years and older who had an ambulatory or preventive care visit. The total rate will be reported; reporting will not be stratified by age.	NCQA	Centennial Care members with SUD diagnosis receiving preventive/ ambulatory health services.	Centennial Care members with SUD diagnosis.	MMIS	Interrupted time series analysis. 2018 -2023 Quarterly
Primary Driver: Opioid specific interventions						
Hypothesis 5: Hypothesis 5: The Demonstration will Increase use of naloxone, MAT and enhanced monitoring and reporting of opioid prescriptions through the prescription monitoring program, which will result in fewer overdose deaths due to opioid use.						
Q1: Has there been an expansion of naloxone distribution and training?	Number of naloxone training and kit distributions.	N/A	Number of naloxone training and kit distributions.to New Mexico residents.	N/A	DOH, BHSD	Descriptive data analysis. 2018 -2023 Annually

RESEARCH QUESTION	PROCESS/ OUTCOME MEASURE	STEWARD	NUMERATOR	DENOMINATOR	DATA SOURCES	ANALYTIC METHODS
Q2: Has the number of MAT providers increased?	Number of MCO network MAT providers.	N/A	Number of MCO network MAT providers.	N/A	MCO report	Descriptive time series. 2018 -2023 Annually
Q3: Has the number of individuals with SUD receiving MAT increased?	Percentage of individuals diagnosed with SUD with MAT claims.	N/A	MAT claims for Centennial Care individuals with SUD diagnosis.	Total claims for Centennial Care individuals with SUD diagnosis.	MMIS	Interrupted time series analysis. 2018 -2023 Quarterly
Q4: Is there evidence of enhanced policies and practices related to the prescription monitoring program, real time prescription monitoring program updates, member/provider lock-in programs and limits/edits at pharmacy points-of-sale?	Number of policy and procedure manual references.	N/A	Number of policy and procedure manual references about prescription monitoring program	N/A	NM Board of Pharmacy, MCO report	Descriptive data. 2018 -2023 Annually
Q5: Is there a decrease in the number of deaths due to overdose?	Rate of deaths due to overdose.	N/A	Overdose deaths of New Mexico residents.	Total deaths of New Mexico Residents	DOH epidemiology reports Office of Medical Investigator	Interrupted time series analysis. 2018 -2023 Annually

ANALYTIC METHODS

Multiple analytic techniques will be used, depending on the type of data for the measure and the availability of data. The Tables in Section B of this document detail the evaluation plan, including analytic methods for each measure. The following table summarizes the overall evaluation plan and analytic methods.

Descriptive, content analysis will be used to present data related to process evaluation measures gathered from document reviews. The data will be summarized in order to describe the activities undertaken, including highlighting specific successes and challenges.

Descriptive statistics, including frequency distributions and time series (presentation of rates over time), will be used for quantitative process measures in order to describe the output of specific waiver activities. These analysis techniques will also be used for some short-term outcome measures in cases where the role of the measure is to describe changes in the population, but not to show specific effects of the waiver demonstration.

An interrupted time series design will include annual or quarterly observations of each measure over time, beginning at least one year prior to the demonstration implementation. The counterfactual for the analysis is the trend, as it would have happened, without being "interrupted" by the demonstration. It is anticipated that the slope of the trend line will change after implementation of specific waiver demonstration activities. Specific outcome measures will be collected for multiple time periods both before and after the first demonstration period and waiver renewal and related interventions. The evaluation design table contains the time span during which observations will be collected for each specific measure. Segmented regression analysis will be used to measure statistically the changes in level and slope in the post-intervention period compared to the pre-intervention period.

$$Y_t = \beta_0 + \beta_1 T + \beta_2 X_t + \beta_3 T X_t$$

Where β_0 represents the baseline observation, β_1 is the change in the measure associated with a time unit (quarter or year) increase (representing the underlying pre-intervention trend), β_2 is the level change following the intervention and β_3 is the slope change following the intervention (using the interaction between time and intervention: TX_t).[7]

Where possible, comparison groups (and/or national benchmarks) will be used to strengthen causal inference in the design. In cases where a comparison group trend is available, we will conduct a

[7] Bernal, J.L., Cummins, S. and Gasparrini, A. "Interrupted time series regression for the evaluation of public health interventions: a tutorial" (2017 Feb.). International Journal of Epidemiology 46(1): 348-355.

descriptive analysis of the differences in slope change between the treatment group and comparison trend lines.

D
METHODOLOGICAL LIMITATIONS

There are two main methodological limitations. The first is related to the difficulty in obtaining complete data to fully assess the impact of the waiver activities. The second is that the evaluation design, overall, does not include a treatment and a control group. There are a small number of programs (e.g. CHV Pilot) that will not be implemented with all members statewide simultaneously and, therefore, do allow for comparisons between groups. Similarly, some interventions (e.g. Health Homes) are not available throughout all regions of the state. However, these groups are based on member self-selection or service availability, not randomization. The state considered options for comparing members opting in to some services to those who do not. However, there are likely to be considerable differences among these groups that would result in significant selection bias in the design.

This evaluation primarily uses descriptive (either time series or pre-post comparison) analyses and an interrupted time series design, where possible. Interrupted time series analysis is often used in cases where an intervention is implemented across an entire population at the same time[8]. This design avoids selection bias, but can be confounded by other factors. In particular, historical threats to validity are a concern for this design. In this case, other events, happening during the same time period as the intervention could influence trends in outcome measures. To try to minimize the impact of historical threats to validity, the design includes interrupted time series analysis with a control series whenever possible, either in the form of a comparison group or national benchmarks.

Additionally, quarterly data points will be utilized and the timing of the intervention "interruption" will be specific to each intervention in the waiver, rather than the official start date of the waiver. This will ensure that pre and post-intervention data points occur as closely in time as possible to the actual change in policy or program being made. Any interpretation of findings will also include a description of any other intervening events that could have also impacted the measure.

According to the literature on interrupted time series analysis, estimating the level and slope parameters requires a minimum of eight observations before and after implementation in order to have sufficient power to estimate the regression coefficients[9]. Evaluators will need to work closely with program staff data teams to gather as many data points as possible and discuss limitations

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[8] Bernal, J.L., Cummins, S. and Gasparrini, A. "Interrupted time series regression for the evaluation of public health interventions: a tutorial" (2017 Feb.). International Journal of Epidemiology 46(1): 348-355.

[9] Penfold, RB, Zhang, F. "Use of interrupted time series analysis in evaluating heath care quality improvements." Academic Pediatrics, 2013 Nov-Dec, 13(6Suppl): S38-44.

within the evaluation findings if enough points cannot be collected, including sufficient data points pre-intervention to establish the counterfactual trend.

Another threat to validity in this design may be the ability to measure the outcome rates of interest for the desired period of time, both before and after waiver implementation. In some cases, data might not be available for the time period prior to the waiver or for a baseline measure. Evaluators will work closely with the program staff and data teams to assure that complete data is available for each measure and discuss any specific data concerns or considerations on a measure by measure basis.

It should also be noted that interrupted time series cannot be used to make inferences about any one individual's outcomes as a result of the waiver. Conclusions can be drawn about changes to population rates, in aggregate, but not speak to the likelihood of any individual Medicaid member having positive outcomes as a result of the waiver.

E
ATTACHMENTS

INDEPENDENT EVALUATOR

As part of the Standard Terms and Conditions, as set forth by the CMS, the demonstration project is required to arrange with an independent party to conduct an evaluation of the 1115 Demonstration Waiver and the SUD waiver to ensure that the necessary data is collected at the level of detail needed to research the approved hypotheses. To fulfill this requirement, the state of New Mexico will, through a request for proposal process, contract with an external entity to conduct the waiver evaluation.

Examples of the qualifications of the evaluator will be:

- Experience working with federal programs and/or demonstration waivers;
- Experience with evaluating effectiveness of complex, multi-partnered programs;
- Familiarity with CMS federal standards and policies for program evaluation;
- Familiarity with nationally-recognized data sources; and
- Analytical skills and experience with statistical testing methods.

The evaluator will be required to have the following key personnel designated:

- Engagement Leader;
- Lead Evaluator;
- Project Manager; and
- Statistician.

CONFLICT OF INTEREST

The Human Services Department (HSD) will take steps to ensure that the evaluator is free of any conflict of interest and will remain free from any such conflicts during the contract term. HSD considers it a conflict if the evaluator currently 1) provides services to any MCOs or health care providers doing business in New Mexico under the Medicaid program; or 2) provides direct services to individuals in HSD-administered programs included within the scope of the evaluation contract. If HSD discovers a conflict during the contract term, HSD may terminate the contract pursuant to the provisions in the contract.

POTENTIAL TIMELINE AND MAJOR DELIVERABLES

The table below highlights key evaluation milestones and activities for the waiver and the dates for completion.

DELIVERABLE	STC REFERENCE	DATE
Submit evaluation design plan to CMS	56, 115	June 30, 2019
Final evaluation design due 60 days after comments received from CMS	53	60 days after comments received from CMS
Mid-point assessment due	55	September 30, 2020 (SUD) June 1, 2022 (1115)
Draft Interim Report due	120	December 31, 2022
Final Interim Report due 60 days after CMS comments received	120	60 days after comments received from CMS
Draft Summative Evaluation Report due 18 months following demonstration	122	June 30, 2025
Final Summative Evaluation Report due 60 days after CMS comments received	122	60 days after comments received from CMS

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