Extension Request

Demonstration Number: 11-W-00336/8

Extension request for the former "Expanding the Substance Use Disorder Continuum of Care" Demonstration to include all pending amendments and to convert to a Comprehensive Demonstration, entitled:

"Comprehensive Care for Colorado"

State of Colorado

Pending Submission: December 31, 2024

Section 1115 Extension Template

Colorado Application Certification Statement — Section 1115(a) Extension

This document, together with the supporting documentation outlined below, constitutes the State of Colorado's (State's) application to the Centers for Medicare & Medicaid Services (CMS) to extend the former "Expanding the Substance Use Disorder Continuum of Care" Demonstration **11-W-00336/8** to include all pending amendments and to convert to a Comprehensive Demonstration, entitled: "Comprehensive Care for Colorado" for a period of five years pursuant to Section 1115(a) of the Social Security Act.

Type of Request (*select one only*):

_____ Section 1115(a) extension with no program changes

_____ Section 1115(a) extension with minor program changes

___X___ Section 1115(a) extension with major program changes unrelated to Substance Use Disorder (SUD)

This constitutes the State's application to CMS to extend its Demonstration with program changes. The State is requesting that CMS extend approval of the Demonstration subject to the same Special Terms and Conditions (STCs), waivers, and expenditure authorities currently in effect for the period of January 1, 2021, through December 31, 2025, with all pending amendments as well as the additional request included with this extension request.

For the SUD portion of the Demonstration, the State is requesting that CMS extend approval of the SUD Demonstration subject to the same STCs, waivers, and expenditure authorities currently in effect for the period of January 1, 2021, through December 31, 2025.

The State is submitting the following items that are necessary to ensure that the Demonstration is operating in accordance with the objectives of Title XIX and/or Title XXI as originally approved. The State's application will be considered complete for purposes of initiating federal review and federal-level public notice when the State provides the information as requested in the below appendices.

- **Appendix A:** A historical narrative summary of the Demonstration project, which includes the objectives set forth at the time the Demonstration was approved, evidence of how these objectives have or have not been met, and the future goals of the program.
- **Appendix B:** Budget/allotment neutrality assessment and projections for the projected extension period. The State will present an analysis of budget/allotment neutrality for the current Demonstration approval period, including status of budget/allotment neutrality to date based on the most recent expenditure and member month data, and projections through the end of the current approval that incorporate the latest data. CMS will also review the State's Medicaid and State Children's Health Insurance Program (CHIP) Budget and Expenditure System expenditure reports to ensure that the Demonstration has not exceeded the federal expenditure limits established for the Demonstration. The State's actual expenditures incurred over the period from initial approval through the current

expiration date, together with the projected costs for the requested extension period, must comply with CMS budget/allotment neutrality requirements outlined in the STCs.

- **Appendix C:** Interim evaluation of the overall impact of the Demonstration that includes evaluation activities and findings to date, in addition to plans for evaluation activities over the requested extension period. The interim evaluation should provide CMS with a clear analysis of the State's achievement in obtaining the outcomes expected as a direct effect of the Demonstration program. The State's interim evaluation must meet all of the requirements outlined in the STCs.
- **Appendix D:** Summaries of External Quality Review Organization (EQRO) reports, managed care organization and State quality assurance monitoring, and any other documentation of the quality of and access to care provided under the Demonstration.
- **Appendix E:** Documentation of the State's Presumptive Eligibility (PE) Amendment request
- **Appendix F:** The State's Budget Neutrality Spreadsheets
- **Appendix G:** Summaries of the Pending 1115 Amendments
- **Appendix H:** Documentation of the State's compliance with the public notice process set forth in 42 CFR 431.408 and 431.420 and the State's demonstration contact.
    - Attachment 1. Public Notice Requirements
    - Attachment 2. Full Public Notice
    - Attachment 3. Abbreviated Public Notice
    - Attachment 4. Public Hearing Slides
    - Attachment 5. Public Notice Comments
    - Attachment 6. Tribal Consultation
    - Attachment 7. Tribal Consultation Comments

The State's application will only be considered complete for purposes of initiating federal review and federal-level public notice when the State provides the information requested in Appendices A through E above, along with the Section 1115 Extension Template identifying the program changes being requested for the extension period. Please list all enclosures that accompany this document constituting the State's whole submission.

1. Section 1115 Extension Template
2. Renewal Appendices
3. Budget Neutrality Spreadsheets

The State attests that it has abided by all provisions of the approved STCs and will continuously operate the Demonstration in accordance with the requirements outlined in the STCs.

Signature: _____ Date: _____

[Governor]

CMS will notify the State no later than 15 days of submitting its application of whether we determine the State's application meets the requirements for a streamlined federal review. The State will have an opportunity to modify its application submission if CMS determines it does not meet these requirements. If CMS reviews the State's submission and determines that any proposed changes significantly alter the original objectives and goals of the existing Demonstration as approved, CMS has the discretion to process this application full scope pursuant to regular statutory timeframes for an extension or as an application for a new Demonstration.

Renewal Appendices

Colorado 1115 Demonstration Extension Appendix Documentation

The State of Colorado (State or Colorado) is proposing no change to the Substance Use Disorder (SUD) waiver authority. Colorado is submitting information with this extension request to add an additional program to the 1115 authority for Presumptive Eligibility (PE) (See Appendix E).

In addition, Colorado is requesting that the following programs in pending 1115 amendments be incorporated into the Demonstration:

- Re-entry services for adults and youth transitioning from correctional facilities — Submitted April 1, 2024
- Reimbursement for acute inpatient and residential stays in institutions for mental disease for individuals diagnosed with a serious mental illness (SMI) or serious emotional disturbance (SED) — Submitted April 1, 2024
- Continuous eligibility for children 0-3 years and 12 months of continuous coverage for individuals leaving incarceration — Submitted April 1, 2024
- Health Related Social Needs (HRSN), housing and nutrition supports — Submitted August 12, 2024

See Appendix H for a summary of the pending 1115 Amendments. Finally, Colorado is requesting that the Demonstration be converted to a comprehensive 1115 and that the Demonstration be renamed, "Comprehensive Care for Colorado". Budget Neutrality projections for all six programs (SUD, Presumptive Eligibility, Re-entry services, SMI/SED services, Continuous Eligibility, and HRSN) are included in this extension request.

No SUD Authority Change Requested

Through the substance use disorder (SUD)/opioid use disorder (OUD) demonstration, the State has maintained and expanded critical access to OUD and other SUD services and continues to make delivery system improvements for these services to provide more coordinated and comprehensive SUD/OUD treatment for Medicaid beneficiaries. This Demonstration component will continue to provide the State with authority to provide high quality, clinically appropriate SUD treatment services for short-term residents in residential and inpatient treatment settings that qualify as an Institution for Mental Disease (IMD). The Demonstration will also build on the State's existing efforts to improve models of care focused on supporting individuals in the community and home, outside of institutions, and strengthen offering the full continuum of all levels of care through SUD services based on the American Society of Addiction Medicine (ASAM) Criteria and its nationally recognized assessment and placement tools that reflect evidence-based clinical treatment guidelines.

The State will continue to test whether the SUD Section 1115 Demonstration described in these STCs is likely to assist in promoting the objectives of Medicaid by achieving the following results:

1. Increased rates of identification, initiation, and engagement in treatment.

2. Increased adherence to and retention in treatment.
3. Reductions in overdose deaths, particularly those due to opioids.
4. Reduced utilization of emergency department (ED) and inpatient hospital settings for treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services.
5. Fewer readmissions to the same or higher level of care (LOC) where the readmission is preventable or medically inappropriate.
6. Improved access to care for physical health (PH) conditions among beneficiaries.

Programmatic Description of Waiver and Expenditure Authorities

Expenditure Authority Requested

The State requests a renewal of the expenditure authority granted in the original Demonstration:

Residential and Inpatient Treatment Services for Individuals with SUD. Expenditures for otherwise covered services furnished to otherwise eligible individuals enrolled who are primarily receiving treatment and withdrawal management services for SUD who are short-term residents in facilities that meet the definition of an IMD.

Authorities requested with Appendix E of this request for Presumptive Eligibility and for each of the additional programs submitted in the pending amendments are summarized in Appendix G.

Appendix A

A historical narrative summary of the Demonstration project, which includes the objectives set forth at the time the Demonstration was approved, evidence of how these objectives have or have not been met, and the future goals of the program.

ASAM Implementation Update Including Demonstration Impact

The purpose of the Section 1115 Demonstration waiver amendment was to afford access to high quality, medically necessary treatment for OUD and other SUDs. The State recognized the importance of a full continuum of treatment services, including residential services provided in a cost-effective manner and for a length of stay (LOS) governed by appropriate clinical guidelines. This Demonstration has proven critical to continue the federal funding needed to support the continuation of medically necessary services and SUD treatment in residential facilities that meet the definition of IMDs for individuals 21 years through 64 years of age.

The State of Colorado has been working for years to address the growing prevalence of Substance Use Disorder (SUD) among its residents. Prior to the Demonstration, Colorado Medicaid (Health First Colorado) members had access to early intervention, outpatient treatment, and recovery services. The introduction of coverage for services in high intensity outpatient, residential and inpatient settings made the full continuum of SUD treatment services available to those covered by Medicaid in Colorado. The demonstration authorized the state to draw down a federal match on dollars spent on inpatient and residential SUD treatment services in Institutions for Mental Diseases (IMDs). This demonstration waiver has been an essential step in assisting Colorado residents in receiving treatment for substance use disorders and improving health outcomes, promoting long-term recovery, and reducing overdose deaths in Colorado.

The State has utilized the Demonstration authority to align its SUD service array with the ASAM, third edition criteria. The State of Colorado has made progress on implementation of the SUD component of the 1115 Demonstration waiver. The State continues to implement ASAM alignment as reported in its quarterly and annual reports to CMS.

History of Demonstration

Passage of Colorado House Bill (HB) 18-1136[1] in 2018 gave the Colorado Department of Health Care Policy and Financing (Department) authority to pursue this Medicaid Section 1115 waiver. Specifically, the bill gave the Department authority to add SUD inpatient and residential treatment benefits, including withdrawal management services, to the continuum of SUD services available to Medicaid members.

Medicaid SUD Coverage Prior to the Demonstration

The State began offering SUD treatment services through Medicaid in 2006, by adding a fee-for-service (FFS) outpatient treatment benefit, and then moved these services into the capitated behavioral health benefit in 2014. The capitated behavioral health benefit is

[1] https://leg.colorado.gov/bills/hb18-1136

administered by seven Regional Accountable Entities (RAEs) that are responsible for promoting physical and behavioral health in each of their respective regions of the state.

Prior to the demonstration, Colorado's Medicaid program covered outpatient therapy (ASAM levels 0.5–1), social detoxification (similar to treatment in clinically managed residential withdrawal management settings -ASAM level 3.2), and inpatient detoxification (ASAM level 4.0) for adult members with an acute medical diagnosis. Residential and inpatient SUD services were authorized for children and young adults up to age 21 in compliance with Early and Periodic Screening, Diagnostic and Treatment (EPSDT) requirements. Additionally, pregnant and postpartum women in Colorado were eligible for Special Connections, a program that provided services in a residential setting for women with alcohol or drug addiction.

Background

In the 20 years prior to the demonstration, Colorado, like the rest of the country, felt the impact of the opioid epidemic and experienced an increase in the rate of SUD diagnoses. Data collected by the Colorado Department of Public Health and Environment (CDPHE) between 1999–2017 showed that:

- An estimated half a million Coloradans were dependent on alcohol or had used illicit drugs, defined as cocaine (including crack), marijuana, heroin, hallucinogens, inhalants, and prescription drugs non-medically. Nearly 30 percent (142,000) were Medicaid members.[2]
- Between 2000–2017, 12,821 Coloradans died due to a drug overdose.
- The number of overdose deaths increased from 7.8 deaths per 100,000 in 2000 to 17.6 deaths per 100,000 in 2017.
- Opioid use was leading the overdose epidemic, accounting for over half of the overdose deaths between 2013 and 2017, two-thirds of which were attributable to prescription opioids.[3]

While opioid overdoses in Colorado rose between 2000 and 2017, other drugs including alcohol and methamphetamine also drove the rate of admissions for addiction treatment in the State. In 2017, alcohol was responsible for the majority of treatment admissions, followed by methamphetamine. From 2013 to 2017, methamphetamine-related admissions increased by 63%.[4]

Colorado Medicaid members were particularly affected by SUDs, impacting the health outcomes and costs associated with this population:

- An estimated 11% of Medicaid members had an SUD diagnosis.[5]
- 29% of those who died from an overdose in Colorado were Medicaid members.

[2] Colorado Health Institute. Exploring Options for Residential and Inpatient Treatment of Substance Use Disorder in Health First Colorado. November 2017. https://www.coloradohealthinstitute.org/research/options-residential-and-inpatient-treatment-substance-use-disorder

[3] Bol, K. Colorado Department of Public Health and Environment. Drug Overdose Deaths in Colorado. Final Data. 1999-2017. December 2018.

[4] Russell, S. "Colorado Drug Trends." Drug/Alcohol Coordinated Data System (DACODS), Colorado Department of Human Services Office of Behavioral Health. 2018.

[5] Ibid.

- The most prevalent substances abused among Medicaid members were alcohol and methamphetamine.[6]

The costs to the health care system were clear:

- Though only 11% of the Medicaid population, the cost of care for members with a SUD diagnosis accounted for nearly 19% of the total cost to the system.
- On average, the annual cost of care for a Medicaid member with an SUD diagnosis was nearly double the cost for one without ($10,445 versus $5,646).
- Members with an SUD diagnosis accounted for 20% of the state's non-SUD related pharmacy spending.[7]

Additionally, according to the 2017 Colorado Health Access Survey, despite the State's efforts to date, Colorado continued to have an unmet need for SUD treatment.[8] The survey showed that more than 67,000 Coloradans needed some type of treatment for drug or alcohol use but did not receive it. Many more Coloradans need treatment but were not ready to seek it. Although these numbers reflect all Coloradans, given the higher prevalence of SUD among Medicaid members, it is clear that there is a need for more access to services.

Colorado's Medicaid Behavioral Health Delivery System

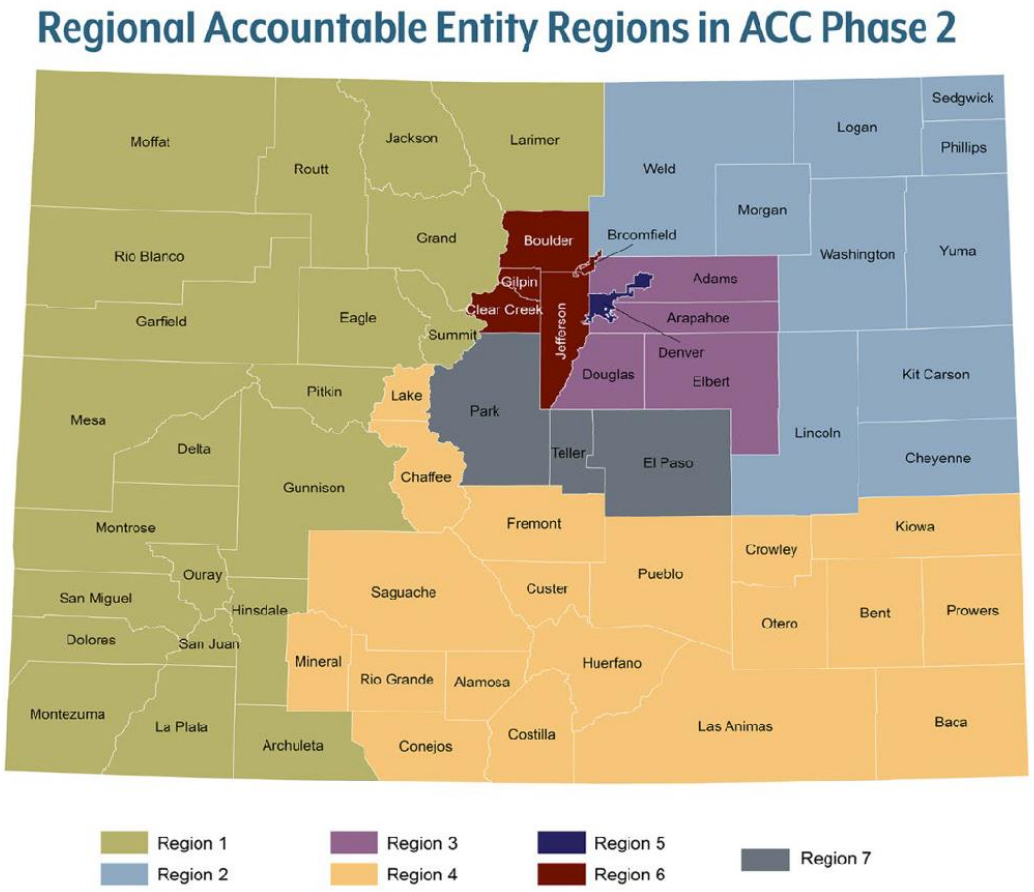
In 1995, the state implemented the Colorado Medicaid Mental Health Capitation and Managed Care Program in 51 counties, expanding to the remaining 12 counties[9] in 1998. Through the program, the state was divided into eight geographic areas and the program was administered by Mental Health Assessment and Service Agencies. There are seven RAEs and one Managed Care Organization (MCO) in the eight regions of care collectively referred to as managed care entities (MCEs). In 2004, program operations were transferred to the Department from the Department of Human Services, allowing for more cohesive management.

The waiver for the Mental Health Capitation and Managed Care Program was amended several times. A 2013 amendment, effective from January 1, 2014, through June 30, 2015, included coverage of SUD treatment services and provided the authority to serve the Medicaid expansion population. In 2015, CMS approved a waiver renewal from January 1, 2016, to June 30, 2017, incorporating former foster care children, expansion parents, and children ages six through 19 with incomes above 100% but at or below 133% of the federal poverty level. The waiver was renewed most recently on July 1, 2023.

On July 1, 2018, CMS authorized the capitated behavioral health benefit under a Section 1915(b) waiver for the Colorado Medicaid Accountable Care Collaborative (ACC) through June 30, 2023, which has been renewed on July 1, 2023. On July 1, 2023, CMS reauthorized the 1915(b) waiver for the ACC. The ACC program is a hybrid managed care model, combining a Primary Care Case Management (PCCM) entity for physical health services with a Pre-Paid Inpatient Health Plan (PIHP) responsible for administering the capitated behavioral health benefit.

[6] Colorado Health Institute. *Exploring Options for Residential and Inpatient Treatment of Substance Use Disorder in Health First Colorado*. November 2017. https://www.colorado.gov/pacific/sites/default/files/HCPF%202017%20Inpatient%20SUD%20Treatment%20Report.pdf
[7] Colorado Substance Use Disorder Data Fiscal Year 2017-2018. Colorado Department of Health Care Policy & Financing, Pharmacy and Behavioral Health Data Division. 2019.
[8] Colorado Health Institute. *2017 Colorado Health Access Survey: The New Normal*. https://www.coloradohealthinstitute.org/research/colorado-health-access-survey-2017
[9] Broomfield was consolidated into the 64th county of Colorado in 2001.

Colorado Medicaid divided the State into seven geographic regions for the ACC. Each region is served by one RAE. The RAEs are responsible for promoting physical and behavioral health in each of the seven regions. The RAEs manage a network of primary care physical health providers and specialty behavioral health providers to ensure access to appropriate care for Medicaid members in their region. A critical function of the RAEs is to create a cohesive network of providers that work together seamlessly and effectively to provide coordinated health care services to members.



Residential SUD Treatment in Colorado Prior to the Demonstration

In addition to the capitated behavioral health system which provided services to Medicaid members, the Colorado Office of Behavioral Health (OBH) contracted with four Managed Service Organizations (MSOs) to deliver a continuum of care that included inpatient and residential SUD treatment services. MSOs were funded through a combination of State and federal Substance Abuse and Mental Health Services Administration (SAMHSA) block grant dollars but did not pay for services otherwise covered by Medicaid prior to the demonstration.

For some Medicaid members, the MSOs provided inpatient residential treatment services, prioritizing injection drug users, parents, and pregnant women. Aside from providing

inpatient and residential treatment to priority Medicaid members, the MSOs ensured that people who had no other means of paying for treatment (i.e., based on insurance status or income) received services funded under their contract with OBH.[10]

Prior to the implementation of the demonstration, the OBH/MSOs were contracted with providers to deliver residential services. After the demonstration, the residential services were covered by Medicaid including transitional residential treatment for adults (ASAM Level 3.1), Clinically Managed Residential Services (ASAM Level 3.5), Intensive Residential Treatment for adults and adolescents (ASAM Level 3.7), and Strategic Individualized Remediation Treatment (STIRT).

Through the Medicaid Section 1115 waiver, the RAEs now provide residential and inpatient SUD services to Medicaid members. The role of the MSOs has evolved as the new Medicaid benefits took effect and the state uses SAMHSA grant dollars and the MSO infrastructure to enhance the state's overall delivery system.

Federal Grant Efforts to Combat SUDs
Prior to the demonstration, Colorado received two grants from SAMHSA for purposes of combatting the SUD crisis.[11]

State Targeted Response (STR) Grant
SAMHSA provided $15.7 million to the State for the period of May 2017–April 2019. The State used the STR grant to:

- Conduct a State SUD needs assessment that identified areas where opioid misuse and its harms are most prevalent, what existing activities and funding sources are in place to address the opioid crisis, and gaps in the existing system that need to be addressed.
- Provide Medication Assisted Treatment (MAT) services to 1,947 individuals, 481 of whom received MAT before or upon release from jail.
- Train 530 prescribers to provide buprenorphine.
- Connect 596 individuals to Peer Recovery.
- Distribute 27,027 naloxone kits throughout the State.

State Opioid Response Grant
SAMHSA provided $38 million to the State to extend and expand efforts undertaken through the STR grant until 2020. Under the grant, the State:

- Connected over an additional 900 individuals to MAT through mobile MAT units in rural communities.
- Trained over 400 individuals in the Community Reinforcement and Family Training with Prevention and Celebrating Families models (models focused on supporting family members of individuals struggling with SUDs and how to encourage and motivate loved ones into treatment and/or maintain recovery).
- Hired over 18 more Peer Recovery Coaches.
- Trained 425 more prescribers with a focus on rural areas.

[10] JSI Research and Training Institute, Inc. *A Statewide Evaluation of the effectiveness of Intensive Residential Substance Use Disorder Treatment Provided through Managed Service Organizations.* December 2018.
[11] https://www.colorado.gov/pacific/cdhs/colorado-state-targeted-response-opioid-crisis

- Distributed over 18,000 more naloxone kits.

Other Efforts to Combat SUDs

Since authorizing medical marijuana use in 2000 and personal marijuana use in 2012, Colorado has collected three types of taxes on marijuana: the State sales tax, a special sales tax, and an excise tax. The taxes generate millions of dollars in revenue for the State, which is used for a variety of health, human services, public safety, and higher education programs and initiatives. Some funds are specifically dedicated to SUD treatment and services, including:

- Training for health professionals who provide Screening, Brief Intervention, and Referral for Treatment (SBIRT) services for individuals at risk of substance abuse
- Increasing access to effective SUD services, including evaluation of intensive residential treatment (the study conducted in conjunction with the authorizing legislation for this waiver)
- Implementing programs for adults with co-occurring mental health and SUDs
- Providing behavioral health services for individuals in rural areas with co-occurring mental health conditions and SUDs
- Implementing community prevention and treatment for alcohol and drug abuse
- Providing SUD services at mental health facilities
- Promoting substance abuse prevention through public awareness campaigns

In addition to the activities above, Colorado is working to continue to reduce opioid prescriptions and reduce stigma. One of the first changes the State made was to develop the Colorado Consortium for Prescription Drug Abuse Prevention in 2013. The Consortium is a statewide organization with a wide range of participating stakeholders that have numerous workgroups designed to address the opioid crisis, with topics including provider education, public awareness, use of the Prescription Drug Monitoring Program (PDMP), naloxone, and support for affected friends and families.

Colorado Medicaid also took a number of steps in the five years immediately preceding the beginning of the demonstration that resulted in a more than 50% reduction in the number of pills prescribed and a 44% reduction in the number of Medicaid members taking opioids. Those policy initiatives have been aimed at reducing the number of opioids prescribed to members, tightening criteria when requesting refills, and reducing the daily Morphine Milligram Equivalents members can take — all while continually ensuring members receive necessary medications for adequate pain management.

Lastly, Colorado's **Lift the Label** campaign has set a goal of reducing the stigma that prevents those with an OUD from seeking treatment.

Efforts Under the Demonstration to address SUD

Since the beginning of the Demonstration, Colorado has operationalized the implementation plan approved by CMS for the SUD demonstration. Colorado Medicaid added ASAM levels 2.1 (Intensive Outpatient Services, 2.5 (Partial Hospitalization, as of July 1, 2024), 3.1 (Clinically Managed Low-intensity Residential Services), 3.2 (Clinically Managed Residential Withdrawal

Management), 3.3 (Clinically Managed Population-specific High-intensity Residential Services), 3.5 (Clinically Managed High-intensity Residential Services), 3.7 (Medically Monitored Intensive Inpatient Services), and 3.7-WM (Medically Managed Inpatient Withdrawal Management) as Medicaid covered services.

Colorado has implemented the activities necessary to ensure access to the critical levels of care for OUD and other SUDs. These activities included submitting and receiving approval for the State Plan Amendment (SPA) necessary to implement all required levels of care; developing and implementing RAE rate methodology that reflect continuum of additional and modified services; executing RAE contract amendments that reflect updated capitation rates that include new and modified services; and billing system changes to allow for claim submission for new services (residential and inpatient). More details about each of these activities is noted in Table 1 below.

Table 1. Milestone One Activities under the Demonstration

Implementation Plan	Summary of Actions in Implementation Plan	Status
Milestone 1	**Access to Critical LOCs for OUD and Other SUDs:** Coverage of a) outpatient, b) intensive outpatient services or partial hospitalization, c) MAT (medications as well as counseling and other services with sufficient provider capacity to meet the needs of Medicaid beneficiaries in the State), d) intensive LOCs in residential and inpatient settings, and e) medically supervised withdrawal management — due within 12–24 months of demonstration approval.	
SPA revision of 2.1 Intensive Outpatient SUD Services	SPA approved 11/13/20, effective 1/1/21.	Completed
Implementation of 3.1 Clinically Managed Low-Intensity Residential Services	SPA approved 11/13/20, effective 1/1/21.	Completed
Implementation of 3.3 Clinically Managed Population-Specific High-Intensity Residential Services	SPA approved 11/13/20, effective 1/1/21.	Completed
Implementation of 3.5 Clinically Managed High-Intensity Residential Services	SPA approved 11/13/20, effective 1/1/21.	Completed
Implementation of 3.7 Medically Monitored Intensive Inpatient Services	SPA approved 11/13/20, effective 1/1/21.	Completed
Implementation of 3.7 WM Medically Managed Residential Withdrawal Management	SPA approved 11/13/20, effective 1/1/21.	Completed
Develop and implement RAE rate methodology that reflects continuum of additional and modified services	October 2019 — Current; anticipated contract updates in effect prior to January 1, 2021	Completed

Implementation Plan	Summary of Actions in Implementation Plan	Status
	November 2020: The State made changes to the rates and billing methodology to allow the RAEs to bill for services. Demonstration Year (DY) 1 Quarter (Q) 3: Contract amendments were implemented for RAEs.	
Execute RAE contract amendments that reflect updated capitation rates that include new and modified services	By January 1, 2021 DY1Q3: Contract amendments were implemented for RAEs. DY2Q1: The 2022 new RAE contracts became effective January 1, 2022.	Completed
Billing system changes to allow for claim submission for new services (residential and inpatient) and changes to existing service billing rules (IOP)	November 2020: The State made changes to the rates and billing methodology to allow the RAEs to bill for services. DY1Q3: The State began receiving claims for the new SUD services. No issues related to receiving these claims were identified.	Completed

Under the extension, Colorado intends to increase care coordination to ensure continued engagement and strengthen transitions of levels of care and to adopt ASAM fourth edition in 2026.

Colorado has implemented the activities necessary to use the ASAM evidence-based, SUD-specific patient placement criteria. These activities included updating Behavioral Health Administration (BHA) licensing regulations; update RAE contracts to include new services and Utilization Management (UM) of services to update SUD rules to align wherever possible with MH rules for comprehensive behavioral health (BH) rules effective 1/1/2024; implementing training and technical assistance to align providers with ASAM standards; requiring RAE's to develop UM policies and procedures; reviewing RAE UM policies and procedures and provision of feedback to the RAEs including a third party audit of RAE denials annually; implementing the UM process for residential placements; monitoring of benefits; and communicating changes to providers. More details about each of these activities is noted in Table 2 below.

Table 2. Milestone Two Activities under the Demonstration

Implementation Plan	Summary of Actions in Implementation Plan	Status
Milestone 2	**Use of Evidence-based, SUD-specific Patient Placement Criteria:** Implementation of requirement that providers assess treatment needs based on SUD specific, multi-dimensional assessment tools, e.g., the ASAM Criteria or other patient placement assessment tools that reflect evidence-based clinical treatment guidelines (Due within 12–24 months of demonstration approval). Implementation of a UM approach such that a) beneficiaries have access to SUD services at the appropriate LOC, b) interventions are appropriate for the diagnosis and LOC, and c) there is an independent process for reviewing placement in residential	

Implementation Plan	Summary of Actions in Implementation Plan	Status
	treatment settings (due within 24 months of demonstration approval).	
Update OBH licensing regulations	Completed August 2020.	Completed
Update RAE contracts to include new services and UM of services	Contracts effective January 1, 2021.	Completed
Implement training and technical assistance to align providers with ASAM standards	All contracts with MCEs continue to have language ensuring all new and existing providers have training on ASAM criteria. All contracts with MCEs continue to require providers and MCEs to provide assessments to ensure appropriate placement using ASAM criteria and for MCEs to utilize ASAM criteria to review SUD residential and inpatient stays.	February 2020 and ongoing
RAE development of UM policies and procedures	Draft RAE UM policies submitted August 2020. DY1Q3: The RAEs worked to streamline the Prior Authorization process by standardizing the form instead of using different forms in each RAE. DY1Q4: A new Initial Authorization form was developed and implemented as of December 1, 2021. The new form standardized and established uniformity of days approved through initial authorization for residential SUD services based on ASAM LOC and is used across all RAEs. It was updated January 1, 2024 to require a uniform minimum length of stay that must be authorized based on the average length of stay data collected through quarterly UM reporting over 2.5 years.	Completed
State review of UM policies and procedures and provision of feedback to the RAEs	State review of UM policies and procedures and provision of feedback to the RAEs completed October 2020.	Completed
Begin UM process for residential placements	Begin UM process for residential placements completed January 2021.	Completed
Begin internal monitoring of benefit according to initial monitoring plan currently in development	Internal monitoring process began January 2021.	Completed
Communicate changes to providers	DY1Q3: HCPF began publishing SUD 1115 monthly provider updates on their website. Updates continue quarterly. HCPF also facilitates quarterly virtual SUD provider forums and monthly MCE forums with a monthly newsletter distributed by e-mail.	Ongoing

Under the extension, Colorado intends to continue the training and technical assistance to align providers with ASAM standards and to continue communication with providers, which are on-going activities as new providers and/or new staff at existing providers are identified.

Colorado has implemented the activities necessary to ensure the use of Nationally Recognized SUD-specific ASAM Program Standards to Set Provider Qualifications for Residential Treatment Facilities. These activities included relicensing providers based on updated BHA regulations; implementing training and technical assistance to align providers and RAE reviewers with ASAM standards; updating RAE contracts to reflect residential provider requirement changes, including requirements related to providing access to MAT in all SUD treatment settings; implementing MMIS system changes to allow for enrollment of providers by ASAM level; opening the State Medicaid enrollment portal for SUD providers; publishing an SUD Residential Provider Manual; and publishing updated Uniform Services Coding Standards Manual with billing and coding requirements for new services, updated quarterly. More details about each of these activities is noted in Table 3 below.

Table 3. Milestone Three Activities under the Demonstration

Implementation Plan	Summary of Actions in Implementation Plan	Status
Milestone 3	**Use of Nationally Recognized SUD-specific Program Standards to Set Provider Qualifications for Residential Treatment Facilities** Implementation of residential treatment provider qualifications in licensure requirements, policy manuals, managed care contracts, or other guidance. Qualifications should meet the program standards in the ASAM Criteria or other nationally recognized, evidence-based SUD-specific program standards regarding the types of services, hours of clinical care, and credentials of staff for residential treatment settings (due within 12–24 months of demonstration approval) Implementation of state process for reviewing residential treatment providers to assure compliance with these standards (due within 24 months of demonstration approval) Requirement that residential treatment facilities offer MAT on-site or facilitate access off-site (due within 12-24 months of demonstration approval)	
Relicensing of providers based on updated OBH regulations; OBH responsible	Relicensing of providers based on updated OBH regulations; OBH responsible. Relicensing began December 2020. All licenses require annual renewal, and BHA conducts periodic audits and reviews of facilities as part of the licensing process.	Completed
Implement training and technical assistance to align providers with ASAM standards	Implement training and technical assistance to align providers with ASAM standards. Completed October–December 2020.	Completed
Update RAE contracts to reflect residential provider requirement changes, including requirements related to providing access to MAT	Contracts with updated language in place November 2020.	Completed

Implementation Plan	Summary of Actions in Implementation Plan	Status
MMIS system changes to allow for enrollment of providers by ASAM level	MMIS was updated to allow providers to enroll with State Medicaid based on their licensing level before implementation. The State created new provider types in the billing system to facilitate and increase provider enrollment in the new system.	Completed
State Medicaid enrollment portal opens for SUD providers	Enrollment portal opened November 5, 2020.	Completed
Publish SUD Residential Provider Manual	SUD Residential Provider Manual released in October 2020 and revised and republished January 2022.	Completed
Publish updated Uniform Services Coding Standards Manual with billing and coding requirements for new services	State updated Uniform Services Coding Standards in January 2021.	Completed

Under the extension, Colorado intends to collaborate with the BHA on an implementation plan for transitioning to ASAM 4th edition. This will include ASAM 4th edition listening sessions, training sessions and technical assistance.

As noted in the Table below, Colorado has implemented the activities necessary to ensure Sufficient Provider Capacity at Critical Levels of Care including for Medication Assisted Treatment for OUD. These activities included convening a provider capacity work group, implementing a live electronic bed tracking system, expanding the Hospital Transformation Program (HTP) bed capacity, and implementing the IT MATTrs (X-waiver training). More details about each of these activities is noted in Table 4 below.

Table 4. Milestone Four Activities under the Demonstration

Implementation Plan	Summary of Actions in Implementation Plan	Status
Milestone 4	**Sufficient Provider Capacity at Critical Levels of Care including for Medication Assisted Treatment for OUD** Completion of assessment of the availability of providers enrolled in Medicaid and accepting new patients at the critical LOCs throughout the State (or at least in participating regions of the State) including those that offer MAT (due within 12 months of demonstration approval)	
Provider Capacity Work Group convening	Provider Capacity Work Group convened in September 2019 and continued through June 2020. Work group changed focus to become an implementation work group which ended in April 2021. The State has completed a provider capacity assessment and is actively developing strategies to further expand provider capacity in the State.	Completed

Implementation Plan	Summary of Actions in Implementation Plan	Status
OBH go-live of electronic bed tracking system	The BH Capacity Registry implemented April 1, 2021. DY1Q3: Daily updates began July 1, 2021. BHA has begun work to upgrade the Behavioral Health Bed Tracker. Dimagi, an award-winning technology company that helps organizations deliver quality digital solutions for a variety of sectors, has been selected to help lead this effort. Developments planned for the registry include the ability for providers to send push notifications to other providers when they have a client for whom they are trying to find a bed. This work is a significant step towards tracking availability for mental health and SUD treatment beds, and BHA's broader goal to create a centralized platform for integrating and simplifying behavioral health data across the State. OBH finalized the online Capacity Registry by enhancing the existing EMResource platform, used by State hospitals and nursing homes for capacity tracking of the availability for mental health and SUD treatment beds, and whether licensed Opioid Treatment Programs are accepting new clients. The Behavioral Health Capacity Registry, which began implementation April 1, 2021, went live on July 1, 2021. The Registry is an online tool that tracks statewide availability for mental health and SUD treatment beds and whether licensed Opioid Treatment Programs are accepting new clients. SUD programs are required to update the Registry daily.	Completed
HTP bed capacity expansion	HTP bed capacity expansion began February 2021.	Completed
IT MATTrs (X-waiver training)	The State has undertaken an X-waiver provider recruitment program entitled “IT MATTTRs.” The State has undertaken an X-waiver provider recruitment program entitled “IT MATTTRs.” The State used SAMHSA State Targeted Response to the Opioid Crisis and system of records (SOR) grant funding to expand its MAT capacity. The program has provided X-waiver training at no cost to providers. Funds also support onsite practice implementation training at participating health clinics. IT MATTRs offers regular telephonic training forums where an experienced MAT provider offers real time support to newly waivered providers across the State.	Completed

Under the extension, Colorado intends to continue to refine bed tracking capabilities to include identifying bed availability by population. The state will expand access to MAT specifically for OUD by implementation of mobile MAT and Med Units.

As noted in the Table below, Colorado has implemented the activities necessary to ensure **Implementation of Comprehensive Treatment and Prevention Strategies**. These activities included implementing SOR grant activities, implementing marijuana tax revenue SUD prevention-related activities, continuing Consortium work groups, implementing the Statewide naloxone bulk purchasing program, identifying opportunities for expanding PDMP functionality and use, and increase the use of PDMP by providers and pharmacists. More details about each of these activities is noted in Tables 5 and 6 below.

Table 5. Milestone Five Activities under the Demonstration

Implementation Plan	Summary of Actions in Implementation Plan	Status
Milestone 5	**Implementation of Comprehensive Treatment and Prevention Strategies** Implementation of opiate prescribing guidelines along with other interventions to prevent opioid abuse (Over the course of the demonstration) Expanded coverage of, and access to, naloxone for overdose reversal (Over the course of the demonstration) Implementation of strategies to increase utilization and improve functionality of PDMPs (Over the course of the demonstration)	
Continue implementing SOR grant activities; BHA responsible	Continue implementing SOR grant activities; BHA responsible: SAMHSA provided $41 million to the State in a second round of funding for the period September 30, 2020, to September 29, 2021.	Ongoing
Continue implementing marijuana tax revenue SUD prevention-related activities; BHA responsible	Marijuana tax funds are specifically dedicated to SUD treatment and services on an ongoing basis.	Ongoing
The Consortium work groups; Consortium responsible	The Consortium's Harm Reduction Work Group had several initiatives underway in 2020, related to developing naloxone training videos, planning educational trainings for pharmacists around safe opioid prescribing, overdose awareness, and naloxone dispensing, and broadening syringe access throughout the State.	Ongoing
Statewide naloxone bulk purchasing program; CDPHE responsible	The 2019 State legislature created a statewide naloxone bulk purchasing program through SB 19-227. This fund established by CDPHE will allow organizations to buy naloxone at discounted rates. The legislation also appropriated funding to defer the cost for most organizations, such as syringe access programs, law enforcement, or treatment programs. The OBH will dedicate future SAMHSA grant funds into this program to streamline the process for organizations looking to distribute naloxone to at-risk people.	Completed

Implementation Plan	Summary of Actions in Implementation Plan	Status
Increase the use of PDMP by providers and pharmacists; Department of Regulatory Agencies (DORA) responsible	The number of PDMP users continues to increase.	Ongoing
Identify opportunities for expanding PDMP functionality and use; DORA responsible	See Health Information Technology (HIT) Plan details below.	Ongoing

Under the extension, Colorado intends to collaborate with Peer Assistance Services (PAS) to improve SBIRT rates.

In addition, Colorado is actively implementing the PDMP functionality upgrades and increasing use as outlined in the implementation plan. See Table 6 for details about the status of these activities.

Table 6. Milestone Five HIT Activities under the Demonstration

Implementation Plan	Summary of Actions in Implementation Plan	Status
PDMP Functionalities		
Enhanced interstate data sharing in order to better track patient specific prescription data	Data sharing with additional states will be pursued, but data sharing agreements are contingent on other states' processes and policies for interstate data sharing. Security enhancements for the State's integrated users are being pursued, which will require all integrated users to be validated against the State PDMP (PMP AWARE) user account list to successfully access the PDMP through an integrated connection (direct EHR connection, e-prescribing software, HIE connection). Expanded interstate access for integrated health care entities leveraging reciprocal agreements with other states to approve out-of-state health care entities for PMP Gateway access will be pursued once the security enhancements are implemented.	Ongoing

Implementation Plan	Summary of Actions in Implementation Plan	Status
Enhanced "ease of use" for prescribers and other state and federal stakeholders	Prescribers and pharmacies will continue to integrate their electronic health technology with the PDMP. Integration mini grants were offered in Fall 2020 to cover the planning and/or implementation costs of PDMP integration, funded by Overdose Data to Action grant (CDPHE is recipient, DORA is sub-recipient through an interagency agreement). Organizations in rural or high-burden counties will receive higher priority in the application scoring process.	Ongoing
Enhanced connectivity between the state's PDMP and statewide, regional, or local HIE	Other state HIEs may be considered for interstate access, subject to other states' HIEs requesting access, confirmation that other state HIEs do not download or store PDMP data, and the development of a reciprocal framework for approval of out-of-state integrated health care entities once the State implements security enhancements for PMP Gateway integrations.	Ongoing
Enhanced identification of long-term opioid use directly correlated to clinician prescribing patterns (see also "Use of PDMP" #2 below)	Additional enhancements may require legislative or rule changes.	Completed
Current and Future PDMP Query Capabilities		
Facilitate the State's ability to properly match patients receiving opioid prescriptions with patients in the PDMP (i.e., the State's Master Patient Index [MPI] strategy with regard to PDMP query)	Further enhancements are not being considered at this time.	Completed
Use of PDMP — Supporting Clinicians with Changing Office Workflows/Business Processes		
Develop enhanced provider workflow/business processes to better support clinicians in accessing the PDMP prior to prescribing an opioid or other controlled substance to address the issues which follow	Further enhancements are not being considered at this time, however, PDMP integration mini grants will reimburse approximately 25–30 health care organizations with integration implementation costs.	Completed

Implementation Plan	Summary of Actions in Implementation Plan	Status
Develop enhanced supports for clinician review of patients' history of controlled substance prescriptions provided through the PDMP — prior to the issuance of an opioid prescription	Further enhancements are not being considered at this time; however, expanding PDMP access to delegates allows staff working for prescribers to access PDMP reports on the provider's behalf and competitive PDMP integration mini grants will reimburse health care organizations with integration implementation costs in the near future. Additionally, the Board has approved over 230 PMP Gateway licenses for State health care organizations, covering over 700 facilities in their requests for integration, which continues to increase depending on facility/practice needs and funding.	Completed
MPI/Identity Management		
Enhance the MPI (or master data management service, etc.) in support of SUD care delivery	Additional enhancements to the PDMP beyond the current State may require legislative or other changes.	Completed
Overall Objective for Enhancing PDMP Functionality and Interoperability		
Leverage the above functionalities, capabilities, and supports (in concert with any other State health IT, technical assistance, or workflow effort) to implement effective controls to minimize the risk of inappropriate opioid overprescribing and to ensure that Medicaid does not inappropriately pay for opioids	Additional enhancements to the PDMP beyond the current state may require legislative or other changes.	Completed

Under the extension, Colorado intends to continue to enhance interstate data sharing; to enhance "ease of use" for prescribers and other State and federal stakeholders; and to enhance connectivity between the state's PDMP and statewide, regional or local HIE.

As noted in the Table below, Colorado has implemented the activities necessary to ensure improved care coordination and transitions between LOCs. These activities included collaboration with the RAEs to enhance care coordination activities through the Implementation Work Group, RAE policy development to ensure adequate care coordination across the SUD continuum, and BHA certifying recovery residences. More details about each of these activities is noted in Table 7 below.

Table 7. Milestone Six Activities under the Demonstration

Implementation Plan	Summary of Actions in Implementation Plan	Status
Milestone 6	**Improved Care Coordination and Transitions between Levels of Care** Implementation of polices to ensure residential and inpatient facilities link beneficiaries, especially those with OUD, with community-based services and supports following stays in these facilities (due within 12–24 months of demonstration approval).	
Collaboration with the RAEs to enhance care coordination activities through the Implementation Work Group	Work group began January 2020. "Bridging the Gaps: Policy Recommendations to Implement a Cohesive Statewide Care Coordination Infrastructure" was published and provides recommendations to inform the BHA on implementation of statewide care coordination. A new law (SB22-177 Investments in Care Coordination Infrastructure signed May 25, 2022) requires improved care coordination infrastructure. This SB also included use of a cloud based platform to ensure providers that are not using electronic health records can actively participate in the care coordination process and infrastructure. This act also ensures navigators are available through the statewide care coordination infrastructure via website and mobile applications, and that BHA services ensure individuals and families can initiate timely access to services.	Ongoing
RAE policy development to ensure adequate care coordination across the SUD continuum	DY1Q3: the State approved the RAEs' updated care coordination policy drafts.	Completed
Certify recovery residences; OBH	Implementation began January 2020.	Ongoing

Under the extension, Colorado intends to continue to certify recovery residences and collaborate with the RAEs to enhance care coordination activities.

Evaluation Design

Mercer Government Human Services Consulting (Mercer), part of Mercer Health & Benefits LLC, the independent evaluator, facilitated meetings with the State team to develop the evaluation design plan for the waiver. These meetings included development of driver diagrams, development of research questions, development of hypotheses, developing the analytic methods employed in the evaluation, and assessing the methodological limitations. The meetings began with the approval of the demonstration in early 2021. The State finalized

the draft evaluation design and submitted the plan to CMS on September 30, 2021, and revised on April 29, 2022. CMS approved the evaluation design on May 23, 2022.

Monitoring Protocol

The State has fully complied with all requirements surrounding the monitoring protocol. The State submitted the Monitoring Protocol to CMS on September 29, 2021, and revised on May 16, 2022. CMS approved the SUD monitoring protocol on May 23, 2022. Mercer programmed the performance metrics including the CMS issued Technical Specification updates to metrics on September 11, 2021. The State has submitted regular quarterly and annual Monitoring Reports for all quarters.

To complete these activities, the State held meetings with Mercer to review required performance measure specifications and discuss the evaluation design and waiver milestones. Colorado and Mercer completed service and coding crosswalks to ensure that the performance measures are calculated consistently with the technical specifications. The deviations in coding and programming from the CMS specifications for performance measures based on factors such as data availability and Colorado specific coding practices were identified, evaluated, and documented. In addition, Colorado and Mercer met with the State's PDMP team to select the Health Information Technology (HIT) performance measures. A reporting schedule of performance measures was developed.

Evidence of Progress under the Demonstration and Current Status of Substance Use Disorder in Colorado

Despite these efforts, the number of SUD deaths in Colorado continues to remain high. Drug overdose deaths continue to be a leading cause of injury-related deaths in both the United States and Colorado.[12]

The State Unintentional Drug Overdose Reporting System (SUDORS) is funded through the Centers for Disease Control and Prevention's (CDC) Overdose Data-to-Action for States grant to collect comprehensive data on unintentional and undetermined drug overdose deaths to guide prevention efforts.[13] SUDORS brings together multiple sources of data to get a better understanding of the characteristics and circumstances related to unintentional and undetermined drug overdose deaths. The CDC started funding the CDPHE to collect data for the SUDORS program in January 2020.

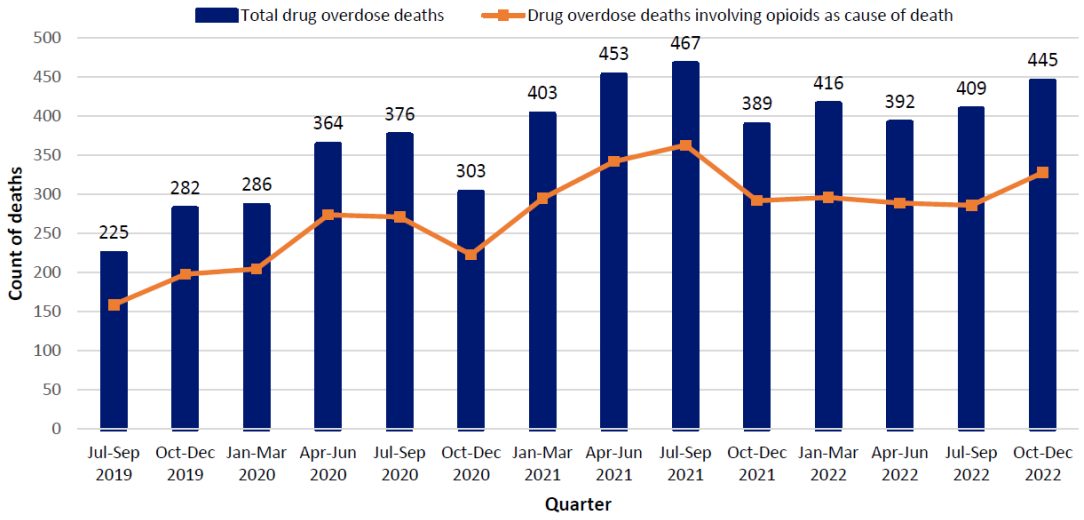
Between July 2019 and December 2022, there were 5,210 drug overdose deaths in Colorado collected by the SUDORS data collection system, 5,111 (98.1%) of those had a manner of "unintentional" (accidental), and 99 (1.9%) had a manner of "undetermined". Among information collected for these deaths, 91.9% had available coroner/medical examiner report information, and 100% had death certificate information. The number of unintentional drug overdose deaths had an overall increasing trend each quarter from July to September 2019 to July through September 2021. Starting in the quarter, October to December 2021, the number of unintentional drug overdose deaths decreased and remained stable for the remaining four quarters through October to December 2022. Every quarter, nearly 75 percent of unintentional drug overdose deaths involved an opioid (Figure 1).

[12] Provisional Data Shows U.S. Drug Overdose Deaths Top 100,000 in 2022. NCHS: A Blog of the National Center for Health Statistics. May 18, 2023. National Center for Health Statistics, Centers for Disease Control and Prevention. Retrieved from: https://blogs.cdc.gov/nchs/2023/05/18/7365/
Demont, C, Yocum K, Bol, KA. Drug Overdose Deaths in Colorado: Final Data for 2010-2020. HealthWatch 118. Denver, CO. Center for Health and Environmental Data, Colorado Department of Public Health and Environment. January 2022. Retrieved from: https://drive.google.com/file/d/1VGOSUU15rxV-Zj37T5c9GW13w2D76uzm/view

[13] Centers for Disease Control and Prevention. (2022) CDC's State Unintentional Drug Overdose Reporting System (SUDORS). Accessed from: About the State Unintentional Drug Overdose Reporting System (SUDORS) | Overdose Prevention | CDC; https://www.cdc.gov/overdose-prevention/data-research/facts-stats/about-sudors.html?CDC_AAref_Val=https://www.cdc.gov/drugoverdose/fatal/sudors.html

Figure 1. Unintentional Drug Overdose Deaths

Figure 1. Total drug overdose deaths (unintentional and undetermined manner) and overdose deaths involving opioids by quarter, Colorado occurrences, July 2019 - December 2022.



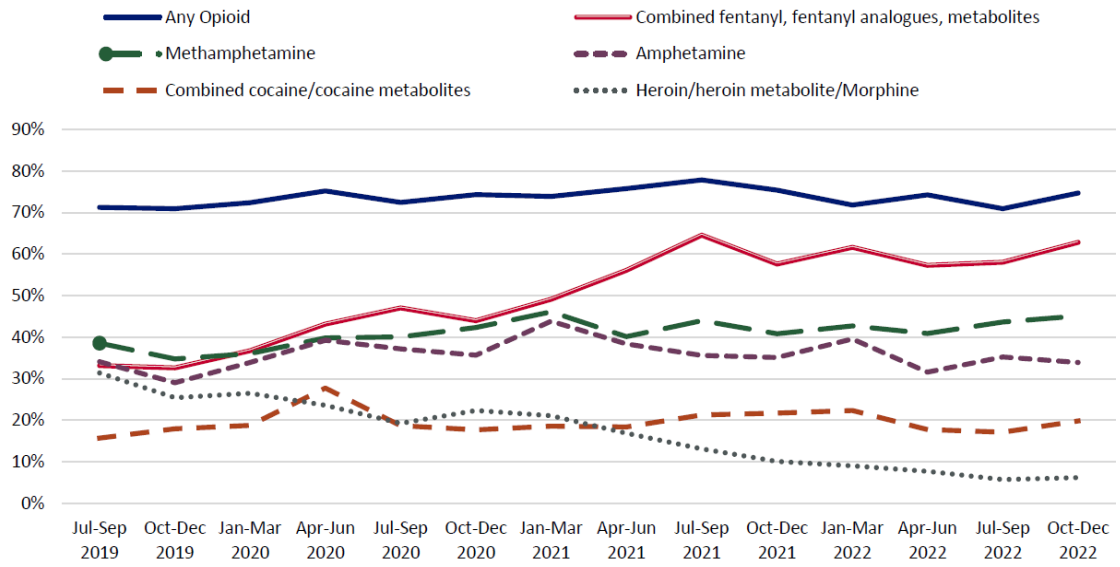
Opioids may include prescription opioid analgesics, methadone, heroin, and all forms of fentanyl.
Source: State Unintentional Drug Overdose Reporting System, Colorado Department of Public Health and Environment

Source: Demont, C, Bol, KA. *Unintentional Drug Overdose Deaths: Summary from the State Unintentional Drug Overdose Reporting System (SUDORS)*, July 2019 to December 2022, Colorado Occurrences. HealthWatch 126. Denver, CO. Center for Health and Environmental Data, Colorado Department of Public Health and Environment. December 2023.

While the State has seen success in reducing the number of heroin related deaths, the number of fentanyl related deaths has increased. See Figure 6 below. The percentage of decedents who had opioids listed under substances that caused death remained stable each quarter from July 2019 to December 2022. However, the specific opioid identified as combined fentanyl, fentanyl analogs and metabolites showed an increasing trend each quarter over time. While the percentage of decedents who had amphetamine listed as a cause of death did not increase over time, the percentage of decedents who had methamphetamine identified as a cause of death did increase over the time period. The percentage of decedents who had heroin identified as a cause of death decreased over time while the percentage of decedents with cocaine listed under cause of death remained stable over time.

Figure 6. Drug Overdose Deaths

Figure 6. Drug overdose deaths (unintentional and undetermined manner) by top substances identified as cause of death, alone or in combination with other substances, by quarter, Colorado occurrences, July 2019 - December 2022.



Opioids may include prescription opioid analgesics, heroin, and all forms of fentanyl.
Source: State Unintentional Drug Overdose Reporting System, Colorado Department of Public Health and Environment

Source: Demont, C, Bol, KA. *Unintentional Drug Overdose Deaths: Summary from the State Unintentional Drug Overdose Reporting System (SUDORS)*, July 2019 to December 2022, Colorado Occurrences. HealthWatch 126. Denver, CO. Center for Health and Environmental Data, Colorado Department of Public Health and Environment. December 2023.

Drug Overdose Death Demographics

For the 5,210 deaths between July 2019 and December 2022, most people who died from drug overdoses were aged 25-44, male, and White, non-Hispanic. Six percent of decedents were veterans of the US Armed Forces.[14]

The 25-34 and 35-44 year age groups had the highest numbers of deaths each quarter compared to the other age groups and increased each quarter from July 2019 to December 2022. Drug overdose deaths among the 45-54, 55-64, and 65 years and older groups also increased each quarter overall. The 15-24 year age group had increases in drug overdose deaths each quarter from July 2019 to June 2021, then decreased each quarter from July 2021 to December 2022. Counts of overdose deaths among the 0–14 year age group remained small and stable over time.[15]

The White, non-Hispanic population had the highest number and largest increase of overdose deaths each quarter from July 2019 to December 2022. The White, Hispanic, and Black/African American populations also had an overall increase in the number of overdose

[14] State Unintentional Drug Overdose Reporting System, Colorado Department of Public Health and Environment
[15] State Unintentional Drug Overdose Reporting System, Colorado Department of Public Health and Environment

deaths each quarter from July 2019 to December 2022. Trends among other populations during this time period remained stable.[16]

Among the 5,210 decedents, 244 were not residents of the state of Colorado. Among Colorado residents specifically, the highest number and percentage of overdose deaths occurred among residents of counties that were described as urban (77.6%), based on the Colorado Rural Health Center county designations.[17] Additionally, almost 10 percent of the decedents (9.5%) were noted as experiencing homelessness at the time of death.[18]

Future Goals of the Program

Extension of the waiver will continue to provide access to residential and inpatient treatment settings, expand the availability of intensive outpatient, withdrawal management and MAT services, and increase access to all SUD treatment for members with SUD including alcohol use disorder (AUD). The on-going activities identified above under each milestone will continue to ensure that the most appropriate levels of care are available for patients and improve treatment outcomes. See summary of activities anticipated under the extension in the Table below to further reduce SUD related deaths.

[16] State Unintentional Drug Overdose Reporting System, Colorado Department of Public Health and Environment

[17] Geographic region defines each county in Colorado as urban, rural, or frontier as designated by The Colorado Rural Health Center, The State Office of Rural Health. Retrieved from: https://coruralhealth.org/wp-content/uploads/2013/10/2022-county-designations.pdf

[18] State Unintentional Drug Overdose Reporting System, Colorado Department of Public Health and Environment

Action	Summary of Intended Actions in Demonstration Extension
Milestone 1: Adopt ASAM fourth edition	Colorado intends to increase care coordination to ensure continued engagement and strengthen transition so LOCs and to adopt ASAM fourth edition.
Milestone 2: Continue provider ASAM training and technical assistance	Colorado intends to continue the training and technical assistance to align providers with ASAM standards, as ongoing activities as new providers and/or new staff at existing providers are identified.
Milestone 2: Continue provider communication	Colorado intends to continue communication with providers, as an on-going activity including website maintenance, updates, provider forums, and newsletters.
Milestone 3: Implement ASAM fourth edition	Colorado intends to collaborate with the BHA on an implementation plan for transitioning to ASAM fourth edition. This will include ASAM fourth edition listening sessions, training sessions, and technical assistance.
Milestone 4: Refine bed tracking	Colorado intends to refine bed tracking capabilities to include identifying bed availability by population.
Milestone 4: Expand access to MAT	Colorado intends to expand access to MAT specifically for OUD by implementation of mobile MAT and Med Units.
Milestone 5: Continue implementing SOR grant activities; BHA responsible	Colorado BHA intends to continue implementing SOR grant activities.
Milestone 5: Continue implementing marijuana tax revenue SUD prevention-related activities	Colorado BHA intends to continue implementing marijuana tax revenue SUD prevention-related activities.
Milestone 5: Continue Consortium work groups	The Colorado Consortium intends to continue the SUD Consortium work groups.
Milestone 5: Increase the use of PDMP by providers and pharmacists	The Colorado DORA intends to continue to increase the use of PDMP by providers and pharmacists.
Milestone 5: Identify opportunities for expanding PDMP functionality and use	DORA intends to continue to identify opportunities for expanding PDMP functionality and use as noted in the three items below: • Enhance interstate data sharing in order to better track patient specific prescription data. • Enhance “ease of use” for prescribers and other state and federal stakeholders. • Enhance connectivity between the State’s PDMP and statewide, regional, or local HIE.
Milestone 5: Collaborate with PAS to improve SBIRT rates.	Colorado intends to collaborate with PAS to improve SBIRT rates.

Milestone 6: Collaborate with the RAEs to enhance care coordination activities	Colorado intends to continue collaboration with the RAEs to enhance care coordination activities through the Implementation Work Group.
Milestone 6: RAE care coordination policy development	Colorado intends to continue RAE policy development to ensure adequate care coordination across the SUD continuum.
Milestone 6: Certify recovery residences	Colorado BHA intends to continue to certify recovery residences.

Appendix B

Budget neutrality assessment, and projections for the projected extension period. The State will present an analysis of budget neutrality for the current Demonstration approval period, including the status of budget neutrality to date based on the most recent expenditure and member month data, and projections through the end of the current approval that incorporate the latest data. CMS will also review the State's Medicaid Budget and Expenditure/CHIP Budget and Expenditure System (MBES/CBES) expenditure reports to ensure that the Demonstration has not exceeded the federal expenditure limits established for the Demonstration. The State's actual expenditures incurred over the period from initial approval through the current expiration date, together with the projected costs for the requested extension period, must comply with CMS budget/allotment neutrality requirements outlined in the STCs.

Analysis of Current Demonstration for SUD

CMS approved a hypothetical per member per month (PMPM) budget neutrality agreement for the State for this Demonstration. The approved Without Waiver costs using the trend rates and per capita cost approved for each eligibility group for each year of the Demonstration are listed in the table 5 below. Demonstration Year (DY)1 began January 1, 2021, with the SUD Demonstration approval. The extension would be effective January 1, 2026.

The State reports on the 1115 waiver schedules this quarter by Date of Payment for the Date of Service. The State is using the correct budget neutrality forms for the SUD 1115 quarterly report. See the Table 13 below for the Schedule C reported amounts as of Demonstration Year 3.

A summary of the With and Without waiver costs for the past demonstration to date are below in Table 9 showing that the Demonstration is budget neutral.

Table 9. Summary of Current Demonstration Budget Neutrality

MEG	DY1	DY2	DY3	Total
Without Waiver	$1,170,924	$1,229,268	$1,030,075	
With Waiver	$1,197,445	$890,629	$707,845	
Variance	($26,521)	$338,639	$322,230	$634,348

Budget Neutrality — Caseload and Expenditure Estimates

This section presents the Colorado Department of Health Care Policy and Financing (HCPF) approach for budget neutrality including the data and assumptions used in the development of the cost and caseload estimates supporting this 1115 waiver request.

Federal policy requires that section 1115 Demonstration applications be budget neutral to the federal government. This means that an 1115 Demonstration cannot cost the federal

government more than what would have otherwise been spent absent the 1115 Demonstration.

The particulars of budget neutrality, including methodologies, are subject to negotiation between HCPF and CMS.

Colorado HCPF proposes a per capita budget neutrality model for the populations covered under the Demonstration by Medicaid Eligibility Group (MEG). This proposed demonstration will not reduce or negatively impact current Medicaid enrollment or the State's Children's Health Insurance Program (CHIP) Allotment.

The five-year demonstration extension is proposed to begin January 1, 2026, through December 31, 2030, each DY is outlined in Table 10.

Table 10. Demonstration Extension Periods

	DY6	DY7	DY8	DY9	DY10
Begin Date	1/1/2026	1/1/2027	1/1/2028	1/1/2029	1/1/2030
End Date	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Current Demonstration Period

The current 1115 demonstration covers the period between January 1, 2021, and December 31, 2025, and is identified as DY1 through DY5. The budget neutrality Appendix F: The State's Budget Neutrality Spreadsheets illustrate the current budget neutrality per member per month (PMPM) limits, actual member months and expenditures, and the difference between the waiver limits and actual expenditures. Actual member months and expenditures are included for DY1 through DY3. Projections are used for DY4 and DY5 because the data is not complete at the time of this application submission.

Note, in July 2022 HCPF submitted a budget neutrality revision to reflect a data correction to the previously approved budget neutrality per capita limits. The per capita (PMPM) amounts illustrated in DY1-DY5 for the Institutions for Mental Disease (IMD) for substance use disorder (SUD) for adults between 18-64 years (MEG 1 – Legacy and MEG 2 – Expansion) are based on these revised budget neutrality calculations.

Renewal Period Demonstration Proposals

The budget neutrality reflects a renewal and new demonstration proposal as outlined in Table 11.

Table 11. Demonstration Proposals and Effective Dates

Demonstration Proposal	Effective Date
Renewal of IMD for SUD for adults between 18-64 years old.	Renewal Effective Date: January 1, 2026
New waiver proposal for at-risk long-term services and supports (LTSS) presumptive eligibility (PE). LTSS PE includes individuals attesting to meeting nursing facility (NF)/home- and community-based (HCBS) LOC, attesting to meeting disability requirement(s), and attesting to income under 300%, resources under the designated limit, and no transfer of assets	New Proposal Effective January 1, 2026
Re-entry services for adults and youth transitioning from correctional facilities	Amendment submitted April 1, 2024
Reimbursement for acute inpatient and residential stays in institutions for mental disease for individuals diagnosed with a serious mental illness (SMI) or serious emotional disturbance (SED)	Amendment submitted April 1, 2024
Continuous eligibility for children 0-3 and 12 months of continuous coverage for individuals leaving incarceration	Amendment submitted April 1, 2024
Health Related Social Needs (HRSN), housing and nutrition supports	Submitted August 12, 2024

Caseload and Total Computable Expenditure Projections DY6 to DY10

SUD-IMD Renewal

The SUD-IMD without waiver reflects actual DY1-DY3 member months and revised budget neutrality PMPMs, DY4-DY5 continue to use prior waiver projections. The renewal period DY6-DY10 is projected from DY5 using the trend factors from the current demonstration budget neutrality.

The existing waiver and budget neutrality reflects two MEGs as follows:

- **MEG 1 (Medicaid Eligible Non-Expansion SUD-IMD)**: This MEG includes all Medicaid eligible beneficiaries, whose household income is below 133% of the Federal Poverty Limit (FPL) and receiving services in an IMD for a SUD diagnosis.

- **MEG 2 (Medicaid Adult Expansion SUD-IMD)**: This MEG includes the Medicaid expansion eligible beneficiaries, whose household income is above 133% of the FPL and receiving services in an IMD for a SUD diagnosis.

The projected DY5 member months and per capita were trended utilizing the current budget neutrality approved trend factors to develop DY6 through DY10, as illustrated in Table 12 below.

Table 12. SUD-IMD Renewal Projections

	DY6	DY7	DY8	DY9	DY10
MEG 1 — Non-Expansion Adults					
Member Months	1,611	1,643	1,676	1,710	1,744
Per Capita (PMPM)	$3,075	$3,225	$3,383	$3,549	$3,723
Projected Expenditures	$4,953,296	$5,299,218	$5,670,531	$6,069,058	$6,493,026
MEG 2 — Expansion Adults					
Member Months	2,182	2,226	2,271	2,316	2,362
Per Capita (PMPM)	$2,888	$3,049	$3,220	$3,400	$3,591
Projected Expenditures	$6,300,744	$6,787,755	$7,312,772	$7,875,305	$8,481,500

Table 13. Institution for Mental Disease (IMD) for Substance Use Disorder (SUD) for Adults between 18-64 Years Old

TREND FACTORS TABLE

Medicaid Eligibility Group	Mem-Mon	PMPM
MEG: Legacy	2.0%	4.9%
MEG: Adult Expansion	2.0%	5.6%

							RENEWAL PERIOD				
		Actual DY1	Actual DY2	Actual DY3	*Projection* DY4	*Projection* DY5	DY6	DY7	DY8	DY9	DY10
WITHHOUT WAIVER		1/1/21 - 12/31/21	1/1/22 - 12/31/22	1/1/23 - 12/31/23	1/1/24 - 12/31/24	1/1/25 - 12/31/25	1/1/26 - 12/31/26	1/1/27 - 12/31/27	1/1/28 - 12/31/28	1/1/29 - 12/31/29	1/1/30 - 12/31/30
MEG: Legacy	Total	$ 275,947	$ 281,851	$ 218,417	$ 3,243,997	$ 4,628,128	$ 4,953,296	$ 5,299,218	$ 5,670,531	$ 6,069,058	$ 6,493,026
	PMPM	$ 2,421	$ 2,539	$ 2,664	$ 2,794	$ 2,931	$ 3,075	$ 3,225	$ 3,383	$ 3,549	$ 3,723
	Mem-Mon	114	111	82	1,161	1,579	1,611	1,643	1,676	1,710	1,744
MEG: Adult Expansion	Total	$ 894,977	$ 947,417	$ 811,658	$ 4,070,631	$ 5,849,031	$ 6,300,744	$ 6,787,755	$ 7,312,772	$ 7,875,305	$ 8,481,500
	PMPM	$ 2,199	$ 2,322	$ 2,452	$ 2,589	$ 2,734	$ 2,888	$ 3,049	$ 3,220	$ 3,400	$ 3,591
	Mem-Mon	407	408	331	1,572	2,139	2,182	2,226	2,271	2,316	2,362
Total		**$ 1,170,924**	**$ 1,229,268**	**$ 1,030,075**	**$ 7,314,628**	**$ 10,477,159**	**$ 11,254,040**	**$ 12,086,973**	**$ 12,983,303**	**$ 13,944,363**	**$ 14,974,526**

Without Waiver Notes:

1. Actual PMPM is based on July 2022 submission for data rebase and correction.

*2. Mem-Mon sources from actual 1115 SUD-IMD monitoring spreadsheet | **MemMon Actual** | for DY1 through DY3. DY4 and DY5 are based on 1115 SUD-IMD monitoring spreadsheet | **MemMon Projected** |.*

3. Projected Member months and PMPM are based on DY5 values projected using trend factors in the Trend Factors table.

							RENEWAL PERIOD				
		Actual DY1	Actual DY2	Actual DY3	*Projection* DY4	*Projection* DY5	DY6	DY7	DY8	DY9	DY10
WITH WAIVER		1/1/21 - 12/31/21	1/1/22 - 12/31/22	1/1/23 - 12/31/23	1/1/24 - 12/31/24	1/1/25 - 12/31/25	1/1/26 - 12/31/26	1/1/27 - 12/31/27	1/1/28 - 12/31/28	1/1/29 - 12/31/29	1/1/30 - 12/31/30
MEG: Legacy	Total	$ 295,758	$ 221,585	$ 141,669	$ 3,243,997	$ 4,628,128	$ 4,953,296	$ 5,299,218	$ 5,670,531	$ 6,069,058	$ 6,493,026
	PMPM	$ 2,594	$ 1,996	$ 1,728	$ 2,794	$ 2,931	$ 3,075	$ 3,225	$ 3,383	$ 3,549	$ 3,723
	Mem-Mon	114	111	82	1,161	1,579	1,611	1,643	1,676	1,710	1,744
MEG: Adult Expansion	Total	$ 901,687	$ 669,044	$ 566,176	$ 4,070,631	$ 5,849,031	$ 6,300,744	$ 6,787,755	$ 7,312,772	$ 7,875,305	$ 8,481,500
	PMPM	$ 2,215	$ 1,640	$ 1,711	$ 2,589	$ 2,734	$ 2,888	$ 3,049	$ 3,220	$ 3,400	$ 3,591
	Mem-Mon	407	408	331	1,572	2,139	2,182	2,226	2,271	2,316	2,362
Total		**$ 1,197,445**	**$ 890,629**	**$ 707,845**	**$ 7,314,628**	**$ 10,477,159**	**$ 11,254,040**	**$ 12,086,973**	**$ 12,983,303**	**$ 13,944,363**	**$ 14,974,526**

Without Waiver Notes:

*1. Actual PMPM is based on expenditures reported in the 1115 SUD-IMD monitoring spreadsheet | **Schedule C** |.*

*2. Mem-Mon sources from actual 1115 SUD-IMD monitoring spreadsheet | **MemMon Actual** | for DY1 through DY3. DY4 and DY5 are based on 1115 SUD-IMD monitoring spreadsheet | **MemMon Projected** |.*

3. Projected Member months and PMPM are based on DY5 values projected using trend factors in the Trend Factors table. The With Waiver is set equal to Without Waiver.

Variance	**$ (26,521)**	**$ 338,639**	**$ 322,230**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

HYPOTHETICALS TEST 1 Cumulative Target Limit						RENEWAL PERIOD				
	Actual DY1 1/1/21 - 12/31/21	Actual DY2 1/1/22 - 12/31/22	Actual DY3 1/1/23 - 12/31/23	*Projection* DY4 1/1/24 - 12/31/24	*Projection* DY5 1/1/25 - 12/31/25	DY6 1/1/26 - 12/31/26	DY7 1/1/27 - 12/31/27	DY8 1/1/28 - 12/31/28	DY9 1/1/29 - 12/31/29	DY10 1/1/30 - 12/31/30
Cumulative Target Percentage (CTP)	2.0%	1.5%	1.0%	0.5%	0.0%	2.0%	1.5%	1.0%	0.5%	0.0%
Cumulative Budget Neutrality Limit (CBNL)	$ 1,170,924	$ 2,400,192	$ 3,430,267	$ 10,744,895	$ 21,222,054	$ 32,476,094	$ 44,563,066	$ 57,546,370	$ 71,490,733	$ 86,465,258
Allowed Cumulative Variance (= CTP X CBNL)	$ 23,418	$ 36,003	$ 34,303	$ 53,724	$ -	$ 649,522	$ 668,446	$ 575,464	$ 357,454	$ -
Actual Cumulative Variance (Positive = Overspending)	$ 26,521	$ (312,118)	$ (634,348)	$ (634,348)	$ (634,348)	$ (634,348)	$ (634,348)	$ (634,348)	$ (634,348)	$ (634,348)

Appendix C

Interim evaluation of the overall impact of the Demonstration that includes evaluation activities and findings to date, in addition to plans for evaluation activities over the requested extension period. The interim evaluation should provide CMS with a clear analysis of the State's achievement in obtaining the outcomes expected as a direct effect of the Demonstration program. The State's interim evaluation must meet all of the requirements outlined in the STCs.

Mercer
Government Human Services Consulting

Substance Use Disorder 1115 Demonstration

Interim Evaluation

State of Colorado

August 14, 2024

Contents

Section 1
Executive Summary

The Colorado Demonstration has authority for the coverage of high quality, medically necessary treatment for opioid use disorder (OUD) and other substance use disorders (SUDs). This interim evaluation report includes findings from the first 2.5 years of the demonstration: July 1, 2021 through June 30, 2023. Qualitative findings extend an additional year, through June of 2024.

History and Overview of the Demonstration

Colorado's section 1115 waiver application was prompted by growing impacts of the national opioid epidemic and an increase in the rate of SUD diagnosis. The State data provided in the initial application to CMS underscored that Colorado Medicaid members are particularly affected by SUDs, impacting the health outcomes and costs of this population:

- An estimated 11% of Medicaid members have an SUD diagnosis.[19]
- Twenty-nine percent of those who die from an overdose in Colorado are Medicaid members.
- The most prevalent substances abused among Medicaid members are alcohol and methamphetamine.[20]
- Though 11% of the Medicaid population, the cost of care for members with a SUD diagnosis accounts for nearly 19% of the total cost of care to the system.
- On average, the annual cost of care for a Medicaid member with an SUD diagnosis is nearly double the cost for one without ($10,445 versus $5,646).
- Members with a SUD diagnosis account for 20% of the State's non-SUD related pharmacy spending.[21]

Additionally, according to the 2017 Colorado Health Access Survey (CHAS), despite the State's efforts to date, Colorado continued to have an unmet need for SUD treatment.[22] The survey showed that more than 67,000 Coloradans need some type of treatment for drug or alcohol use but do not receive it.

[19] Russell S. "Colorado Drug Trends." Drug/Alcohol Coordinated Data System (DACODS), Colorado Department of Human Services Office of Behavioral Health. 2018.

[20] Colorado Health Institute. Exploring Options for Residential and Inpatient Treatment of Substance Use Disorder in Health First Colorado. November 2017. Available at: https://www.colorado.gov/pacific/sites/default/files/HCPF%202017%20Inpatient%20SUD%20Treatment%20Report.pdf

[21] Colorado Substance Use Disorder Data Fiscal Year 2017-2018. Colorado Department of Health Care Policy & Financing, Pharmacy and Behavioral Health Data Division. 2019.

[22] Colorado Health Institute. 2017 Colorado Health Access Survey: The New Normal. https://www.coloradohealthinstitute.org/research/colorado-health-access-survey-2017

Colorado's Demonstration

Colorado began implementation of the SUD Demonstration on January 1, 2021 and has completed or begun (some activities will be ongoing throughout the Demonstration period) all activities outlined in its CMS-approved original implementation plan. The State continues to work on minor improvements to the implementation strategies, as detailed in annual and quarterly monitoring reports, but has not made any significant changes to Demonstration operations.

The Demonstration intends to accomplish the following aims:

- Promote increased access to care for members with SUD.
- Improve the quality of care for members with SUD.
- Improve outcomes for members using SUD services and maintain costs.

These State aims align with the Demonstration's primary drivers which are the six federal SUD goals:

- Increased rates of identification, initiation, and engagement in treatment;
- Increased adherence to and retention in treatment;
- Reductions in overdose deaths, particularly those due to opioids;
- Reduced utilization of emergency departments (EDs) and inpatient hospital settings for treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services;
- Fewer readmissions to the same or higher level of care where the readmission is preventable or medically inappropriate; and
- Improved access to care for physical health conditions among beneficiaries.

Demonstration activities fall into four specific categories:

- Access to the entire range of OUD and SUD treatment levels of care.
- Capacity assessment for expanded inpatient and residential services.
- Workforce development and training.
- Other implementation planning activities, including stakeholder engagement and provider and managed care entities (MCE) training opportunities.

Evaluation Conclusions

The State completed significant activities to ensure that new levels of care were implemented, including: rate methodologies, contract amendments, billing system changes, and billing rules. The state also implemented changes to regulatory oversight including licensing of facilities to align with ASAM criteria. However, as shown in the data, the effects of these implementation activities on individual levels of care were mixed. Many, but not all, of the evaluation hypotheses were at least partially supported by this

analysis. Most notably, there were general increases in the number of members receiving OUD and SUD services across many levels of care.

Findings are consistent with a Demonstration that is in the middle of implementation. Providers reported that use of American Society of Addiction Medicine (ASAM) placement criteria has been completed and adopted by both providers and MCEs. However, there are some inconsistencies across regional accountable entities (MCEs) that lead to challenges for providers and, sometimes, barriers to access for Medicaid members due to the inconsistency of the day-to-day implementation across MCEs. More training for the MCEs, particularly staff responsible for prior authorizations, on specific features of each ASAM level of care would improve access to care for Medicaid members.

The first two years of the Demonstration saw only a modest increase in the number of available providers, meaning that capacity may remain a barrier to access. While there was an initial increase in the number of providers during the first Demonstration year, that number fell in the second year, nearly to the baseline level.

While significant progress has been made regarding planned activities around improving care coordination across the State, these efforts have not yet translated into results as reported by Demonstration stakeholders or as seen in the quantitative data around access to physical healthcare. In addition to the modest increases in access to preventive/ambulatory health services for adult Medicaid members with SUD, the State continues to experience large and growing readmission rates, decreasing engagement statistics, and a disproportionate percentage of the population receiving withdrawal management (WM) services relative to sustained SUD treatment.

Demonstration progress and implementation advances from some short-term outcomes have not completely translated into long-term progress in lowering readmission rates. While the Demonstration intended to reduce readmissions, the rate increased between baseline and the second Demonstration year. This may reflect the need to continue to improve access to care across all critical levels of care, improve retention in care, improve follow-up after hospitalizations and ED use, and for all populations as well as the ongoing, but incomplete, work to improve care coordination and treatment level transitions.

Evaluation Recommendations

Based on the capacity issues facing the program, Mercer recommends that Colorado reconvene the Provider Capacity Workgroup to analyze wait lists and “service deserts” to ensure there is adequate access to care.

Because the growth in medication assisted treatment (MAT) providers has not translated into more MAT services, we recommend that Colorado work with providers to improve the MAT penetration rates for members with SUD including improving follow-up after withdrawal management where MAT is inducted.

We recommend that Colorado consider implementing the recommendations articulated in the 2022 “Bridging the Gaps: Policy Recommendations to Implement a Cohesive Statewide Care Coordination Infrastructure” report including definitions for care coordination services, supporting care coordination infrastructure, care transitions, standards of care, credentials for providing care coordination services, and payment and accountability models.

We recommend that Colorado report findings with the Independent Evaluator from ongoing reviews of residential treatment providers to assess alignment with ASAM criteria.

We recommend that Colorado consider requiring MCEs to have a performance improvement projects improving care coordination and transitions of care following ED usage, hospitalization, and withdrawal management to improve retention in care, access to primary care, and decreasing readmission rates.

We recommend that Colorado implement intensive training with Level 3.2WM providers on discharge planning and adherence to ASAM principles, and monitor these providers to ensure that warm hand-offs occur with lower and higher levels of care to improve MAT continuity and retention in care. A significant redesign of this level of care appears to be needed to adopt the goals of the demonstration and lead to the recovery of individuals with SUD in Colorado.

Section 2
General Background Information

History and Overview

Colorado's section 1115 waiver application was prompted by growing impacts of the national opioid epidemic and an increase in the rate of SUD diagnosis. Data collected by the Colorado Department of Public Health and Environment between 1999–2017 showed:

- An estimated half a million Coloradans are dependent on alcohol or have used illicit drugs. Nearly 30% (142,000) are Medicaid members.[23]
- Between 2000–2017, 12,821 Coloradans died due to a drug overdose.
- The number of overdose deaths has increased from 7.8 deaths per 100,000 in 2000 to 17.6 deaths per 100,000 in 2017.
- Opioid use is leading the overdose epidemic, accounting for over half of the overdose deaths between 2013–2017, two-thirds of which are attributable to prescription opioids.[24]

The State data underscored that Colorado Medicaid members are particularly affected by SUDs, impacting the health outcomes and costs of this population:

- An estimated 11% of Medicaid members have an SUD diagnosis.[25]
- Twenty-nine percent of those who die from an overdose in Colorado are Medicaid members.
- The most prevalent substances abused among Medicaid members are alcohol and methamphetamine.[26]
- Though 11% of the Medicaid population, the cost of care for members with a SUD diagnosis accounts for nearly 19% of the total cost of care to the system.
- On average, the annual cost of care for a Medicaid member with an SUD diagnosis is nearly double the cost for one without ($10,445 versus $5,646).
- Members with an SUD diagnosis account for 20% of the State's non-SUD related pharmacy spending.[27]

[23] Colorado Health Institute. Exploring Options for Residential and Inpatient Treatment of Substance Use Disorder in Health First Colorado. November 2017. Available at: https://www.colorado.gov/pacific/sites/default/files/HCPF%202017%20Inpatient%20SUD%20Treatment%20Report.pdf

[24] Bol K. Colorado Department of Public Health and Environment. Drug Overdose Deaths in Colorado. Final Data. 1999-2017. December 2018.

[25] Russell S. "Colorado Drug Trends." Drug/Alcohol Coordinated Data System (DACODS), Colorado Department of Human Services Office of Behavioral Health. 2018.

[26] Colorado Health Institute. Exploring Options for Residential and Inpatient Treatment of Substance Use Disorder in Health First Colorado. November 2017. Available at: https://www.colorado.gov/pacific/sites/default/files/HCPF%202017%20Inpatient%20SUD%20Treatment%20Report.pdf

[27] Colorado Substance Use Disorder Data Fiscal Year 2017-2018. Colorado Department of Health Care Policy & Financing, Pharmacy and Behavioral Health Data Division. 2019.

Additionally, according to the 2017 CHAS, despite the State's efforts to date, Colorado continued to have an unmet need for SUD treatment.[28] The survey showed that more than 67,000 Coloradans need some type of treatment for drug or alcohol use but do not receive it.

As described in the waiver application[29], Colorado saw a clear need for more access to services.

Demonstration Approval

On November 13, 2020, Colorado received approval for its application for a section 1115(a) demonstration titled "Expanding the Substance Use Disorder Continuum of Care" (Project Number 11-W-00336/8) effective January 1, 2021 through December 31, 2025.

Interim Evaluation Period

This interim evaluation is being submitted as part of Colorado's waiver extension request to CMS. Demonstration data for the interim evaluation report includes pre-Demonstration data from 2020[30] and data from the Demonstration period of January 1, 2021 through June 30, 2023. Qualitative data is also included from July 1, 2023 through June 30, 2024.

Description of the Demonstration

Colorado began implementation of the waiver on January 1, 2021 and has completed or begun (some activities will be ongoing throughout the Demonstration period) all activities outlined in its original implementation plan. The State continues to work on minor improvements to the implementation strategies, as detailed in annual and quarterly monitoring reports, but has not made any significant changes to the Demonstration. The only significant change to the Demonstration was a technical amendment to Budget Neutrality calculations during the second year of the waiver to correct an omission of fee-for-service data in the initial calculations. That correction does not affect any aspect of the operations of the Demonstration, solely the CMS without waiver benchmarks to which Colorado will be held for the first Demonstration period.

The original waiver purpose, in addition to the six federal goals, was to provide access to residential and inpatient treatment settings, expand the availability of WM services, and increase access to MAT for members with SUD or alcohol use disorder. These changes were designed to ensure that the most appropriate levels of care are available for patients and improve treatment outcomes.

Colorado added ASAM levels 3.1 (Clinically Managed Low-intensity Residential Services), 3.3 (Clinically Managed Population-specific High-intensity Residential Services), 3.5 (Clinically Managed High-intensity Residential Services) and 3.7 (Medically Monitored Intensive Inpatient Services), and 3.7-WM (Medically Managed Inpatient Withdrawal Management) as Medicaid-covered services.

[28] Colorado Health Institute. 2017 Colorado Health Access Survey: The New Normal. https://www.coloradohealthinstitute.org/research/colorado-health-access-survey-2017

[29] A more detailed description of the waiver background is included in the approved Evaluation Design document, included as Appendix A to this document.

[30] The selection of 2020 data for the pre-Demonstration period is discussed in the Methodology section of this document.

The Demonstration intends to accomplish the following aims:

- Promote increased access to care for members with SUD.
- Improve the quality of care for members with SUD.
- Improve outcomes for members using SUD services and maintain costs.

These State goals align with the Demonstration's primary drivers which are the six federal SUD goals:

- Increased rates of identification, initiation, and engagement in treatment;
- Increased adherence to and retention in treatment;
- Reductions in overdose deaths, particularly those due to opioids;
- Reduced utilization of EDs and inpatient hospital settings for treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services;
- Fewer readmissions to the same or higher level of care where the readmission is preventable or medically inappropriate; and
- Improved access to care for physical health conditions among beneficiaries.

Capacity Assessment for Expanded Inpatient and Residential Services

To implement the new SUD benefit, the State has worked to assess and expand Colorado's existing network of inpatient and residential SUD services, managed by managed care entities (MCEs) prior to the Demonstration implementation.

The State has been collecting information about availability of inpatient and residential bed capacity, including engaging with a contractor to conduct a provider assessment throughout the State. This assessment was completed in Demonstration Year One (DY1) and was used to explore how to expand provider capacity in the State. In addition, the Demonstration conducts ongoing network adequacy surveys of the MCEs across all levels of care.

Workforce Development and Training

The State developed a plan and materials to train all providers and MCEs working within the continuum of care on utilization management and ASAM-based assessment to ensure that the continuum of care is applied appropriately and to reduce the under- and/or overutilization of any of the levels of care. The Department continues to engage providers and MCEs with training and technical assistance activities that include:

- Ensuring appropriate licensure levels of all sites in the system.
- Defining and training providers on treatment terms to ensure consistency.
- Training providers on evidence-based practices for member assessment and placement.

- Addressing provider shortages, specifically in rural areas.
- Recruiting providers not currently enrolled as Medicaid providers.

Other Implementation Planning Activities

As reported in quarterly and annual monitoring reports, the State continues to engage in activities to support successful waiver implementation. The State conducted a series of robust stakeholder engagement sessions dating back to October of 2018, culminating in the formal public notice and comment process required for the waiver application, as well as through the life of the demonstration through post award forums, and the public forums for the extension request. As needed, the Department has made changes to state regulations, provider standards and billing rates and procedures, provider communication, engagement and training as well as MCE contract and payment rate changes.

Population Impacted

There are no changes to the Medicaid eligibility criteria included as part of this waiver. The demonstration is open to all Medicaid members with a covered SUD diagnosis. The demonstration has no enrollment limits.

Section 3

Evaluation Questions and Hypotheses

Evaluation questions and hypotheses to be addressed were derived from and organized based on the Driver Diagrams below. The overall aims of the project are to: 1) Promote increased access to care for members with SUD; 2) Improve the quality of care for members with SUD; and 3) Improve outcomes for members using SUD services and maintain costs. To evaluated progress on these aims, the Demonstration evaluation is organized by the primary drivers of change, which are the six federal goals of the demonstration.

- Increased rates of identification, initiation, and engagement in treatment.
- Improved access to physical healthcare.
- Increased adherence to and retention in treatment.
- Reduction in overdose deaths.
- Fewer readmissions to the same or higher level of care.
- Reduced ED and hospital admissions for SUD or OUD.

The specific evaluation questions to be addressed were selected based on the following criteria:

- Potential for improvement, consistent with the key milestones of the demonstration listed above.
- Potential for measurement, including (where possible and relevant) baseline measures that can help to isolate the effects of Demonstration initiatives and activities over time.
- Potential to coordinate with ongoing performance evaluation and monitoring efforts.

Research questions were selected to address the Demonstration's major program goals, to be accomplished by demonstration activities associated with each of the primary drivers. Specific hypotheses regarding the demonstration's impact are posed for each of these evaluation questions. These are linked to the primary drivers in the diagrams and tables beginning in Section 2 "Driver Diagrams, Research Questions and Hypotheses," directly following the next section "Targets for Improvement".

Targets for Improvement

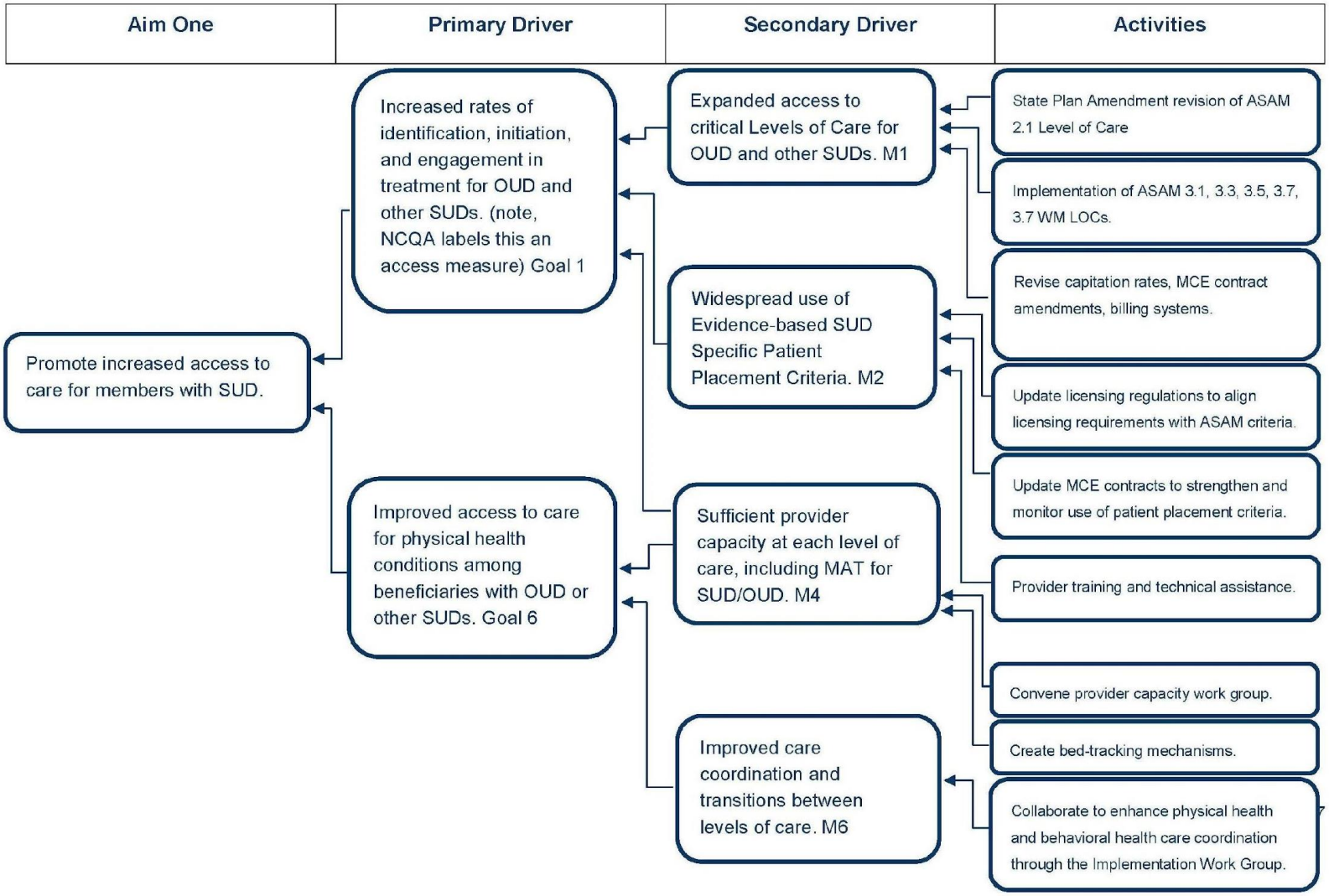
The six federal goals of the SUD waiver with Targets for Improvement are listed in the table below.

Program Goals (Primary Drivers)	Targets
Increased rates of identification, initiation, and engagement in treatment	• Increased access to critical levels of care for OUD and other SUDs. • Increased use of Evidence-based SUD Specific Patient Placement Criteria.
Increased adherence to and retention in treatment	• Increased use of nationally recognized, evidence-based SUD program standards to set residential treatment provider qualifications. • Improved care coordination and transitions between levels of care.
Reductions in overdose deaths, particularly those due to opioids	• Increased use of comprehensive treatment and prevention strategies to address opioid abuse and OUD. • Increased provider capacity at each level of care, including MAT for SUD/OUD.
Reduced utilization of EDs and inpatient hospital settings for treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services	• Increased use of Evidence-based SUD Specific Patient Placement Criteria. • Increased provider capacity at each level of care, including MAT for SUD/OUD.
Fewer readmissions to the same or higher level of care where the readmission is preventable or medically inappropriate	• Increased use of Evidence-based SUD Specific Patient Placement Criteria. • Improved care coordination and transitions between levels of care.
Improved access to care for physical health conditions among beneficiaries	• Improved care coordination and transitions between levels of care for physical care. • Increased use of comprehensive treatment and prevention strategies to address opioid abuse and OUD.

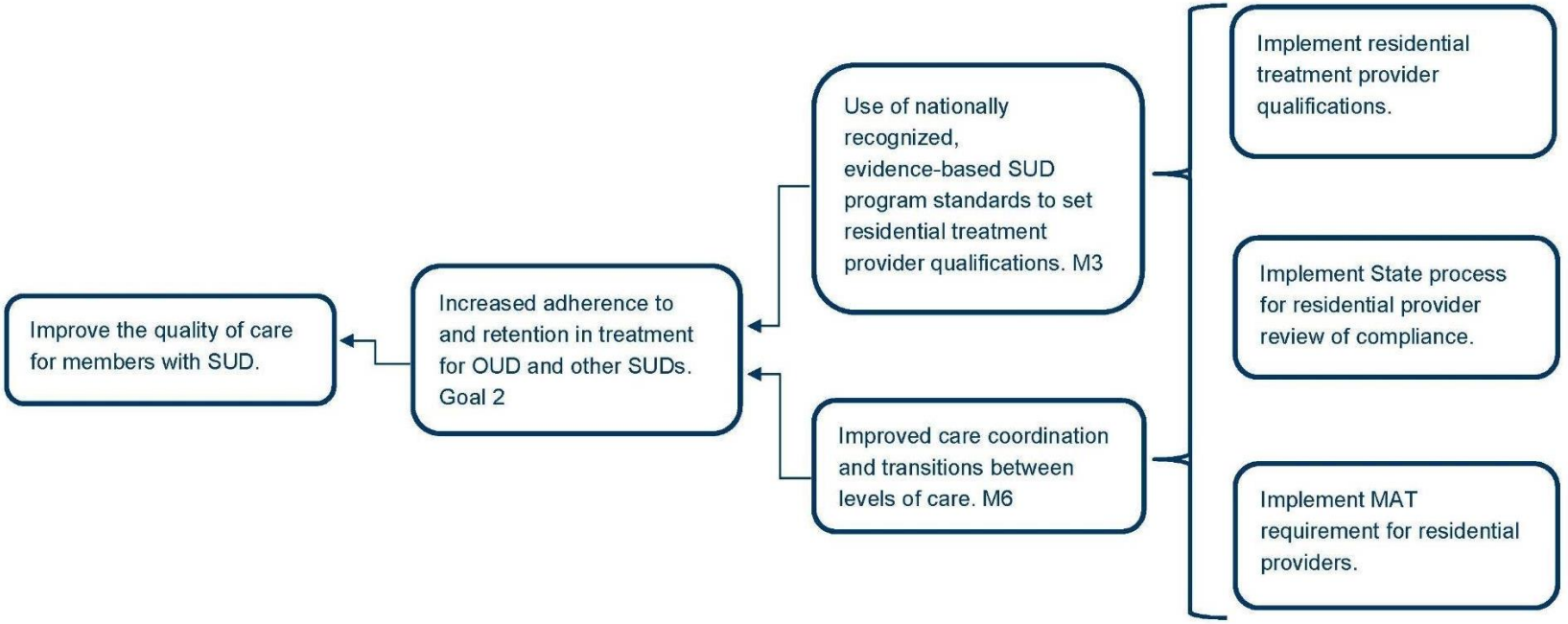
Driver Diagrams

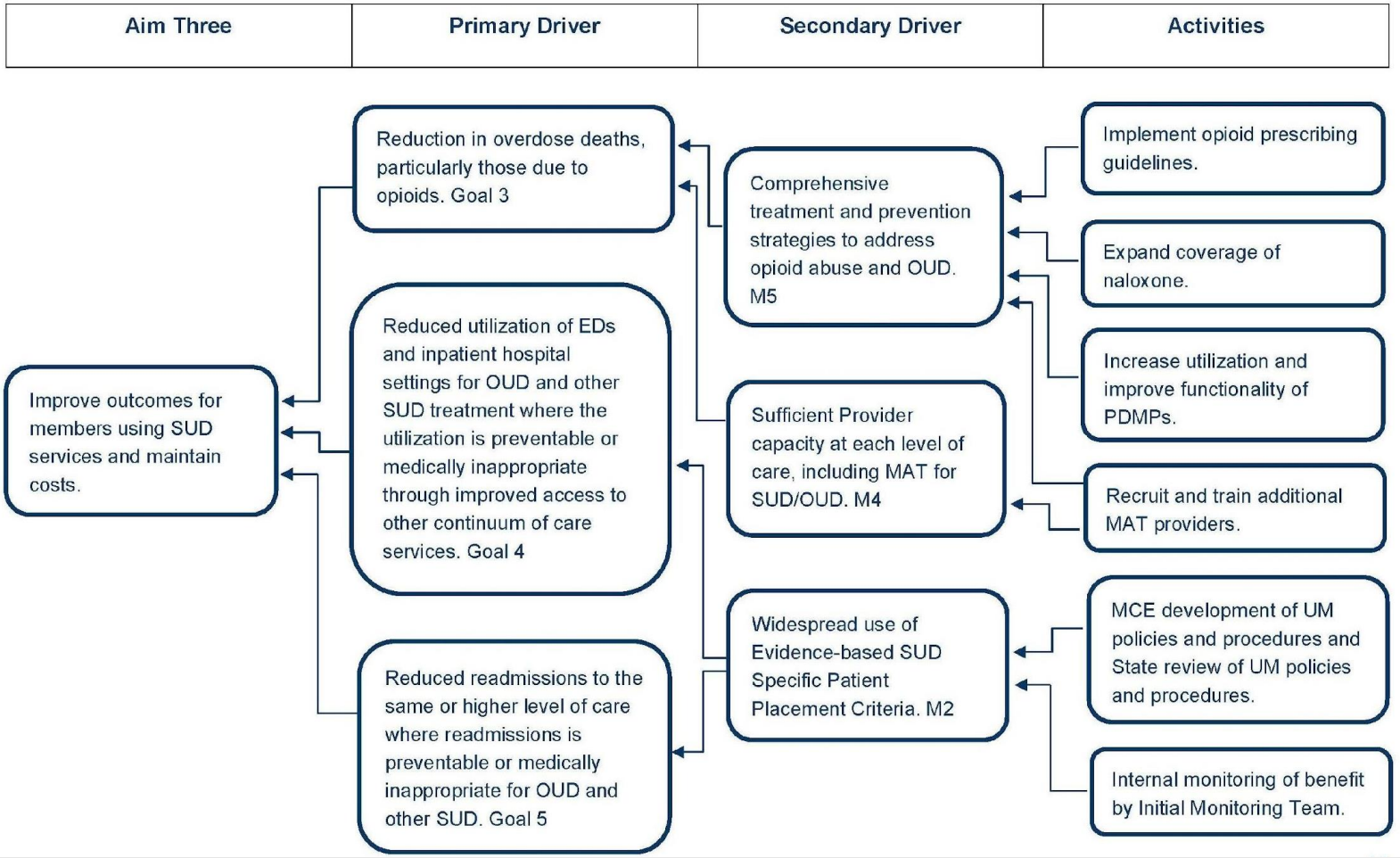
Driver Diagrams, Research Questions and Hypotheses

The three program aims represent the ultimate intentions of the waiver. The primary drivers are strategic improvements or goals to achieve the program aims. The secondary drivers are the interventions (milestones) that will need to be reached in order achieve the strategic improvements. The performance measures outlined with the research question and hypothesis for each milestone describe specific activities completed as part of the implementation. The driver diagrams below present the connections between the program activities, milestones, strategic improvements, and aims.


Aim One
Primary Driver
Secondary Driver
Activities
Promote increased access to care for members with SUD.
Increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs. (note, NCQA labels this an access measure) Goal 1
Improved access to care for physical health conditions among beneficiaries with OUD or other SUDs. Goal 6
Expanded access to critical Levels of Care for OUD and other SUDs. M1
Widespread use of Evidence-based SUD Specific Patient Placement Criteria. M2
Sufficient provider capacity at each level of care, including MAT for SUD/OUD. M4
Improved care coordination and transitions between levels of care. M6
State Plan Amendment revision of ASAM 2.1 Level of Care
Implementation of ASAM 3.1, 3.3, 3.5, 3.7, 3.7 WM LOCs.
Revise capitation rates, MCE contract amendments, billing systems.
Update licensing regulations to align licensing requirements with ASAM criteria.
Update MCE contracts to strengthen and monitor use of patient placement criteria.
Provider training and technical assistance.
Convene provider capacity work group.
Create bed-tracking mechanisms.
Collaborate to enhance physical health and behavioral health care coordination through the Implementation Work Group.

Aim Two	Primary Driver	Secondary Driver	Activities




Aim Three
Primary Driver
Secondary Driver
Activities
Improve outcomes for members using SUD services and maintain costs.
Reduction in overdose deaths, particularly those due to opioids. Goal 3
Reduced utilization of EDs and inpatient hospital settings for OUD and other SUD treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services. Goal 4
Reduced readmissions to the same or higher level of care where readmissions is preventable or medically inappropriate for OUD and other SUD. Goal 5
Comprehensive treatment and prevention strategies to address opioid abuse and OUD. M5
Sufficient Provider capacity at each level of care, including MAT for SUD/OUD. M4
Widespread use of Evidence-based SUD Specific Patient Placement Criteria. M2
Implement opioid prescribing guidelines.
Expand coverage of naloxone.
Increase utilization and improve functionality of PDMPs.
Recruit and train additional MAT providers.
MCE development of UM policies and procedures and State review of UM policies and procedures.
Internal monitoring of benefit by Initial Monitoring Team.

Hypotheses About Demonstration Outcomes

The following evaluation hypotheses were designed to describe how the State intends to achieve the Demonstration's goals, as depicted in the driver diagrams above.

Primary Driver and Goal 1 Hypotheses: Increased Rates of Identification, Initiation, and Engagement in Treatment

Hypothesis 1: The Demonstration will expand access to critical levels of care for OUD and other SUDs, resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs.

Hypothesis 2: The Demonstration will promote widespread use of evidence-based SUD specific patient placement criteria resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs.

Hypothesis 3: The Demonstration will promote sufficient provider capacity at each level of care, including MAT, for SUD/OUD, resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs.

Primary Driver and Goal 2: Improved access to care for physical health conditions among members with OUD or other SUDs.

Hypothesis 4: The Demonstration will improve care coordination for physical care, resulting in improved access to care for physical health conditions among members with OUD or other SUDs.

Primary Driver and Goal 3: Increased adherence to and retention in treatment for OUD and other SUDs.

Hypothesis 5: The 1115 SUD Demonstration will implement use of nationally recognized, evidence-based SUD program standards to set residential treatment provider qualifications resulting in increased adherence to and retention in treatment for OUD and other SUDs.

Hypothesis 6: The 1115 SUD Demonstration will improve care coordination and transitions between levels of care qualifications resulting in increased adherence to and retention in treatment for OUD and other SUDs.

Primary Driver and Goal 4: Reduction in overdose deaths, particularly those due to opioids.

Hypothesis 7: The Demonstration will implement comprehensive treatment and prevention strategies to address opioid abuse and OUD as well as recruit and train more providers to provide MAT, resulting in a reduction in overdose deaths.

Primary Driver and Goal 5: Reduced readmissions to the same or higher level of care where readmission is preventable or medically inappropriate for OUD and other SUD.

Hypothesis 8: The Demonstration will lead to widespread use of evidence-based SUD specific patient placement criteria resulting in reduced readmissions to the same or higher

level of care where readmission is preventable or medically inappropriate for OUD and other SUD.

Primary Driver and Goal 6: Reduced utilization of EDs and inpatient hospital settings for OUD and other SUD treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services.

Hypothesis 9: The Demonstration will lead to widespread use of evidence-based SUD specific patient placement criteria resulting in reduced utilization of EDs and inpatient hospital settings for OUD and other SUD treatment where the utilization is preventable or medically inappropriate.

Hypothesis 10: The Demonstration will improve outcomes for members using SUD services with similar or lower service costs.

This report builds on the initial findings of the Midpoint Assessment submitted to CMS on August 29, 2023 and describes ongoing progress in the first 2.5 years of the Demonstration. A full description of the methods used for interim reporting, is included in the next section of this report.

Section 4
Methodology

Evaluation Design

This interim evaluation report of Colorado's progress in implementing its SUD 1115 Waiver Demonstration utilizes a mixed-methods evaluation design with three main goals:

- Describe the progress made on specific waiver-supported activities (process/implementation evaluation).
- Demonstrate change/accomplishments in each of the waiver milestones (short-term outcomes).
- Demonstrate progress in meeting the overall project goals/aims.

A combination of qualitative and quantitative approaches is used throughout the evaluation. Qualitative methods for the interim evaluation report include focus groups with Department and provider staff, MCEs, as well as document reviews of contracts, policy guides, manuals, and quarterly monitoring reports submitted to CMS. Quantitative methods include descriptive statistics and time series analyses showing change over time in both counts and rates for specific metrics and an interrupted time series (ITS) analysis to assess the degree to which the timing of waiver interventions affect changes across specific outcome measures.

Five focus groups were conducted between May and July of 2024 with staff members in the following groups/departments who are directly responsible for SUD 1115 implementation and operations: Health Care Policy & Financing (HCPF), Behavioral Health Administration (BHA), MSOs, MCEs, as well as service providers. In addition, a consumer listening session was held in June of 2024 to solicit member feedback regarding SUD service accessibility and quality.

We used a narrative, thematic analysis to organize focus group content into Demonstration successes and challenges within each of the six program goals. Similarly, document reviews were used to identify and document milestones achieved.

To maximize efficiency in the evaluation, the quantitative outcome measures used for this evaluation align with performance measures being reported to CMS. As the independent evaluator/contractor, Mercer Government Human Services Consulting (Mercer) calculated the quantitative performance measures, according to metrics specifications, and based on data provided by HCPF. Mercer receives ongoing monthly transfers of Colorado's Medicaid Management Information System data, and quarterly transfers of MCE behavioral health data, from International Business Machines (IBM) through a Health Insurance Portability and Accountability Act-compliant secure portal. Mercer calculates all performance measures using the period of time specified in the CMS technical manual (e.g., monthly, quarterly, or annually).

As we prepared to complete the interim evaluation, Mercer worked with HCPF to attempt to gather pre-demonstration detailed claims data on inpatient and residential SUD services

from [now the Behavioral Health Administration (BHA)],[31] which coordinated residential and inpatient services with block grant funding prior to implementation of the demonstration in 2021. However, these attempts were unsuccessful, in part due to department reorganizations that began in 2019. Ultimately, we determined that it was not feasible to obtain data that would be useful for this analysis. As a result, the pre-demonstration data is based on HCPF claims in 2020. An analysis of Transformed Medicaid Statistical Information System (T-MSIS) data from 2018–2021 showed steady increases in SUD services in each of the four years. There were more services in 2020 than in 2019, indicating that there was not a significant service drop due to the coronavirus disease 2019 (COVID-19) public health emergency (PHE). The general trend patterns observed from the annual TMSIS data were similar to what was observed in the monthly 2020 HCPF data. This combined with the significant barriers to obtaining accurate 2018 and 2019 data, lead us to determine that the 2020 pre-Demonstration data was the optimal time period for this analysis.

Target and Comparison Populations

The Demonstration is open to all adult non-expansion and expansion members, so a concurrent comparison group of Colorado Medicaid members is not available. Outcomes were assessed, where possible, using an ITS quasi-experimental design. The ITS analysis projects metrics derived from a pre-demonstration time period into the post-demonstration implementation time period as a comparison for actual post-demonstration implementation metrics. Therefore, the comparison population for statistical tests of significance is, essentially, the forecasted trend line.

We also completed ITS analyses for specific subpopulations of focus for the Demonstration: children, seniors and dual eligible (Medicaid and Medicare), pregnant, and criminal justice involved populations. The subpopulation analyses exponentially increase the number of trend graphs and regression equations. Therefore, for each metric, we include narrative that describes any subpopulation variations from the overall population trends and have included all of the output and graphs (including those not significant or that did not diverge from overall findings) in a technical appendix to this document.

Evaluation Period

The interim evaluation Demonstration period is January 1, 2021 through June 30, 2023 for quantitative data with additional qualitative data collected through June 30, 2024. The pre-Demonstration period for comparison is January 1, 2020 to December 31, 2020, as discussed previously. Part of the interim evaluation efforts included an exploration of the use of data from 2018 and 2019 for pre-Demonstration analysis. We have explored the use of that data, but it proved unavailable. Reconstructing older HCPF data files was not possible, it was cost -prohibitive, and there were reservations about data accuracy and quality. Despite the unavailability of pre-2020 claims data, we have conducted a separate analysis of TMSIS data trends for 2018–2021. We believe that trends beginning in 2021 are reasonable and the 2020 data do not appear vulnerable to the effects of the COVID-19 PHE. We discuss this further in the Methodological Limitations section of this document.

[31] The OBH has now been reorganized into the Behavioral Health Administration (BHA).

Evaluation Measures and Data Sources

Evaluation measures are both qualitative and quantitative. Qualitative measures include descriptions of Demonstration processes and perceptions of outcomes, as gathered from policy and procedure documentation and focus groups conducted with stakeholders involved in implementing the waiver, including Department, MCE and provider representatives, as well as Medicaid members seeking/receiving services. Quantitative measures include required monitoring metrics and other standardized data gathered from State administrative records.

The evaluation design and evaluation measures are based on sources that provide valid and reliable data that were readily available for this reporting period. 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, were 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 Colorado.

ITS analysis was used for variables with sufficient data points (at least eight pre and eight post the start of the Demonstration). In cases where there are not enough data points for reliable projections (e.g., annual measures) we have used a basic time series analysis to describe changes over time as observed in the Demonstration's first 2.5 years. The evaluation plan also calls for a final pre-post analysis across the entire five-year demonstration project, which will be included in the summative evaluation report. Note: qualitative data is included in this report through June 30, 2024.

Each specific evaluation measure, its source and analytic method is included in evaluation design tables included in the approved Evaluation Design Plan, included as Appendix A to this report.

The evaluation plan also details a pre-post analysis, where possible, for annual data metrics. For the interim evaluation report, since only partial data available, we present the results of descriptive analyses of changes over time for these variables. The full pre-post analyses will be included in the summative evaluation report.

Section 5
Methodological Limitations

There are two primary limitations to the evaluation methodology utilized for the interim evaluation report. The first is that we were required to limit pre-Demonstration analyses to 2020 as obtaining data for 2018 and 2019 was not possible. The second limitation is related to the design itself because this evaluation plan relies heavily on descriptive, time series analysis, and qualitative data, this evaluation describes what happened after the demonstration was implemented, but it is difficult to isolate why changes occurred.

Behavioral health data for the evaluation is received by HCPF in separate files for the various MCEs. There are currently eight MCEs. In the past, Mercer noted several data issues. For example, some of the MCEs use the same claim numbers, which impacts claim adjustment logic. In addition, some fields with the same name are populated with different field types across MCEs, so special care is required when analyzing the data from different MCEs, so data is not inadvertently dropped or misidentified. Mercer has worked through adjustment logic for the behavioral health data, including creating and testing unique claim identifiers.

There have also been import issues with data layout updates which will be monitored going forward. Adjustment logic will also be applied to the data, but at this time looks to be a more standardized process.

While the ITS design is the strongest available research method, in the absence of a randomized trial or matched control group, there are some threats to the validity of results in the design[32]. The primary threat is that of history, or other changes over time happening during the waiver period. This ITS design is only valid to the extent that the waiver program was the only thing that changed during the evaluation period. Other changes to policies or programs could affect the outcomes being measured under the Demonstration. We have attempted to control this threat by considering other policy and program changes happening concurrent to the waiver period interventions. We also use qualitative methods, in the form of key informant interviews and focus groups, to identify other initiatives or events that may have occurred during the demonstration that might influence demonstration effects.

We initially hypothesized that the COVID-19 PHE would affect the pre-Demonstration period, and we anticipated a statically significant impact on most metrics. However, comparisons of our trend data to TMSIS data and the obvious trends observed from the start of the Demonstration led us to believe that there was likely not a significant effect from the emergency, likely because the number of claims was historically so low before the Demonstration that there was not a significant drop during 2020.

A related threat to the validity of this evaluation is external (history). Because we have not identified a comparison group (a group of Medicaid members who would be eligible for the waiver interventions but who will not receive them and/or for whom data will not be

[32] 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.

collected), it is difficult to attribute causality. However, the ITS design controls for this threat to some degree, by linking what would have likely happened (e.g., forecasting the trajectory of counts and rates over time) without any program changes and comparing this forecast to actual changes over time. We have worked to limit this threat to validity by triangulating our data. Key informant focus groups were used to inform the quantitative findings and explain the degree to which individuals are seeing demonstration impacts. In the summative evaluation, we will also attempt to seek out national and other State data for benchmarking, that will allow us to determine whether Colorado is performing in a similar fashion to other demonstration states, non-demonstration states, or national benchmarks overall.

Section 6
Results

The following section details the results of our quantitative and qualitative analyses, sorted by each of the six demonstration goals. For each hypothesis, we list results of analysis of each measure presented in the Evaluation Design table presented in its entirety in the Evaluation Design Plan, included as an appendix to this document. To allow the reader to find each measure, we list results in the order they appear in the design table and include the details on the measure definitions, steward, subgroup analysis and analytic methods.

Primary Driver and Goal 1: Increased Rates of Identification, Initiation, and Engagement in Treatment

Hypothesis 1: The Demonstration Will Expand Access to Critical Levels of Care for OUD and Other SUDs, Resulting in Increased Rates of Identification, Initiation, and Engagement in Treatment for OUD and Other SUDs

Qualitative Measures

Measure	Time Period	Data Sources	Analytic Method(s)
Revision of ASAM level 2.1 intensive outpatient SUD services and implementation of ASAM Levels of Care: 3.1, 3.3, 3.5,3.7, and 3.7 WM, including access to MAT	Cumulative for interim reporting period	Key Informant Interviews[33]; Document Review	Thematic analysis of interviews, policies, and contracts
Develop MCE rate methodology and update MCE contracts with capitation rates, which include revised continuum of services	Cumulative for interim reporting period	Key Informant Interviews; Document Review	Thematic analysis of interviews, policies, and contracts

The Demonstration intended to revise and expand critical levels of care in alignment with ASAM standards, therefore increasing access to critical levels of care for Medicaid members. State documents (include MCE contracts and rate documents) and quarterly monitoring reports indicate that with the added coverage for Partial Hospitalization (2.5) as of July 1, 2024, all levels of care have been implemented. This is confirmed through

[33] Rather than individual key informant interviews (KIIs), we conducted focus groups with MCEs, state staff, providers and people receiving services. This allowed us to incorporate more perspectives than would have been available through fewer interviews.

stakeholder focus groups who described implementation of each ASAM level as a "heavy lift," but ultimately successful. There was commonality across the stakeholder groups that movement to the ASAM and the Demonstration in general has increased the number of Medicaid members who are receiving treatment for substance use issues.

All implementation activities for Milestone 1 (Access to Critical Levels of Care for OUD and Other SUDs) have been completed. In addition to the implementation of new ASAM levels of care, these activities included a MCE rate methodology that reflects continuum of additional and modified services, new MCE contract amendments to reflect updated capitation rates for new and modified services, and billing system changes to allow for claim submission for new services (residential and inpatient) and changes to existing service billing rules (intensive outpatient [IOP]).

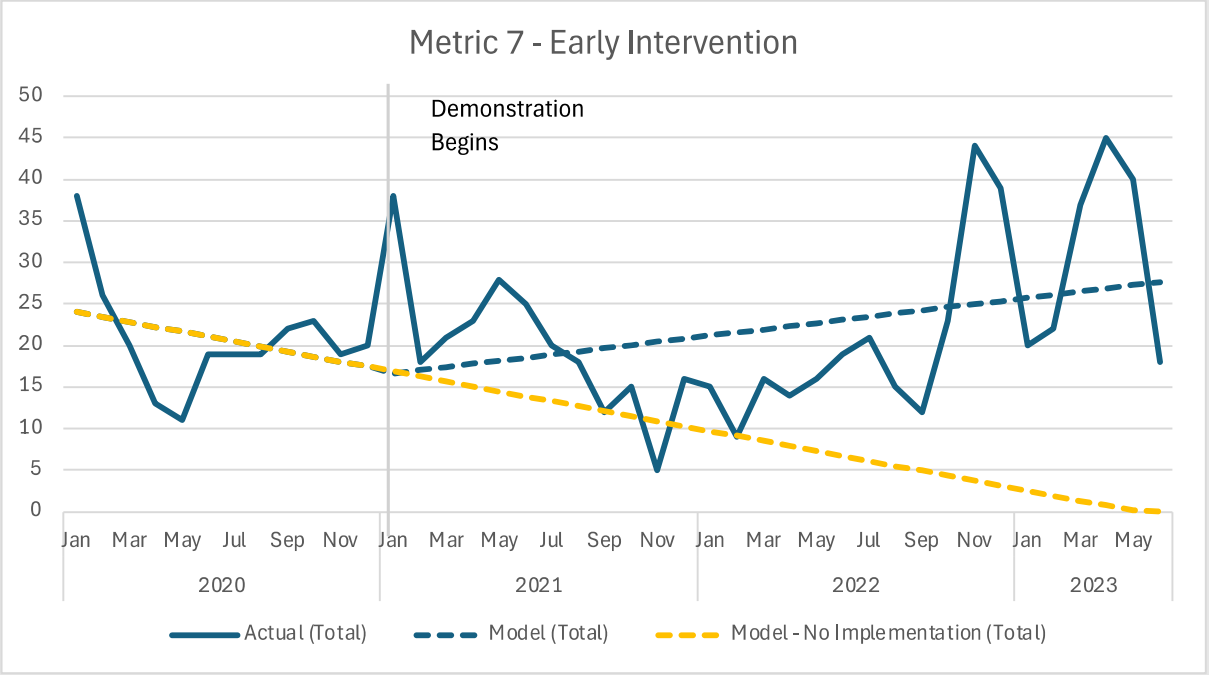
Measure summary: The qualitative measure results support Hypothesis 1 that the Demonstration has increased access to critical levels of care for OUD and other SUDs.

Measure (CMS Metric #7): Number/Percentage of Beneficiaries who Receive Prevention or Early Intervention Services

Measure	Time Period	Data Sources	Analytic Method(s)
Number/percentage of beneficiaries who receive prevention or early intervention services (CMS #7) (Denominator for percentages is Medicaid members with an SUD diagnosis)	Monthly, January 2020 to June 2023	Claims/encounters	ITS, including[34] each demographic subgroup

[34] Separate analysis for each subgroup was conducted, rather than controlling for subgroups in the ITS due to drastically different sample sizes in several subgroups. This applies to all ITS analyses.

Metric #7: Members Receiving Early Intervention through Quarter Ending (QE) June 30, 2023



Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	24.6364	5.7565	4.280	0.000122 ***
df$demonstration	-12.9157	8.0926	-1.596	0.118776
df$time	-0.5979	0.7822	-0.764	0.449335
df$demonstration:df$time	0.9765	0.8067	1.211	0.233523

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 9.353 on 38 degrees of freedom
Multiple R-squared: 0.1049, Adjusted R-squared: 0.03427
F-statistic: 1.485 on 3 and 38 DF, p-value: 0.234

The demonstration trend (the blue dotted line) shows an increase in services above what was predicted without the demonstration (the yellow dotted line). However, because of the large variability and small number of members receiving early intervention services, there is not a statistically significant trend either pre- or post-demonstration. The ITS is unable to detect any statistically significant change from the demonstration.

An ITS analysis using the rate of Members (as opposed to counts) revealed the same trends. There were no significant effects of the Demonstration on the percentage of Medicaid members receiving early intervention services.

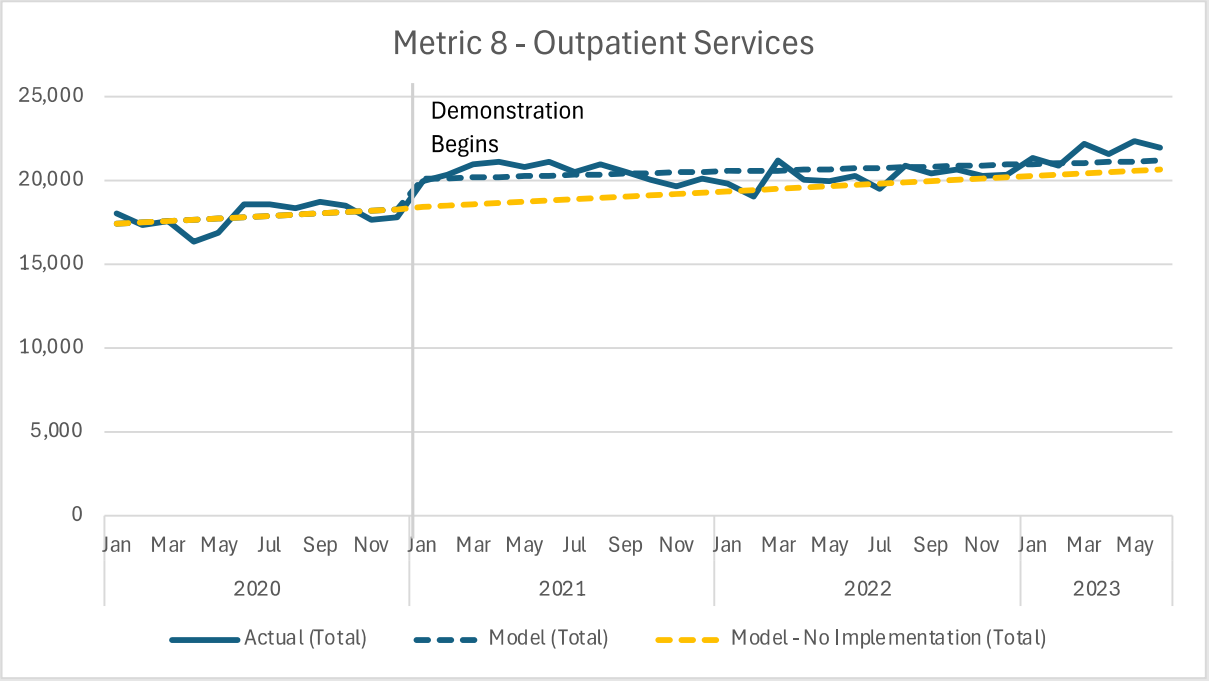
Early Intervention Services (Metric #7) for Subgroups

Trends for all Medicaid members were small and there was considerable variability in the numbers receiving services from month to month over the course of the Demonstration. This held true for all subpopulations of focus — numbers were too small and variable to yield meaningful and statistically significant results for any of the subgroups.

Measure summary: This measure does not support Hypothesis 1 that the Demonstration has increased access to critical levels of care for OUD and other SUDs.

Measure (CMS Metric #8): Members Receiving Outpatient Services through QE June 30, 2023

Measure	Time Period	Data Sources	Analytic Method(s)
Number/percentage of beneficiaries who use outpatient services (CMS #8) (Denominator for percentages is Medicaid members with an SUD diagnosis)	Monthly, Jan 2020 to June 2023	Claims/ encounters	ITS, including each demographic subgroup



```
Coefficients:
                            Estimate   Std. Error  t value  Pr(>|t|)
(Intercept)                 17373.55   442.87      39.230   < 2e-16 ***
df$demonstration            2277.07    622.59      3.657    0.000769 ***
df$time                     79.30      60.17       1.318    0.195438
df$demonstration:df$time    -43.12     62.06       -0.695   0.491370
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 719.6 on 38 degrees of freedom
Multiple R-squared:  0.778,     Adjusted R-squared:  0.7605
F-statistic:  44.4 on 3 and 38 DF,  p-value: 1.69e-12
```

There was a very small and insignificant positive trend pre-Demonstration, and while the post-Demonstration trend was lower (but still positive), the change was not statistically significant. There was a one-time statistically significant increase in utilization at the beginning of the Demonstration period. This is consistent with the Demonstration increasing outpatient SUD service utilization.

When repeating the analysis using rates rather than counts, the opposite pattern emerged, with a decreasing trend becoming closer to zero during the Demonstration period. Time trends were only statistically significant for the proportion data. The Demonstration increased the overall number of members receiving outpatient services initially, and the rate of Medicaid members who received treatment continued to increase significantly over the Demonstration period.

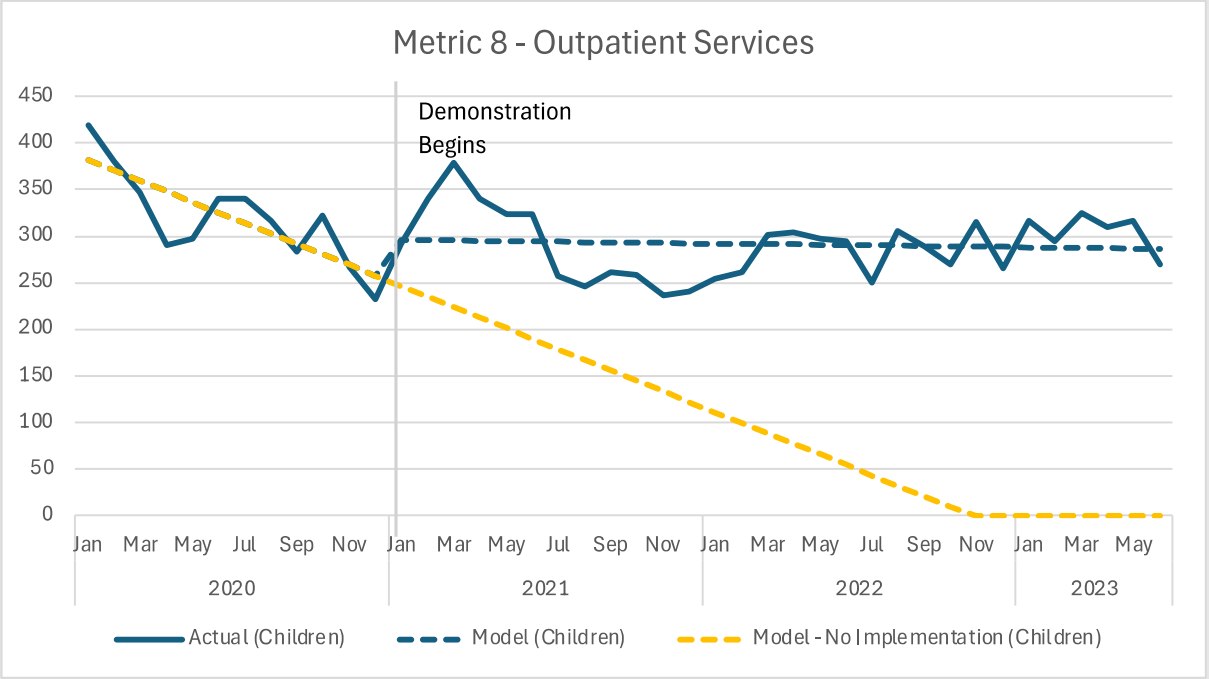
Outpatient Services (Metric #8) for Subgroups

There were no significant effects for dual eligible, OUD, or criminal justice involved populations. However, like the total Medicaid population, pregnant participants experienced a one-time increase in utilization of outpatient services during the Demonstration period, but there was not a statistically significant change in the trend during the Demonstration.

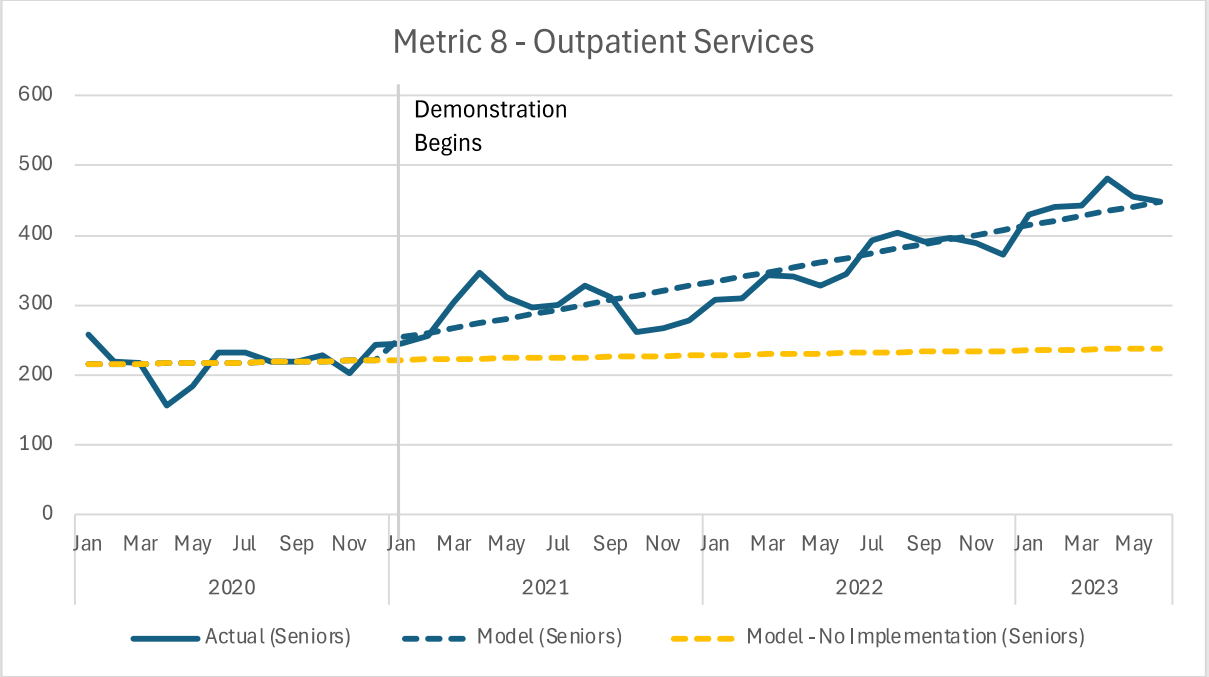
Both children and seniors, however, showed a statistically significant increase[35] in the utilization of outpatient services during the Demonstration period as compared to the pre-Demonstration trend. This is depicted visually in the two graphs below.

[35] p<.01

Metric #8: Outpatient Children's Services



Metric #8: Outpatient Senior Services

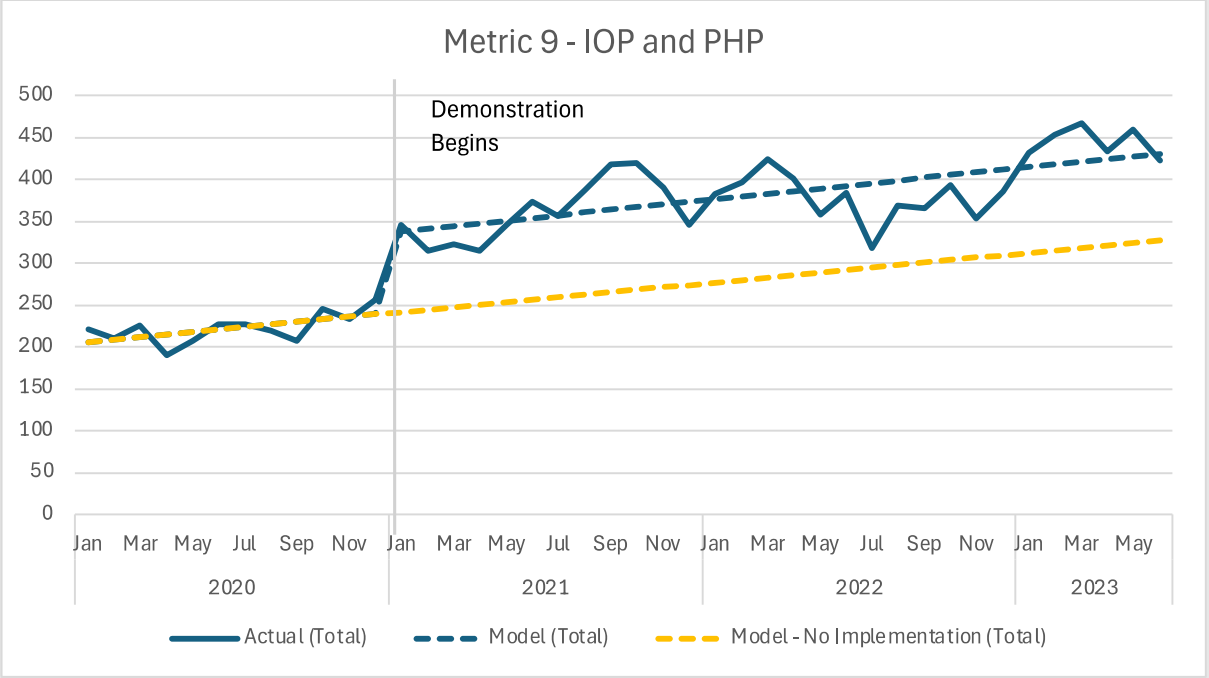


Measure summary: This measure provides some support for Hypothesis 1 — that the Demonstration has increased access to critical levels of care for OUD and other SUDs. In particular, the Demonstration appears to have increased use of outpatient services for

Medicaid members in general. In terms of subpopulations of interest, the Demonstration appears to have increased outpatient services for seniors and for children.

Measure	Time Period	Data Sources	Analytic Method(s)
Number/percentage of beneficiaries who use IOP and partial hospitalization services (CMS #9) (Denominator for percentages is Medicaid members with an SUD diagnosis)	Monthly, January 2020 to June 2023	Claims/ encounters	ITS, including each demographic subgroup

Measure (CMS Metric #9): Members Receiving IOP/Partial Hospitalization (PH) through QE June 30, 2023



```
Coefficients:
                          Estimate   Std. Error  t value  Pr(>|t|)
(Intercept)               203.6364   18.0695     11.270   1.11e-13 ***
df$demonstration          92.9811    25.4025     3.660    0.000763 ***
df$time                   2.9406     2.4552      1.198    0.238451
df$demonstration:df$time  0.2503     2.5321      0.099    0.921769
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 29.36 on 38 degrees of freedom
Multiple R-squared:  0.8833,    Adjusted R-squared:  0.8741
F-statistic:  95.9 on 3 and 38 DF,  p-value: < 2.2e-16
```

As the case with outpatient services, there was a very small and insignificant positive trend pre-demonstration. The trend post-Demonstration increased (but not significantly), and the relative increase in the first month of the Demonstration was larger than for outpatient services. This is consistent with the Demonstration increasing IOP/PH utilization. Because partial hospitalization was not implemented until July of 2024, we assume the increases were driven by IOP services. This is also likely why the number of claims are so small over the observation period.

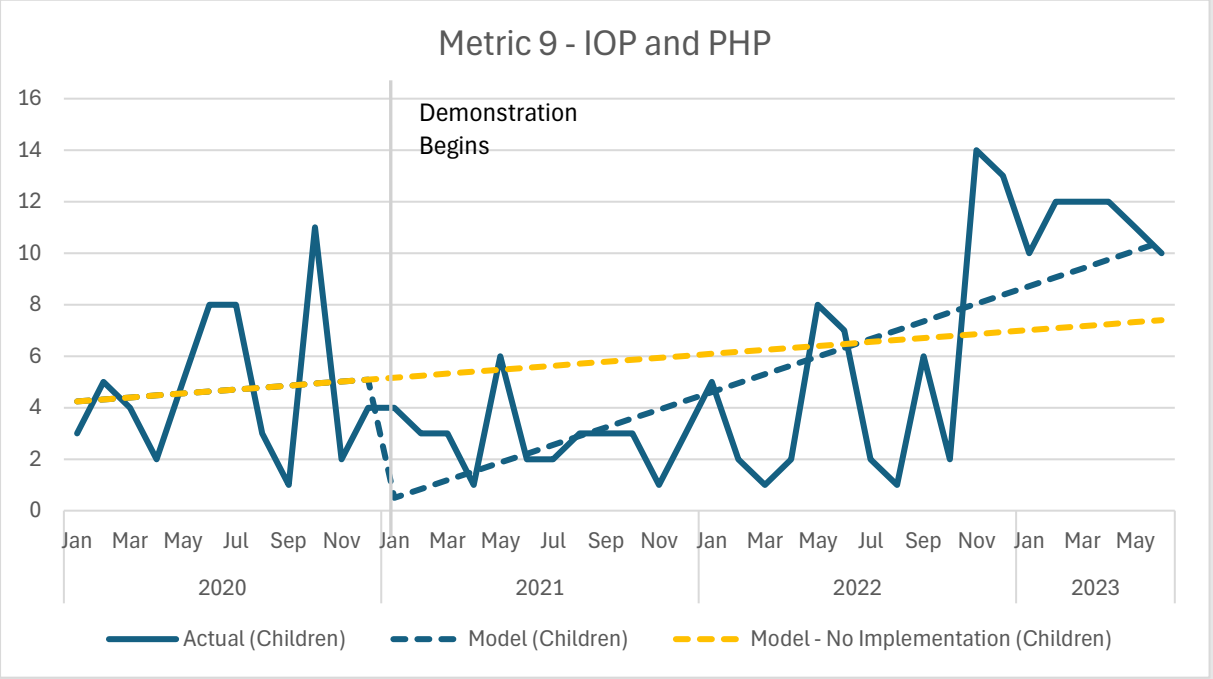
The results were the same when statistical analyses were performed on rates, rather than counts. The percent of members with an IOP/PH service had a steep and significant increase immediately following implementation, but there was no significant increase in rates thereafter.

IOP/PHP Services (Metric #9) for Subgroups

For most subgroups, trends were either the same as the total population or numbers were too small for tests of statistical significance.

However, the child subgroup trends were different. This group experienced a statistically significant **decrease** in utilization at the beginning of the Demonstration, followed by a nonsignificant increase in trend. These factors offset each other, and by the end of the data period, the Demonstration utilization for children was above the pre-Demonstration trend, as shown in the chart below.

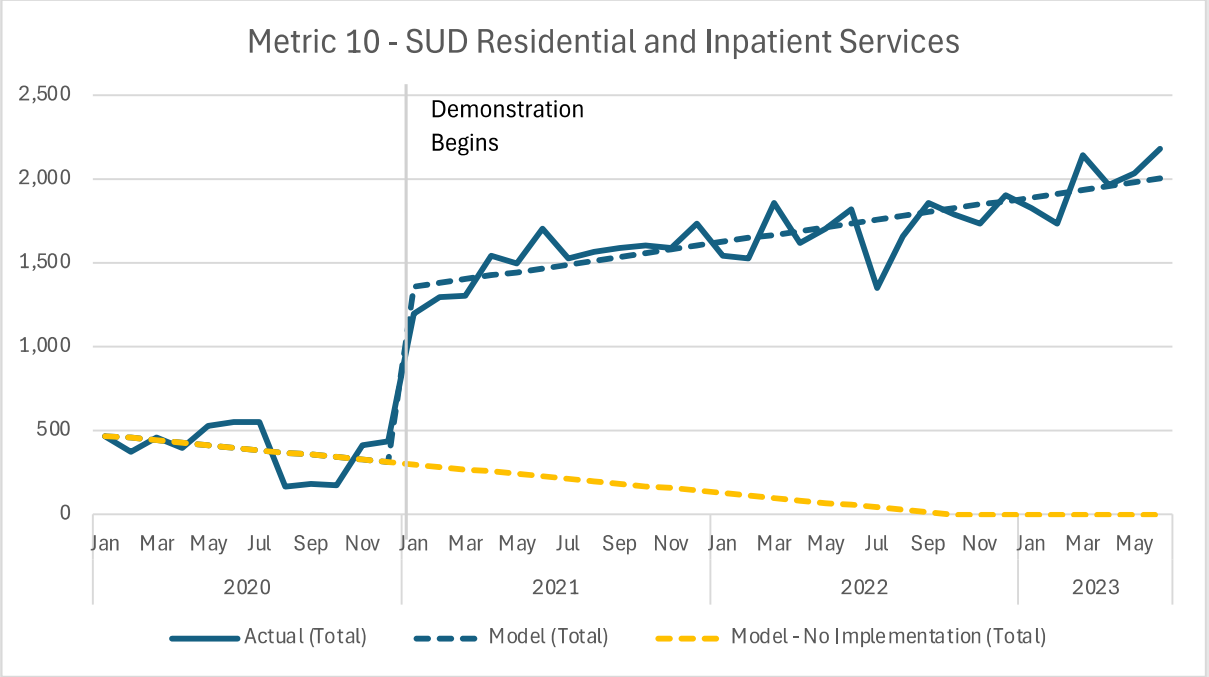
Metric #9: Children Receiving IOP/PHP Services



Measure summary: This measure provides some support for Hypothesis 1 — that the Demonstration has increased access to critical levels of care for OUD and other SUDs. The Demonstration appears to have resulted in a one-time increase in the use of IOP services for Medicaid members in general. In terms of subpopulations of interest, the Demonstration appears to have also resulted in an initial increase in IOP services for each subpopulation, except for children who experienced an initial decrease, followed by a slight trend increase.

Measure (CMS Metric #10): Members Receiving SUD Residential and Inpatient Services through QE June 30, 2023

Measure	Time Period	Data Sources	Analytic Method(s)
Number/percentage of beneficiaries who use residential and/or inpatient services for SUD (CMS #10) (Denominator for percentages is Medicaid members with an SUD diagnosis)	Monthly, January 2020 to June 2023	Claims/ encounters	ITS, including each demographic subgroup



Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	485.06	84.73	5.725	1.36e-06 ***
df$demonstration	584.32	119.12	4.905	1.78e-05 ***
df$time	-14.27	11.51	-1.239	0.22289
df$demonstration:df$time	36.53	11.87	3.076	0.00387 **

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 137.7 on 38 degrees of freedom
Multiple R-squared: 0.9553, Adjusted R-squared: 0.9518
F-statistic: 270.7 on 3 and 38 DF, p-value: < 2.2e-16

While the pre-Demonstration trend was negative, it was not statistically different from zero. Thus, while COVID-19 may have had some impact on the 2020-based trend line, accounting for it by removing the July-November decrease in services does not impact our analysis. At the start of the Demonstration there were statistically significant increases in both the initial utilization and trend in SUD Residential and Inpatient Services. The magnitude of the change in January 2021 strongly suggests the change was driven by the Demonstration.

Trends for the proportion of Medicaid members receiving services was the same as the trend for the number of members receiving residential or inpatient treatment.

Residential and Inpatient Services (Metric #10) for Subgroups

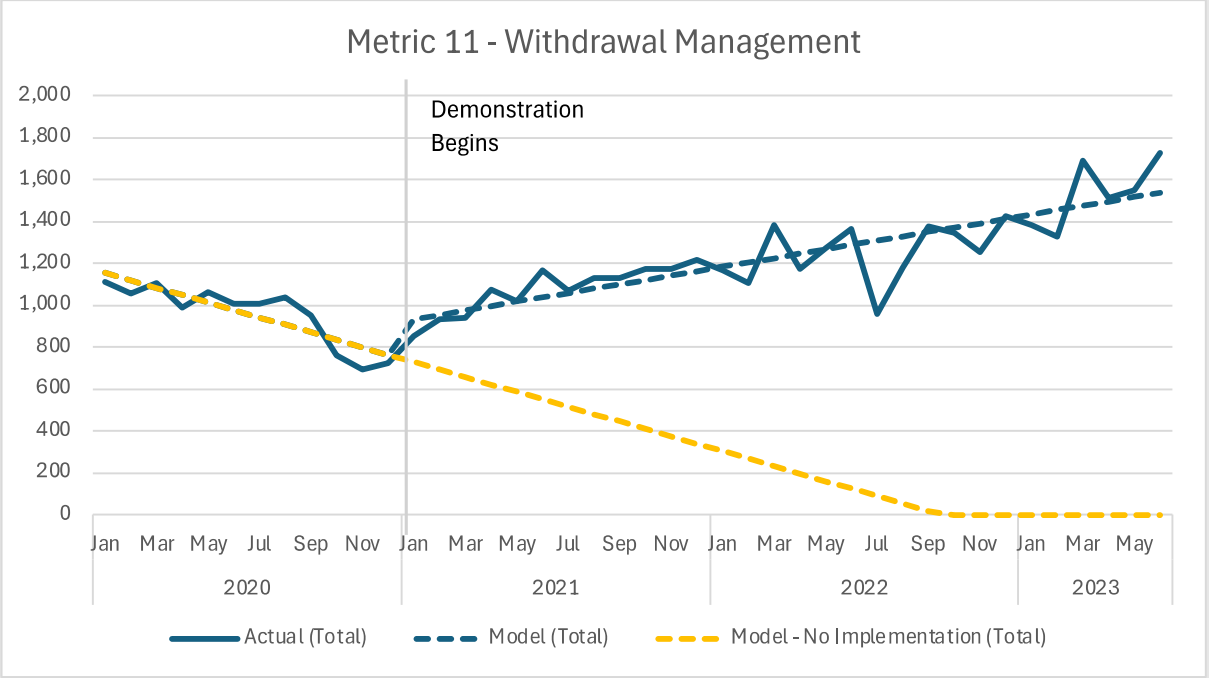
Trends for several of the subgroups analyzed were the same as those for the total Medicaid population or contained numbers too small for a reliable analysis. Utilization trends for the

child, pregnant, and criminal justice involved populations were positive during the Demonstration period, but those increases were not statistically significant.

Measure summary: This measure provides support for Hypothesis 1 — that the Demonstration has increased access to critical levels of care for OUD and other SUDs. The Demonstration appears to have led to increases in residential and inpatient treatment services for Medicaid members in general. Trends were positive for the subpopulations of interest, but numbers were too small for reliable analysis.

Measure (CMS Metric #11): Members Receiving WM through QE June 30, 2023

Measure	Time Period	Data Sources	Analytic Method(s)
Number/percentage of beneficiaries who use WM services (CMS #11) (Denominator for percentages is Medicaid members with an SUD diagnosis)	Monthly, January 2020 to June 2023	Claims/ encounters	ITS, including each demographic subgroup



```
Coefficients:
                          Estimate   Std. Error   t value   Pr(>|t|)
(Intercept)               1190.182   64.332       18.501    < 2e-16 ***
df$demonstration          -526.039   90.439       -5.817    1.02e-06 ***
df$time                   -35.451    8.741        -4.056    0.000239 ***
df$demonstration:df$time  56.239     9.015        6.238     2.68e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 104.5 on 38 degrees of freedom
Multiple R-squared:  0.8129,      Adjusted R-squared:  0.7981
F-statistic: 55.04 on 3 and 38 DF,  p-value: 6.704e-14
```

The pre-Demonstration trend in WM services was negative, and the decline began before the COVID-19 PHE. The trend began to show increases in these services at the start of the Demonstration. This change was statistically significant. There was also an offsetting one time change in the intercept, which is not visually apparent in the graph. The net effect of the Demonstration is a relatively large increase in utilization of WM. This trend holds when analyzed using the proportion of Medicaid members receiving WM services. More surprising is the absolute number of members in WM compared to residential services. There appear to be as many members in WM levels of care (approximately 1500 monthly) as in residential and inpatient treatment (approximately 1500) suggesting that members are not being retained in residential care including ASAM 3.5 and 3.1 treatment and reintegration which would lead to longer term successful outcomes.

WM Services (Metric #11) for Subgroups

For all but one subgroup, trends mirrored those of the total Medicaid population, but were less likely to be statistically significant, largely due to small numbers in these subpopulations. For pregnant women, there was a statistically significant initial **decrease** in WM services immediately following implementation of the Demonstration, followed by a steady increase that is not statistically significant.

Measure summary: This measure provides support for Hypothesis 1 — that the Demonstration has increased access to critical levels of care for OUD and other SUDs. The Demonstration appears to have led to increases in WM services for Medicaid members in general. Trends were positive for the subpopulations of interest, except for pregnant women, but numbers were too small for reliable analysis.

Measure (CMS Metrics #5 and #36): Number and Average Length of IMD Stays for SUD

Measure	Time Period	Data Sources	Analytic Method(s)
Number of members with an institute for mental disease (IMD) stay (Metric #5)	Yearly, 2020-2022	Claims/ encounters	Descriptive analysis[36]
Average Length of IMD stay for SUD (Metric #36)	Yearly, 2020-2022	Claims/ encounters	Descriptive analysis[37]

Measure	July 1, 2019-June 30, 2020	July 1, 2020-June 30, 2021	July 1, 2021-June 30, 2022	Percentage of Change
#5 Medicaid Beneficiaries Treated in an IMD for SUD	507	652	667	+32%
#36 Average length of IMD stay for SUD	2.0	5.1	9.1	+355%

There was an increase (32%) in the number of Medicaid members treated in an IMD after the Demonstration was implemented. There was also a large (355%) increase in the average length of stay in an IMD for Medicaid members between the baseline period and the second Demonstration year.

Measure Summary: This measure supports Hypothesis 1 — that the Demonstration has increased access to critical levels of care for OUD and other SUDs. The Demonstration appears to have led to increases in both the number of members with an IMD stay and the average length of those stays.

Hypothesis 2: The Demonstration will Promote Widespread use of Evidence-Based SUD Specific Patient Placement Criteria Resulting in Increased Rates of Identification, Initiation, and Engagement in Treatment for OUD and Other SUDs

[36] Pre-post analysis will be included in the summative evaluation report when more data points are available.

[37] Ibid.

Measure: Number of Providers Licensed at Each Level of Care

Metric #13 Measure	July 1, 2019-June 30, 2020	July 1, 2020-June 30, 2021	July 1, 2021-June 30, 2022	Percentage of Change
#13 Number of Providers Licensed	2,818	3,121	2,928	+3.9%

Current data reported by the state includes the total number of licensed providers (CMS Metric #13). The State has just completed implementing each ASAM level of care and is now working to assess capacity for each level of care and to encourage providers to provide multiple levels of care. For this report, data on specific providers and provider capacity at each level of care is limited to qualitative data. We will work with the State to report provider counts at each level for the summative evaluation report.

The number of providers increased during the first demonstration year, but then fell somewhat. Most stakeholders reported that there is not always sufficient capacity within existing providers to provided needed care, particularly in rural areas and with services for specific populations, particularly children and pregnant people.

Measure Summary: This measure somewhat supports Hypothesis 2 that the Demonstration will promote widespread use of evidence-based SUD specific patient placement criteria resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs. An important facet of increasing treatment is establishing sufficient capacity. While there have been modest increases in the number of licensed providers, stakeholders indicated that more capacity is needed in some areas, as described below.

Qualitative Measures

Measure	Time Period	Data Sources	Analytic Method(s)
Description of activities to monitor MCE use of ASAM criteria for patient placement	Cumulative for interim reporting period	Key Informant Interviews[38]; Document Review	Thematic analysis of interviews, policies, and contracts
Description of training and technical assistance activities to align providers with ASAM standards	Cumulative for interim reporting period	Key Informant Interviews[39]; Document Review	Thematic analysis of interviews, policies, and contracts

Colorado has implemented all the planned implementation activities associated with Milestone 2 (Use of Evidence based, SUD specific Patient Placement Criteria), including

[38] Rather than individual key informant interviews (KIIs), we conducted focus groups with MCEs, state staff, providers and people receiving services. This allowed us to incorporate more perspectives than would have been available through fewer interviews.

[39] Ibid.

updating licensing regulations and MCE contracts to align with new and updated services. The state has also implemented training and technical assistance regarding ASAM standards with providers and the MCEs have developed utilization management practices. The state also routinely reviews utilization management data to ensure that members receive episodes of care that support their recovery, minimum authorization requirements reflect utilization trends in Colorado, and administrative burden is decreased. Regular communication with providers regarding the changes and available support is also ongoing.

Monitoring, Training and Technical Assistance Activities on use of ASAM Criteria

Health Services Advisory Group, Inc. (HSAG) conducted a 2023 audit of 33% of all denials of authorization requests for inpatient and residential SUD treatment for each of Colorado's Medicaid MCEs to determine whether the MCEs properly followed the ASAM criteria when making denial determinations. Additionally, the review provided recommendations to the Department for program improvement. Overall, reviewers were in agreement with 84% of denials (down from 100% in 2022). The report made the following recommendations:

- "Encourage standardized training for the MCEs, continue its provider stakeholder meetings that offer ongoing technical assistance, and enhance monitoring to ensure adherence to the ASAM criteria, which may impact appropriate access to services for the right care, at the right place, and at the right time.
- Encourage training for MCE UM staff members and providers regarding the appropriate ASAM criteria (e.g., admissions or continued stay, older adult, and adolescent) and minimum documentation required based on the type of review, level of care, and special population considerations.
- Revise its guidance to the MCEs regarding allowing denials without requesting treatment plans for continued stay reviews. The use of treatment plans in continued stay, transfer, and discharge determinations is an important component of using the ASAM level of care placement criteria to fidelity.
- Provide the MCEs with a universal definition of administrative denials and medical necessity denials to use for all projects and deliverables to the Department and its vendors. Included in this definition should be a defined set of administrative and medical necessity denial reasons, and a time frame for what constitutes a late submission that may lead to an administrative denial."[40]

Feedback from providers aligned with the HSAG report. Providers reported that needed updates to policies, procedures, and rates have been completed, but day -to -day implementation across MCEs remains somewhat uneven. Some providers, participating in a July 2024 forum, indicated inconsistency across MCEs, which causes uncertainty for providers and members. Several participating providers suggested that more training, or another mechanism to increase consistency across the MCEs, particularly for staff responsible for prior authorizations, on specific features of each ASAM level of care would improve access to care for Medicaid members. HCPF coordinated the development and facilitation of training for the MCEs that focused on the correct application of ASAM in utilization management practices. The training content was developed after review of the HSAG report noted above, and addressed the use of appropriate ASAM criteria for both admission and continued stay requests. It additionally reviewed special population ASAM

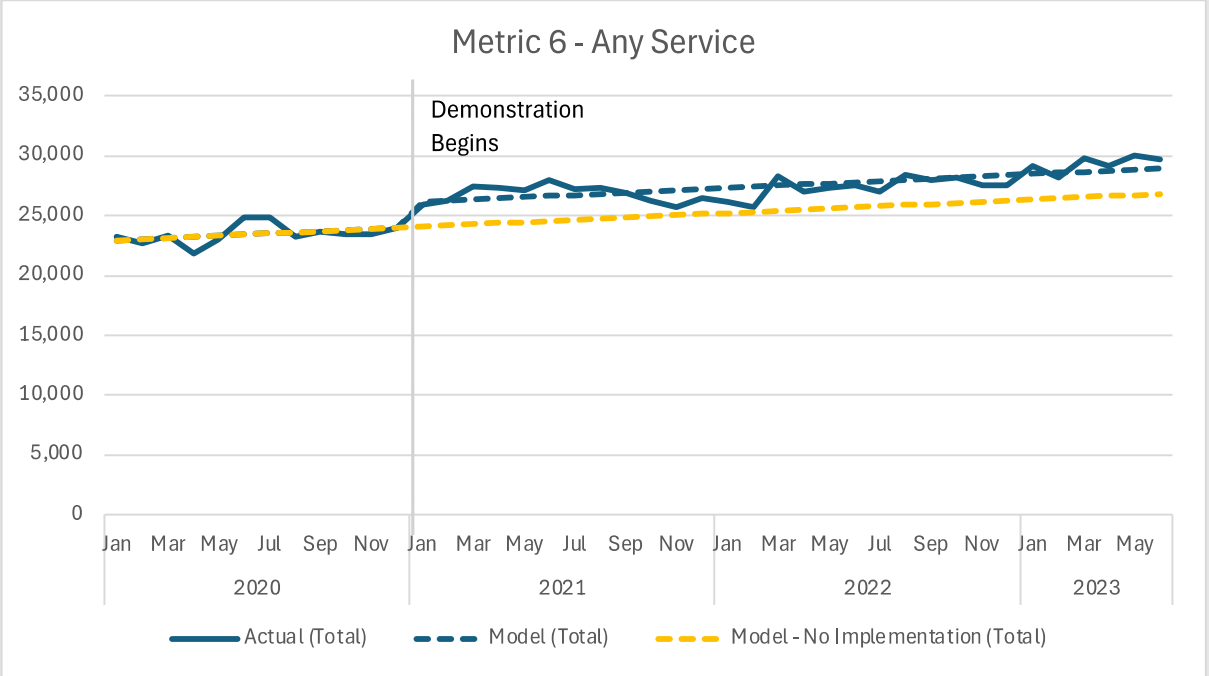
[40] Health Services Advisory Group (2024). Inpatient and Residential Substance Use Disorder Service Denial Determination Analysis.

criteria and the impact it can have on the utilization management process. The training was facilitated in May 2024, and utilization management staff from all MCEs were invited to attend. The training was then revised to function as a self-led training which is now posted on the HCPF website, and ensures staff unable to attend the May 2024 training have access to the content.

Measure Summary: This measure somewhat supports Hypothesis 2 — the Demonstration will promote widespread use of evidence-based SUD specific patient placement criteria resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs in that it details the State's efforts to implement placement criteria and to monitor ASAM placement criteria use.

Measure (CMS Metric #6): Members Receiving any SUD Treatment Service

Measure	Time Period	Data Sources	Analytic Method(s)
Number/percentage of beneficiaries receiving any SUD treatment service (CMS #6) (Denominator for percentages is Medicaid members with an SUD diagnosis)	Monthly, January 2020 to June 2023	Claims/ encounters	ITS, including each demographic subgroup

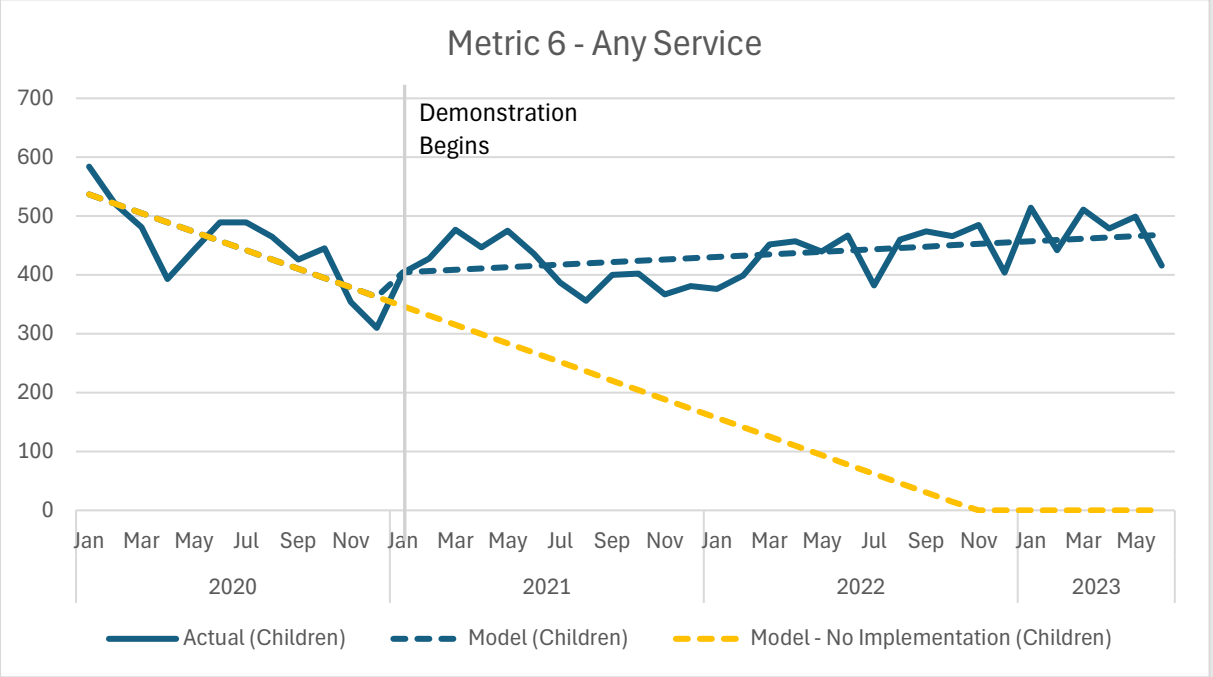


As shown in the chart above, there was an initial increase in the number of members receiving any SUD service. The pre-Demonstration trend was close to zero, and the slope post-Demonstration did not change. The one-time increase was a statistically significant (.007) increase at the start of the Demonstration period. There was not significant change when the analysis was repeated using the percentage of members receiving services, rather than the count.

All SUD Services (Metric #6) by Subgroup

Trends for all but one of the subgroups mirrored findings for the total population, either showing a one-time significant increase but no significant difference in increases over the Demonstration period, or no significant differences at all. However, the trend did differ for the child population. For the child subgroup, the statistically significant pre-Demonstration trend was negative, and made a statistically significant change to a positive trend during the Demonstration period. While these changes are statistically significant and visually apparent, the model is a relatively poor fit to the data, with an adjusted R-square of only 0.36.

Metric #6: Child Subpopulation Trends



Measure (CMS Metric #15): Increase in Treatment Initiation and Engagement

Metric #15 Measure	July 1, 2019-June 30, 2020	July 1, 2020-June 30, 2021	July 1, 2021-June 30, 2022	Percentage of Change
#15(a) Initiation of Alcohol or Other Drug (AOD) Treatment	36.0%	39.1	35.7	-0.09%
#15(b) Engagement in AOD Treatment	63.4%	60.5%	60.0%	-5.3%

The Demonstration did not have an effect on the percentage of Medicaid members who initiate AOD treatment or engagement in AOD treatment. While there was a small increase during the first Demonstration year in initiation of treatment, the rate fell to below the baseline rate during Demonstration year 2. The rate of member engagement in treatment fell each year following implementation.

Measure summary: This measure does not support Hypothesis 2 — the Demonstration will promote widespread use of evidence-based SUD specific patient placement criteria resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs.

Hypothesis 3: The Demonstration will Promote Sufficient Provider Capacity at Each Level of Care, Including MAT, for SUD/OUD, Resulting in Increased Rates of Identification, Initiation, and Engagement in Treatment for OUD and Other SUDs

Qualitative Measure

Measure	Time Period	Data Sources	Analytic Method(s)
Description of Provider Capacity Workgroup activities	Cumulative for interim reporting period	Key Informant Interviews[41]; Document Review	Thematic analysis of interviews, policies, and contracts

All planned implementation activities for Milestone 4 (Sufficient Provider Capacity at Critical Levels of Care including for Medication Assisted Treatment for OUD) have been completed. This includes the convening of the Provider Capacity Workgroup that changed focus in April of 2021 to become an implementation workgroup.

- Provider Capacity Work Group convened in September 2019 and continued through June 2020. Work group changed focus to become an implementation work group which ended in April 2021.
- The State has completed a provider capacity assessment and is actively developing strategies to further expand provider capacity in the state.
- BHA has begun work to upgrade the Behavioral Health Bed Tracker. Dimagi, an award-winning technology company that helps organizations deliver quality digital solutions for a variety of sectors, has been selected to help lead this effort. Developments planned for the registry include the ability for providers to send push notifications to other providers when they have a client for whom they are trying to find a bed. This work is a significant step towards tracking availability for mental health and SUD treatment beds, and BHA's broader goal to create a centralized platform for integrating and simplifying behavioral health data across the State.

As mentioned previously, the Demonstration has seen only a modest change in the number of SUD providers in the State. After a larger increase during the first year, the number of available providers fell during the second Demonstration year, with the number of providers increasing by about 4%.

[41] Rather than individual key informant interviews (KIIs), we conducted focus groups with MCEs, state staff, providers and people receiving services. This allowed us to incorporate more perspectives than would have been available through fewer interviews.

Measure: Providers Participating in IT MATTRs Forums

Measure	Time Period	Data Sources	Analytic Method(s)
Number/percentage of providers participating in IT MATTRs forums. Denominator is total number of MAT providers (Metric #15)	Yearly	HCPF	Descriptive statistics (counts)

Section 1262 of the Consolidated Appropriations Act, 2023 (CAA 2023), removes the federal requirement for practitioners to submit a Notice of Intent (have an X waiver) to prescribe medications, like buprenorphine, for the treatment of OUD. Because the X waivers were eliminated by Congress participation data regarding the number of providers participating in IT MATTRs is not relevant and trainings have not occurred since 2022 when CAA 2023 was approved. Prior to that date, a review of quarterly monitoring reports indicated that the State had completed the X waiver provider recruitment program entitled "IT MATTTRs", but the intervention is no longer relevant to the demonstration because of the federal legislative changes.

The State used Substance Abuse and Mental Health Services Administration (SAMHSA) State Targeted Response to the Opioid Crisis and State Opioid Response (SOR) grant funding to expand its MAT capacity. The program has provided X waiver training at no cost to providers (See Metric #14, below).

Measure (CMS Metric #13): Number of SUD Providers

Metric #13 Measure	July 1, 2019-June 30, 2020	July 1, 2020-June 30, 2021	July 1, 2021-June 30, 2022	Percentage of Change
#13 Number of Providers Licensed	2,818	3,121	2,928	+3.9%

The number of providers increased during the first Demonstration year, but then fell somewhat. Most stakeholders reported that there is not always sufficient capacity within existing providers to provided needed care, particularly in rural areas and with services for specific populations, particularly children and pregnant people.

Measure Summary: This measure minimally supports Hypothesis 3 that the Demonstration will promote sufficient provider capacity at each level of care, including MAT, for SUD/OUD, resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs.

Measure (CMS Metric #14): Increase in MAT Providers

Measure	Time Period	Data Sources	Analytic Method(s)
Number of providers licensed to provide MAT	Yearly, 2020-2022	Claims/encounters	Descriptive analysis[42]

While the X waivers were still in effect, the State implemented an X waiver provider recruitment program entitled "IT MATTTRs", leveraging SAMHSA State Targeted Response to the Opioid Crisis and SOR grant funding to expand its MAT capacity.

The program provided X waiver training at no cost to providers. Funds also supported on-site practice implementation training at participating health clinics. IT MATTRs offered regular telephonic training forums where an experienced MAT provider offered real time support to new providers across the State.

The X waivers were discontinued in 2023 under Section 1262 of the CAA 2023. Today, all practitioners who have a current Drug Enforcement Administration (DEA) registration that includes Schedule III authority, may now prescribe buprenorphine for OUD in their practice if permitted by applicable state law. Starting June 27, 2023, practitioners who are applying for or renewing their DEA registration must document that they have either a total of eight hours of required training; board certification in addition medicine or addiction psychiatry; or graduation within five years and good standing status of an acceptable medical, advanced practice nursing, or physician assistant school including eight hours of opioid or other SUD curriculum.

As shown in the table below, these initiatives have resulted in a large increase in the number of MAT providers in the State.

Metric #14: Number of MAT Providers

Metric #14 Measure	July 1, 2019-June 30, 2020	July 1, 2020-June 30, 2021	July 1, 2021-June 30, 2021	Percentage of Change
#14 Number of MAT Providers	192	277	278	+44.8%

Measure Summary: This measure supports Hypothesis 3 that the Demonstration will promote sufficient provider capacity at each level of care, including MAT, for SUD/OUD, resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs.

However, these changes did not translate into increases in MAT services. Metric #12, presented in findings for Hypothesis 1, above, demonstrated that the Demonstration did not increase the use of MAT. In fact, Demonstration trends were below what was predicted had the Demonstration not been implemented. In the summative evaluation, we will verify

[42] Pre-post analysis will be included in the summative evaluation report when more data points are available.

data to see if there is a lag in the growth of MAT utilization that was delayed following the growth in the number of MAT providers.

Measure: Bed Capacity

Measure	Time Period	Data Sources	Analytic Method(s)
Total number of beds available (Bed capacity)	TBD	HCPF	Descriptive statistics

The Behavioral Health Capacity Registry, which began implementation April 1, 2021, went live on July 1, 2021. The Registry is an online tool that tracks statewide availability for mental health and SUD treatment beds and whether licensed Opioid Treatment Programs are accepting new clients. SUD programs are required to update the Registry daily. Because the registry is updated in real time, we are still developing a methodology for the collection and analysis of historical and/or annual data for the summative evaluation report.

Primary Driver: Improved Access to Care for Physical Health Conditions Among Beneficiaries with OUD or Other SUDs

Hypothesis 4: The Demonstration will Improve Care Coordination for Physical Care, Resulting in Improved Access to Care for Physical Health Conditions Among Beneficiaries with OUD or Other SUDs.

Qualitative Measure

Measure	Time Period	Data Sources	Analytic Method(s)
Description of MCE Care Coordination activities determined by SUD Implementation Workgroup	Cumulative for interim reporting period	Key Informant Interviews[43]; Document Review	Thematic analysis of interviews, policies, and contracts

Most Milestone 6 (Improved Care Coordination and Transitions between Levels of Care) implementation activities were executed and have ongoing activities at the time of this report. The State has approved the MCEs' updated care coordination policy drafts. Colorado has passed legislation supporting care coordination infrastructure statewide. Additionally, the Implementation Workgroup has published recommendations for care coordination improvements in conjunction with the Colorado Health Institute. These recommendations included a tiered set of levels of care coordination, driven by a member's acuity and the complexity of treatment needs[44]. Ongoing training is continuing to occur for these implementation activities.

Most stakeholders acknowledged that these activities and resulting efforts are new and have not yet translated to the care coordination improvements envisioned by the

[43] Rather than individual key informant interviews (KIIs), we conducted focus groups with MCEs, state staff, providers and people receiving services. This allowed us to incorporate more perspectives than would have been available through fewer interviews.
[44] Colorado Health Institute (2022). Bridging the Gaps Policy Recommendations to Implement a Cohesive Statewide Care Coordination Infrastructure.

Demonstration hypotheses. This is confirmed by the modest increases in access to preventive/ambulatory health services for adult Medicaid members with SUD, the decreasing engagement statistics noted above, the continued high and growing readmission rates as noted below, and the disproportionate percentage of the population receiving WM services relative to treatment.

Measure Summary: While milestone activities have been completed, the qualitative data does not support Hypothesis 4 — The Demonstration will improve care coordination for physical care, resulting in improved access to care for physical health conditions among beneficiaries with OUD or other SUDs.

Measure (CMS Metric #32): Access to Preventive/Ambulatory Health Services for Adult Medicaid Beneficiaries with SUD (AAP)

Measure	Time Period	Data Sources	Analytic Method(s)
#32 Percent of members with Number of unique members with SUD with an ambulatory or preventative care visit. Denominator is number of unique members with an SUD diagnosis (#4)	Yearly, 2020-2022	Claims/ encounters	Descriptive analysis[45]

As shown in the table below, there were very small increases in the percentage of members with a preventative/ambulatory health service each year after Demonstration implementation. The small change is consistent with stakeholder reports that more work is needed to improve care coordination across the state.

Metric #32 Measure	July 1, 2019-June 30, 2020	July 1, 2020-June 30, 2021	July 1, 2021-June 30, 2022	Percentage of Change
#32 Percent of members with Number of unique members with SUD with an ambulatory or preventative care visit.	84.0%	86.0%	86.3%	+2.7%

Measure Summary: The measure does not support Hypothesis 4 — The demonstration will improve care coordination for physical care, resulting in improved access to care for physical health conditions among beneficiaries with OUD or other SUDs.

Primary Driver: Increased Adherence to and Retention in Treatment for OUD and Other SUDs

Hypothesis 5: The 1115 SUD Demonstration will Implement use of Nationally Recognized, Evidence-Based SUD Program Standards to

[45] Pre-post analysis will be included in the summative evaluation report when more data points are available.

set Residential Treatment Provider Qualifications Resulting in Increased Adherence to and Retention in Treatment for OUD and Other SUDs.

The State has completed all implementation activities associated with Milestone 3 (Use of nationally recognized SUD specific program standards to set provider qualifications for Residential Treatment Facilities). This included relicensing of providers based on updated BHA regulations and implementation of period audits and reviews of facilities as part of this licensing process. The Department is also providing training and TA to align providers with ASAM standards and updated contract language. In addition, the State has developed processes for reviewing residential treatment providers to assure compliance with these standards and has begun these reviews. Results of reviews will be available for the summative evaluation report. This report does not include the first three measures for this hypothesis described in the evaluation design, as they are dependent on the review data.

Measure (CMS Metric #22): Increased Adherence and Retention in Treatment

Measure	Time Period	Data Sources	Analytic Method(s)
#22 Continuity of Pharmacotherapy for OUD	Yearly, 2020–2022	Claims/encounters	Descriptive analysis[46]

As shown in the table below, the percentage of Medicaid members continuing pharmacotherapy for OUD decreased in the first two years of the Demonstration. This is consistent with the finding that MAT services have not increased, despite a large increase in the number of MAT providers.

Metric #22 Measure	July 1, 2019-June 30, 2020	July 1, 2020-June 30, 2021	July 1, 2021-June 30, 2022	Percentage of Change
#22 Continuity of Pharmacotherapy for OUD	59.7%	57.6%	57.1%	-4.4%

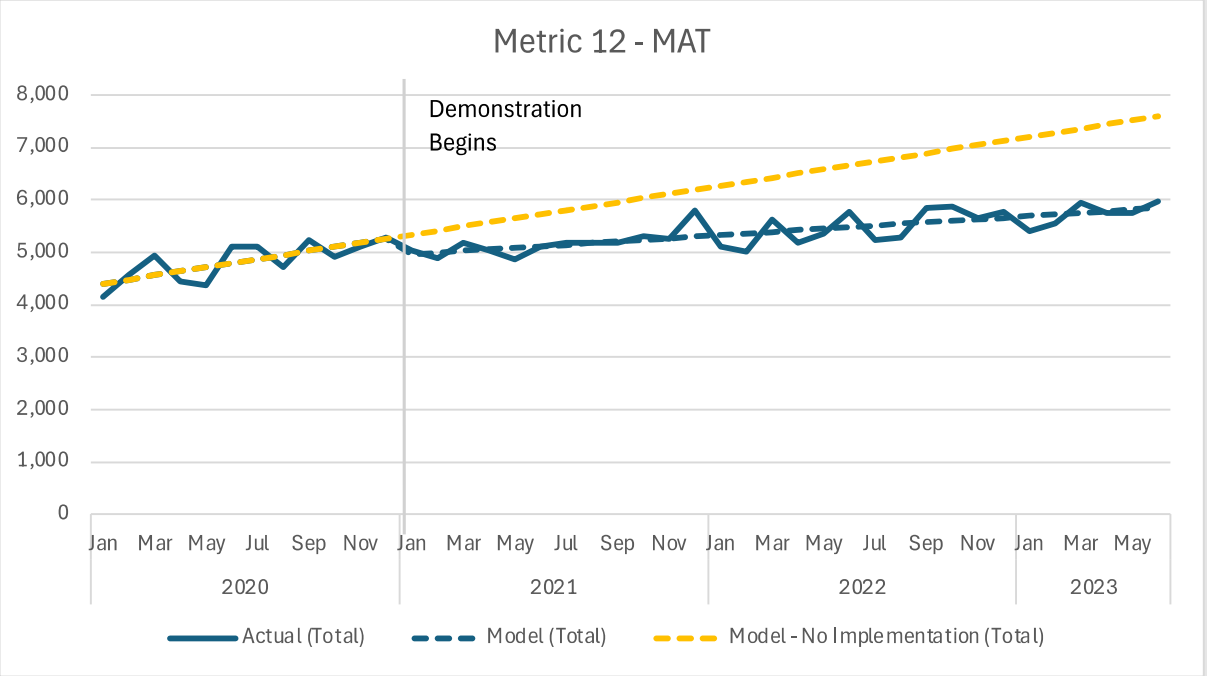
During a State staff focus group, some staff noted that sustaining needed services in typically underserved areas has been a challenge. Some providers closed shortly after opening in areas reporting service needs because of insufficient ongoing utilization to sustain the services despite observed community needs. “A lesson learned is that we need to be thoughtful when we establish a new program to make sure that all players are at the table. The funding source needs to be present and stable and there should be enough utilization to sustain the service resulting in a secure payment stream.”

Measure Summary: The measure does not support Hypothesis 5 — The 1115 SUD Demonstration will implement use of nationally recognized, evidence-based SUD program standards to set residential treatment provider qualifications resulting in increased adherence to and retention in treatment for OUD and other SUDs.

[46] Pre-post analysis will be included in the summative evaluation report when more data points are available.

Measure (CMS Metric #12): Members Receiving MAT through QE June 30, 2023

Measure	Time Period	Data Sources	Analytic Method(s)
#12 Number/percentage of beneficiaries who have a claim for MAT for SUD during the measurement period (CMS #12). Denominator is Metric #3	Monthly, January 2020 to June 2023	Claims/encounters	ITS, including each demographic subgroup



Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	4329.41	137.40	31.509	< 2e-16 ***
df$demonstration	244.29	193.16	1.265	0.213680
df$time	77.74	18.67	4.164	0.000173 ***
df$demonstration:df$time	-47.40	19.25	-2.462	0.018473 *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 223.3 on 38 degrees of freedom
Multiple R-squared: 0.7523, Adjusted R-squared: 0.7327
F-statistic: 38.47 on 3 and 38 DF, p-value: 1.339e-11

The trend pre-Demonstration was increasing use of about 78 members per month. With the start of the Demonstration this declined to a trend of approximately 30 additional members per month. This change was statistically significant at the .05 level, but not at .01. This trend was the same when analyzed using the proportion of members receiving

services, rather than counts, although the trend for proportions was not statistically significant.

MAT Services (Metric #12) for Subgroups

Some subgroups saw different trends from the total population. Dual eligible and senior populations saw statistically significant increases in MAT services. For all other groups, trends were the same for the total population or numbers were too small for reliable analysis.

Measure Summary: The measure does not support Hypothesis 5 — The 1115 SUD Demonstration will implement use of nationally recognized, evidence-based SUD program standards to set residential treatment provider qualifications resulting in increased adherence to and retention in treatment for OUD and other SUDs.

Hypothesis 6: The 1115 SUD Demonstration will Improve Care Coordination and Transitions Between Levels of Care Qualifications Resulting in Increased Adherence to and Retention in Treatment for OUD and Other SUDs.

Qualitative Measures

Measure	Time Period	Data Sources	Analytic Method(s)
Description of activities to enhance care through the Implementation Work Group	Cumulative for interim reporting period	Key Informant Interviews[47]; Document Review	Thematic analysis of interviews, policies, and contracts
MCE policy development to ensure adequate care coordination across the SUD continuum	Cumulative for interim reporting period	Key Informant Interviews[48]; Document Review	Thematic analysis of interviews, policies, and contracts

As previously discussed, work to improve care coordination is ongoing. While implementation activities have been achieved, stakeholders reported that care coordination remains an area where the State should continue to make improvements.

Most stakeholders did not feel that care coordination had improved. They noted a new opportunity with the release of the RFP for the new Accountable Care Collaborative that includes a more robust care coordination requirement in MCE contracts.

Based on monitoring reports, activities continue to work toward better care coordination. “Bridging the Gaps: Policy Recommendations to Implement a Cohesive Statewide Care Coordination Infrastructure” was published and provides recommendations to inform the

[47] Rather than individual key informant interviews (KIIs), we conducted focus groups with MCEs, state staff, providers and people receiving services. This allowed us to incorporate more perspectives than would have been available through fewer interviews.
[48] Ibid.

BHA on implementation of statewide care coordination.[49] Recommendations in that 2022 report include:

- Creating a shared definition for care coordination services;
- Supporting care coordination infrastructure including a statewide navigation hub and regional connection centers, and care coordination entities;
- Care transitions should be required through warm hand-off between regional connection centers, navigators, and care coordination entities;
- Standards of care should be established to support consistent, high-quality care coordination services across the state;
- Credentials for providing care coordination services should be established to ensure that Coloradoans receive consistent, high-quality services from a trained workforce; and
- Payment and accountability models should ensure that statewide care coordination infrastructure is appropriately funded and that there is buy-in from other state agencies and organizations utilizing the infrastructure to ensure a holistic, person-and family-centered system of care and accountability for serving all Coloradans.

Additionally, a new law (SB22-177 Investments in Care Coordination Infrastructure signed May 25, 2022) requires improved care coordination infrastructure.

Measure (CMS Metric #17): Percentage of ED Visits for which the Beneficiary Received Follow-Up

Measure	Time Period	Data Sources	Analytic Method(s)
#17-1 Number of ED visits for members in the denominator who had a follow-up visit for AOD abuse or dependence within 30 days and 7 days	Yearly, 2020–2022	Claims/ encounters	Descriptive analysis[50]
#17-2 Number of ED visits for members with a principal diagnosis of mental illness or intentional self-harm and who had a follow-up visit for mental illness within 30 days and 7 days	Yearly, 2020–2022	Claims/ encounters	Descriptive analysis[51]

Demonstration results for follow-up after ED visits are mixed. While follow-ups occurring within 30 days increased during the demonstration period, follow-ups occurring within 7 days decreased. This suggests that additional efforts to transition members into community -based care immediately following ED visits is needed.

[49] https://drive.google.com/file/d/10Hr4COOkQ856QmQWeVj4VuAssFLTWHyG/view
[50] Pre-post analysis will be included in the summative evaluation report when more data points are available.
[51] Ibid..

Metric #17 Measure	July 1, 2019-June 30, 2020	July 1, 2020-June 30, 2021	July 1, 2021-June 30, 2022	Percentage of Change
#17-1a Percentage of ED visits for which the beneficiary received follow-up within 30 days of the ED visit (31 total days)	12.5%	23.2%	21.4%	+271%
#17-1b Percentage of ED visits for which the beneficiary received follow-up within 7 days of the ED visit (8 total days)	20.0%	15.6%	15.1%	-24.5%
#17-2a Percentage of ED visits for mental illness for which the beneficiary received follow-up within 30 days of the ED visit (31 total days)	18.8%	34.0%	30.1%	+60.1%
#17-2b Percentage of ED visits for mental illness for which the beneficiary received follow-up within 7 days of the ED visit (8 total days)	28.5%	24.6%	22.4%	-21.5%

Measure Summary: The measure provides some support for Hypothesis 5 — The 1115 SUD Demonstration will implement use of nationally recognized, evidence -based SUD program standards to set residential treatment provider qualifications resulting in increased adherence to and retention in treatment for OUD and other SUDs.

Note: In the evaluation design under this hypothesis, Colorado had included a metric for the number/rate of licensed residential care facilities (p. 36 of approved Evaluation Design). That metric has been moved to the ***Hypothesis 3: The Demonstration will promote sufficient provider capacity at each level of care, including MAT, for SUD/OUD, resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs*** *and will be reported on in the Summative Evaluation when the reviews of facilities are complete.*

Primary Driver: Reduction in Overdose Deaths, Particularly those Due to Opioids

Hypothesis 7: The Demonstration will Implement Comprehensive Treatment and Prevention Strategies to Address Opioid Abuse and OUD as well as Recruit and Train More Providers to Provide MAT, Resulting in a Reduction in Overdose Deaths

The State continues to identify opportunities for expanding Prescription Drug Monitoring Program (PDMP) functionality and use and continues to increase the use of PDMP by providers and pharmacists. In the table below, the Health Information Technology action items and status are listed.

Qualitative Measure

Measure	Time Period	Data Sources	Analytic Method(s)
Key informant reports on Implementation of opioid prescribing guidelines, including HIT activities	Cumulative for interim reporting period	Key Informant Interviews[52]; Document Review	Thematic analysis of interviews, policies, and contracts

Status of Milestone Five Health Information Technology Activities Under the Demonstration

Implementation Plan	Summary of Actions in Implementation Plan	Status
PDMP Functionalities		
Enhanced interstate data sharing in order to better track patient specific prescription data	• Data sharing with additional states will be pursued, but data sharing agreements are contingent on other states' processes and policies for interstate data sharing. • Security enhancements for the State's integrated users are being pursued, which will require all integrated users to be validated against the State PDMP (PMP AWARE) user account list to successfully access the PDMP through an integrated connection (direct EHR connection, e-prescribing software, Health Information Exchange (HIE) connection).	Ongoing

[52] Rather than individual key informant interviews (KIIs), we conducted focus groups with MCEs, state staff, providers and people receiving services. This allowed us to incorporate more perspectives than would have been available through fewer interviews.

Implementation Plan	Summary of Actions in Implementation Plan	Status
	• Expanded interstate access for integrated healthcare entities leveraging reciprocal agreements with other states to approve out-of-state healthcare entities for PMP Gateway access will be pursued once the security enhancements are implemented.	
Enhanced "ease of use" for prescribers and other state and federal stakeholders	• Prescribers and pharmacies will continue to integrate their electronic health technology with the PDMP. • Integration mini grants were offered in Fall 2020 to cover the planning and/or implementation costs of PDMP integration, funded by Overdose Data to Action grant (CDPHE is recipient, DORA is sub-recipient through an interagency agreement). Organizations in rural or high-burden counties will receive higher priority in the application scoring process.	Ongoing
Enhanced connectivity between the State's PDMP and statewide, regional or local HIE	Other state HIEs may be considered for interstate access, subject to other states' HIEs requesting access, confirmation that other state HIEs do not download or store PDMP data, and the development of a reciprocal framework for approval of out-of-state integrated healthcare entities once the State implements security enhancements for PMP Gateway integrations.	Ongoing
Enhanced identification of long-term opioid use directly correlated to clinician prescribing patterns (see also "Use of PDMP" #2 below)	Additional enhancements may require legislative or rule changes.	Completed
Current and Future PDMP Query Capabilities		

Implementation Plan	Summary of Actions in Implementation Plan	Status
Facilitate the State's ability to properly match patients receiving opioid prescriptions with patients in the PDMP (i.e., the State's Master Patient Index [MPI] strategy with regard to PDMP query)	Further enhancements are not being considered at this time.	Completed
Use of PDMP — Supporting Clinicians with Changing Office Workflows/Business Processes		
Develop enhanced provider workflow/business processes to better support clinicians in accessing the PDMP prior to prescribing an opioid or other controlled substance to address the issues which follow	Further enhancements are not being considered at this time, however, PDMP integration mini-grants will reimburse approximately 25–30 healthcare organizations with integration implementation costs.	Completed
Develop enhanced supports for clinician review of patients' history of controlled substance prescriptions provided through the PDMP — prior to the issuance of an opioid prescription	• Further enhancements are not being considered at this time; however, expanding PDMP access to delegates allows staff working for prescribers to access PDMP reports on the provider's behalf and competitive PDMP integration mini-grants will reimburse healthcare organizations with integration implementation costs in the near future. • Additionally, the Board has approved over 230 PMP Gateway licenses for State healthcare organizations, covering over 700 facilities in their requests for integration, which continues to increase depending on facility/practice needs and funding.	Completed
Master Patient Index/Identity Management		
Enhance the MPI (or master data management service, etc.) in support of SUD care delivery	Additional enhancements to the PDMP beyond the current State may require legislative or other changes.	Completed
Overall Objective for Enhancing PDMP Functionality and Interoperability		

Implementation Plan	Summary of Actions in Implementation Plan	Status
Leverage the above functionalities, capabilities, and supports (in concert with any other State health IT, TA, or workflow effort) to implement effective controls to minimize the risk of inappropriate opioid overprescribing and to ensure that Medicaid does not inappropriately pay for opioids	Additional enhancements to the PDMP beyond the current state may require legislative or other changes.	Completed

Colorado is continuing to enhance interstate data sharing; to enhance "ease of use" for prescribers and other State and federal stakeholders; and to enhance connectivity between the state's PDMP and statewide, regional or local HIE.

In addition, the Harm Reduction Work Group completed planned activities related to developing naloxone training videos, planning educational trainings for pharmacists around safe opioid prescribing, overdose awareness, and naloxone dispensing, and broadening syringe access throughout the State.

Measures Summary: Qualitative data analyzed supports Hypothesis 7 — The Demonstration will implement comprehensive treatment and prevention strategies to address opioid abuse and OUD as well as recruit and train more providers to provide MAT, resulting in a reduction in overdose deaths.

Measure: Naloxone Purchasing and Distribution

Measure	Time Period	Data Sources	Analytic Method(s)
Number/percentage of State organizations who distribute naloxone	Yearly, 2020–2022	Claims/ encounters	Descriptive analysis[53]

After 2.5 years of implementation, the Demonstration has made progress in efforts to reduce opioid deaths through increased use of naloxone. As of this reporting period, the State has:

- Distributed 382,002 doses of naloxone statewide.
- Provided naloxone to 507 entities across the State.
- Increased the number of entities participating by 91% over 2022 numbers.
- Increased the number of doses distributed by 202% over 2022 numbers.

Measures Summary: This measure supports Hypothesis 7 — The Demonstration will implement comprehensive treatment and prevention strategies to address opioid abuse

[53] Pre-post analysis will be included in the summative evaluation report when more data points are available.

and OUD as well as recruit and train more providers to provide MAT, resulting in a reduction in overdose deaths. However, as shown above, while these initiatives have resulted in a large increase in the number of MAT providers in the State (Metric #14), these changes did not translate into increases in MAT services. Demonstration trends were below what was predicted had the Demonstration not been implemented.

HIT Measures: PDMP Use and Utilization of Opioids

Measure	Time Period	Data Sources	Analytic Method(s)
Number of providers using the PDMPs and number of opioid prescriptions	Yearly, 2020-2022	Claims/encounters	Descriptive analysis[54]
Use of opioids at high dosage in persons without cancer (OHD-AD) (CMS#18)	Yearly, 2020-2022	Claims/encounters	Descriptive analysis
Use of opioids at high dosage in persons without cancer (OHD-AD) (CMS#18)	Yearly, 2020-2022	Claims/encounters	Descriptive analysis
Concurrent use of opioids and benzodiazepines (COB-AD) (CMS#21)	Yearly, 2020-2022	Claims/encounters	Descriptive analysis
Overdose Deaths (rate) (CMS#27) Denominator is all Medicaid members	Yearly, 2020-2022	Claims/encounters	Descriptive analysis

During the first 2.5 Demonstration years, the number of PDMP users increased by 13.4% over baseline. This use of PDMP users helped contribute to a corresponding decrease in the concurrent use of opioids and benzodiazepines by 18% and a decrease in the overall number of opioid prescriptions (excluding buprenorphine) dispensed (-8.1%). However, the growth in the PDMP users and other state initiatives did not have the desired effect on use of opioids at high dosage, which increased by 15% during the period, despite the hypothesis that the Demonstration would decrease it.

Metric # Measure	January 1, 2020-December 31, 2020	January 1, 2021-December 31, 2021	January 1, 2022-December 31, 2022	Percentage of Change
Number of providers using the PDMP	44,340	45,230	50,278	+13.4%
Number of opioid prescriptions dispensed in Colorado (excluding buprenorphine)	3,070,345	2,953,884	2,821,936	-8.1%

[54] Ibid.

Metric # Measure	January 1, 2020-December 31, 2020	January 1, 2021-December 31, 2021	January 1, 2022-December 31, 2022	Percentage of Change
#18 Use of opioids at high dosage in persons without cancer (OHD-AD)	9.3%	9.0%	10.7%	+15.0%
#21 Concurrent use of opioids and benzodiazepines (COB-AD)	14.4%	13.2%	11.8%	-18.0%
#27 Overdose Deaths (percent/ rate per 1000))	59.7%	57.6%	57.1%	-4.4%

During the first 2.5 Demonstration years, the number of PDMP users increased by 13.4% over baseline. This use of PDMP users helped contribute to a corresponding decrease in the concurrent use of opioids and benzodiazepines by 18% and a decrease in the overall number of opioid prescriptions (excluding buprenorphine) dispensed (-8.1%). However, the growth in the PDMP users and other state initiatives did not have the desired effect on use of opioids at high dosage, which increased by 15% during the period, despite the hypothesis that the Demonstration would decrease it.

Measures Summary: The HIT measures results are mixed. There is some support for Hypothesis 7 — The Demonstration will implement comprehensive treatment and prevention strategies to address opioid abuse and OUD as well as recruit and train more providers to provide MAT, resulting in a reduction in overdose deaths.

The overall impact of the Demonstration was a small (4.4%) reduction in overdose deaths during the 2.5 Demonstration years over baseline.

Primary Driver: Reduced Readmissions to the Same or Higher Level of Care Where Readmission is Preventable or Medically Inappropriate for OUD and Other SUD.

Hypothesis 8: The Demonstration will Lead to Widespread Use of Evidence-Based SUD Specific Patient Placement Criteria Resulting in Reduced Readmissions to the Same or Higher Level of Care where

Readmission is Preventable or Medically Inappropriate for OUD and Other SUD.

Qualitative Measure

Measure	Time Period	Data Sources	Analytic Method(s)
MCE development of utilization management policies and procedures and State review of utilization management policies and procedures. **Internal monitoring of benefit by Initial Monitoring Team**	Cumulative for interim reporting period	Key Informant Interviews[55]; Document Review	Thematic analysis of interviews, policies, and contracts

As discussed previously, the State has completed all activities associated with Milestone 2 (Use of Evidence based, SUD specific Patient Placement Criteria). This has included the development of utilization management (UM) policies and procedures. Providers reported that these UM practices could be improved through greater training and technical assistance, which they hope will improve consistency across the MCEs.

Measure (CMS) Metric #25: Readmissions

Measure	Time Period	Data Sources	Analytic Method(s)
Readmissions Among Beneficiaries with SUD (CMS #25).	Yearly, 2020–2022	Claims/ encounters	Descriptive analysis[56]

While the Demonstration was intended to reduce readmissions, the rate increased 12.4% between baseline and the second Demonstration year.

Metric #25 Measure	July 1, 2019-June 30, 2020	July 1, 2020-June 30, 2021	July 1, 2021-June 30, 2022	Percentage of Change
#25 Readmissions Among Beneficiaries with SUD	17.0%	18.8%	19.1%	+12.4%

This outcome seems to support the metrics related to follow-up after ED use (Metric #17 above) that follow-up after ED visits as well as other ambulatory follow-up following hospitalizations is not occurring at the frequency needed to retain members in care and prevent readmissions. Retention in care and care coordination to lower levels of care do not seem to be occurring at the levels hoped for under the Demonstration, resulting in high readmissions among members leaving hospitalizations.

[55] Rather than individual key informant interviews (KIIs), we conducted focus groups with MCEs, state staff, providers and people receiving services. This allowed us to incorporate more perspectives than would have been available through fewer interviews.
[56] Ibid.

Measure Summary: This measure does not support Hypothesis 8: The Demonstration will lead to widespread use of evidence-based SUD specific Patient Placement Criteria resulting in reduced readmissions to the same or higher level of care where readmission is preventable or medically inappropriate for OUD and other SUD.

Primary Driver: Reduced Utilization of EDs and Inpatient Hospital Settings for OUD and Other SUD Treatment where the Utilization is Preventable or Medically Inappropriate through Improved Access to Other Continuum of Care Services

Hypothesis 9: The Demonstration will Lead to Widespread Use of Evidence-Based SUD Specific Patient Placement Criteria Resulting in Reduced Utilization of EDs and Inpatient Hospital Settings for OUD and Other SUD Treatment where the Utilization is Preventable or Medically Inappropriate

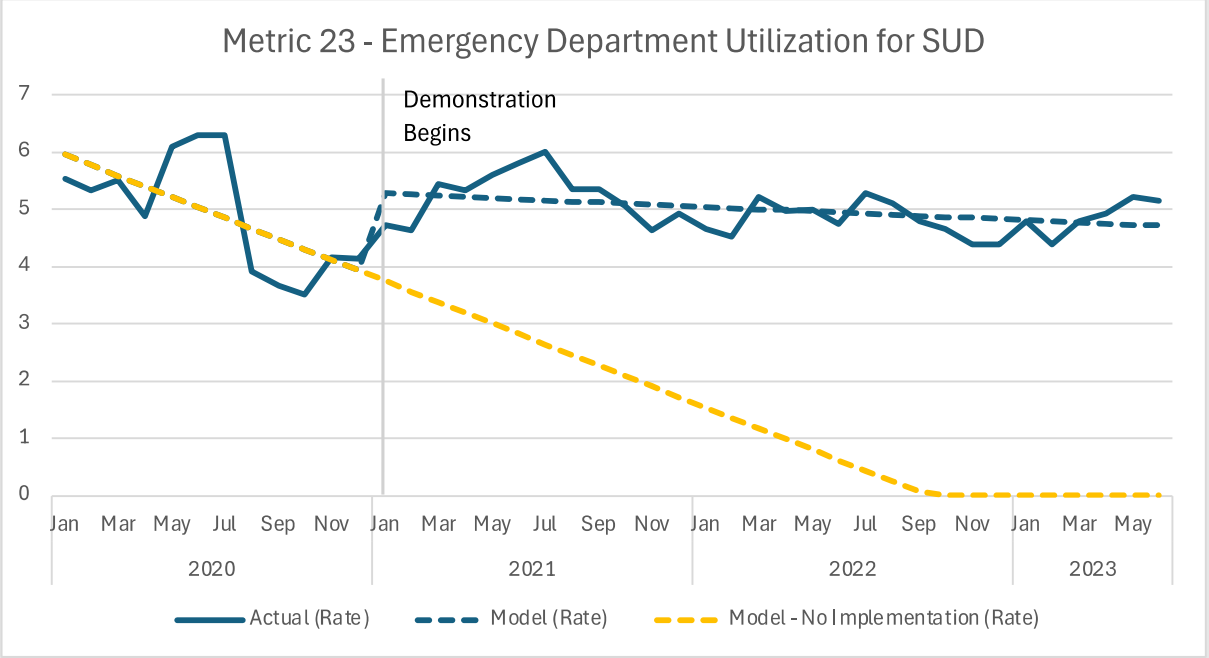
Ultimately, the Demonstration intends to improve member outcomes. As discussed previously, a small decrease in overdose deaths was observed across the first 2.5 years. However, other outcomes of reduced utilization of EDs and inpatient hospitalization have not been realized.

Measure (CMS Metrics #23 and #24): ED Utilization and Inpatient Hospitalizations

Measure	Time Period	Data Sources	Analytic Method(s)
ED Utilization for SUD per 1,000 Medicaid Beneficiaries (CMS #23)	Monthly, Jan 2020 to June 2023	Claims/ encounters	ITS, including each demographic subgroup
Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries (CMS #24)	Monthly, Jan 2020 to June 2023	Claims/ encounters	ITS, including each demographic subgroup

The following graph shows changes in ED utilization after Demonstration implementation, compared to the pre-Demonstration period.

Metric #23: ED Utilization for SUD per 1,000 Members through QE June 30, 2023



Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	6.13700	0.33299	18.430	< 2e-16 ***
df$demonstration	-0.61182	0.46813	-1.307	0.199081
df$time	-0.18385	0.04524	-4.063	0.000234 ***
df$demonstration:df$time	0.16455	0.04666	3.526	0.001118 **

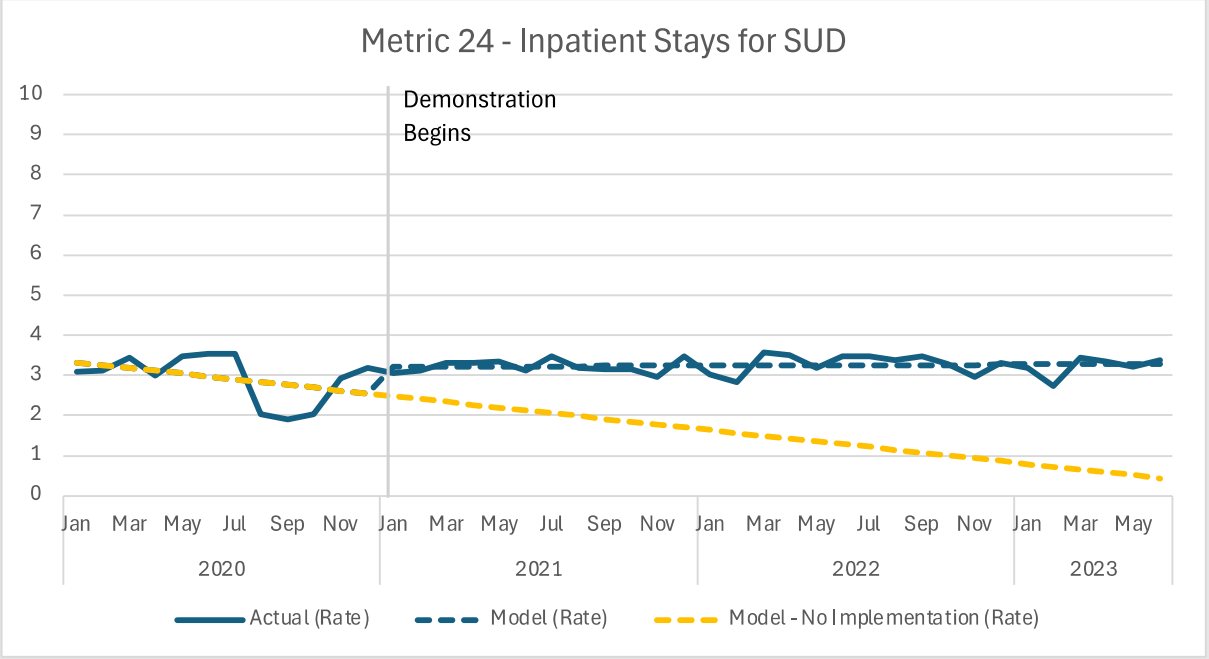
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.541 on 38 degrees of freedom
Multiple R-squared: 0.3386, Adjusted R-squared: 0.2863
F-statistic: 6.484 on 3 and 38 DF, p-value: 0.001186

The pre-Demonstration trend was for a decrease in the rate of SUD ED use over time. Post-Demonstration there was a statistically significant increase in the ED rate from negative .18 to very close to zero. This suggests the demonstration resulted in an increased use of the ED for the target population as compared to the pre-demonstration trend. This trend is contrary to the goals of the demonstration and suggests that additional initiatives to prevent additional emergency room visits are needed.

The following graph shows changes in inpatient stays per 1,000 after Demonstration implementation, compared to the pre-Demonstration period.

Metric #24: Inpatient Stays for SUD per 1,000 Medicaid Members through QE June 30, 2023



Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	3.39459	0.21506	15.785	<2e-16 ***
df$demonstration	-0.20310	0.30233	-0.672	0.5058
df$time	-0.07039	0.02922	-2.409	0.0210 *
df$demonstration:df$time	0.07249	0.03014	2.406	0.0211 *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.3494 on 38 degrees of freedom
Multiple R-squared: 0.251, Adjusted R-squared: 0.1919
F-statistic: 4.245 on 3 and 38 DF, p-value: 0.01108

As in the previous ED graph, the statistically significant decreasing trend in inpatient utilization ended at the start of the Demonstration. The Demonstration trend was essentially flat. This could be interpreted as an increase in inpatient use relative to the pre-Demonstration declining trend. Given the visible pre-Demonstration variability, the demonstration appears to have reduced variability rather than changed any obvious trend. See the adjusted R square for a measure of the imprecision of the model. Some of this post-Demonstration change could be related to the coverage of hospital IMDs which might have stabilized the total number of SUD hospital beds available in the system after the demonstration implementation. However, the overall trend of increasing inpatient utilization with the Demonstration is not consistent with the goals of the program.

Measures Summary: These two measures do not support Hypothesis 9 — The Demonstration will lead to widespread use of evidence-based SUD specific Patient Placement Criteria

resulting in reduced utilization of EDs and inpatient hospital settings for OUD and other SUD treatment where the utilization is preventable or medically inappropriate.

Hypothesis 10: The Demonstration will Improve Outcomes for Members Using SUD Services with Similar or Lower Service Costs

Under this hypothesis, the State is determining if the improved access to SUD residential and hospital services in IMDs will result in improved outcomes for members using SUD services with similar or lower service cost.

The Evaluation Design called for three sets of metrics to be utilized for this analysis.

Cost Analysis 1: Annual Aggregate Costs

The table below utilizes the annual aggregate cost metrics under the Demonstration.

Cost Analysis 1: Annual Aggregate Costs

Metric	2020	2021	2022
Total SUD Spending (CMS #28) is the sum of all Medicaid spending on SUD treatment services[57]	$70,446,962.84	$82,762,731.53	$97,451,713.99
SUD Spending within IMDs (CMS #29). The sum of all Medicaid spending on inpatient/residential treatment for SUD provided within IMDs[58]	$ 76,981.24	$1,151,619.16	$2,076,975.73
Per Capita SUD Spending (CMS #30). The sum of all Medicaid spending on SUD treatment services (CMS #28) divided by the annual number of unique members with a SUD diagnosis (CMS #4)[59]	$704.15	$755.93	$824.51
Per Capita SUD Spending within IMDs (CMS #31) The sum of all Medicaid spending on inpatient/residential treatment for SUD provided within IMDs (CMS #29) divided by the number of members with a claim for inpatient/residential treatment for SUD in an IMD[60]	$ 151.84	$ 1,766.29	$ 3,113.91

The total SUD spending grew after the implementation of the demonstration by $27 million. The SUD IMD expenditures grew from almost $77,000 to over $2 million after the Demonstration. The per capita SUD spending under the Demonstration grew from $704 to

[57] SUD spending for Metric #6 = CMS Metric #28
[58] SUD spending for Metric #36 = CMS Metric #29
[59] There were 10,045 unique Medicaid members with an SUD diagnosis in 2020, 109,484 in 2021, and 118,193 in 2022.
[60] There were 507 IMD residents in 2020, 652 IMD residents in 2021, and 667 IMD residents in 2022.

$824 annually at the same time the annual number of unique Medicaid members with a SUD diagnosis served by Medicaid grew from 100,045 to 118,193. The per capita IMD spending under the Demonstration grew from $151 to $3,113 annually at the same time that data also reported separately that the number of members served in IMDs grew from 507 to 667[61].

Cost Analysis 2: Medicaid SUD Treatment Costs Versus Non-SUD Treatment Costs for Members with SUD Diagnoses

In the analysis above, we utilized the unique number of members with an SUD diagnosis. The table below shows the actual number of member months where one of those individuals received Medicaid services and had an SUD diagnosis. The number of members served in a month grew from 847,738 member months prior to the Demonstration to 1,007,699 member months

Cost Analysis 2: Total Annual Member Months for Members with a SUD Diagnosis

Metric	2020	2021	2022
Total annual member months for members with a SUD diagnosis (Metric #3)	847,738	937,806	1,007,699

We have also looked at the total spending under Medicaid for all members with an SUD diagnosis to see that the amount of Medicaid spending on members with SUD diagnoses is substantially less than the amount of SUD spending on those same members. The amount of IMD spending is also considerably less than the non-IMD SUD spending.

The table below outlines the total Medicaid costs for members with a SUD diagnosis by year by type of spending.

Cost Analysis 2: Total Medicaid Costs for Members with a SUD Diagnosis by Year and Type of Spending

Metric	2020	2021	2022
IMD SUD Spending	$76,981	$1,151,619	$2,076,976
Non-IMD SUD Spending	$70,369,982	$81,611,112	$95,374,738
Medicaid spending on Non-SUD treatment services	$1,456,170,046	$1,818,975,043	$2,183,041,135
Total Medicaid cost per month for members with a SUD diagnosis (including pharmacy)	$1,526,617,009	$1,901,737,774	$2,280,492,849

The table below outlines the total per member per month (PMPM) Medicaid costs for all members with a SUD diagnosis by year utilizing the number of person months that individuals are receiving services under Medicaid.

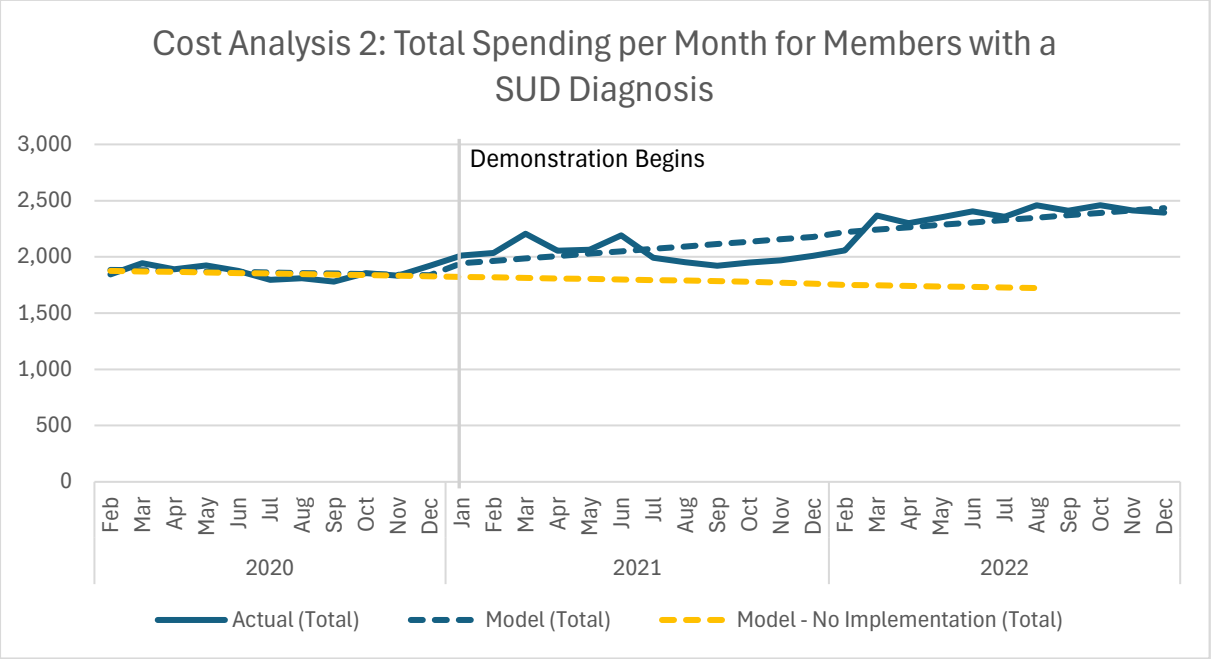
[61] Metric #5 reported the number of members served annually in IMDs.

Cost Analysis 2: Total PMPM Medicaid Costs for All Members with a SUD by Year

Metric	2020	2021	2022
IMD PMPM Spending for individuals with SUD diagnosis	$0.09	$1.23	$2.06
Non-IMD SUD PMPM Spending	$ 83.01	$ 87.02	$ 94.65
PMPM of all Medicaid spending on Non-SUD treatment services	$ 1,717.71	$ 1,939.61	$ 2,166.36
Total Cost PMPM	$ 1,800.81	$ 2,027.86	$ 2,263.07

The graph below shows the total spending per month for members with a SUD diagnosis. [62]

Cost Analysis 2: Total Spending per Month for Members with a SUD Diagnosis



[62] CMS guidance called for these metrics to be calculated on a quarterly basis, however, monthly calculation provided more data points to conduct a rigorous ITS analysis.

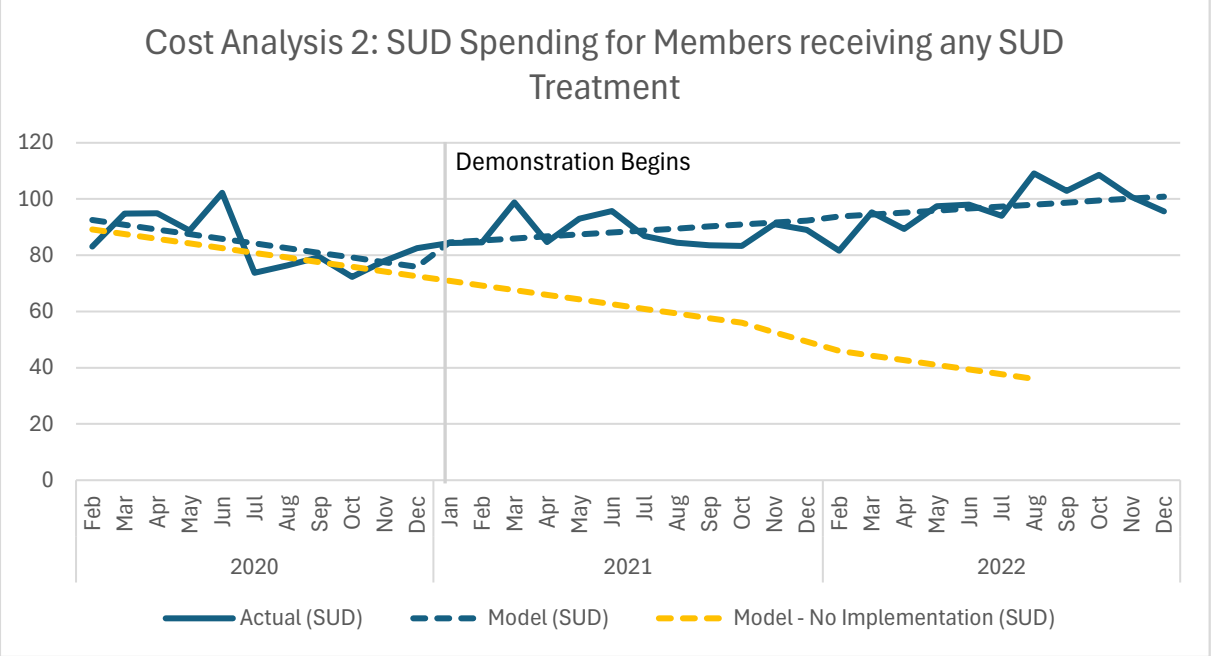
```
Coefficients:
                          Estimate   Std. Error  t value  Pr(>|t|)
(Intercept)               1894.335   78.931      24.000    <2e-16 ***
df$demonstration          -227.131   113.087     -2.008    0.0537 .
df$time                    -4.763    10.276      -0.463    0.6464
df$demonstration:df$time   26.044    10.756      2.421     0.0217 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 107.8 on 30 degrees of freedom
Multiple R-squared:  0.7911,    Adjusted R-squared:  0.7702
F-statistic: 37.87 on 3 and 30 DF,  p-value: 2.532e-10
```

The pre-Demonstration slope of the total cost metric was slightly negative, although it was not statistically different from zero. The Demonstration slope shows a small increase that is significant at the 5% level. This was slightly offset by a one-time drop in the intercept. The net effect of the demonstration is an increase in PMPM costs over time of about $26 for each additional month. In other words, the Demonstration has increased the overall budget spent on members with SUD diagnoses slightly.

The graph below shows the total spending per month for members receiving any SUD treatment.

Cost Analysis 2: SUD Spending for Members Receiving any SUD Treatment



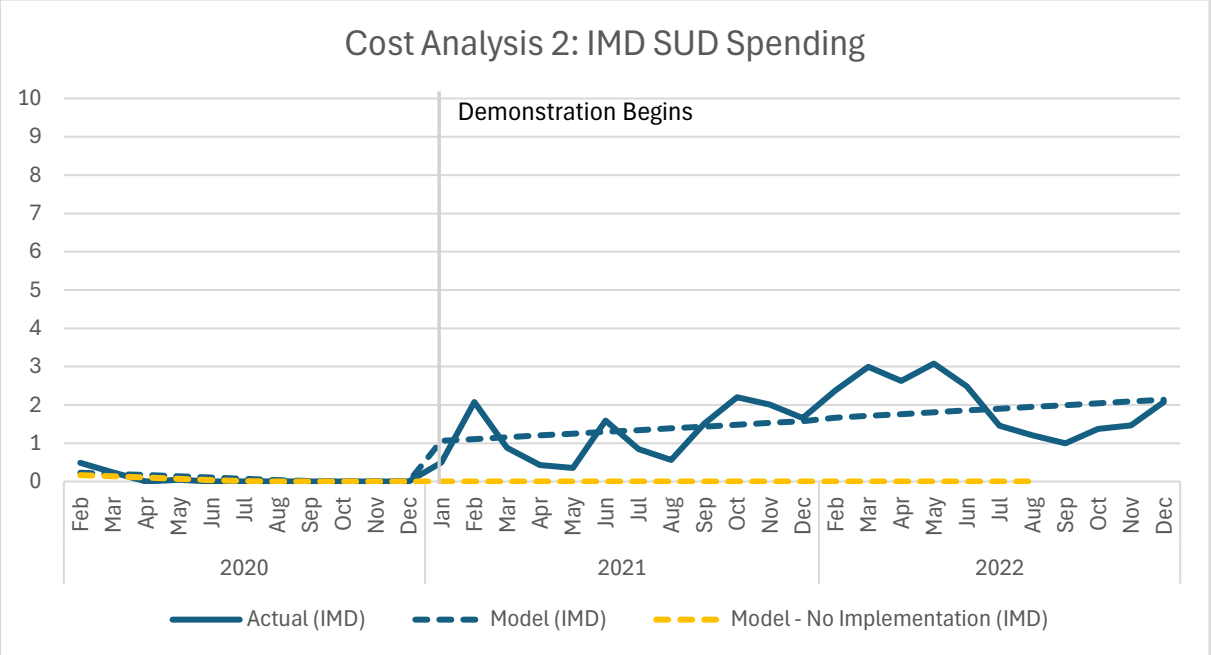
```
Coefficients:
                          Estimate   Std. Error  t value  Pr(>|t|)
(Intercept)               95.8154    5.1756      18.513   < 2e-16 ***
df$demonstration          -20.4407   7.4152      -2.757   0.00984 **
df$time                   -1.6607     0.6738     -2.465   0.01966 *
df$demonstration:df$time  2.3682     0.7053      3.358   0.00215 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 7.067 on 30 degrees of freedom
Multiple R-squared:  0.486,     Adjusted R-squared:  0.4347
F-statistic: 9.457 on 3 and 30 DF,  p-value: 0.0001486
```

Prior to the Demonstration Colorado was spending less money over time per member receiving SUD treatment (i.e., the slope was negative), and this decrease was statistically significant. The increased costs spent to treat members (i.e., increasing slope) during the implementation period is significant. There was a one-time Demonstration intercept change that was negative, and statistically significant. These are offsetting effects, and the graph shows that at the end of the data period, the PMPM spending for members receiving SUD treatment was higher than the pre-demonstration projection.

The graph below shows the total IMD spending per month for members receiving care in an IMD.

Cost Analysis 2: IMD SUD Spending



Coefficients:

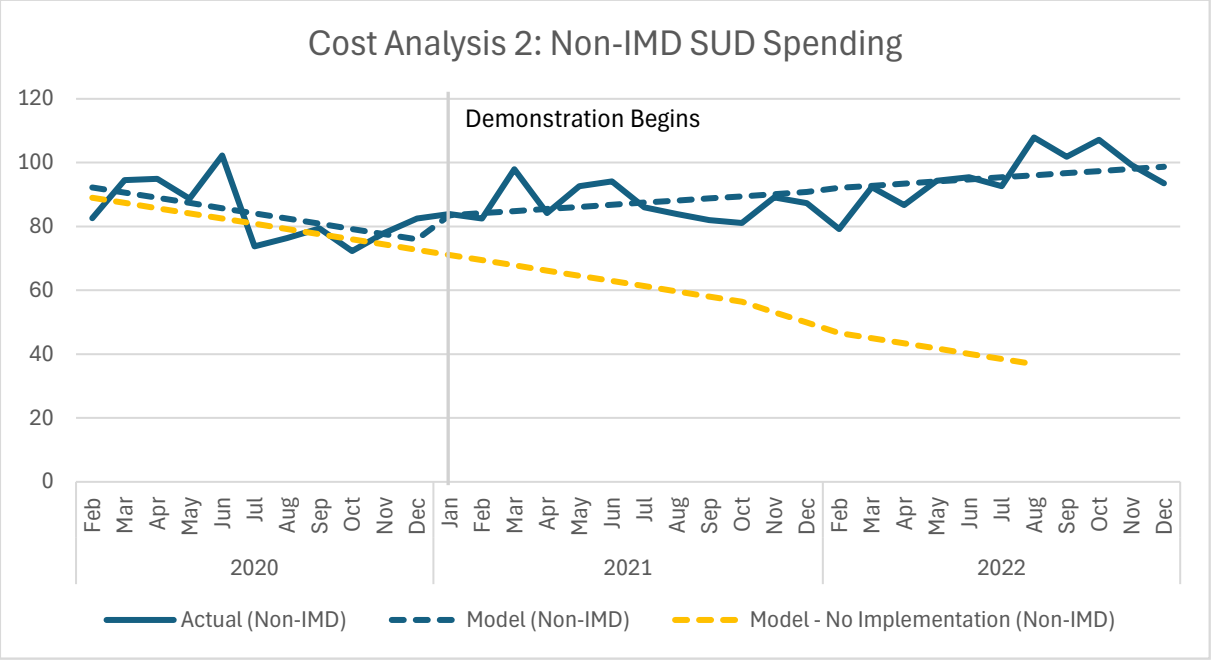
	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	0.29215	0.46509	0.628	0.535
df$demonstration	0.16403	0.66634	0.246	0.807
df$time	-0.03164	0.06055	-0.523	0.605
df$demonstration:df$time	0.07825	0.06338	1.235	0.227

Residual standard error: 0.635 on 30 degrees of freedom
Multiple R-squared: 0.6225, Adjusted R-squared: 0.5847
F-statistic: 16.49 on 3 and 30 DF, p-value: 1.624e-06

Consistent with the historic Medicaid IMD spending policy for adults, spending for SUD IMDs was essentially zero pre-Demonstration and only occurred for some seniors and children in absence of the Demonstration. After implementation, the PMPM IMD spending increased during the Demonstration period, but due to the high variability in monthly spending, the increase was not statistically significant.

The graph below shows the total non-IMD SUD spending per month for members receiving care in an IMD.

Cost Analysis 2: Non-IMD SUD Spending



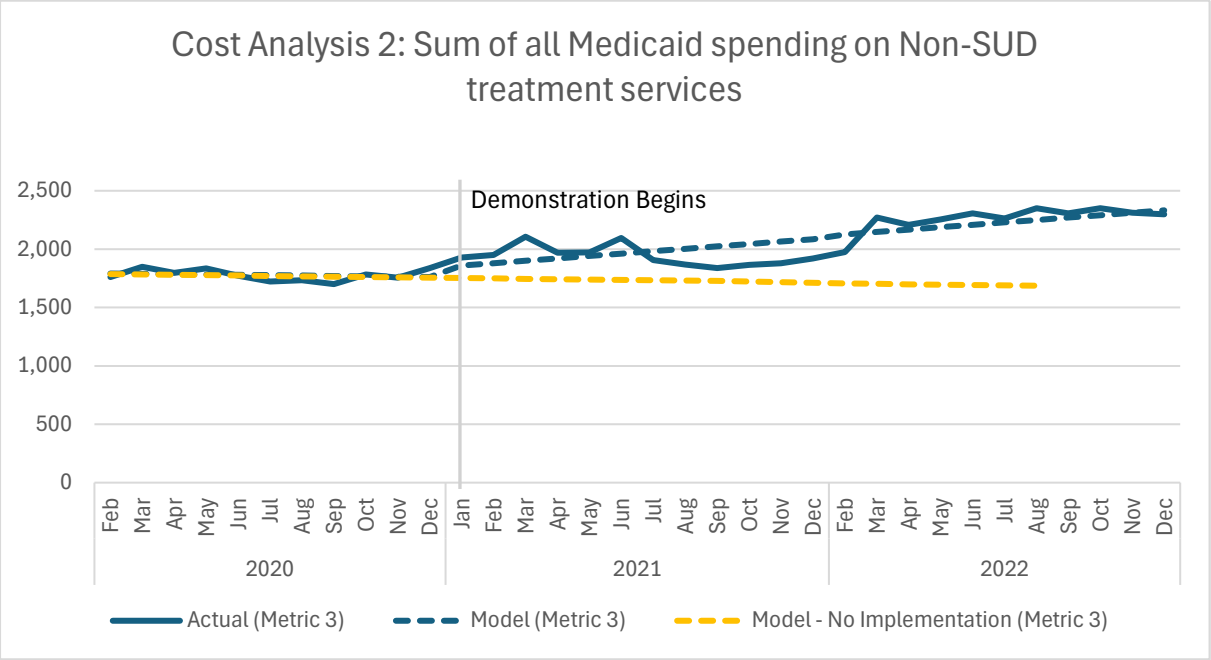
```
Coefficients:
                          Estimate   Std. Error  t value  Pr(>|t|)
(Intercept)               95.5233    5.3227      17.946   < 2e-16 ***
df$demonstration          -20.6047   7.6259      -2.702   0.01123 *
df$time                   -1.6291    0.6930      -2.351   0.02549 *
df$demonstration:df$time  2.2900     0.7253      3.157    0.00362 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 7.268 on 30 degrees of freedom
Multiple R-squared:  0.4219,    Adjusted R-squared:  0.3641
F-statistic: 7.297 on 3 and 30 DF,  p-value: 0.0008161
```

The analysis of non-IMD SUD spending demonstrates that SUD treatment spending for non-IMD services has increased under the Demonstration.

The graph below shows the total Medicaid spending per month for members with a SUD diagnosis on non-SUD treatment.

Cost Analysis 2: Sum of all Medicaid Spending on Non-SUD Treatment Services



Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	1798.519	75.652	23.774	<2e-16 ***
df$demonstration	-206.691	108.388	-1.907	0.0661 .
df$time	-3.102	9.849	-0.315	0.7550
df$demonstration:df$time	23.675	10.309	2.296	0.0288 *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 103.3 on 30 degrees of freedom
Multiple R-squared: 0.7952, Adjusted R-squared: 0.7748
F-statistic: 38.83 on 3 and 30 DF, p-value: 1.879e-10

Non-SUD treatment costs for members with a SU diagnosis have continued to increase. Eventually, the goal of the Demonstration is that non-SUD Medicaid costs will eventually decrease as the spending under the Demonstration increases and the outcomes under the Demonstration improve.

Cost Analysis 3: Medicaid Cost Drivers for Members with SUD Diagnoses

As seen in the tables and graphs below, spending for specific services which drive overall costs for members with a SUD follow similar patterns. The table directly below shows overall spending by cost drivers for members with a SUD diagnosis.

Cost Analysis 3: Spending by Cost Drivers for Members with a SUD diagnosis

Cost Metric Monthly Output	2020	2021	2022
Inpatient Spending	300,681,022	370,009,701	430,672,381
ED Spending	129,361,477	158,576,206	206,545,982
Non-ED Outpatient services Spending	591,021,738	756,294,627	905,971,403
Pharmacy Spending	337,408,946	412,829,855	475,637,883
Long-term care (LTC) Spending	168,143,826	204,027,385	261,665,200
Total Spending for members with a SUD diagnosis	$1,526,617,009	$1,901,737,774	$2,280,492,849

In aggregate, the largest aggregate expenditures are for non-ED outpatient services spending. The table directly below shows the PMPM spending by cost drivers with a SUD diagnosis.[63]

Cost Analysis 3: PMPM Spending by Cost Drivers with a SUD Diagnosis

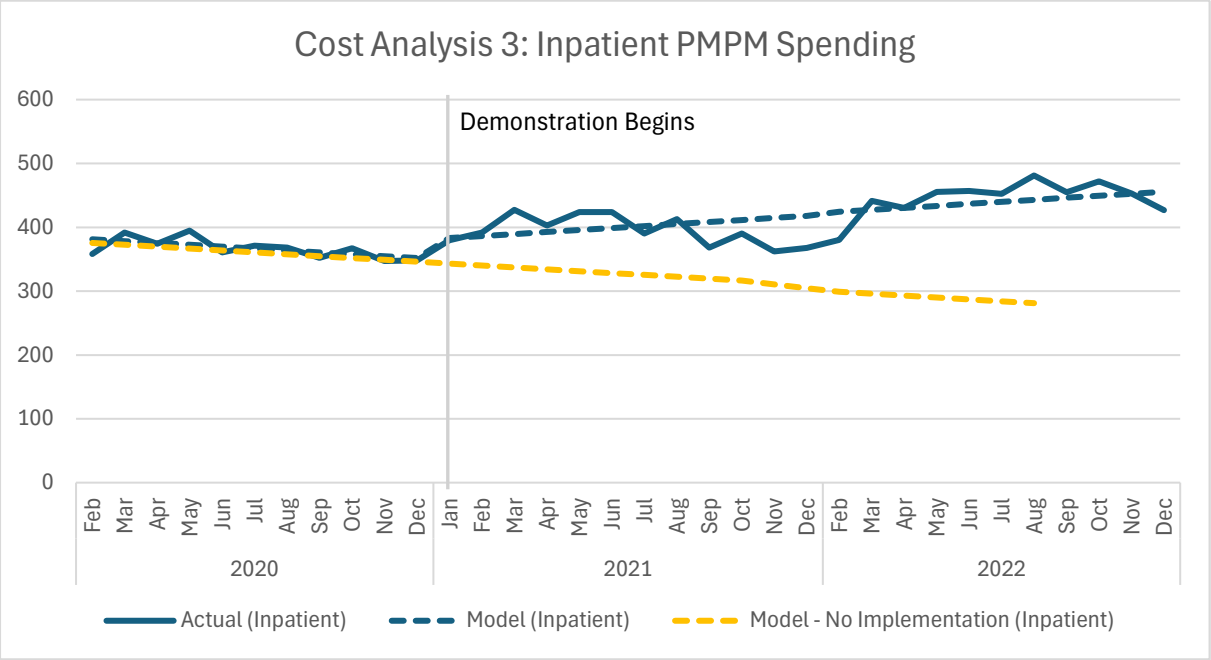
Cost Metric Monthly Output	2020	2021	2022
Inpatient PMPM Spending	$354.69	$394.55	$427.38
ED PMPM Spending	$152.60	$169.09	$204.97
Non-ED Outpatient services PMPM Spending	$697.17	$806.45	$899.05
Pharmacy PMPM Spending	$398.01	$440.21	$472.00
LTC PMPM Spending	$198.34	$217.56	$259.67
Total Cost PMPM	$1,800.81	$2,027.86	$2,263.07

On a PMPM basis, the non-ED outpatient services are the largest portion of the overall PMPM costs. The ITS analyses below look at the growth of each of these drivers to see if the Demonstration had an impact on any of the specific categories.

The table below looks at the effect of the Demonstration on inpatient spending.

[63] These metrics utilize the total member months served (e.g., 847,738 in 2020, 937,806 in 2021, and 1,007,699 in 2022)

Cost Analysis 3: Inpatient PMPM Spending



Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	387.279	18.027	21.483	<2e-16 ***
df$demonstration	-45.226	25.828	-1.751	0.0902 .
df$time	-2.949	2.347	-1.257	0.2186
df$demonstration:df$time	6.106	2.457	2.485	0.0187 *

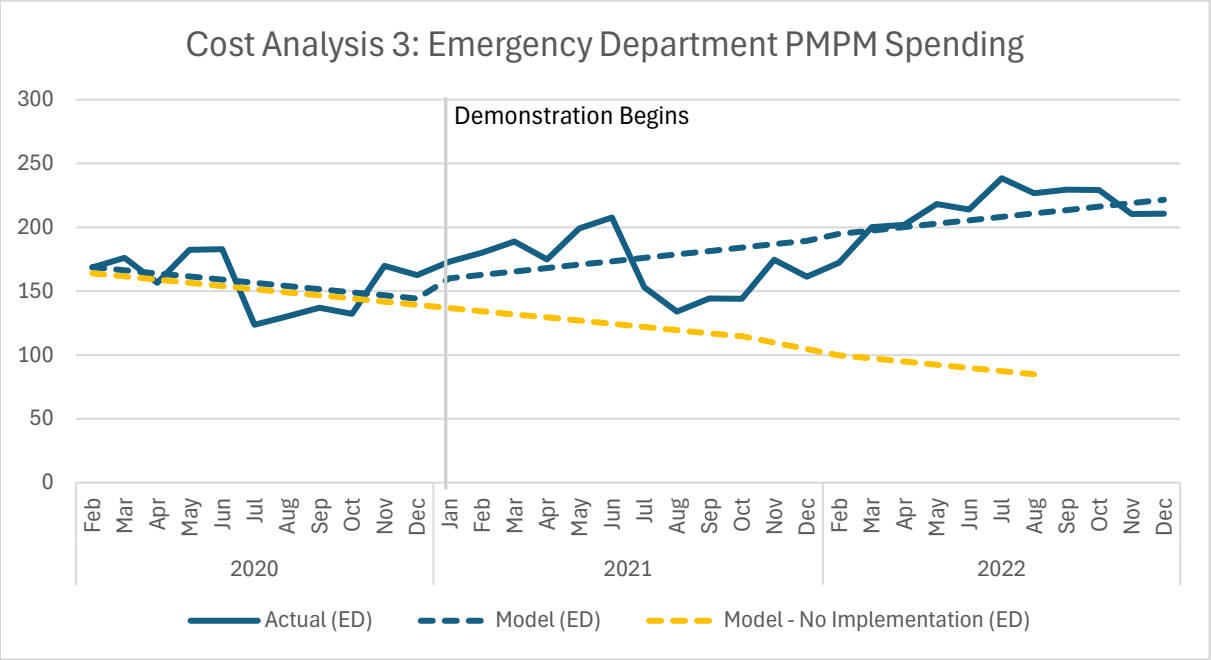
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 24.61 on 30 degrees of freedom
Multiple R-squared: 0.6453, Adjusted R-squared: 0.6098
F-statistic: 18.19 on 3 and 30 DF, p-value: 6.472e-07

The Demonstration, which had a goal of covering IMD services in residential and hospital settings, appears to have resulted in an increase of inpatient spending. This supports the goals of the Demonstration.

The table below looks at the effect of the Demonstration on ED spending.

Cost Analysis 3: ED PMPM Spending



Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	173.781	17.063	10.184	2.98e-11 ***
df$demonstration	-48.533	24.447	-1.985	0.0563 .
df$time	-2.468	2.221	-1.111	0.2753
df$demonstration:df$time	5.143	2.325	2.212	0.0348 *

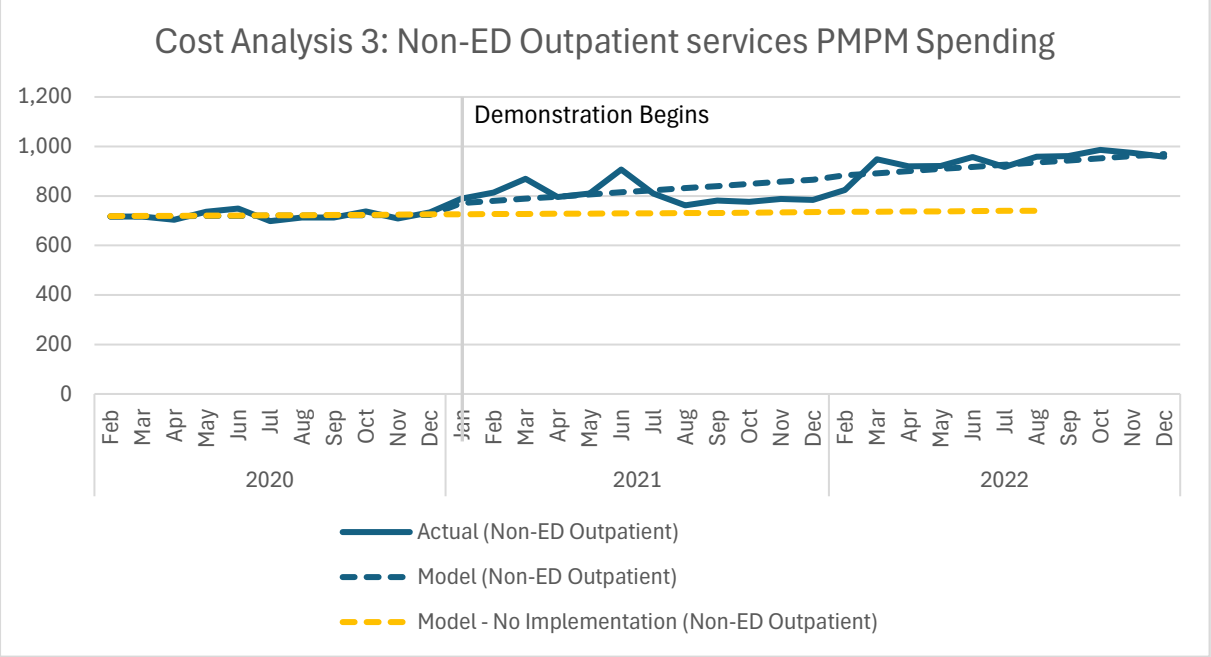
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 23.3 on 30 degrees of freedom
Multiple R-squared: 0.5194, Adjusted R-squared: 0.4713
F-statistic: 10.81 on 3 and 30 DF, p-value: 5.594e-05

Prior to the Demonstration, ED spending for members with SUD diagnoses was declining. The Demonstration appears to have increased spending for members with SUD diagnoses, which is opposite of the intent of the Demonstration.

The table below looks at the effect of the Demonstration on non-ED outpatient spending for members with a SUD diagnosis.

Cost Analysis 3: Non-ED Outpatient Services PMPM Spending



Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	715.7136	31.5537	22.682	<2e-16 ***
df$demonstration	-56.0036	45.2078	-1.239	0.2250
df$time	0.6775	4.1079	0.165	0.8701
df$demonstration:df$time	7.9198	4.3000	1.842	0.0754 .

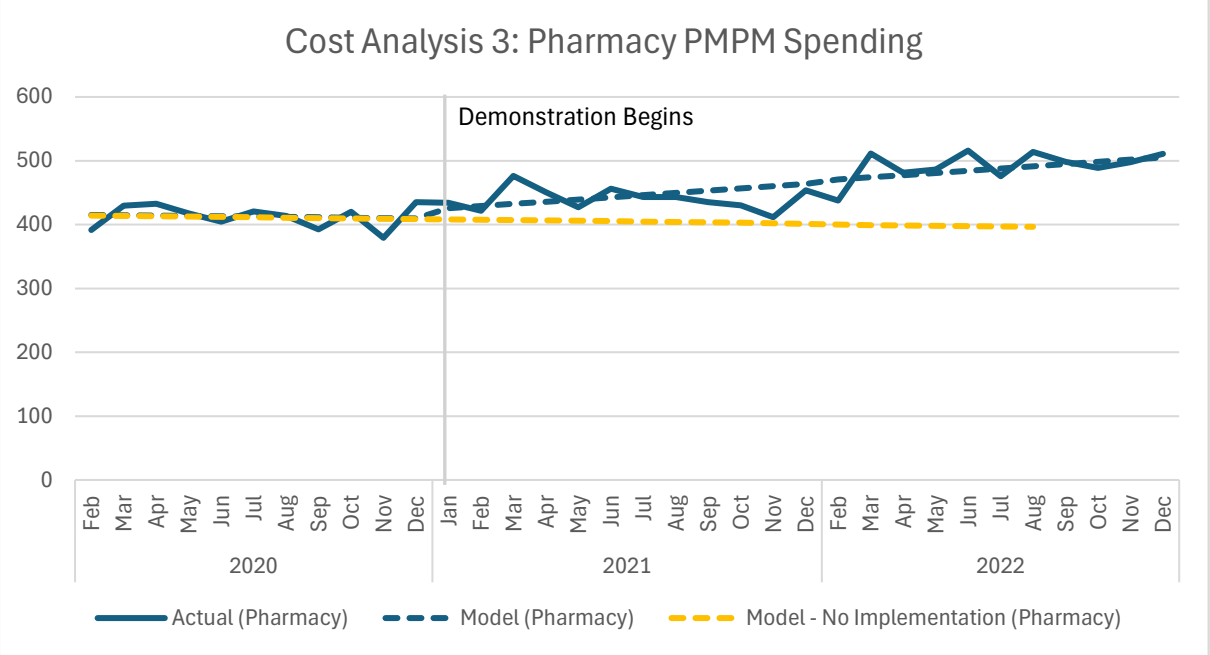
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 43.08 on 30 degrees of freedom
Multiple R-squared: 0.8189, Adjusted R-squared: 0.8008
F-statistic: 45.21 on 3 and 30 DF, p-value: 3.02e-11

The pre-Demonstration non-ED outpatient spending was relatively flat with a slight increase for Medicaid members with a SUD diagnosis. The Demonstration appears to have resulted in a one-time increase in spending with the inception of the Demonstration as well as increasing the rate of spending over time. To the extent that this signals an increase in ambulatory SUD services and retention in care, this outcome is consistent with the goals of the Demonstration.

The table below looks at the effect of the Demonstration on pharmacy spending for individuals with SUD diagnoses.

Cost Analysis 3: Pharmacy PMPM Spending



Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	416.3617	15.6599	26.588	<2e-16 ***
df$demonstration	-35.9446	22.4363	-1.602	0.1196
df$time	-0.5489	2.0387	-0.269	0.7896
df$demonstration:df$time	4.0180	2.1340	1.883	0.0695 .

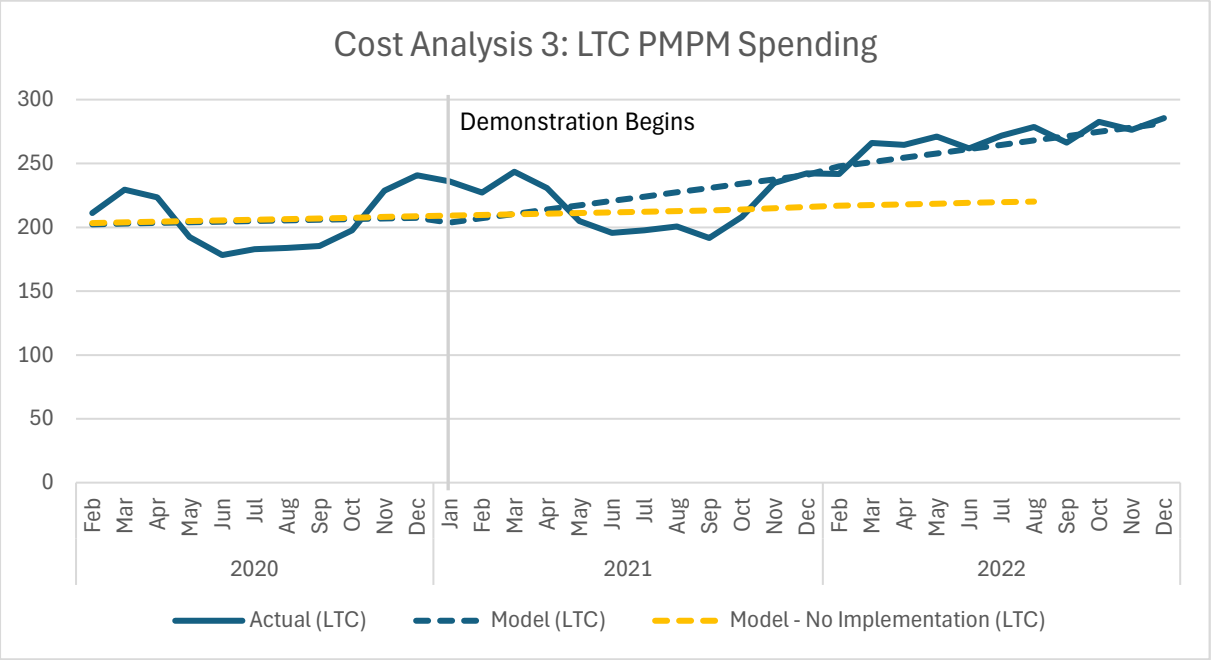
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 21.38 on 30 degrees of freedom
Multiple R-squared: 0.7163, Adjusted R-squared: 0.6879
F-statistic: 25.24 on 3 and 30 DF, p-value: 2.385e-08

The pre-Demonstration pharmacy outpatient spending was declining slightly for Medicaid members with a SUD diagnosis. The Demonstration appears to have resulted in a one-time increase in pharmacy spending with the inception of the Demonstration as well as increasing the rate of spending over time. To the extent that this signals an increase in MAT services, this outcome is consistent with the goals of the Demonstration. However, other metrics such as CMS Metric #12 above suggest that while MAT usage continues to increase after the Demonstration implementation, it is not increasing at the rate expected prior to the demonstration. The growth in pharmacy spending therefore may also be attributable to pharmacy services outside of MAT.

The table below looks at the effect of the Demonstration on LTC spending for members with SUD diagnoses.

Cost Analysis 3: LTC PMPM Spending



Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	201.200	15.303	13.148	5.51e-14 ***
df$demonstration	-41.424	21.924	-1.889	0.0685 .
df$time	0.526	1.992	0.264	0.7936
df$demonstration:df$time	2.857	2.085	1.370	0.1808

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 20.89 on 30 degrees of freedom
Multiple R-squared: 0.6448, Adjusted R-squared: 0.6093
F-statistic: 18.15 on 3 and 30 DF, p-value: 6.605e-07

The pre-Demonstration LTC spending had a slight increase for Medicaid members with a SUD diagnosis over time. The Demonstration appears to have resulted in a one-time increase in spending with the inception of the Demonstration as well as increasing the rate of spending over time for LTC service. In Metrics #3 and #6, Colorado experienced dramatic increases in the number of members age 65 and older and the number of dual eligibles who had SUD diagnoses and received an SUD service over the Demonstration. The shift in the age and eligibility of members has resulted in the growth of LTC needs increasing the cost of spending for members who have an SUD diagnosis.

Metric #3: The number of members with SUD diagnoses who are dual eligibles and age 65 and older has continued to increase over the life of the Demonstration above non-dual eligible and non-elder trends. See the graphs and table below.

Metric #3: Number of Members with SUD Diagnoses that are Dual Eligible and Age 65 and Older

Metric #3	DY1Q1 January 1, 2023-March 31, 2021	DY3Q3 July 1, 2023-September 30, 2023	Count Change	Percentage of Change
Medicaid Only	204,427	231,349	26,922	13.2%
Dual Eligible	18,039	24,584	6,545	36.3%
Children under age 18	6,159	6,971	812	13.2%
Adults ages 18-64	209,965	238,011	28,046	13.4%
Older Adults 65 years and older	6,342	10,951	4,609	72.7%

Metric #6: The number of Unduplicated Members Receiving any Services who are Dual Eligibles and Age 65 or Older Increased More than for Non-Dual Eligibles and Non-Elder Members.

Metric #6	DY1Q1 January 1, 2021-March 31, 2021	DY3Q3 July 1, 2023-September 30, 2023	Count Change	Percentage of Change
Medicaid Only	73,753	79,757	6,004	8.1%
Dual Eligible	5,952	7,068	1,116	18.8%
Children under age 18	1,309	1,319	10	0.8%
Adults ages 18-64	75,975	82,217	6,242	8.2%
Older Adults 65 years and older	2,421	3,289	868	35.9%

Section 7
Conclusions

Primary Driver and Goal 1: Increased Rates of Identification, Initiation, and Engagement in Treatment

Hypothesis 1: The Demonstration will Expand Access to Critical Levels of Care for OUD and Other SUDs, Resulting in Increased Rates of Identification, Initiation, And Engagement in Treatment for OUD and Other SUDs

As noted, the State completed significant activities to ensure that new Levels of Care were implemented, including: rate methodologies, contract amendments, billing system changes, and billing rules. The State also implemented changes to regulatory oversight including licensing of facilities to align with ASAM criteria. However, as shown in the data, the effects of these implementation activities on individual levels of care were mixed.

The Demonstration did not significantly affect the use of prevention/early intervention or MAT services.

The Demonstration did not affect the overall number of members receiving Early Intervention. Although, the overall number of members receiving screening, brief intervention and referral to treatment (SBIRT) increased above what was predicted without the Demonstration. However, the trends were small and had so much variation that there was no statistical significance either pre- or post-Demonstration. All subpopulations of focus — numbers were too small and variable to yield meaningful and statistically significant results for any of the subgroups. In conclusion, there was not enough utilization of Early Intervention services to detect any changes.

The Demonstration had mixed effects for outpatient and IOP/partial hospitalization services. A one-time significant effect on increasing the number of Medicaid members receiving outpatient SUD services, and IOP/partial hospitalization services at the start of the Demonstration. Increases over time following implementation were not significantly greater than increases projected had the Demonstration not been implemented for the overall population. There were significant increases in utilization across the Demonstration for both children and senior populations, but not for other subpopulations.

The Demonstration increased the number of members receiving outpatient services initially as well as the rate of members receiving outpatient services. For outpatient services overall, the evaluation found a small and insignificant positive trend pre-Demonstration, with a lower post-Demonstration trend that was not statistically significant. The Demonstration increased the overall number of members receiving outpatient services initially, and the rate of Medicaid members who received treatment continued to increase significantly over the Demonstration period. Pregnant participants experienced a one-time increase in utilization of outpatient services during the Demonstration period, but there was not a statistically significant change in the trend during the Demonstration. There were no significant effects for dual eligible, OUD, or criminal justice involved populations.

Both children and seniors, however, showed a statistically significant increase in the utilization of outpatient services during the Demonstration period as compared to the pre-Demonstration trend.

The Demonstration had a positive effect on the overall use of SUD IOP services, but a negative effect on the use of IOP SUD services in the children's population. IOP had a small and insignificant positive trend pre-Demonstration with the post-Demonstration trend increasing but not significantly. The relative IOP increase in the first month of the Demonstration was larger than for outpatient services. The percent of members with an IOP service had a steep and significant increase immediately following implementation, but there was no significant increase in rates thereafter. Note partial hospitalization was not implemented in Colorado until after the data collection period for the interim evaluation ended. For most subgroups (e.g., dual eligibles, pregnant women, OUD, criminal justice involved), trends were either the same as the total population or numbers were too small for tests of statistical significance. However, the child subgroup trends experienced a statistically significant decrease in utilization at the beginning of the demonstration, followed by a non-significant increase in trend. These factors offset each other, and by the end of the data period, the Demonstration utilization for children was above the pre-Demonstration trend.

The increase in outpatient utilization for children is somewhat misaligned with stakeholder reports of decreasing utilization. However, those stakeholder reports were consistent with the differential effects on IOP/PHP utilization for children which documented decreases in utilization at the beginning of the Demonstration.

The Demonstration had a significant effect on increasing the number of Medicaid members receiving residential and inpatient SUD services and members receiving WM services over the entire Demonstration period. This finding is consistent with the Demonstration's focus on ASAM levels 3.1, 3.2WM, 3.5, 3.7, and 3.7WM. In these services, there was a large increase immediately following the implementation, followed by a trend of increasing services over time during the Demonstration period. While the initial hypothesis was that the Demonstration would increase these services, it will be important to note in future evaluations whether the utilization of the highest levels of care begins to decrease as Medicaid members with an SUD are identified sooner and receive lower-level intervention services before the need for inpatient stays, and/or relapses are reduced as the Demonstration matures. States typically see the highest levels of care (ASAM 3.7 and 4) declining once ASAM has been fully implemented with an increase in ASAM 2.1, 2.5 and 3.1. There were no subgroup trends for residential and inpatient care.

The Demonstration had a large significant positive initial utilization effect on the use and rate of use of residential and inpatient services. Trends for other subpopulations were similar but not statistically significant. For residential and inpatient services, the pre-Demonstration trend was negative and not statistically different from zero. At the start of the Demonstration there were statistically significant increases in both the initial utilization and trend in SUD Residential and Inpatient Services. The magnitude of the change in January 2021 strongly suggests the change was driven by the Demonstration. Trends for the proportion of Medicaid members receiving services were the same as the trend for the number of members receiving residential or inpatient treatment. Utilization trends for the child, pregnant, and criminal justice involved populations were positive during the Demonstration period, but those increases were not statistically significant.

Trends for the other subgroups analyzed were the same as those for the total Medicaid population or contained numbers too small for a reliable analysis.

The Demonstration had a positive effect on WM use and the rate of use for the overall population. However, the immediate effect on pregnant women was an initial decrease in utilization. Members receiving WM were decreasing before the COVID-19 PHE. The trend began to show statistically significant increases in these services at the start of the Demonstration. There was also an offsetting one time change in the intercept. The net effect of the Demonstration is a relatively large increase in utilization of WM. This trend holds when analyzed using the proportion of Medicaid members receiving WM services. For pregnant women, there was a statistically significant initial decrease in WM services immediately following implementation of the Demonstration, followed by a steady increase that is not statistically significant. For all other subgroups, the trends mirrored those of the total Medicaid population, but were less likely to be statistically significant, largely due to small numbers in these subpopulations.

The Demonstration overall saw fewer new members per month initiating MAT use even though the number of dual eligible and senior populations increased under the Demonstration. The number of members with MAT use prior to the Demonstration was increasing at a rate of about 78 people per month. With the start of the Demonstration, this trend declined to approximately 30 additional members per month receiving MAT. This change was statistically significant at the .05 level but not at other levels or for the trends in the proportion of members utilizing MAT. Dual eligible and senior populations saw statistically significant increases in MAT services. For all other groups, trends were the same for the total population or numbers were too small for reliable analysis.

There was a large increase in the average length of stay in an IMD for Medicaid member between the baseline and year two of the Demonstration.

Hypothesis 2: The Demonstration will Promote Widespread Use of Evidence-Based SUD Specific Patient Placement Criteria Resulting in Increased Rates of Identification, Initiation, and Engagement in Treatment for OUD and Other SUDs

Providers reported that use of ASAM placement criteria has been completed and adopted by both providers and MCEs. However, as discussed previously, there are some inconsistencies across MCEs that lead to challenges for providers and, sometimes, barriers to access for Medicaid members due to the inconsistency of the day-to-day implementation across MCEs. More training for the MCEs, particularly staff responsible for prior authorizations, on specific features of each ASAM level of care would improve access to care for Medicaid members.

The first two years of the Demonstration saw only a modest increase in the number of available providers, meaning that capacity may remain a barrier to access. While there was an initial increase in the number of providers during the first Demonstration year, that number fell in the second year, nearly to the baseline level. This was consistent with reports from stakeholders about lack of sufficient capacity within existing providers to provided needed care, particularly in rural areas and with services for specific populations, such as children and pregnant people.

This finding is reinforced by the relatively modest increase in the number of members receiving any kind of SUD treatment service. Again, while there was a one-time increase at the start of the Demonstration, the overall increasing trend was no different than the increase predicted had the Demonstration not been implemented.

Ultimately, possibly because of a limited increase in provider capacity, the Demonstration did not affect the rate of members initiating AOD treatment for the total Medicaid population. There was a small immediate increase in the number of children initiating treatment, but this was not sustained over the first 2.5 years in the data.

Hypothesis 3: The Demonstration will Promote Sufficient Provider Capacity at Each Level of Care, Including MAT, for SUD/OUD, Resulting in Increased Rates of Identification, Initiation, and Engagement in Treatment for OUD and Other SUDs

A small increase in the number of SUD treatment providers and a large increase in the number of MAT providers did not translate to increased rates of initiation of treatment or the utilization of overall SUD services or MAT services for the Medicaid population.

Providers and MCEs all pointed to specific lack of sufficient capacity in rural/frontier areas of the state, and services for children, pregnant people and those with criminal justice involvement. In addition, providers expressed difficulty in serving people without legal immigration status and those who need services in another language, particularly Spanish. Providers expressed a desire for reimbursement rates that reflect the higher costs of hiring bilingual treatment staff.

State staff expressed belief that increasing MAT services was a success, particularly for the criminal justice-involved population. This finding further supports a recommendation that the State examine why these successful policy changes and increases in providers are not translating to increased service access.

Primary Driver: Improved Access to Care for Physical Health Conditions Among Beneficiaries with OUD or Other SUDs

Hypothesis 4: The Demonstration will Improve Care Coordination for Physical Care, Resulting in Improved Access to Care for Physical Health Conditions Among Beneficiaries with OUD or Other SUDs

While significant progress has been made regarding planned activities around improving care coordination across the state, these efforts have not yet translated into results as reported by Demonstration stakeholders or as seen in the quantitative data around access to physical healthcare. In addition to the modest increases in access to preventive/ambulatory health services for adult Medicaid members with SUD, the State continues to experience large and growing readmission rates, decreasing engagement statistics, and a disproportionate percentage of the population receiving WM services relative to sustained SUD treatment. While members who participated in the June 2024 listening session expressed satisfaction with SUD-specific services and services providers, they did not have examples of how their overall access to healthcare or navigation of the healthcare system has improved under the Demonstration. As a result, we cannot conclude

that care coordination resulting in improved physical healthcare has improved under the demonstration.

Hypothesis 5: The 1115 SUD Demonstration will Implement use of Nationally Recognized, Evidence-Based SUD Program Standards to set Residential Treatment Provider Qualifications Resulting in Increased Adherence to and Retention in Treatment for OUD and Other SUDs

Implementation activities have been completed for ensuring the use of nationally recognized, evidence-based SUD program standards to set residential treatment provider qualifications. The State is still working toward completing provider reviews. For the interim evaluation report, it is too early to reach any additional conclusions regarding this hypothesis.

Thus far, there has been a reduction in the continuity of Pharmacotherapy for OUD, consistent with the finding that there has not been an increase in MAT services, despite increases in the number of providers. New programs have been difficult to sustain because of insufficient funding and utilization.

Hypothesis 6: The 1115 SUD Demonstration will Improve Care Coordination and Transitions Between Levels of Care Qualifications Resulting in Increased Adherence to and Retention in Treatment for OUD and Other SUDs

As previously noted, care coordination remains an area of potential for the State. While some infrastructure improvements have been made in the form of studies and legislative changes, there remains more work to do to improve care coordination for members. Findings regarding follow-up after an ED visit were mixed. While follow-up after 30 days improved considerably under the demonstration, follow-up after 7 days decreased during the Demonstration. These findings are consistent with incomplete implementation of total system improvements to care coordination and transitions across levels of care as well as findings that readmission rates are increasing, engagement statistics are decreasing, and that WM relative to treatment is very high.

Primary Driver: Reduction in Overdose Deaths, Particularly those Due to Opioids

Hypothesis 7: The Demonstration will Implement Comprehensive Treatment and Prevention Strategies to Address Opioid Abuse and OUD as well as Recruit and Train more Providers to Provide MAT, Resulting in a Reduction in Overdose Deaths

Demonstration efforts to address opioid abuse have been largely successful during the first 2.5 Demonstration years. The number of PDMP users has increased and stakeholders reported that implementation efforts to increase PDMP usage have been successful.

Since implementation, the concurrent use opioids and benzodiazepines has decreased, the overall number of opioids dispensed has decreased, and there has been a small decrease in the number of opioid deaths. However, the Demonstration did not seem to have the intended effect on the use of opioids in high dosages.

Hypothesis 8: The Demonstration will Lead to Widespread Use of Evidence-Based SUD Specific Patient Placement Criteria Resulting in Reduced Readmissions to the Same or Higher Level of care where Readmission is Preventable or Medically Inappropriate for OUD and Other SUD

Demonstration progress and implementation advances from some short-term outcomes have not completely translated into long-term progress in lowering readmission rates. While the Demonstration intended to reduce readmissions, the rate increased between baseline and the second Demonstration year. This may be a reflection of the need to continue to improve access to care across all critical level of care, improve retention in care, improve follow-up after hospitalizations and ED use, and for all populations as well as the ongoing, but incomplete, work to improve care coordination and treatment level transitions.

Primary Driver: Reduced Utilization of EDs and Inpatient Hospital Settings for OUD and Other SUD treatment where the Utilization is Preventable or Medically Inappropriate through Improved Access to Other Continuum of Care Services

Hypothesis 9: The Demonstration will Lead to Widespread Use of Evidence-Based SUD Specific Patient Placement Criteria Resulting in Reduced Utilization of EDs and Inpatient Hospital Settings for OUD and Other SUD Treatment Where the Utilization is Preventable or Medically Inappropriate

The Demonstration has not led reduced utilization of EDs and inpatient hospital settings for OUD and other SUD treatment. As noted above, the Demonstration did not appear to have a positive effect on ED utilization. The observed increasing ED trend is contrary to the goals of the demonstration and suggests that additional initiatives to prevent additional emergency room visits are needed. In addition, the post-Demonstration changes related to the coverage of hospital IMDs might have stabilized the total number of SUD hospital beds available in the system after the Demonstration implementation. However, the overall trend of increasing inpatient utilization with the demonstration is not consistent with the goals of the program. These results are consistent with other results that hospital readmission rates under the Demonstration are increasing and that short-term follow-up after ED care is not occurring. Additional interventions seem to be necessary to accomplish the goals of the demonstration.

Hypothesis 10: The Demonstration will Improve Outcomes for Members Using SUD Services with Similar or Lower Service Costs

The Evaluation Design called for three cost analysis: Annual Aggregate costs, Spending for SUD versus non-SUD Treatment for members with SUD Diagnoses, and Medicaid Cost Drivers for members with SUD diagnoses

For the first analysis, the annual aggregate metrics found growth under the Demonstration. The total SUD spending grew after the implementation of the demonstration by $27 million. The SUD IMD expenditures grew from almost $77,000 to over $2 million after the Demonstration. The per capita SUD spending under the Demonstration grew from $704 to $824 annually. The per capita IMD spending under the Demonstration grew from $151 to $3,113 annually.

For the second analysis, which were calculated on a monthly basis to facilitate the ITS study, the total cost metric pre-Demonstration costs were slightly declining, but after the Demonstration there was a small increase in the rate of spending. That increased rate was offset by a one-time decrease in costs. The overall effect was that the Demonstration has increased the overall budget spent on members with SUD diagnoses slightly.

On a per member basis, the rate of spending was decreasing prior to the Demonstration. After the Demonstration was implemented, there was a one-time decrease in costs with an increased rate of spending. Overall, the PMPM spending for members receiving SUD treatment under the Demonstration was higher than the pre-Demonstration projection.

Consistent with the historic Medicaid IMD spending policy for adults, spending for SUD IMDs was essentially zero pre-Demonstration and only occurred for some seniors and children in absence of the Demonstration. After implementation, the PMPM IMD spending increased during the Demonstration period, but due to the high variability in monthly spending it was not statistically significant. The non-IMD SUD spending increased under the Demonstration.

Non-SUD treatment costs have increased under the Demonstration. The hope is that non-SUD treatment costs will eventually decrease as the spending under the Demonstration increases and the outcomes under the Demonstration improve. However, at this time, these outcomes have not been realized.

For the third set of analyses, spending for specific services which drive overall costs for members with a SUD follow similar patterns. In aggregate, the largest aggregate expenditures are for non-ED outpatient services spending. On a PMPM basis, the non-ED outpatient services are the largest portion of the overall PMPM costs. The ITS analyses below look at the growth of each of these drivers to see if the Demonstration had an impact on any of the specific categories.

- The Demonstration, which had a goal of covering IMD services in residential and hospital settings, appears to have resulted in an increase of inpatient spending. This supports the goals of the Demonstration.
- Prior to the Demonstration, ED spending for members with SUD diagnoses was declining. The Demonstration appears to have increased spending for members with SUD diagnoses, which is opposite of the intent of the Demonstration.

- The pre-Demonstration non-ED outpatient spending was relatively flat with a slight increase for Medicaid members with a SUD diagnosis. The Demonstration appears to have resulted in a one-time increase in spending with the inception of the Demonstration as well as increasing the rate of spending over time. To the extent that this signals an increase in ambulatory SUD services and retention in care, this outcome is consistent with the goals of the Demonstration.
- The pre-Demonstration pharmacy outpatient spending was declining slightly for Medicaid members with a SUD diagnosis. The Demonstration appears to have resulted in a one-time increase in pharmacy spending with the inception of the Demonstration as well as increasing the rate of spending over time. To the extent that this signals an increase in MAT services, this outcome is consistent with the goals of the Demonstration. However, other metrics such as CMS Metric #12 above suggest that while MAT usage continues to increase after the Demonstration implementation, it is not increasing at the rate expected prior to the Demonstration. The growth in pharmacy spending therefore may also be attributable to pharmacy services outside of MAT.
- The pre-Demonstration LTC spending had a slight increase for Medicaid members with a SUD diagnosis over time. The Demonstration appears to have resulted in a one-time increase in spending with the inception of the Demonstration as well as increasing the rate of spending over time for LTC service. In Metrics #3 and #6, Colorado experienced dramatic increases in the number of members ages 65 and older and the number of dual eligibles who had SUD diagnoses and received an SUD service over the Demonstration. The shift in the age and eligibility of members has resulted in the growth of LTC needs increasing the cost of spending for members who have an SUD diagnosis.
    - Metric #3: The number of individuals with SUD diagnoses who are dual eligibles and age 65 or older has continued to increase over the life of the Demonstration above non-dual eligible and non-elder trends.
    - Metric #6 The number of unduplicated individuals receiving any services who are dual eligibles and age 65 or older increased more than for non-dual eligibles and non-elder members.

Section 8

Interpretations, Policy Implications, and Interactions with Other State Initiatives

The State has implemented most activities from the implementation plan that support waiver implementation. Most activities proposed have been either completed or remain ongoing and new activities, driven by the State legislature, have the potential to continue improvements in SUD services.

The State has revised its Medicaid State Plan to enhance the SUD service continuum under Medicaid. State Medicaid members are now eligible to receive the following ASAM levels of care under their Medicaid benefit: 2.1 IOP SUD Services, 2.5 Partial Hospitalization (effective July 1, 2024), 3.1 Clinically Managed Low Intensity Residential Services, 3.3 Clinically Managed Population Specific High Intensity Residential Services, 3.5 Clinically Managed High Intensity Residential Services, 3.7 Medically Monitored Intensive Inpatient Services, and 3.7WM Medically Monitored Residential WM.

During DY1, the State created a plan and materials to train all providers working within the continuum of care on UM and ASAM -based assessment to ensure the continuum of care would be applied appropriately and to reduce the under- and/or over-utilization of any of the levels of care. Planned activities in the implementation plan included:

- Ensuring appropriate licensure levels of all sites in the system.
- Defining and training providers on treatment terms to ensure consistency.
- Training providers on evidence -based practices for patient assessment and placement.
- Addressing provider shortages, specifically in rural areas and for youth.
- Recruiting providers not currently enrolled as Medicaid providers.

As noted in the conclusion section, the Demonstration has accomplished a substantial portion of the implementation activities but has not just resulted in the outcomes sought by the Demonstration. Demonstration efforts to address opioid abuse have been largely successful during the first 2.5 Demonstration years. The number of PDMP users has increased and stakeholders reported that implementation efforts to increase PDMP usage have been successful. Since implementation, the concurrent use opioids and benzodiazepines has decreased, the overall number of opioids dispensed has decreased, and there has been a small decrease in the number of opioid deaths. However, the Demonstration did not seem to have the intended effect on the use of opioids in high dosages.

For example, additional time to address prevention/early intervention service usage is needed. Colorado has examined its SBIRT billing practices. The current Colorado program utilizes the commercial CPT codes 99408 and 99409, which only reimburse when the member has a positive screen with follow-up intervention activities. This billing practice tends to disincentivize providers from performing the SBIRT screens because they are not paid to perform the screen, only to perform the interventions if there is a positive screen. Several states have adopted the Medicaid-specific SBIRT codes H0049 and H0050. These

codes reimburse providers whenever a screen is performed regardless of whether or not the screen was positive and intervention activities are required. Colorado could consider adopting these billing practices to enhance Early Intervention in the State. The financial obligation of the State could be a factor under the Medicaid codes because there is an increased budgetary commitment to SUD Early Intervention for using the Medicaid-specific codes.

For retention in care in outpatient, IOP, and lower levels of ASAM residential treatment (e.g., ASAM 3.1 and ASAM 3.5), the overall findings seem to suggest that additional care coordination and follow-up after ED visits, WM, and hospitalizations would positively impact the overall outcomes of members through lower readmission rates, more engagement, MAT utilization, and longer retention in care.

As noted above, the Demonstration had increased utilization of WM that may be an indication of lack of effective care transitions and an inability of the Colorado SUD system to retain individuals in long-term SUD treatment. Because there appear to be as many members in WM levels of care (approximately 1500 monthly) as in residential and inpatient treatment (approximately 1500), it suggests that members are not being retained in residential care including ASAM 3.5 and 3.1 treatment and reintegration which would lead to longer term successful outcomes. This is consistent with decreasing engagement statistics, the continued high and growing readmission rates, and stakeholder comments that care transitions are not yet successful.

While the relatively modest increase in the number of members receiving any kind of SUD treatment service appeared to be a one-time increase at the start of the Demonstration, there was an overall increasing trend that was no different than the increase predicted had the Demonstration not been implemented. This was consistent with the initial increase in the number of providers during the first Demonstration year, with a decrease the second year and reports about lack of sufficient capacity, particularly in rural areas and with services for specific populations, such as children, pregnant people, and individuals with criminal justice involvement. Providers expressed difficulty in serving people without legal immigration status and those who need services in another language, particularly Spanish.

The results was that the Demonstration did not affect the rate of members initiating AOD treatment for the total Medicaid population. A small increase in the number of SUD treatment providers and a large increase in the number of MAT providers did not translate to increased rates of initiation of treatment or the utilization of overall SUD services or MAT services for the Medicaid population.

The activities implemented have not yet translated into results as reported by Demonstration stakeholders or as seen in the quantitative data around access to physical healthcare. In addition to the modest increases in access to preventive/ambulatory health services for adult Medicaid members with SUD, the State continues to experience large and growing readmission rates, decreasing engagement statistics, and a disproportionate percentage of the population receiving EM services relative to sustained SUD treatment.

Thus far, there has been a reduction in the continuity of Pharmacotherapy for OUD, consistent with the finding that there has not been an increase in MAT services, despite increases in the number of providers. Some providers noted that new programs have been difficult to sustain because initial under-utilization leads to insufficient revenue to sustain them long-term.

As previously noted, care coordination remains an area of potential for the State. While some infrastructure improvements have been made in the form of studies and legislative changes, there remains more work to do to improve care coordination for members. Findings regarding follow-up after an ED visit were mixed. While follow-up after 30 days improved considerably under the demonstration, follow-up after seven days decreased during the Demonstration. These findings are consistent with incomplete implementation of total system improvements to care coordination and transitions across levels of care as well as findings that readmission rates are increasing, engagement statistics are decreasing, and that WM relative to treatment is very high.

Demonstration progress and implementation advances from some short-term outcomes have not completely translated into long-term progress in lowering readmission rates. While the Demonstration intended to reduce readmissions, the rate increased between baseline and the second Demonstration year. This may be a reflection of the need to continue to improve access to care across all critical level of care, improve retention in care, improve follow-up after hospitalizations and ED use, and for all populations as well as the ongoing, but incomplete, work to improve care coordination and treatment level transitions.

The Demonstration has not led reduced utilization of EDs and inpatient hospital settings for OUD and other SUD treatment. As noted above, the Demonstration did not appear to have a positive effect on ED utilization. The observed increasing ED trend is contrary to the goals of the demonstration and suggests that additional initiatives to prevent additional emergency room visits are needed. In addition, the post-demonstration changes related to the coverage of hospital IMDs might have stabilized the total number of SUD hospital beds available in the system after the demonstration implementation. However, the overall trend of increasing inpatient utilization with the Demonstration is not consistent with the goals of the program. These results are consistent with other results that hospital readmission rates under the demonstration are increasing and that short-term follow-up after ED care is not occurring. Additional interventions seem to be necessary to accomplish the goals of the Demonstration.

Section 9

Lessons Learned and Recommendations

Lessons Learned

As noted above, stakeholders reported that new programs should ensure that financing is stable prior to implementation: "A lesson learned is that we need to be thoughtful when we establish a new program to make sure that all players are at the table and that the funding source is going to be there and be stable and that there is enough utilization to sustain the service and that there is a secure payment stream."

Recommendations

Based on the capacity issues facing the program, Mercer recommends that Colorado reconvene the Provider Capacity Workgroup to analyze wait lists and "service deserts" to ensure there is adequate access to care.

Because the growth in MAT providers has not translated into more MAT services, we recommend that Colorado work with providers to improve the MAT penetration rates for members with SUD including improving follow-up after WM where MAT is inducted.

We recommend that Colorado consider implementing the recommendations articulated in the 2022 "Bridging the Gaps: Policy Recommendations to Implement a Cohesive Statewide Care Coordination Infrastructure" report including definitions for care coordination services, supporting care coordination infrastructure, care transitions, standards of care, credentials for providing care coordination services, and payment and accountability models.

We recommend that Colorado report findings from the ongoing reviews of residential treatment providers to assess their alignment with ASAM with the Independent Evaluator to ensure this information is accurately reflected in all required reporting.

We recommend that Colorado consider requiring MCEs to have a performance improvement project improving care coordination and transitions of care following ED usage, hospitalization, and WM to improve retention in care, access to primary care, and decreasing readmission rates.

We recommend that Colorado implement intensive training with Level 3.2WM providers on discharge planning and adherence to ASAM principles, and monitor these providers to ensure that warm hand-offs occur with lower and higher levels of care to improve MAT continuity and retention in care. A significant redesign of this level of care appears to be needed to adopt the goals of the demonstration and lead to the recovery of individuals with SUD in Colorado.

Section 10

Attachment A: Evaluation Design Plan

Mercer Health & Benefits LLC
333 South 7th Street, Suite 1400
Minneapolis, MN 55402
www.mercer-government.mercer.com

Services provided by Mercer Health & Benefits LLC.

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

May 23, 2022

Tracy Johnson
Colorado Department of Health Care Policy and Financing
1570 Grant Street
Denver, CO 80203

Dear Ms. Johnson:

The Centers for Medicare & Medicaid Services (CMS) completed its review of the Substance Use Disorder (SUD) Evaluation Design, which is required by the Special Terms and Conditions (STCs), specifically, STC#36, of Colorado's section 1115 demonstration, "Expanding the Substance Use Disorder Continuum of Care" (Project No: 11-W-00336/8), effective through December 31, 2025. CMS determined that the Evaluation Design, which was submitted on September 30, 2021 and revised on April 29, 2022, meets the requirements set forth in the STCs and our evaluation design guidance, and therefore approves the state's SUD Evaluation Design.

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

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

Page 2 – Ms. Tracy Johnson

We appreciate our continued partnership with Colorado on the Expanding the Substance Use Disorder Continuum of Care section 1115 demonstration. If you have any questions, please contact your CMS demonstration team.

Sincerely,

Danielle Daly -S

Digitally signed by Danielle Daly -S
Date: 2022.05.23 13:54:47 -04'00'

Danielle Daly
Director
Division of Demonstration Monitoring and Evaluation

cc: Michala Walker, State Monitoring Lead, CMS Medicaid and CHIP Operations Group

Mercer

Substance Use Disorder 1115 Waiver

Evaluation Design

State of Colorado
April 29, 2022

Contents

1

General Background Information

History and Overview

Over the past 20 years, the State of Colorado (Colorado or State), like the rest of the country, has felt the impact of the opioid epidemic and has experienced an increase in the rate of substance use disorder (SUD) diagnosis. Data collected by the Colorado Department of Public Health and Environment between 1999–2017 show that:

- An estimated half a million Coloradans are dependent on alcohol or have used illicit drugs. Nearly 30% (142,000) are Medicaid members.[1]
- Between 2000–2017, 12,821 Coloradans died due to a drug overdose.
- The number of overdose deaths has increased from 7.8 deaths per 100,000 in 2000 to 17.6 deaths per 100,000 in 2017.
- Opioid use is leading the overdose epidemic, accounting for over half of the overdose deaths between 2013 and 2017, two-thirds of which are attributable to prescription opioids.[2]

---

[1] Colorado Health Institute. *Exploring Options for Residential and Inpatient Treatment of Substance Use Disorder in Health First Colorado*. November 2017. Available at: https://www.colorado.gov/pacific/sites/default/files/HCPF%202017%20Inpatient%20SUD%20Treatment%20Report.pdf

[2] Bol K. Colorado Department of Public Health and Environment. *Drug Overdose Deaths in Colorado. Final Data. 1999-2017*. December 2018.

While opioid overdoses in Colorado rose between 2000 and 2017, other drugs including alcohol and methamphetamine drive the rate of admissions for addiction treatment in the State. In 2017, alcohol was responsible for the majority of treatment admissions, followed by methamphetamine. From 2013 to 2017, methamphetamine-related admissions increased by 63%.[3]

Colorado Medicaid members are particularly affected by SUDs, impacting the health outcomes and cost of this population:

- An estimated 11% of Medicaid members have an SUD diagnosis.[4]
- Twenty-nine percent of those who die from an overdose in Colorado are Medicaid members.
- The most prevalent substances abused among Medicaid members are alcohol and methamphetamine.[5]

The costs to the health care system are clear:

- Though 11% of the Medicaid population, the cost of care for members with a SUD diagnosis accounts for nearly 19% of the total cost of care to the system.
- On average, the annual cost of care for a Medicaid member with an SUD diagnosis is nearly double the cost for one without ($10,445 versus $5,646).
- Members with an SUD diagnosis account for 20% of the State's non-SUD related pharmacy spending.[6]

---

[3] Russell S. "Colorado Drug Trends." Drug/Alcohol Coordinated Data System (DACODS), Colorado Department of Human Services Office of Behavioral Health. 2018.

[4] Ibid.

[5] Colorado Health Institute. *Exploring Options for Residential and Inpatient Treatment of Substance Use Disorder in Health First Colorado.* November 2017. Available at: https://www.colorado.gov/pacific/sites/default/files/HCPF%202017%20Inpatient%20SUD%20Treatment%20Report.pdf

[6] Colorado Substance Use Disorder Data Fiscal Year 2017-2018. Colorado Department of Health Care Policy & Financing, Pharmacy and Behavioral Health Data Division. 2019.

Additionally, according to the 2017 Colorado Health Access Survey (CHAS), despite the State's efforts to date, Colorado continues to have an unmet need for SUD treatment.[7] The survey shows that more than 67,000 Coloradans need some type of treatment for drug or alcohol use but do not receive it. Many more Coloradans need treatment but are not ready to seek it.

Although these numbers reflect all Coloradans, given the higher prevalence of SUD among Medicaid members, it is clear that there is a need for more access to services.

Colorado's Medicaid Behavioral Health Delivery System

In 1995, the State implemented the Colorado Medicaid Mental Health Capitation and Managed Care Program in 51 counties, and expanded it to the remaining 12 counties in 1998. Through the program, the State was divided into eight geographic areas and the program was administered by Mental Health Assessment and Service Agencies (MHASAs). In 2004, program operations were transferred to the Department of Health Care Policy and Financing (HCPF) from the Department of Human Services, allowing for more cohesive management.

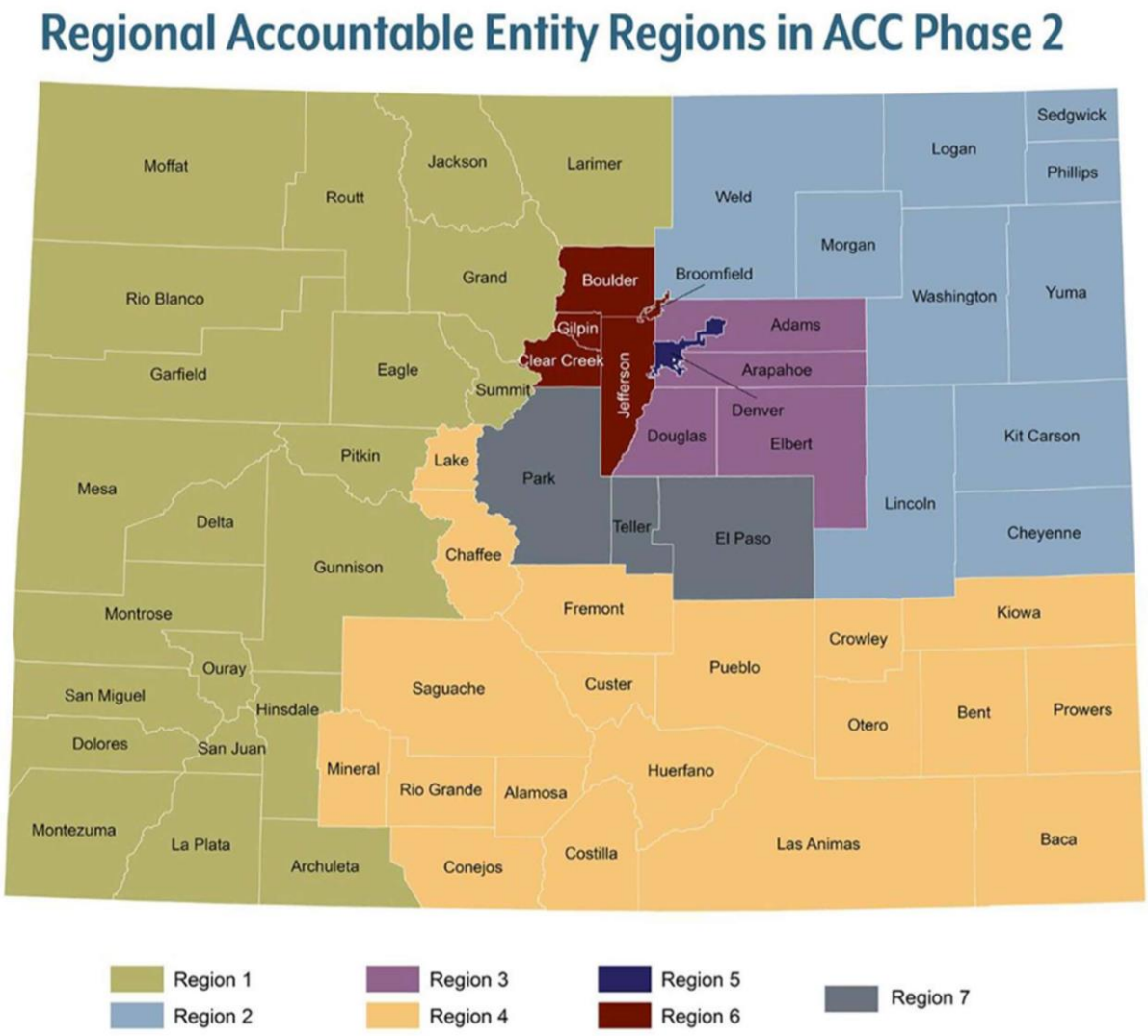
The waiver for the Mental Health Capitation and Managed Care Program was amended several times. A 2013 amendment — effective from January 1, 2014 through June 30, 2015 — included coverage of SUD treatment services and provided the authority to serve the Medicaid expansion population. In 2015, the Centers for Medicare & Medicaid Services (CMS) approved a waiver renewal from January 1, 2016 to June 30, 2017 incorporating former foster care children, expansion parents, and children age six through 19 with incomes above 100% but at or below 133% of the federal poverty level. The waiver was renewed again from July 1, 2017 to June 30, 2018.

Colorado Medicaid divided the State into seven geographic regions for the ACC. Each region is served by one Regional Accountable Entity (RAE). The RAEs are responsible for promoting physical and behavioral health in each of the seven regions. The RAEs manage a network of primary care physical health providers and specialty behavioral health providers to ensure access to appropriate care for Medicaid members in their region. A critical function of the RAEs is to create a cohesive network of providers that work together seamlessly and effectively to provide coordinated health care services to members.

---

[7] Colorado Health Institute. *2017 Colorado Health Access Survey: The New Normal.* https://www.coloradohealthinstitute.org/research/colorado-health-access-survey-2017

In January 2020, at the direction of the legislature and the governor, the State of Colorado entered into a contract with an additional managed care organization (MCO) to serve the Denver area. This MCO functions similarly to the seven RAEs in rest of the state, but its administrative structure differs from the RAEs. The seven RAEs and the Denver Health MCO will each provide services under this demonstration and data collected from these organizations will be used in the demonstration evaluation. For the remainder of this document the RAEs and the Denver Health MCO will be collectively referred to as Managed Care Entities (MCEs).


Regional Accountable Entity Regions in ACC Phase 2
Moffat
Routt
Jackson
Larimer
Weld
Logan
Sedgwick
Phillips
Morgan
Washington
Yuma
Rio Blanco
Grand
Boulder
Broomfield
Gilpin
Clear Creek
Jefferson
Adams
Arapahoe
Denver
Douglas
Elbert
Garfield
Eagle
Summit
Pitkin
Lake
Park
Kit Carson
Lincoln
Cheyenne
Mesa
Delta
Gunnison
Chaffee
Teller
El Paso
Montrose
Fremont
Crowley
Kiowa
Ouray
San Miguel
Hinsdale
Saguache
Custer
Pueblo
Otero
Bent
Prowers
Dolores
San Juan
Mineral
Rio Grande
Alamosa
Huerfano
Montezuma
La Plata
Archuleta
Conejos
Costilla
Las Animas
Baca
Region 1
Region 2
Region 3
Region 4
Region 5
Region 6
Region 7

5

Residential Substance Use Disorder Treatment in Colorado

In addition to the capitated behavioral health system, which provides services to Medicaid members, the Colorado Office of Behavioral Health (OBH) contracts with four Managed Service Organizations (MSOs) to deliver a continuum of SUD services that includes inpatient and residential treatment services. MSOs are funded through a combination of state and federal Substance Abuse and Mental Health Services Administration (SAMHSA) block grant dollars, but do not pay for services otherwise covered by Medicaid.

For some Medicaid members, the MSOs provide inpatient residential treatment services, prioritizing injection drug users, parents, and pregnant women. Aside from providing inpatient and residential treatment to priority Medicaid members, the MSOs are required to ensure that people who have no other means of paying for treatment (i.e., based on insurance status or income) receive services funded under their contract with OBH.[8]

The MSOs contract with providers to deliver transitional residential treatment for adults (American Society of Addiction Medicine [ASAM] Level 3.1), Clinically Managed Residential Services (ASAM Level 3.5), Intensive Residential Treatment for adults and adolescents (ASAM Level 3.7), and Strategic Individualized Remediation Treatment (STIRT).

Through this Medicaid Section 1115 waiver, the MCEs will provide residential and inpatient SUD services to Medicaid members. The role of the MSOs will evolve as the new Medicaid benefits take effect and the State looks at options for using SAMHSA grant dollars and MSO infrastructure to enhance the State's overall delivery system.

Federal Grant Efforts to Combat SUDs

To date, Colorado has received three grants from SAMHSA for purposes of combatting the SUD crisis:[9]

---

[8] JSI Research and Training Institute, Inc. *A Statewide Evaluation of the effectiveness of Intensive Residential Substance Use Disorder Treatment Provided through Managed Service Organizations*. December 2018.

[9] https://www.colorado.gov/pacific/cHCPF/colorado-state-targeted-response-opioid-crisis

Medication-Assisted Treatment Prescription Drug and Opioid Addiction (MAT-PDOA) Grant

SAMHSA provided $950,000 to the State from September 2016–September 2019. The State used the MAT-PDOA grant to:

- Enhance and expand treatment service systems to increase capacity and provide accessible, effective, comprehensive, coordinated care, and medication-assisted treatment (MAT) to individuals with OUD.
- Enhanced a "hub and spoke" model for the delivery of MAT services and ancillary wraparound services (mental health supports, transportation, childcare, housing, family services).
- Provide MAT services to 763 individuals.

State Targeted Response (STR) Grant

SAMHSA provided $15.7 million to the State from May 2017–April 2019. The State used the STR grant to:

- Conduct a State SUD needs assessment that identified areas where opioid misuse and its harms are most prevalent, what existing activities and funding sources are in place to address the opioid crisis, and gaps in the existing system that need to be addressed.
- Provide medication-assisted treatment (MAT) services to 1,947 individuals, 481 of whom received MAT before or upon release from jail.
- Train 530 prescribers to provide buprenorphine.
- Connect 596 individuals to Peer Recovery Coaches.
- Distribute 27,027 naloxone kits throughout the State.

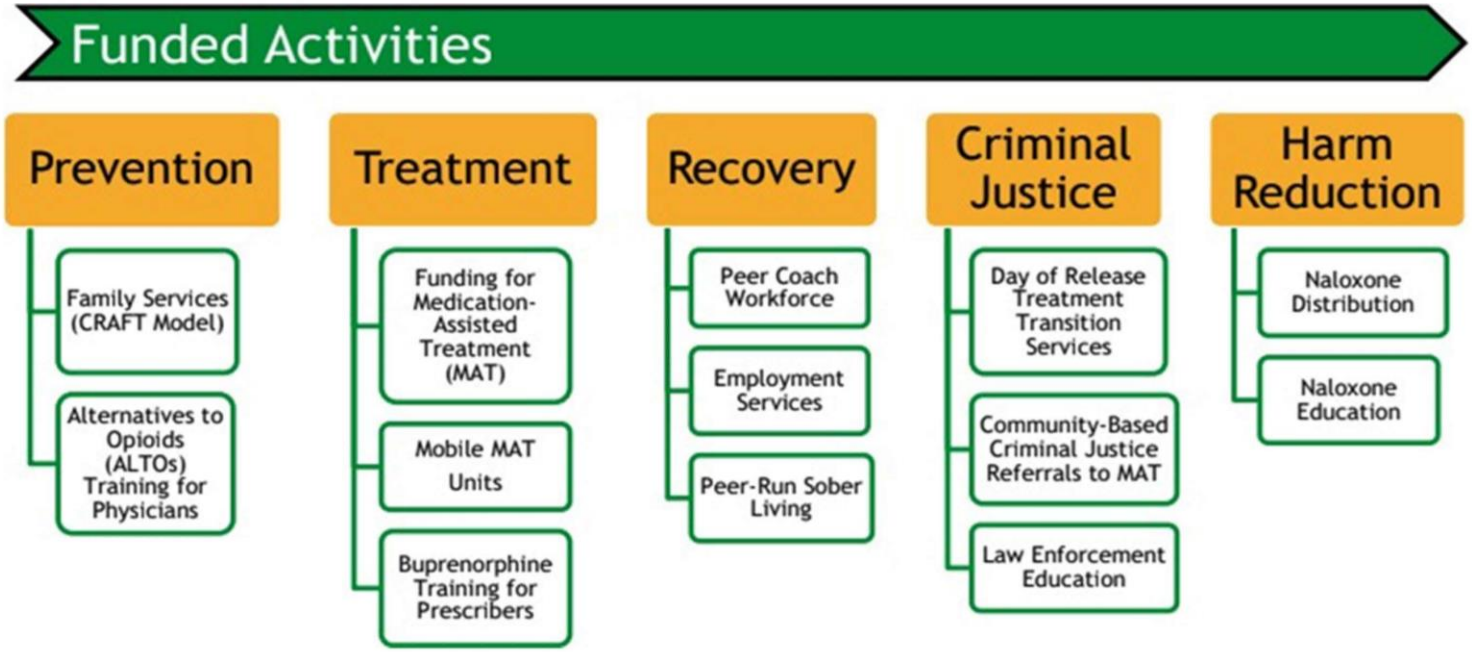
State Opioid Response (SOR) Grant

SAMHSA provided $38 million to the State to extend and expand efforts undertaken through the STR grant until 2020. By the end of the SOR grant period, the State also plans to:

- Connect at least an additional 900 individuals to MAT through mobile MAT units in rural communities.

- Train 400 individuals in the Community Reinforcement and Family Training with Prevention (CRAFT-P) and Celebrating Families models (models focused on supporting family members of individuals struggling with SUDs and how to encourage and motivate loved ones into treatment and/or maintain recovery).
- Hire 18 more Peer Recovery Coaches.
- Train 425 more prescribers with a focus on rural areas.
- Distribute 18,000 more naloxone kits.

A visual summarizing SAMHSA grant-funded activities is below:



Other Efforts to Combat SUDs

Since authorizing medical marijuana use in 2000 and personal marijuana use in 2012, Colorado has collected three types of taxes on marijuana: the State sales tax, a special sales tax, and an excise tax. The taxes generate millions of dollars in revenue for the State, which is used for a variety of health, human services, public safety, and higher education programs and initiatives. Some funds are specific to SUD treatment and services, including:

9

- Training for health professionals to provide Screening, Brief Intervention, and Referral for Treatment (SBIRT) services for Medicaid clients at risk for substance abuse.
- Increasing access to effective SUD services, including evaluation of intensive residential treatment (the study conducted in conjunction with authorizing legislation for this waiver).
- Implementing programs for adults with co-occurring mental health and SUDs.
- Providing behavioral health services for individuals in rural areas with co-occurring mental health and SUDs.
- Implementing community prevention and treatment for alcohol and drug abuse.
- Providing SUD services at mental health institutes.
- Promoting substance abuse prevention through public awareness campaigns.

In addition to the activities above, Colorado is working to continue to reduce opioid prescriptions and reduce stigma. One of the first changes the State made was to develop the Colorado Consortium for Prescription Drug Abuse Prevention in 2013. The Consortium is a statewide organization with a wide range of participating stakeholders that has numerous workgroups designed to address the opioid crisis, with topics including: provider education; public awareness; use of the Prescription Drug Monitoring Program (PDMP); naloxone; and support for affected friends and families.

Colorado Medicaid has also taken a number of steps over the past five years that have resulted in a more than 50% reduction in the number of pills prescribed and a 44% reduction in the number of Medicaid members taking opioids. Those policy initiatives have been aimed at reducing the number of opioids prescribed to members, tightening criteria when requesting refills, and reducing the daily Morphine Milligram Equivalents (MME) members can take — all while continually ensuring members receive necessary medications for adequate pain management.

Lastly, Colorado's Lift the Label campaign has set a goal of reducing the stigma that prevents those with opioid use disorder (OUD) from getting treatment.

Demonstration Approval

On November 13, 2020, Colorado received approval for its application for a section 1115(a) demonstration titled "Expanding the Substance Use Disorder Continuum of Care" (Project Number 11-W-00336/8) effective January 1, 2021 through December 31, 2025.

Description of the Demonstration

This waiver will provide access to residential and inpatient treatment settings, expand the availability of withdrawal management (WM) services, and increase access to MAT for members with SUD or alcohol use disorder (AUD). These changes will ensure that the most appropriate levels of care are available for patients and improve treatment outcomes.

Colorado will add ASAM levels 3.1 (Clinically Managed Low-intensity Residential Services), 3.3 (Clinically Managed Population-specific High-intensity Residential Services), 3.5 (Clinically Managed High-intensity Residential Services) and 3.7 (Medically Monitored Intensive Inpatient Services), and 3.7-WM (Medically Managed Inpatient Withdrawal Management) as Medicaid-covered services.

We anticipate that this demonstration will accomplish the following goals and objectives, which make up our demonstration hypothesis. This waiver demonstration will:

1. Promote increased access to care for members with SUD.
2. Improve the quality of care for members with SUD.
3. Improve outcomes for members using SUD services and maintain costs.

Capacity Assessment for Expanded Inpatient and Residential Services

In order to implement the new SUD benefit, the State has begun efforts to assess and expand Colorado's existing network of inpatient and residential SUD services, currently managed by MSOs.

The State has been collecting information about availability of inpatient and residential bed capacity, including engaging with a contractor to conduct a provider assessment throughout the State.

The 2015 National Survey of Substance Abuse Treatment Services (N-SAATS) results[10] found that Colorado has between 826–1,276 residential beds, 127–216 of which are designated for inpatient SUD treatment. The Colorado Health Institute, in a report prepared for the Department and submitted to the Colorado General Assembly, estimated that this number of beds can serve between 3,090–5,256 people a year with an average 15-day inpatient average length of stay and 10,050–15,525 people with a 30-day residential average length of stay.[11]

Workforce Development and Training

The State will develop a plan and materials to train all providers working within the continuum of care on utilization management and ASAM-based assessment to ensure that the continuum of care is applied appropriately and to reduce the under- and/or overutilization of any of the levels of care. The Department understands the importance of developing and preparing the workforce to meet the growing demands on the system. Planned activities include:

- Ensuring appropriate licensure levels of all sites in the system.
- Defining and training providers on treatment terms to ensure consistency.
- Training providers on evidence-based practices for patient assessment and placement.
- Addressing provider shortages, specifically in rural areas.
- Recruiting providers not currently enrolled as Medicaid providers.

---

[10] Substance Abuse and Mental Health Services Administration (SAMHSA). *National Survey of Substance Abuse Treatment Facilities (N-SSATS): 2015, Data on Substance Abuse Treatment Facilities*. 2015. Available at: https://www.samhsa.gov/data/report/national-survey-substance-abuse-treatment-facilities-n-ssats-2015-data-substance-abuse

[11] Colorado Health Institute. *Exploring Options for Residential and Inpatient Treatment of Substance Use Disorder in Health First Colorado*. November 2017. Available at: https://www.colorado.gov/pacific/sites/default/files/HCPF%202017%20Inpatient%20SUD%20Treatment%20Report.pdf

Other Implementation Planning Activities

The State is aware of the CMS SUD Implementation Plan requirements and is already planning activities that will support successful waiver implementation. The State has conducted a series of robust stakeholder engagement sessions dating back to October of 2018, culminating in the formal public notice and comment process required for this waiver application. The stakeholder engagement process will continue throughout the waiver negotiation period, which we anticipate will facilitate further discussion of waiver details and inform Department planning for any necessary:

- State regulation changes.
- Provider standards and billing manual updates.
- Provider engagement and training needs.
- MCE contract policy and payment rate changes.

Population Impacted

There will be no changes to the Medicaid eligibility criteria included as part of this waiver. The demonstration will be open to all Medicaid members with a covered SUD diagnosis. The demonstration will have no enrollment limits.

Please see the budget neutrality narrative and worksheets in Section 5 of the waiver application for the projected eligible member months for those members who are expected to participate. Table 2, in Section 5 of the application, presents the Without and With Waiver Projections for covering SUD Institution for Mental Disease (IMD) Adults within the Colorado Medicaid program. The member months included in Table 2 reflect the estimated member months for individuals who use SUD IMD. A 2% growth assumption is applied to the member months, which is based on the average rate of enrollment growth estimated for the Medicaid program. The demonstration is not expected to have an impact on the total Medicaid enrollment for the program beyond the typical Medicaid program enrollment growth.

2

Evaluation Questions and Hypotheses

Evaluation questions and hypotheses to be addressed were derived from and organized based on the Driver Diagrams below. The overall aims of the project are to: 1) Promote increased access to care for members with SUD; 2) Improve the quality of care for members with SUD; and 3) Improve outcomes for members using SUD services and maintain costs. To accomplish these aims, the demonstration includes several key activities, organized primary drivers of change:

- Increased rates of identification, initiation, and engagement in treatment.
- Improved access to physical health care.
- Increased adherence to and retention in treatment.
- Reduction in overdose deaths.
- Fewer readmissions to the same or higher level of care
- Reduced emergency department (ED) and hospital admissions for SUD or OUD.

The specific evaluation questions to be addressed were selected based on the following criteria:

1. Potential for improvement, consistent with the key milestones of the demonstration listed above.
2. Potential for measurement, including (where possible and relevant) baseline measures that can help to isolate the effects of Demonstration initiatives and activities over time.
3. Potential to coordinate with ongoing performance evaluation and monitoring efforts.

Research questions were selected to address the demonstration's major program goals, to be accomplished by demonstration activities associated with each of the primary drivers. Specific hypotheses regarding the demonstration's impact are posed for each of these evaluation questions. These are linked to the primary drivers in the diagrams and tables beginning in Section 2 "Driver Diagrams, Research Questions and Hypotheses," directly following the next section "Targets for Improvement".

Targets for Improvement

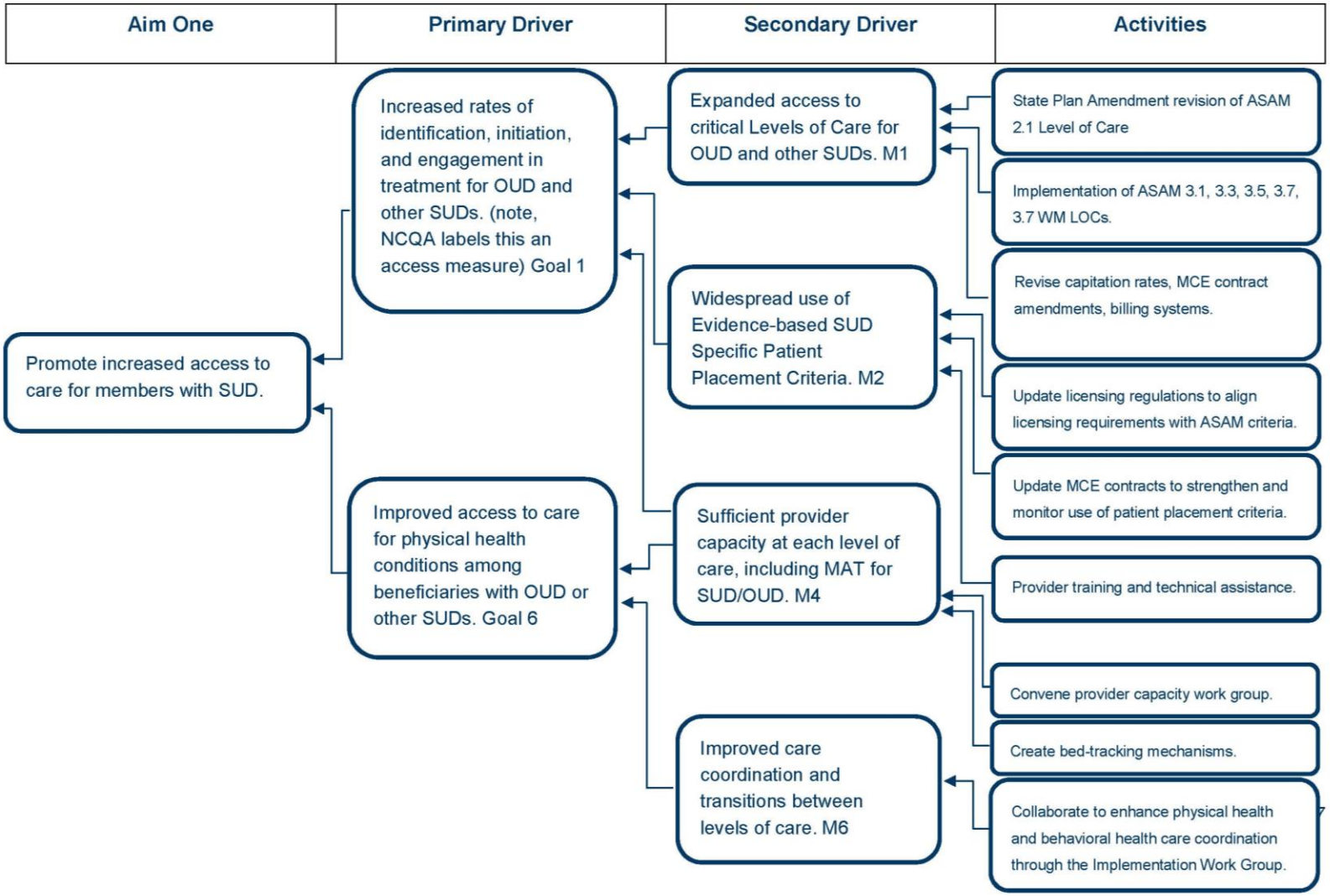
The six goals of the SUD waiver with Targets for Improvement are listed in the table below.

Targets for Improvement

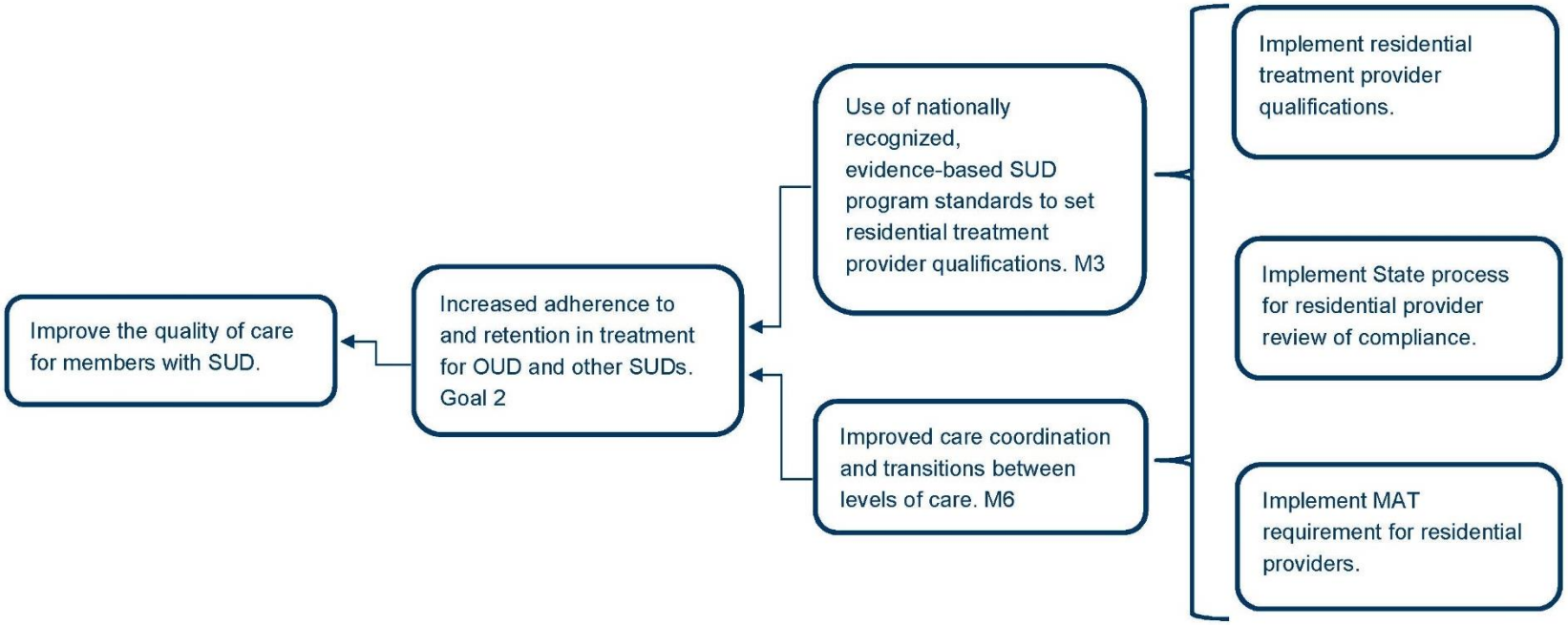
Program Goals (Primary Drivers)	Targets
Increased rates of identification, initiation, and engagement in treatment	• Increased access to critical levels of care for OUD and other SUDs. • Increased use of Evidence-based SUD Specific Patient Placement Criteria.
Increased adherence to and retention in treatment	• Increased use of nationally recognized, evidence-based SUD program standards to set residential treatment provider qualifications. • Improved care coordination and transitions between levels of care.
Reductions in overdose deaths, particularly those due to opioids	• Increased use of comprehensive treatment and prevention strategies to address opioid abuse and OUD. • Increased provider capacity at each level of care, including MAT for SUD/OUD.
Reduced utilization of EDs and inpatient hospital settings for treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services	• Increased use of Evidence-based SUD Specific Patient Placement Criteria. • Increased provider capacity at each level of care, including MAT for SUD/OUD.
Fewer readmissions to the same or higher level of care where the readmission is preventable or medically inappropriate	• Increased use of Evidence-based SUD Specific Patient Placement Criteria. • Improved care coordination and transitions between levels of care.
Improved access to care for physical health conditions among beneficiaries	• Improved care coordination and transitions between levels of care for physical care. • Increased use of comprehensive treatment and prevention strategies to address opioid abuse and OUD.

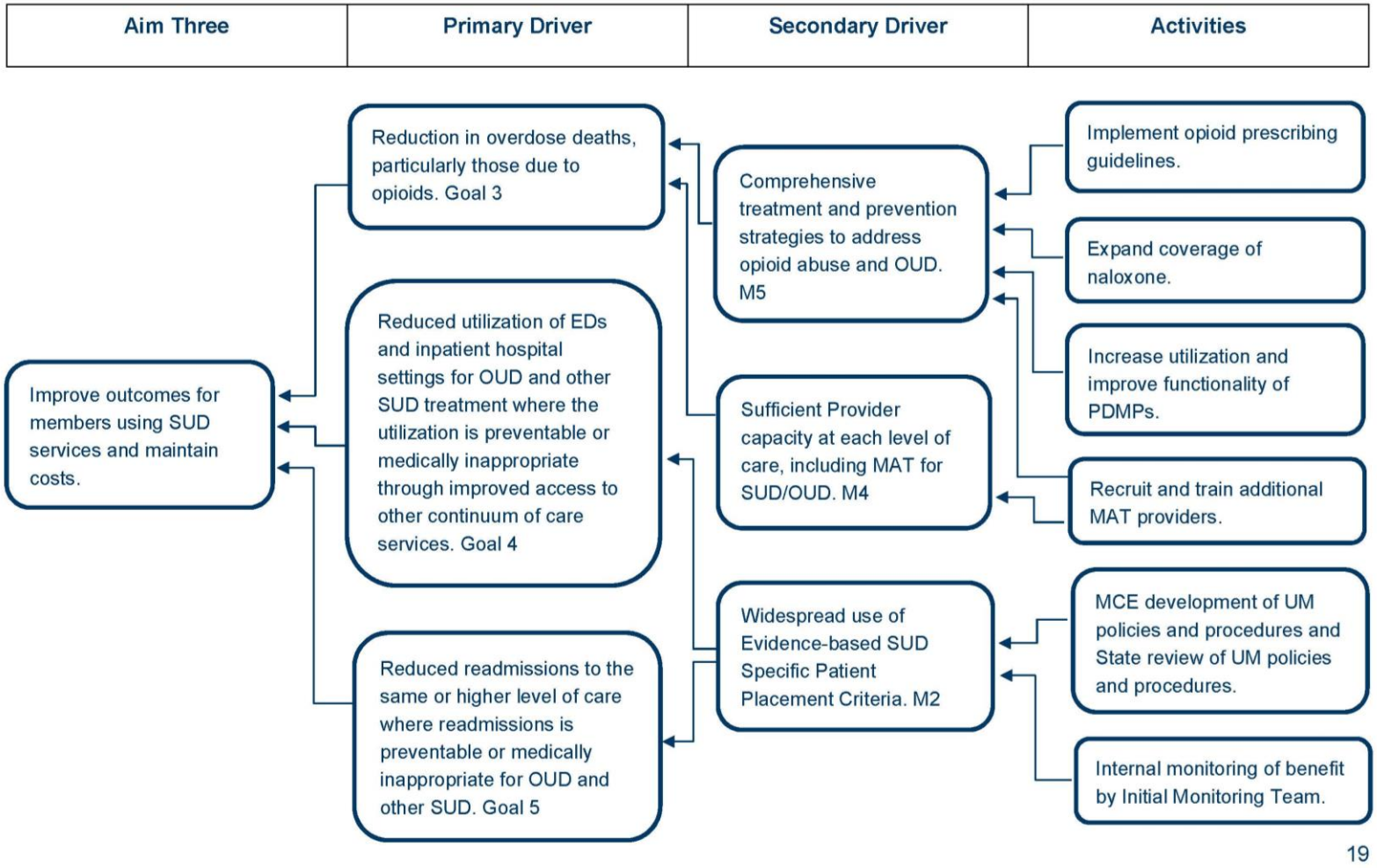
Driver Diagrams, Research Questions and Hypotheses

The three program aims represent the ultimate intentions of the waiver. The primary drivers are strategic improvements or goals to achieve the program aims. The secondary drivers are the interventions (milestones) that will need to be reached in order achieve the strategic improvements. The performance measures outlined with the research question and hypothesis for each milestone describe specific activities completed as part of the implementation. The driver diagrams below present the connections between the program activities, milestones, strategic improvements, and aims.


Aim One
Primary Driver
Secondary Driver
Activities
Promote increased access to care for members with SUD.
Increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs. (note, NCQA labels this an access measure) Goal 1
Improved access to care for physical health conditions among beneficiaries with OUD or other SUDs. Goal 6
Expanded access to critical Levels of Care for OUD and other SUDs. M1
Widespread use of Evidence-based SUD Specific Patient Placement Criteria. M2
Sufficient provider capacity at each level of care, including MAT for SUD/OUD. M4
Improved care coordination and transitions between levels of care. M6
State Plan Amendment revision of ASAM 2.1 Level of Care
Implementation of ASAM 3.1, 3.3, 3.5, 3.7, 3.7 WM LOCs.
Revise capitation rates, MCE contract amendments, billing systems.
Update licensing regulations to align licensing requirements with ASAM criteria.
Update MCE contracts to strengthen and monitor use of patient placement criteria.
Provider training and technical assistance.
Convene provider capacity work group.
Create bed-tracking mechanisms.
Collaborate to enhance physical health and behavioral health care coordination through the Implementation Work Group.

Aim Two	Primary Driver	Secondary Driver	Activities




Aim Three
Primary Driver
Secondary Driver
Activities
Improve outcomes for members using SUD services and maintain costs.
Reduction in overdose deaths, particularly those due to opioids. Goal 3
Reduced utilization of EDs and inpatient hospital settings for OUD and other SUD treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services. Goal 4
Reduced readmissions to the same or higher level of care where readmissions is preventable or medically inappropriate for OUD and other SUD. Goal 5
Comprehensive treatment and prevention strategies to address opioid abuse and OUD. M5
Sufficient Provider capacity at each level of care, including MAT for SUD/OUD. M4
Widespread use of Evidence-based SUD Specific Patient Placement Criteria. M2
Implement opioid prescribing guidelines.
Expand coverage of naloxone.
Increase utilization and improve functionality of PDMPs.
Recruit and train additional MAT providers.
MCE development of UM policies and procedures and State review of UM policies and procedures.
Internal monitoring of benefit by Initial Monitoring Team.
19

Measuring Effects on the Three Aims

CMS has established milestones and performance measures associated with those milestones to achieve the goals of the waiver. Some of those performance measures being used to monitor progress of the activities can also be used to indicate that the program aims have been met. Ultimately, the activities and milestones organized under the six primary drivers (goals) of:

- Increased rates of identification, initiation, and engagement in treatment.
- Improved access to physical health care.
- Increased adherence to and retention in treatment.
- Reduction in overdose deaths.
- Reduced admissions to higher levels of care.
- Reduced ED and hospital admissions for SUD or OUD.

The activities and milestones are designed to further the three main project aims:

- Promote increased access to care for members with SUD.
- Improve the quality of care for members with SUD.
- Improve outcomes for members using SUD services and maintain costs.

For the outcome evaluation, select performance measures will be used to demonstrate observed changes in outcomes, using an interrupted time-series (ITS) design where sufficient pre-demonstration data is available, or with pre-post comparisons or comparisons to national benchmarks where sufficient pre-demonstration data is not available. Additional performance measures will be collected to monitor progress on meeting the milestones and project goals. These performance measures are grouped and described under the related primary drivers.

The research design table in Section 3, outlines the research questions and hypotheses of the evaluation, organized by each primary driver.

3 Methodology

Evaluation Design

The evaluation of the Colorado SUD 1115 waiver 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 each of the waiver milestones (short-term outcomes).
3. Demonstrate progress in meeting the overall project goals/aims.

A combination of qualitative and quantitative approaches will be used throughout the evaluation. Qualitative methods will include key informant interviews with Department and provider staff, MSOs, and other identified stakeholders regarding waiver activities, as well as document reviews of contracts, policy guides, and manuals. Quantitative methods will include descriptive statistics and time series analyses showing change over time in both counts and rates for specific metrics and ITS analysis to assess the degree to which the timing of waiver interventions affect changes across specific outcome measures.

Qualitative analysis will include document review and interviews with key informants. It will identify and describe the SUD service delivery system and changes occurring during the demonstration for Medicaid enrollees in the eligible population. Each of the milestones will be discussed and documented. This will allow identification of key elements Colorado intends to modify through the demonstration and measure the effects of those changes. Using a combination of case study methods, including document review, telephone interviews, and face-to-face meetings, a descriptive analysis of the key Colorado demonstration features will be conducted.

The evaluation will analyze how the State is carrying out its implementation plan and track any changes it makes to its initial design as implementation proceeds. Both planned changes that are part of the demonstration design (e.g., expansion of ASAM) and operational and

policy modifications the State makes based on changing circumstances will be identified. Finally, it is possible that, in some instances, changes in the policy environment in the State will trigger alterations to the original demonstration implementation plan.

During ongoing communication with the State, detailed information on how Colorado has implemented each milestone, including how it has structured the ASAM expansion, identified providers at each ASAM level, implemented PDMP[12] and other Health Information Technology (HIT) changes, and structured care coordination between levels of care for beneficiaries enrolled in the demonstration, will be collected. The evaluation will analyze the scope of each of these milestones as implemented, the extent to which they conduct these functions directly or through contract, and internal structures established to promote implementation of the milestones.

Key informant interviews and document reviews will occur at four critical junctures: initially, prior to the mid-point assessment, prior to the interim evaluation report being written, and prior to the final summative evaluation report being finalized.

The key informant interviews will be conducted with staff members in the following departments who are directly responsible for SUD 1115 implementation and operations: HCPF, OBH, MSOs, MCEs, and service providers.

To maximize efficiency in the evaluation, most outcome measures align with performance measures being reported to CMS for each of the six milestones. As the independent evaluator/contractor, Mercer Government Human Services Consulting (Mercer) will calculate the quantitative performance measures, according to metrics specifications, and based on data provided by both HCPF and OBH, along with other State agencies, as needed. Mercer is currently receiving monthly transfers of Colorado's Medicaid Management Information System (MMIS) data, and quarterly transfers of MCE behavioral health data, from IBM through a Health Insurance Portability and Accountability Act (HIPAA)-compliant secure portal. Mercer is also arranging to receive pre-demonstration detailed claims data on inpatient and residential SUD services from OBH, which coordinated residential and inpatient services with block grant funding prior to implementation of the demonstration in 2021. Mercer will calculate all performance measures using the period of time specified in the CMS technical manual (e.g., monthly, quarterly, or annually).

The demonstration is open to all adult non-expansion and expansion members, so a concurrent comparison group of Colorado Medicaid members is not available. Outcomes will be assessed, where possible, using an ITS quasi-experimental design. The ITS analysis projects

[12] In Colorado, State staff are statutorily barred from accessing PDMP data. Evaluations requiring PDMP data will be limited to the annual report that is made public.

metrics derived from a pre-demonstration time period into the post-demonstration implementation time period as a comparison for actual post-demonstration implementation metrics. In cases where there are not enough data points for reliable projects (e.g., annual measures) we will use a basic time series analysis, or pre-post analyses, to describe changes over time.

- ### Target and Comparison Populations

Because there is not an available comparison population, the "comparison population groups" in this design will be a projection of each measure, based on historical data, of what the group would look like in the absence of the demonstration.

The Target population includes non-expansion and expansion adult Colorado Medicaid beneficiaries with an SUD diagnosis. Based on demonstration goals and activities, we do not anticipate that the demonstration will have ***intentional*** differential impacts on specific subgroups. However, to account for known long-term disparities in access to care, engagement, and outcomes, we will use some demographic categories as covariates in our analyses. Additionally, some covariates based on OUD diagnosis will be used in examining changes in specific SUD utilization metrics. Other specified subpopulations (dual eligible, pregnant women, and the criminal justice population) will likely have insufficient data to provide reliable analysis. However, if the sample size permits, we will split the sample by subpopulations and will run interrupted time series or regression analyses. This will allow for an examination of the trend/slopes of the estimated effects to see if there are differences across subpopulations. All members who are eligible for and/or receive services will be included in all descriptive time series and ITS analysis, so no sampling strategy is needed.

- ## Evaluation Period

The evaluation period is January 1, 2021, through December 31, 2025. The Draft Summative Evaluation Report analysis will allow for a three-month run out of encounter data. Results across this time period will be included in the Draft Summative Evaluation Report due to CMS by June 30, 2027. Draft interim results derived from a portion of this evaluation period, January 1, 2021, through June 30, 2023 (with three months run out of encounter data) will be reported in the Draft Interim Evaluation Report due to CMS on June 30, 2024.

- ## Evaluation Measures and Data Sources

The evaluation design and evaluation measures are based on 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, the independent evaluator will review the quality and completeness of data sources (including but not limited to claims and encounters for

pharmacy, professional, and facility services as well as eligibility data). Example analyses the independent evaluator will use to determine reliability and accuracy of encounter data include, but are not limited to: frequency reports, valid values, missing values, date and numerical distributions, duplicates (part of adjustment logic), and encounter to cost report comparisons.

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 and Environment, OBH, 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 Colorado.

The following tables summarize: the primary drivers and hypotheses, process (implementation) and outcome measures for the evaluation, measure steward (if applicable), numerator and denominator definitions where appropriate, types of data (quantitative or qualitative), and data sources.

Mercer will calculate all performance measures for the demonstration period using claims/encounters data from IBM and encounter data from the MCEs, except for overdose deaths, which is calculated using vital statistics data maintained by the Colorado Department of Health and Environment. The period before the waiver demonstration will also include encounter data obtained from OBH, which was providing inpatient and residential SUD services for most of the Medicaid population (with the exception of pregnant women and young adults up to age 21, who were eligible for some inpatient and residential services through Medicaid) with block grant funding prior to the demonstration implementation. This data is important to provide a full picture of the services Medicaid members were receiving prior to the waiver, even though those services were not paid by Medicaid and will therefore not be in the data sets provided by IBM. Mercer will use similar methods of data testing and validation of for both the OBH and IBM data sets where possible, as discussed on page 23 and 47 of this document. We will also conduct qualitative interviews of OBH and HCPF staff once preliminary forecasts of trends are complete to provide a face validity check of the OBH data.

The State considered the possibility of using Transformed Medicaid Statistical Information System (T-MSIS) Analytical Files (TAF) Research Identifiable Files (RIF) for baseline comparisons, but feels that pursuing the OBH data will provide a more accurate description of the pre-demonstration landscape for SUD services in Colorado. The majority of inpatient and residential SUD services provided to Colorado Medicaid members would not be captured in the TAF-RIF data prior to the start of the demonstration in 2021.

HCPF is working closely with OBH to determine data quality and utility. While this analysis is not yet complete, it will be well in advance of the evaluation analysis. HCPF will notify CMS once we have a full assessment complete. In the case that the OBH data is unavailable or

un-useable, the evaluation will add comparisons of select outcome measures with questions from the National Survey on Drug Use and Health (NSDUH) or the CMS Medicaid Adult Core Set to provide context to Colorado's demonstration within the national trends.

AIM ONE: Promote increased access to care for members with SUD.

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
	Primary Driver: Increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs. **Hypothesis 1: The Demonstration will expand access to critical levels of care for OUD and other SUDs, resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs. (IP M1)**						
Research Question 1: Have critical levels of care been revised and expanded to align with ASAM standards? **(Process Question)**	Revision of ASAM level 2.1 Intensive outpatient SUD services and implementation of ASAM Levels of Care: 3.1, 3.3, 3.5, 3.7, and 3.7 WM, including access to MAT.	N/A	Cumulative for interim reporting period, and for summative reporting period.	None	None	Key Informant Interviews (HCPF, OBH staff, MCE representatives; Document Review (MCE policies and procedures, provider contracts)	Thematic analysis of interviews, policies, and contracts
	Develop MCE rate methodology and update MCE contracts with capitation rates, which include revised continuum of services.	N/A	Cumulative for interim reporting period, and for summative reporting period.	None	None	Key Informant Interviews; Document Review (MCE policies and procedures, provider contracts)	Thematic analysis of interviews and contracts, policies, and contracts
Research Question 2: Has increased access to critical levels of care resulted in increased rates	Number/percent of beneficiaries who receive prevention or early intervention services (CMS #7).	CMS	Monthly	Number of unique members in the denominator with a service claim for early intervention services	Members with a SUD diagnosis (CMS #3) for percentage	Claims/ encounters	ITS; controlling for demographic subgroups

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
of identification, initiation, and engagement in treatment for OUDs and other SUDs as measured by utilization?				(e.g., procedure codes associated with SBIRT).			
	Number/percent of beneficiaries who use outpatient services (CMS #8).	CMS	Monthly	Number of unique members in the denominator with a claim for outpatient services for SUD (e.g., outpatient recovery or motivational enhancement therapies, step-down care, and monitoring for stable patients).	Members with a SUD diagnosis (CMS #3) for percentage	Claims/ encounters	ITS; controlling for demographic subgroups
	Number/percent of beneficiaries who use intensive outpatient and partial hospitalization services (CMS #9).	CMS	Monthly	Number of unique members in the denominator with a service or pharmacy claim for intensive outpatient and/or partial hospitalization services for SUD (e.g., specialized outpatient SUD	Members with a SUD diagnosis (CMS #3) for percentage	Claims/ encounters	ITS; controlling for demographic subgroups

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
				therapy and other clinical services).			
	Number/percent of beneficiaries who use residential and/or inpatient services for SUD (CMS #10).	CMS	Monthly	Number of unique members in the denominator with a service for residential and/or inpatient services for SUD.	Members with a SUD diagnosis (CMS #3) for percentage Include OBH data in numerator for baseline years	Claims/ encounters	ITS; controlling for demographic subgroups
	Number/percent of beneficiaries who use WM services (CMS #11).	CMS	Monthly	Number of unique members in the denominator with a service or pharmacy claim for withdrawal management services.	Members with a SUD diagnosis (CMS #3) for percentage	Claims/Encounters Include OBH data in numerator for baseline years	ITS; controlling for demographic subgroups
	Number and length of IMD stays for SUD (CMS #36).	CMS	Yearly	Total number of days in an IMD for inpatient/ residential discharges for SUD.	Total number of discharges from an IMD for beneficiaries with an inpatient or residential treatment stay for SUD.	Claims/Encounters Include OBH data in numerator for baseline years	Descriptive Time Series; pre-post one-way ANCOVA comparing baseline average to post-demonstration average, controlling for demographic subgroups

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
Hypothesis 2: The demonstration will promote widespread use of evidence-based SUD specific patient placement criteria resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs. (IP M2)							
Research Question 1: Has widespread use of ASAM patient placement criteria been implemented? **(Process Question)**	Number/percent of providers licensed at each level of care.	Evaluator, with input from the agency collecting the data	Yearly	Number of providers in the denominator licensed at each level of care.	Total number of SUD providers (CMS #13) for percentage	OBH licensing records	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion (for each level of care)
	Description of activities to monitor MCE use of ASAM criteria for patient placement.	N/A	Cumulative for interim reporting period, and for summative reporting period.	None	None	Key Informant interviews and document review from MCEs; OBH monitoring records	Thematic analysis of interviews and documents
	Description of training and technical assistance activities to align providers with ASAM standards.	N/A	Cumulative for interim reporting period, and for summative reporting period.	None	None	Key Informant interviews and document review with SUD providers	Thematic analysis of interviews and documents
Research Question 2: Has the widespread use of ASAM patient	Number/percent of beneficiaries receiving any SUD treatment service (CMS #6).	CMS	Monthly	Number of unique members in the denominator receiving at least one SUD	Number of unique members enrolled in the measurement period (for percentage)	Claims/ Encounters Include OBH data in numerator for baseline years	ITS; controlling for demographic subgroups Compare to NSDUH "Received Any

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
placement criteria resulted in increased rates of identification, initiation, and engagement in treatment for members with SUD diagnoses?				treatment service or pharmacy claim during the measurement period.	Subpopulations: OUD, Age, Dual, Pregnant, Criminal Justice		Substance Use Treatment in the Past Year" as benchmark if OBH data is not available/useable for ITS
	Initiation of Alcohol and Other Drug (AOD) Abuse or Dependence Treatment (IET-AD) (CMS #15)	NCQA NQF #0004	Yearly	Number of unique members in the denominator who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth, or medication treatment within 14 days of the diagnosis.	Number of unique members with a new episode of AOD abuse or dependence	Claims/ Encounters Include OBH data in numerator for baseline years	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion Compare to CMS Medicaid Adult Core Set national median as benchmark if OBH data is not available/ useable
	Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD) (CMS #15).	NCQA NQF #0004	Yearly	Number of unique members in the denominator who were engaged in	Number of unique members with a new episode of AOD abuse or dependence and	Claims/ Encounters Include OBH data in numerator for baseline years	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
				ongoing AOD treatment within 34 days of the initiation visit.	initiated treatment		post-demonstration period proportion Compare to CMS Medicaid Adult Core Set national median as benchmark if OBH data is not available/ useable
Hypothesis 3: The demonstration will promote sufficient provider capacity at each level of care, including MAT, for SUD/OUD, resulting in increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs. (IP M4)							
Research Question 1: Is there sufficient provider capacity at each level of care, including MAT? **(Process Question)**	Description of Provider Capacity Workgroup activities.	N/A	Cumulative for interim reporting period, and for summative reporting period.	None	None	Key informant interviews; document review	Thematic analysis of interviews and documents
	Number/percent of providers participating in IT MATTRs forums.	Evaluator, with input from the agency collecting the data	Yearly	Number unique providers in the denominator who are participating in IT MATTRs forums.	Number of SUD providers that can deliver MAT (CMS #14) for percentage	HCPF	Descriptive statistics (counts); pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
Research Question 2: Has the availability of providers in Medicaid accepting new patients, including MAT, improved under the demonstration?	Number of eligible SUD providers. (CMS #13).	CMS	Yearly	Number of providers who were enrolled in Medicaid and qualified to deliver SUD services.	None	HCPF	Descriptive time series
	Number/percent of eligible SUD providers that can deliver MAT (CMS #14).	CMS	Yearly	Number of providers who were enrolled in Medicaid and qualified to deliver SUD services and who meet the standards to provide MAT services.	Number of SUD Providers (CMS #13) for percentage	HCPF	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion
	Total number of beds available (Bed capacity)	Evaluator, with input from the agency collecting the data	Yearly	Total number of beds available in residential and inpatient facilities.	None	OBH electronic bed tracking system HCPF	Descriptive time series
Primary Driver: Improved access to care for physical health conditions among beneficiaries with OUD or other SUDs							
Hypothesis 4: The demonstration will improve care coordination for physical care, resulting in improved access to care for physical health conditions among beneficiaries with OUD or other SUDs. (IP M6)							

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
Research Question 1: Has the demonstration implemented changes that improve care coordination for physical care? **(Process Question)**	Description of MCE Care Coordination activities determined by SUD Implementation Workgroup.	N/A	Cumulative for interim reporting period, and for summative reporting period.	None	None	SUD Implementation Workgroup member interview; document review	Thematic analysis of interviews and documents
Research Question 2: Has improving care coordination resulted in increased utilization of physical health services for members with SUD diagnoses?	Access to Preventive/ Ambulatory Health Services for Adult Medicaid Beneficiaries with SUD (AAP) [Adjusted HEDIS measure] (CMS #32).	NCQA	Yearly	Number of unique members with SUD with an ambulatory or preventative care visit.	Number of unique members with a SUD diagnosis (CMS #4)	Claims	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion

AIM TWO: Improve the quality of care for members with SUD.

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
Primary Driver: Increased adherence to and retention in treatment for OUD and other SUDs							
Hypothesis 1: The 1115 SUD demonstration will implement use of nationally recognized, evidence-based SUD program standards to set residential treatment provider qualifications resulting in increased adherence to and retention in treatment for OUD and other SUDs.							
Research Question 1: Have evidence-based SUD program standards been used in evaluating residential treatment provider qualifications? **(Process Question)**	Number/percent of providers licensed for each ASAM level of care they provide.	Evaluator, with input from the agency collecting the data	Yearly	Number of providers licensed for each ASAM level of care they provide.	Number of SUD providers (CMS #13) for percentage	OBH	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion (for each level of care)
	Number and rate of providers reviewed for compliance.	Evaluator, with input from the agency collecting the data	Yearly	Number of unique SUD providers reviewed for compliance.	Number of SUD providers (CMS #13) for rate	MCE credentialing records/HCPF	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion
	Number/percent of residential and inpatient providers who provide onsite access, or who facilitate access to MAT.	Evaluator, with input from the agency collecting the data	Yearly	Number of residential and inpatient SUD providers who provide onsite access, or who facilitate access to MAT.	Number of unique SUD residential and inpatient providers for percentage	HCPF	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
Research Question 2: Has increased utilization of SUD program standards for SUD residential treatment resulted in increased adherence and retention in treatment?	Continuity of Pharmacotherapy for OUD (CMS #22).	USC	Yearly	Number of unique members in the denominator who have at least 180 days of continuous treatment.	Number of unique members with OUD diagnosis and at least one claim for an OUD medication. Stratify on residential/ inpatient versus outpatient services	Claims/encounters Include OBH data in numerator for baseline years	Descriptive time series; pre-post chi square test of significance comparing baseline proportion of members initiating treatment to post-demonstration period
	Number/percent of beneficiaries who have a claim for MAT for SUD during the measurement period (CMS #12).	CMS	Monthly	The number of unique members in the denominator who have a claim for a MAT dispensing event for SUD.	Members with a SUD diagnosis (CMS #3) for percentage Stratify on residential/ inpatient versus outpatient services	Claims/encounters Include OBH data in numerator for baseline years	ITS; controlling for demographic subgroups Compare to NSDUH "Received Medication-Assisted Treatment for Opioid Misuse in the Past Year" as benchmark if OBH data is not available/useable for ITS
Hypothesis 2: The 1115 SUD demonstration will improve care coordination and transitions between levels of care qualifications resulting in increased adherence to and retention in treatment for OUD and other SUDs.							
Research Question 1: Have the MCEs	Description of activities to enhance care	N/A	Cumulative for interim reporting	None	None	Key informant interviews of SUD Implementation	Thematic analysis of interviews and contracts

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
implemented policies to enhance care coordination?	coordination through the Implementation Work Group.		period, and for summative reporting period.			Workgroup members; document review (e.g. contracts)	
	MCE policy development to ensure adequate care coordination across the SUD continuum.	N/A	Cumulative for interim reporting period, and for summative reporting period.	None	None	Key informant interviews of SUD Implementation Workgroup members; document review (e.g. contracts)	Thematic analysis of interviews and contracts
	Number/rate of licensed residential care facilities.	Evaluator, with input from the agency collecting the data	Yearly	Number of licensed residential care facilities.	Number of licensed residential care facilities	OBH	Descriptive statistics (counts); pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion
Research Question 2: Has enhanced care coordination across the SUD continuum of care resulted in increased follow up after an ED visit?	Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (FUA-AD) (CMS #17-1).	NCQA	Yearly	Number of ED visits for members in the denominator who had a follow-up visit for AOD abuse or dependence within: • 30 days • 7 days	Number of ED visits for members with a principal diagnosis of AOD abuse or dependence.	Claims/encounters	Descriptive time series; pre-post one-way ANCOVA comparing baseline average to post-demonstration average, controlling for demographic subgroups Also compare to CMS Medicaid Adult Core

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
							Set national median as benchmark
	Follow-Up After Emergency Department Visit for Mental Illness (FUM-AD) (CMS #17-2).	NCQA	Yearly	Number of ED visits for members with a principal diagnosis of mental illness or intentional self-harm and who had a follow-up visit for mental illness within: • 30 days • 7 days	Number of ED visits for members with a principal diagnosis of mental illness or intentional self-harm	Claims/encounters	Descriptive time series; pre-post one-way ANCOVA comparing baseline average to post-demonstration average, controlling for demographic subgroups Also compare to CMS Medicaid Adult Core Set national median as benchmark

AIM THREE: Improve outcomes for members using SUD services and maintain costs.

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
Primary Driver: Reduction in overdose deaths, particularly those due to opioids. G3							
Hypothesis 1: The demonstration will implement comprehensive treatment and prevention strategies to address opioid abuse and OUD as well as recruit and train more providers to provide MAT, resulting in a reduction in overdose deaths.							
Research Question 1: Have comprehensive treatment and	Key informant reports on Implementation of opioid prescribing guidelines.	N/A	Cumulative for interim reporting period, and for summative	None	None	Key Informant interviews from MCEs and SUD providers; document review	Descriptive narrative, Thematic analysis

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
prevention strategies been implemented and is MAT more accessible? **(Process Question)**			reporting period.				
	Number/percent of State organizations who distribute naloxone.	Evaluator, with input from the agency collecting the data	Yearly	Number of State organizations who distribute naloxone.	Number of State organizations	HCPF	Descriptive statistics (count) or time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion
	Number/percent of MAT providers at all LOCs (CMS #14).	Evaluator, with input from the agency collecting the data	Yearly	Number of Medicaid MAT providers at all LOCs.	Number of SUD providers at all LOCs (CMS #13) for percentage	HCPF	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion
	Number/percent of providers using the PDMPs.	Evaluator, with input from the agency collecting the data	Yearly	Number of Medicaid providers using PDMPs.	Number of Medicaid Providers	HCPF	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion
Research question 2: Have comprehensive treatment and prevention strategies been	Use of opioids at high dosage in persons without cancer (OHD-AD) (CMS#18).	PQA	Yearly	Number of members in the denominator who received prescriptions for opioids with an average daily	Number of members with at least two opioid prescriptions with at least 15 days' supply. Members with a	Claims/encounters	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
effective in addressing opioid abuse and OUD?				dosage greater than or equal to 90 MMEs over a period of 90 days or more.	cancer diagnosis, sickle cell disease diagnosis, or in hospice are excluded.		Also compare to CMS Medicaid Adult Core Set national median as benchmark
	Concurrent use of opioids and benzodiazepines (COB-AD) (CMS#21).	PQA	Yearly	Number of members in the denominator with concurrent use of prescription opioids and benzodiazepines.	Number of members with at least two opioid prescriptions with at least 15 days' supply. Members with a cancer diagnosis, sickle cell disease diagnosis, or in hospice are excluded.	Claims/encounters	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion Also compare to CMS Medicaid Adult Core Set national median as benchmark
Research question 3: Did comprehensive treatment and prevention strategies correspond to a reduction in overdose deaths and activities that support	Overdose Deaths (rate) (CMS#27)	Evaluator, with input from the agency collecting the data	Yearly	Number of Medicaid members with overdose as cause of death.	All Medicaid members	State data on cause of death	Descriptive time series (data ID's Medicaid members? Possible ITS); pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion Also compare to National Center for Health Statistics

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
overdose death reduction?							national drug overdose death rate as benchmark
Primary Driver: Reduced readmissions to the same or higher level of care where readmission is preventable or medically inappropriate for OUD and other SUD. G5							
Hypothesis 2: The demonstration will lead to widespread use of Evidence-based SUD specific Patient Placement Criteria resulting in reduced readmissions to the same or higher level of care where readmission is preventable or medically inappropriate for OUD and other SUD. M2							
Research question 1: Were utilization management policies and procedures, based upon patient placement criteria, fully implemented?	MCE development of utilization management policies and procedures and State review of utilization management policies and procedures. Internal monitoring of benefit by Initial Monitoring Team.	N/A	Cumulative for interim reporting period, and for summative reporting period.	None	None	Key informant interviews from MCEs and State reviewers Internal monitoring team	Descriptive narrative and thematic analysis
Research question 2: Did readmissions to the same or higher level of care, where readmission is preventable or medically inappropriate for OUD and	Readmissions Among Beneficiaries with SUD (CMS #25).	CMS	Yearly	Acute hospital admissions from the denominator with at least one acute readmission for any diagnosis within 30 days of discharge.	Acute hospital admissions for members with SUD diagnosis	Claims/encounters	Descriptive time series; pre-post chi square test of significance comparing baseline proportion to post-demonstration period proportion

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
other SUD, decrease?							
Primary Driver: Reduced utilization of EDs and inpatient hospital settings for OUD and other SUD treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services. G4							
Hypothesis 3: The Demonstration will lead to widespread use of Evidence-based SUD specific Patient Placement Criteria resulting in reduced utilization of EDs and inpatient hospital settings for OUD and other SUD treatment where the utilization is preventable or medically inappropriate. M2							
Research Question 1: Did ED utilization decrease after implementation of utilization management?	ED Utilization for SUD per 1,000 Medicaid Beneficiaries (CMS #23).	CMS	Monthly	Number of ED visits for SUD.	All Medicaid members	Claims/encounters	ITS; controlling for demographic subgroups
Research Question 2: Did inpatient stays decrease after implementation of utilization management?	Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries (CMS #24).	CMS	Monthly	Number of inpatient stays for SUD.	All Medicaid members	Claims/encounters Include OBH data in numerator for baseline years	ITS; controlling for demographic subgroups
Hypothesis 4: The demonstration will improve outcomes for members using SUD services with similar or lower service costs.							
Research Question 1: Have increasing trends in total cost of care	SUD Spending (CMS #28)	CMS	Yearly	The sum of all Medicaid spending on SUD treatment services	None	Claims/encounters Use provider paid amounts	Descriptive time series

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
been slowed for individuals with SUD diagnoses?	SUD Spending within IMDs (CMS #29).	CMS	Yearly	The sum of all Medicaid spending on inpatient/ residential treatment for SUD provided within IMDs.	None	Claims/encounters Use provider paid amounts	Descriptive time series
	Per Capita SUD Spending (CMS #30)	CMS	Yearly	The sum of all Medicaid spending on SUD treatment services (CMS #28).	Members with a SUD diagnosis (CMS #4)	Claims/encounters Use provider paid amounts	Descriptive time series; pre-post one-way ANCOVA comparing baseline average to post-demonstration average, controlling for demographic subgroups
	Per Capital SUD Spending within IMDs (CMS #31)	CMS	Yearly	The sum of all Medicaid spending on inpatient/ residential treatment for SUD provided within IMDs (CMS #29).	Number of members with a claim for inpatient/ residential treatment for SUD in an IMD	Claims/encounters Use provider paid amounts	Descriptive time series; pre-post one-way ANCOVA comparing baseline average to post-demonstration average, controlling for demographic subgroups
	Total Cost PMPM	CMS SUD Evaluation Design Guidance, Appendix C	Quarterly	The sum of all Medicaid spending (Inpatient, Outpatient, Pharmacy, Long Term Care,	Member months per quarter for members with a SUD diagnosis	Claims/encounters Use provider paid amounts	ITS; controlling for demographic subgroups

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
				Capitation payments, Administrative Costs, Federal Costs) for members with a SUD diagnosis		CMS #64 for Federal Costs	
	SUD Cost Drivers - Total SUD Spending PMPM	CMS SUD Evaluation Design Guidance, Appendix C	Quarterly	The sum of all Medicaid spending on SUD treatment services (CMS #28).	Member months per quarter for members with a SUD diagnosis	Claims/encounters Use provider paid amounts	ITS; controlling for demographic subgroups
	SUD Cost Drivers - IMD SUD Spending PMPM	CMS SUD Evaluation Design Guidance, Appendix C	Quarterly	The sum of all Medicaid spending on SUD treatment services within an IMD (CMS #29).	Member months per quarter for members with a SUD diagnosis	Claims/encounters Use provider paid amounts	Descriptive time series; pre-post one-way ANCOVA comparing baseline average to post-demonstration average, controlling for demographic subgroups
	SUD Cost Drivers - Non-IMD SUD Spending PMPM	CMS SUD Evaluation Design Guidance, Appendix C	Quarterly	The sum of all Medicaid spending on SUD treatment services not within an IMD	Member months per quarter for members with a SUD diagnosis	Claims/encounters Use provider paid amounts	ITS; controlling for demographic subgroups
	SUD Cost Drivers - Non-SUD Spending PMPM	CMS SUD Evaluation Design	Quarterly	The sum of all Medicaid spending on non-SUD treatment	Member months per quarter for members with a SUD diagnosis	Claims/encounters Use provider paid amounts	ITS; controlling for demographic subgroups

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
		Guidance, Appendix C		for members with a SUD diagnosis			
	Source of treatment cost drivers for members with SUD – Inpatient services PMPM	CMS SUD Evaluation Design Guidance, Appendix C	Quarterly	The sum of all Medicaid spending on inpatient treatment for members with a SUD diagnosis	Member months per quarter for members with a SUD diagnosis (CMS #4)	Claims/encounters Use provider paid amounts	ITS; controlling for demographic subgroups
	Source of treatment cost drivers for members with SUD – Emergency Department services PMPM	CMS SUD Evaluation Design Guidance, Appendix C	Quarterly	The sum of all Medicaid spending on emergency department services for members with a SUD diagnosis	Member months per quarter for members with a SUD diagnosis (CMS #4)	Claims/encounters Use provider paid amounts	ITS; controlling for demographic subgroups
	Source of treatment cost drivers for members with SUD – non-ED Outpatient services PMPM	CMS SUD Evaluation Design Guidance, Appendix C	Quarterly	The sum of all Medicaid spending on non-ED Outpatient services for members with a SUD diagnosis	Member months per quarter for members with a SUD diagnosis (CMS #4)	Claims/encounters Use provider paid amounts	ITS; controlling for demographic subgroups
	Source of treatment cost drivers for members with SUD – Pharmacy PMPM	CMS SUD Evaluation Design Guidance, Appendix C	Quarterly	The sum of all Medicaid spending on Pharmacy for members with a SUD diagnosis	Member months per quarter for members with a SUD diagnosis (CMS #4)	Claims/encounters Use provider paid amounts	ITS; controlling for demographic subgroups

Research question	Measure	Measure Steward	Time Period	Numerator	Denominator[a]	Data Sources	Analytic Method
	Source of treatment cost drivers for members with SUD – Long Term Care PMPM	CMS SUD Evaluation Design Guidance, Appendix C	Quarterly	The sum of all Medicaid spending on Long Term Care for members with a SUD diagnosis	Member months per quarter for members with a SUD diagnosis (CMS #4)	Claims/encounters Use provider paid amounts	ITS; controlling for demographic subgroups

Analytic Methods

Multiple analytic techniques will be used, depending on the type of data for the measure and the use of the measure in the evaluation design (e.g., process measure versus outcome measures). Descriptive, content analysis will be used to present data related to process evaluation measures gathered from document reviews, key informant interviews, etc., as discussed previously. Qualitative analysis software (R Qualitative, ATLAS, or similar) will be used to organize documentation, including key informant interview transcripts. Analysis will identify common themes across interviews and documents. In some cases, checklists may be used to analyze documentation (e.g., licensure) for compliance with standards. These data will be summarized in order to describe the activities undertaken for each project milestone, 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. Where pre-demonstration and post-demonstration rates are comparable, pre-post distributional test will be made to quantify statistical differences in process measures before and after the demonstration.

An ITS will be used to describe the effects of waiver implementation in metrics that are measured on a monthly or quarterly basis. Specific outcome measure(s) will be collected for multiple time periods both before and after start of intervention. Segmented regression analysis will be used to measure statistically the changes in level and slope in the post-intervention period (after the waiver) compared to the pre-intervention period (before the waiver). The ITS design will be dependent on being able to use similar historical data on specific outcome measures collected from OBH based on inpatient and residential SUD services provided prior to the demonstration and on the ability to receive data needed to produce historical data regarding outpatient SUD services, ED use, and hospitalizations using previous encounter data, (see

Methodology Limitation section for more information). The ITS design uses historical data to forecast the "counterfactual" of the evaluation, that is to say, what would happen if the demonstration did not occur. We propose using basic time series linear modeling to forecast these "counterfactual" rates for three years following the demonstration implementation.[13] The more historical data available, the better these predictions will be. ITS models are commonly used in situations where a contemporary comparison group is not available.[14] The State has considered options for a contemporary comparison group. Since the demonstration will target all adult non-expansion and expansion Medicaid members in need of SUD services, the only viable groups for comparison within the State would be those covered with private insurance, which would include a very different demographic population.

For this demonstration, establishing the counterfactual is somewhat nuanced. The driver diagram and evaluation hypotheses assume that demonstration activities will have overall positive impacts on outcome measures. The figure below illustrates an ITS design that uses basic regression forecasting to establish the counterfactual — this is represented by the grey line in the graphic. The counterfactual is based on historical data (the blue line). It uses time series averaging (trend smoothing) and linear regression to create a predicted trend line (shown below as the grey line). The orange line in the graph is the (sample) actual observed data. Segmented regression analysis will be used to measure statistically the changes in level and slope in the post-intervention period compared to the predicted trend (see "effect" in the graph below).

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

[13] E Kontopantelis (2015). Regression based quasi-experimental approach when randomization is not an option: interrupted time series analysis. British Medical Journal (BMJ). Available at: https://www.bmj.com/content/350/bmj.h2750.

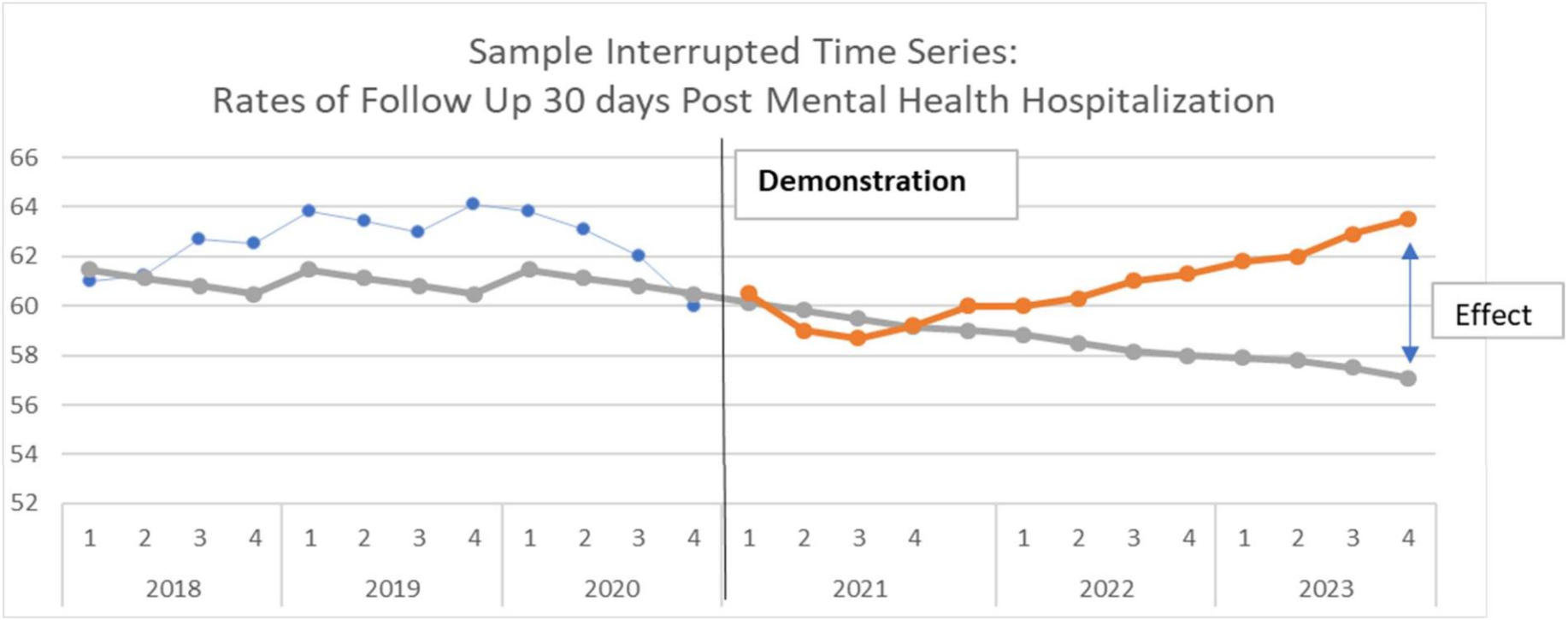
[14] Ibid.

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).[15]

This can be represented graphically as follows.

[15] Bernal JL, Cummins S, 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.

Figure 1: (SAMPLE data only) Rates of Follow Up Post Mental Health Hospitalization



Pre-demonstration data from January 1, 2018, to December 31, 2020, will be calculated using the monthly, quarterly, or annual period of time as specified in the CMS technical specifications for each metric. Trends in these data for each measure will be used to predict the counterfactual (what would have happened without the demonstration). Outcomes measures will be calculated beginning January 1, 2021, through the end of the waiver demonstration project (December 31, 2025). A discussion of including confounding variables (e.g., COVID-19, other SUD efforts) is included in the next section.

Quantitative outcome measures with yearly measurement periods that are expressed as averages or proportions will be analyzed with pre-post tests and may be compared with national benchmark statistics from the National Survey on Drug Use and Health, the CMS Medicaid Adult

Core Set, and the National Center for Health Statistics. While two or three pre-demonstration measurement periods for yearly metrics may not be enough information to establish a trend for the ITS analysis, pre-post analyses may reveal differences in outcomes before and after the demonstration. One-way analysis of covariance, or t-tests will be used to compare pre-demonstration averages with post-demonstration averages, and chi-square tests will be used to compare proportions.

In the case that Mercer is not able to obtain detailed encounter data from OBH, or data validation suggests that the data should not be used, benchmark comparisons to national data will also be implemented for a limited number of metrics, as described in the preceding research design table.

Qualitative analysis will utilize data collected from three main sources: 1) key informant interviews with State staff working on implementation efforts, MCE representatives, and providers, 2) key process documentation (e.g., policy and procedure manuals, guidance documents), and 3) MCE and provider contracts. Informant sampling will be largely based on convenience/snowball sampling where key stakeholders provide initial lists of potential interviewees, based on their perspective on demonstration implementation activities. Meeting minutes listing attendees will also be reviewed to identify potential interviewees. MCE staff and provider staff will also be included. Because this likely will be a large number of people, the independent evaluator will work with the State to determine whether to conduct focus groups with these populations, or to engage in a strategic stratified sampling process. The latter will ensure representation from each MCE, and from providers stratified by geography/location, size, and services provided. Document reviews will include meeting minutes, policy and procedure documents, MCE and provider contracts, and others identified during the qualitative analysis process. Themes will be identified by multiple coders who review documents, identify initial themes, then collaborate in the creation of a central list of primary and secondary themes.

Key informant interviews and document reviews will occur at four critical junctures: initially, prior to the mid-point assessment, prior to the interim evaluation report being written and prior to the final summative evaluation report being finalized. Specifically, the initial qualitative analysis will occur May 2022–July 2022. The second qualitative analysis will occur May 2023–July 2023. The third qualitative analysis will occur March 2024–May 2024. The final qualitative analysis will occur March 2027–May 2027.

4

Methodological Limitations

There are two primary limitations to the evaluation methodology presented here. The first involves issues of data quality and data sources that either: 1) are not sufficient to conduct the analysis proposed here (e.g., not enough historical data for needed prior time periods), or 2) contain errors. The second limitation is related to the design itself because this evaluation plan relies heavily on descriptive, time series analysis, and qualitative data, this evaluation will describe what happened after the demonstration was implemented, but it will be difficult to isolate why changes occurred. In other words, it will be difficult to directly attribute changes after waiver implementation to the activities undertaken as part of the waiver. Each of these limitations is discussed in greater detail within this section.

Some of the metrics being computed by Mercer will be calculated for the first time. Both Mercer and the Department are working closely with OBH and IBM to request and test extracts of pre-demonstration data. While it is unclear at this time the degree to which it will be possible to generate historical data needed to forecast the slope of the "counterfactual" trend line (what would have happened without the demonstration), HCPF is confident the independent evaluator will have access to this historical data in the near future. This historical data is an important component of the ITS design, but also supports the descriptive time series analysis. In particular, there will be a limitation in estimating the slope of what the trend line would be without the demonstration if we do not have data to model what would have happened without implementation.

In addition to any issues with historical data, the Department's data systems may have current issues that contribute to data errors. Combining data from separate sources can prove challenging, and Mercer is working through the process carefully to minimize any data errors, including performing various data validations and duplicate record checks.

Behavioral health data for the evaluation is received in separate files for the various MCEs. There are currently eight MCEs and an additional five historical RAEs. Mercer has noted several data issues so far. For example, some of the MCEs reuse claim numbers, which impacts claim adjustment logic. In addition, some fields with the same name are populated with different field types, so special care is required when combining the data from different MCEs, so data is not inadvertently dropped. Mercer is currently working through adjustment logic for the behavioral health data, including creating and testing unique claim identifiers.

There have also been some import issues with the MMIS data due to misplaced carriage returns, which will be monitored going forward. Adjustment logic will also be applied to the MMIS data, but at this time looks to be a more standardized process.

After the behavioral health data and the MMIS data are received, imported, adjusted, and validated, they will be combined with the available pre-demonstration OBH data, which will be subject to similar processes, to comprise the base data for measure calculation. Further, the current system has a runout of six months, and will need to take into account timing around pulling data to calculate numerators and denominators for the measures.

While the ITS design is the strongest available research method, in the absence of a randomized trial or matched control group, there are some threats to the validity of results in the design.[16] The primary threat is that of history, or other changes over time happening during the waiver period. This ITS design is only valid to the extent that the waiver program was the only thing that changed during the evaluation period. Other changes to policies or programs could affect the outcomes being measured under the demonstration. We will attempt to control this threat by considering other policy and program changes happening concurrent to the waiver period interventions. At a minimum, we will use qualitative methods, in the form of key informant interviews, to identify other initiatives or events may have occurred during the demonstration that might influence demonstration effects. We will conduct a qualitative assessment of these likely impacts and will use time series analysis to show how trends may have changed at these critical time periods. In order to isolate the effects of these efforts, we will also conduct additional iterations of the ITS. Using identified critical time points as additional variables, we will test whether other major efforts had a statistically significant impact in the post-demonstration waiver trend. The analysis will note the dates of other changes and analyze the degree to which the slope of the trend line changes after implementation of other interventions are made.

The demonstration waiver application lists three main efforts that likely impact SUD services in the State: Implementation of the ACC program (Phase 2) in July 2018, the STR, which began in May 2017 and the SOR grant, which extended the STR grant activities through 2020. Because most of these activities took place during the pre-demonstration period, their impacts will be reflected in the historical data (January 2018–December 2020) and will therefore impact the predicted trend line. It is possible that effects of these efforts may mute the hypothesized impacts of the demonstration. The ACC continues into the demonstration period, so accounting for this in the pre-demonstration predicted trend is reasonable, as any measurable effects should be due to the demonstration. The STR and SOR, which ended prior to the demonstration and included expanding MAT and increasing availability of naloxone, would likely have the largest impact on the predicted trend

[16] 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.

lines for metrics measuring MAT usage and opioid deaths. These metrics may show only muted or no detectable demonstration impacts. We will discuss the impact of the STR and SOR in the interpretation of relevant metrics in the evaluation reports.

The impact of COVID-19 most likely affected the pre-demonstration period, and we anticipate a statically significant impact on most metrics. Therefore, in the initial forecasting within the ITS model, the independent evaluator will include a COVID-19 covariant for the start of the pandemic in the forecast model. Essentially, the ITS for this evaluation will create two counterfactual scenarios using historical data. We will create a "without" COVID-19 forecast using historical data only prior to March of 2020 as one potential counterfactual to compare against actual trends. If we can establish sufficient data points between March 2020 and the waiver start date of January 2021, we can estimate the COVID-19 impact on the forecast. We will also create a forecast with data through the pre-demonstration period (up to January 2021) that includes data during the times COVID-19 was prevalent in the State. As long as COVID-19 remains prevalent during the demonstration period, we anticipate that using the "with COVID-19" model as the counterfactual will be more accurate. Additional covariate time periods can be added to the model if there are significant shifts in either COVID-19 prevalence numbers or policy shifts (e.g., new stay at home orders) in the State. We will also qualitatively explore how COVID-19 impacted the implementation of the waiver, based on data from key informant interviews.

A related threat to the validity of this evaluation is external (history). Because we have not identified a comparison group (a group of Medicaid members who would be eligible for the waiver interventions but who will not receive them and/or for whom data will not be collected), it will be difficult to attribute causality. It will be less certain whether the changes observed in outcomes are due entirely to the waiver interventions, rather than some external, outside cause (including other program and policy changes described earlier). However, the ITS design controls for this threat to some degree, by linking what would have likely happened (e.g., 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 much as possible, as many data points will be collected as possible across multiple years preceding waiver changes. This will allow for adjustment of seasonal or other, cyclical variations in the data. Additionally, the design will examine multiple change points and identifying key areas of major program and policy adjustments, so that with each major milestone accomplishment, corresponding changes to metrics can be observed

The ITS analysis will also include a sensitivity analysis to determine the degree to which specific ITS assumptions impact the analysis. Specifically, the degree to which the assumption that trends in time are linear versus non-linear will be addressed. Additionally, this model assumes that changes will occur directly after the intervention. However, it is possible that for some outcomes, there will be a lag between the start of the waiver and observed outcomes.

We will also attempt to limit this threat to validity by triangulating our data. Encounter data trends across multiple time periods will be compared to trends happening at other points in time (other large policy or program shifts that might influence the slope of the trend in addition to the demonstration). Also, key informant interviews will be used to inform the quantitative findings and explain the degree to which individuals are seeing demonstration impacts. We will also attempt to seek out national and other State data for benchmarking, that will allow us to determine whether Colorado is performing in a similar fashion to other demonstration states, non-demonstration states, or national benchmarks overall.

According to the literature on ITS 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.[17] Evaluators will need to work closely with the Department, OBH, and their respective data teams to gather as many data points as possible and discuss limitations within the evaluation findings if enough points cannot be collected.

It should also be noted that ITS 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.

Qualitative data, while useful in confirming quantitative data and providing rich detail, can be compromised by individual biases or perceptions. Key informant interviews, for example, represent a needed perspective around context for demonstration activities and outcomes. However, individuals may be limited in their insight or understanding of specific programmatic components, meaning that the data reflects perceptions, rather than objective program realities. The evaluation will work to address these limitations by collecting data from a variety of different perspectives to help validate individuals' reports. In addition, standardized data collection protocols will be used in interviews and interviewers will be trained to avoid "leading" the interviewee or inappropriately biasing the interview. It will also utilize multiple "coders" to analyze data and will create a structured analysis framework, based on research questions that analysts will use to organize the data and to check interpretations across analysts. Finally, results will be reviewed with stakeholders to confirm findings.

[17] Ibid.

5

Attachments

As part of the Standard Terms and Conditions (STCs), as set forth by CMS, the demonstration project is required to arrange with an independent party to conduct an evaluation of the SUD demonstration to ensure that the necessary data is collected at the level of detail needed to research the approved hypotheses. Mercer, through a request for proposal (RFP) process, contracts to provide technical assistance to HCPF.

Mercer was selected as the technical assistance vendor. One of the scopes of work in the technical assistance work plan is the waiver evaluation. Mercer will develop the evaluation design, calculate the results of the study, evaluate the results for conclusions, and write the Interim and Summative Evaluation Reports.

Mercer has over 25 years of experience assisting state governments with the design, implementation, and evaluation of publicly sponsored health care programs. Mercer currently has over 25 states under contract and has worked with over 35 different states in total. They have assisted states like Arizona, Connecticut, Missouri, and New Jersey in performing independent evaluations of their Medicaid programs; many of which include 1115 Demonstration waiver evaluation experience. Given their extensive experience, the Mercer team is well equipped to work effectively as the external evaluator for the demonstration project. The table below includes contact information for the lead coordinators from Mercer for the evaluation:

NAME	POSITION	EMAIL ADDRESS
Kate Goergen	Engagement Leader	kate.goergen@mercer.com
Tonya Aultman-Bettridge, PhD	Evaluation Lead	taultman-bettridge@triwestgroup.net
Jeanie Aspiras, MBA	Program Manager	jeanie.aspiras@mercer.com
Carissa Cramer	Project Manager	carissa.cramer@mercer.com
Brenda Jenney, PhD	Statistician	brenda.jenney@mercer.com
Brenda Jackson, MPP	Policy and Operations Sector	brenda.jackson@mercer.com

6

Attachment A

Conflict of Interest Statement

Colorado (HCPF) has taken steps to ensure that Mercer is free of any conflict of interest and will remain free from any such conflicts during the contract term. HCPF considers it a conflict if Mercer currently 1) provides services to any MSOs or health care provider doing business in Colorado under the Health First Colorado program; or 2) provides direct services to individuals in HCPF or OBH-administered programs included within the scope of the technical assistance contract. If HCPF discovers a conflict during the contract term, HCPF may terminate the contract pursuant to the provisions in the contract.

Mercer's Government specialty practice does not have any conflicts of interest, such as providing services to any MSOs or health care providers doing business in Colorado under the Health First Colorado program or to providing direct services to individual recipients. One of the byproducts of being a nationally operated group dedicated to the public sector is the ability to identify and avoid potential conflicts of interest with our firm's multitude of clients. To accomplish this, market space lines have been agreed to by our senior leadership. Mercer's Government group is the designated primary operating group in the Medicaid space.

Before signing a contract to work in the Medicaid market, either at the state-level or otherwise, we require any Mercer entity to discuss the potential work with Mercer's Government group. If there is a potential conflict (i.e., work for a Medicaid health plan or provider), the engagement is not accepted. If there is a potential for a perceived conflict of interest, Mercer's Government group will ask our state client if they approve of this engagement, and we develop appropriate safeguards such as keeping separate teams, restricting access to files, and establish process firewalls to avoid the perception of any conflict of interest. If our client does not approve, the engagement will not be accepted. Mercer has collectively turned down a multitude of potential assignments over the years to avoid a conflict of interest.

Given that Mercer is acting as both technical assistance provider and independent evaluator for this project, HCPF and Mercer have implemented measures to ensure there is no perceived conflicts of interest. This contract was awarded following a competitive bidding process that complied with all Colorado State laws, the Mercer evaluation team is functionally and physically separate from the technical assistance

team, and the contract does not include any performance incentives that would contribute to a perception of conflicted interests between technical assistance services and the independence of the evaluation process. As an additional firewall, the evaluation statistical analyses will be conducted by a subcontractor that has not had any interaction with the technical assistance team, using data that has been reviewed and accepted by CMS (through monitoring protocol submissions).

In regards to Mercer's proposed subcontractors, all have assured Mercer there will be no conflicts and that they will take any steps required by Mercer or HCPF to mitigate any perceived conflict of interest. To the extent that we need to implement a conflict mitigation plan with any of our valued subcontractors, we will do so.

Mercer, through our contract with HCPF, has assured that it presently has no interest and will not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services. Mercer has further assured that in the performance of this contract, it will not knowingly employ any person having such interest. Mercer additionally certified that no member of Mercer's Board or any of its officers or directors has such an adverse interest.

7

Attachment B

Evaluation Budget

	DY 1	DY2	DY3	DY4	DY5	Final Evaluation	Total Evaluation Cost
	2021	2022	2023	2024	2025	6/30/2027	
State of Colorado							
HCPF & OBH	$100,000*	$50,000**	$50,000	$50,000	$50,000	$50,000	$350,000

*Estimates based on 1) Demonstration Year 1 (DY1) data infrastructure and data sharing protocol build between Departments and vendor; and 2) staff review of DY1 deliverables.
**Estimates for DY2–DY5 based on State of Colorado review of annual, ongoing deliverables.

Evaluation Budget — Independent Evaluator/Contractor — Mercer Hours					
	Senior Consultant	Junior Consultant	Consultant	Project Management	Total Hours
Evaluation Activities					
Develop and draft Evaluation Design	288	72	--	30	390
Revise drafted Evaluation Design	28	7	--	--	35
Draft Interim Evaluation report	72	18	--	26	116
Finalize Interim Evaluation report	40	10	--	--	50
Draft Summative Evaluation report	92	23	--	26	141
Finalize Summative Evaluation report	40	10	--	--	50

Evaluation Budget — Independent Evaluator/Contractor — Mercer Hours					
	Senior Consultant	Junior Consultant	Consultant	Project Management	Total Hours
Data Activities					
Load, validate, and scrub raw data — Evaluation measures for Annual reports.	--	250	250	10	510
Load, validate, and scrub raw data — Evaluation measures for Interim and Final Evaluation report	148	148	35	--	331
File mapping to standardize file format — Evaluation measures for Annual reports.	100	195	100	10	405
File mapping to standardize file format — Evaluation measures for Interim and Final Evaluation report	--	128	128	10	266
Initial programming/validation of code for measure development — Evaluation measures (37)	88	10	88	--	186
Run and validate programming/coding for each measure, generate the measures — Evaluation measures for annual reports. (10 measures; 40 hours/year; 10 PM)	--	100	100	10	210
Statistical measures for the evaluation: Interim and Final report (300 hours/report)	100	250	250	10	610
Final Total:					**3,300**

Evaluation Budget — Independent Evaluator/Contractor — Mercer Costs									
	FY1 – DY1	FY2 – DY1, 2	FY3 – DY2, 3	FY4 – DY3, 4	FY5 – DY4, 5	FY6 – DY5	FY7 – DY6	FY8	Total Cost
Evaluation Activities									
Develop and draft Evaluation Design	$115,140	--	--	--	--	--	--	--	$ 115,140
Revise drafted Evaluation Design	--	$10,465	--	--	--	--	--	--	$ 10,465
Draft Interim Evaluation report	--	--	--	--	$33,410	--	--	--	$ 33,410
Finalize Interim Evaluation report	--	--	--	--	--	$14,950	--	--	$ 14,950
Draft Summative Evaluation report	--	--	--	--	--	--	$40,885	--	$ 40,885
Finalize Summative Evaluation report	--	--	--	--	--	--	--	$14,950	$ 14,950
Data Activities									
Load, validate, and scrub raw data — Evaluation measures for Annual reports.	--	$27,750	$27,750	$27,750	$27,750	$27,750	--	--	$ 138,750
Load, validate, and scrub raw data — Evaluation measures for Interim and Final Evaluation report (190 hours initial	--	$52,975	--	$30,263	--	--	$30,263	--	$ 113,500
File mapping to standardize file format — Evaluation	--	$44,163	$17,650	$17,650	$17,650	$17,650	--	--	$ 114,763

Evaluation Budget — Independent Evaluator/Contractor — Mercer Costs									
	FY1 – DY1	FY2 – DY1, 2	FY3 – DY2, 3	FY4 – DY3, 4	FY5 – DY4, 5	FY6 – DY5	FY7 – DY6	FY8	Total Cost
measures for Annual reports.									
File mapping to standardize file format — Evaluation measures for Interim and Final Evaluation report	--	--	--	$34,694	--	$34,694	--	--	$ 69,388
Initial programming/validation of code for measure development — Evaluation measures (37)	--	$172,744	--	--	--	--	--	--	$ 172,744
Run and validate programming/coding for each measure, generate the measures — Evaluation measures for Annual reports.	--	$12,600	$12,600	$12,600	$12,600	$12,600	--	--	$ 63,000
Statistical measures for the evaluation: Interim and Final report	--	--	--	$78,250	--	$78,250	--	--	
Final Total:									**$ 1,058,444**

8

Attachment C

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	38	October 1, 2021
Final evaluation design due 60 days after comments received from CMS	38	February 4, 2022
Mid-point assessment due	29	August 30, 2023
Draft Interim Report due	40C	June 30, 2024 (or with renewal application)
Final Interim Report due 60 days after CMS comments received	40D	60 days after comments received from CMS
Draft Summative Evaluation Report due 18 months following demonstration	41	June 30, 2027
Final Summative Evaluation Report due 60 days after CMS comments received	41A	60 days after comments received from CMS

Mercer Health & Benefits LLC
2325 East Camelback Road, Suite 600
Phoenix, AZ 85016
www.mercer-government.mercer.com

A business of Marsh McLennan

Appendix D

Summaries of External Quality Review Organization (EQRO) reports, MCO and State quality assurance monitoring, and any other documentation of the quality of and access to care provided under the Demonstration.

Summary of EQRO Reports Related to SUD Treatment

SUD: 2018-2019, 2019-2020, 2020-2021, 2021-2022, and 2022-2023

The State is required to conduct an EQRO of the services provided by contracted Medicaid RAEs. RAEs were implemented as part of the ACC Phase II implementation. RAEs qualify as both PCCM entities and PIHPs. Additionally, two RAE regions incorporate into the RAE a limited managed care initiative for capitated physical health services. A summary of the RAEs and the region covered by each is below:

- Region 1 – Rocky Mountain Health Plans (RMHP)
- Region 2 – Northeast Health Partners (NHP)
- Region 3 – Colorado Access (COA)
- Region 4 – Health Colorado, Inc. (HCI)
- Region 5 – COA
- Region 6 – Colorado Community Health Alliance (CCHA)
- Region 7 – CCHA

The External Quality Review (EQR) includes federally mandated activities — monitoring for compliance with federal health care regulations, validation of performance improvement projects (PIPs), performance measure validation, and validation of network adequacy. The following optional activities were also reviewed — Consumer Assessment of Healthcare Providers and Systems (CAHPS) surveys, Experience of Care & Health Outcomes (ECHO) surveys, and encounter data validation activities. The State contracted with Health Services Advisory Group (HSAG) as its EQRO to conduct the 2018-2019, 2019-2020, 2020-2021, 2021-2022, and 2022-2023 EQRs for the Medicaid RAEs.

Information Sources

The following information sources were used by HSAG to evaluate the RAEs' performance:

- RAE-conducted PIPs
- Healthcare Effectiveness Data Information Set (HEDIS) performance measure data, as available for each MCO
- Assessment of compliance with Medicaid managed care regulations
- CAHPS surveys
- ECHO surveys

Review of SUD related PIPs

HSAG undertook validation of PIPs for each Medicaid RAE. Starting in Fiscal Year (FY) 2018-2019, RAEs were able to initiate new rapid-cycle PIPs that focused on the following topic areas approved by the Department, one of which was SUD treatment.

One RAE initiated a PIP in SUD during the demonstration period. RMHP, identified a SUD PIP, "substance use disorder treatment in primary care settings for Prime members aged 18 and older." This PIP looked specifically at members aged 18 and older attributed to a specific family practice and sought to increase the number of individuals receiving effective pharmacotherapy within 60 days of an initial diagnosis for OUD or alcohol use disorder from 1.45% to 11.94%. HSAG reported RMHP passing both modules 1 and 2 and provided recommendations for phase 3. RMHP continued work on its SUD focused PIP, successfully completing module 3 and initiating module 4. Module 3, Intervention Determination, had RMHP using process mapping and a failure modes and effects analysis to improve the processes related to this PIP. Module 4, Plan-Do-Study-Act (PDSA)-initiation required RMHP to select one or more interventions to test through the PDSA cycle, as well as developing an evaluation plan. This included identifying potential failure modes impacting the number of members aged 18 and older accessing SUD treatment in a primary care setting, and identifying potential interventions that could address the failure mode. Identified interventions include using a Comprehensive Recovery and Family Therapy approach to engage and increase family support, engaging Peer Support services at service initiation, and partnering with a behavioral health facility to develop referral and aftercare plans for members.

HSAG recommended that RMHP ensure communication is clear when testing interventions to address failure modes, ensuring the method used to identify the intended effect of an intervention is methodologically sound, and consistently using approved measure definitions.

SUD-related Performance Metrics

The BBA requires that performance measures be validated in a manner consistent with the EQR protocol, Validating Performance Measures. Audits of MCOs are to be conducted as prescribed in NCQA's HEDIS 2020, Volume 5: HEDIS Compliance Audit™: Standards, Policies and Procedures and are consistent with the validation method described in the EQRO protocols.

RAE SUD Performance Measures After Implementation of the Demonstration

The substance use specific performance measures RAEs were asked to track and report on were:

- Engagement in Outpatient SUD Treatment
- Follow-Up Within Seven Days of an Emergency Department (ED) Visit for SUD

Statewide strengths related to behavioral health performance measures identified CCHA (Region 7) having several Measurement Years after the implementation of the demonstration in 2021 where they met or exceeded the performance target for Engagement in Outpatient SUD Treatment.

Most RAEs had at least one measure where they met or exceeded the statewide average, while the other measure was indicated as a lower performing measure that didn't meet the statewide average. No one measure saw all RAEs meeting or exceeding the statewide average, and likewise no one measure saw all RAEs not meeting the statewide average.

An opportunity for improvement related to BH performance measures included convening a forum where higher performing RAEs could share best practices, and also facilitate all RAEs collaborating on program wide solutions to common barriers. HSAG also recommended that RAEs integrating a more enhanced discharge plan focused on improving follow-up, including improving communication between staff at discharge and the provider receiving the referral

for on-going treatment and engaging family and natural supports during the discharge planning process, and assess interventions that have been successful for similar indicators to determine if they could improve rates and performance for low scoring measures, consider creating a dashboard to view rates in real time, create interim goals for each indicator. Specific to the discharge planning process, HSAG recommended integrating a more enhanced discharge plan focused on improving follow-up, including improving communication between staff at discharge and the provider receiving the referral for on-going treatment and engaging family and natural supports.

Evaluation of Colorado's Regional Accountable Entities after implementation of the demonstration in 2021

Performance Measure Results for FY 2020–2021

Performance Measure	HCPF Goal	RMHP	NHP	COA (Region 3)	HCI	COA (Region 5)	CCHA (Region 6)	CCHA (Region 7)	Statewide Average
Engagement in Outpatient SUD Treatment	51.00%	47.90%	50.80%	45.09%	48.51%	36.65%	41.61%	54.10%	46.28%
Follow-Up Within 7 Days of an ED Visit for SUD	48.22%	32.46%	29.64%	30.50%	36.49%	35.25%	35.30%	32.75%	33.27%

Performance Measure Results for FY2021–2022

Performance Measure	HCPF Goal	RMHP	NHP	COA (Region 3)	HCI	COA (Region 5)	CCHA (Region 6)	CCHA (Region 7)	Statewide Average
Engagement in Outpatient SUD Treatment	51.00%	53.73%%	54.11%	51.53%	53.16%	49.35%	45.37%	61.25%	52.33%
Follow-Up Within 7 Days of an ED Visit for SUD	48.22%	35.88%	28.41%	26.30%	28.84%	30.19%	31.99%	31.97%	30.46%

MCO HEDIS Measures

The chart below contains the HEDIS measures collected from Rocky Mountain Health Plan (RMHP) and Denver Medical Health Plan (DMHP) in 2021 and 2022. The FY 2021-2022 EQR report reviewed *Initiation and Engagement of AOD Abuse or Dependence Treatment* and did not include Opioid specific HEDIS measures. Additionally, RMHP did not submit any HEDIS measures for this measurement area for FY 2021-2022.

FY2021-2022 MCO Results

Performance Measures	DHMP HEDIS 2021 Rate	DHMP HEDIS 2022 Rate	DHMP HEDIS 2020 Rate	RMHP HEDIS 2021 Rate	RMHP HEDIS 2022 Rate
Behavioral Health Care					
Initiation and Engagement of AOD Abuse or Dependence Treatment					
Initiation of AOD - Alcohol Abuse or Dependence Ages 18-64 years	41.07%			---	
Initiation of AOD - Alcohol Abuse or Dependence Ages 65 years and older	61.05%			---	
Initiation of AOD - Other Drug Abuse or Dependence Ages 18-64 years	40.41%			---	
Initiation of AOD - Other Drug Abuse or Dependence Ages 65 years and older	51.52%			---	
Initiation of AOD - Opioid Abuse or Dependence Ages 18-64 years	54.55%			--	
Initiation of AOD - Opioid Abuse or Dependence Ages 65 years and older	--			--	
Initiation of AOD - Total AOD Abuse or Dependence Ages 18-64 years	42.20%	41.59%		--	33.01%
Initiation of AOD - Total AOD Abuse or Dependence ages 65 years and older	61.38%	58.24%		--	36.49%
Engagement of AOD - Alcohol Abuse or Dependence Ages 18-64 years	6.32%			--	
Engagement of AOD - Alcohol Abuse or Dependence ages 65 years and older	6.32%			--	
Engagement of AOD - Other Drug Abuse or Dependence Ages 18-64 years	3.67%			--	
Engagement of AOD - Other Drug Abuse or Dependence ages 65 years and older	3.03%			--	
Engagement of AOD - Opioid Abuse or Dependence Ages 18-64 years	14.02%			--	
Engagement of AOD - Opioid Abuse or Dependence ages 65 years and older	--			--	
Engagement of AOD - Total AOD Abuse or Dependence Ages 18-64 years	6.40%	7.07%		--	13.65%
Engagement of AOD - Total AOD Abuse or Dependence ages 65 years and older	6.90%	4.71%		--	1.35%
Use of Opioids at High Dosage in Persons Without Cancer					
Ages 18-64 years	--	5.04%		4.11%	3.36%

Performance Measures	DHMP HEDIS 2021 Rate	DHMP HEDIS 2022 Rate	DHMP HEDIS 2020 Rate	RMHP HEDIS 2021 Rate	RMHP HEDIS 2022 Rate
Ages 65 Years and Older	--	4.88%		2.48%	N/A
Use of Pharmacotherapy for OUD					
Rate 1: Total	--	51.62%		52.74%	63.56%
Rate 2: Buprenorphine	--	48.70%		31.66%	36.44%
Rate 3: Oral Naltrexone	--	1.95%		4.13%	4.10%
Rate 4: Long-Acting Injectable Naltrexone	--	1.62%		0.72%	0.93%
Rate 5: Methadone	--	0.32%		29.17%	

Validation of SUD Network Adequacy

Starting in January 2020, HSAG, the Department, and the health plans collaborated to develop quarterly network adequacy reporting templates. Data after January 2020 found that no RAE met all ratios and time/distance network standards across all counties. However, they did report adequate number of behavioral health practitioners, which is inclusive of adult and pediatric SUD providers.

HSAG provided the following recommendations to improve the oversight of the network adequacy data:

- Continue to refine and automate the network adequacy reporting process to reduce duplication of reporting efforts
- Identify opportunities to standardize data, including data value options and network category attribution, to ensure consistency across health plans
- Integrate appointment wait time as a measure of meeting network adequacy requirements
- Incorporate member satisfaction survey results and grievance and appeals data into network adequacy reports

Throughout the demonstration, RAEs and MCOs struggled to ensure that access to the full array of ASAM levels of care was consistently met, especially in rural and frontier counties. Recommendations consistently focused on determining if the inability to ensure access was due to a lack of providers, or an inability to contract with providers in the identified geographic areas. Additionally, it was noted that due to the new reporting requirements and frequency, RAEs should review and test their internal oversight process to ensure that provider data is up to date and accurately reflects the level of care and location in which they provide services. Ensuring access to the full ASAM continuum of care across urban, rural, and frontier counties continues to be an area of opportunity for all RAEs.

Documentation of Quality of and Access to Care under the Demonstration

The State calculates all metrics required under the Demonstration. As noted below, the data through Quarter Ending (QE) September 30, 2023, is available for analysis.

Assessment of Need and Qualification for SUD Services

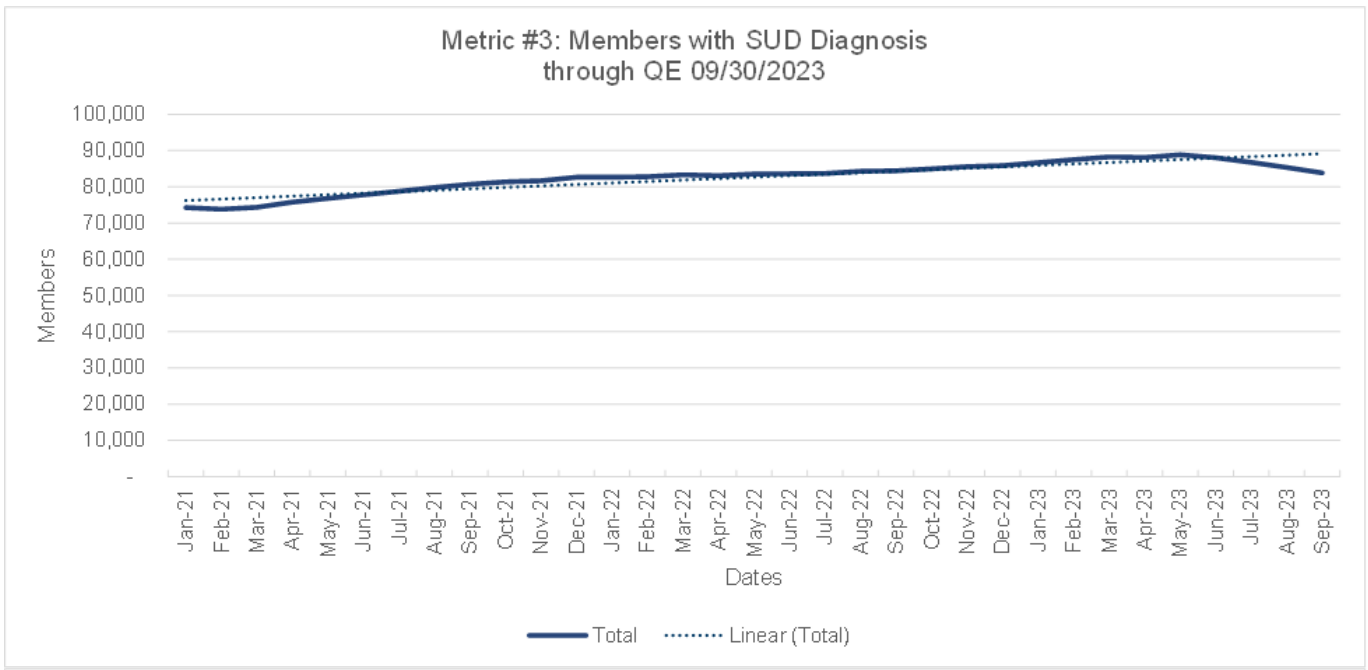
Metric #3[64] reports the number of members by month with a SUD diagnosis through DY3 Q2 (**QE September 30, 2023**). Metric #3: The number of individuals with SUD diagnoses has continued to increase over the life of the demonstration. See the graphs and table below.

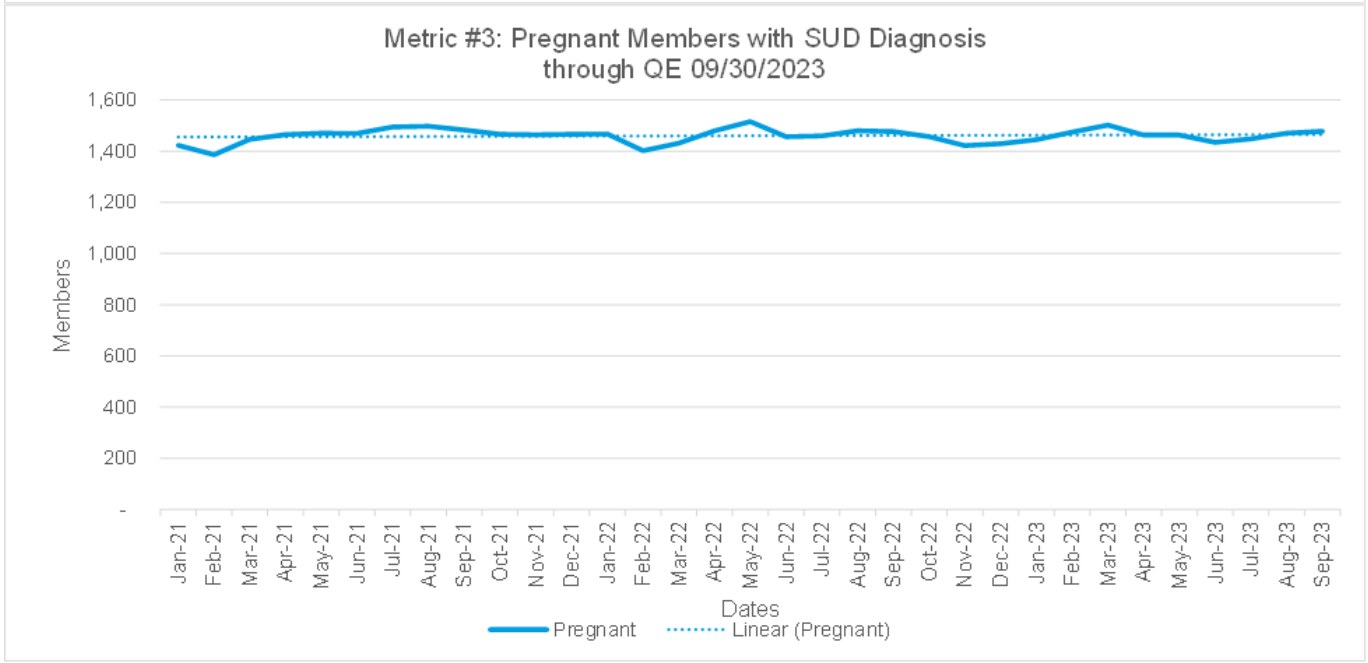
Metric 3	DY1Q1 1/1/2021-3/31/2021	DY3Q3 7/1/2023-9/30/2023	Count Change	Percentage of Change
Medicaid Only	204,427	231,349	26,922	13.2%
Dual Eligible	18,039	24,584	6,545	36.3%
	-	-	-	
Children <18	6,159	6,971	812	13.2%
Adults 18-64	209,965	238,011	28,046	13.4%
Older Adults 65+	6,342	10,951	4,609	72.7%
	-	-	-	
Not Pregnant	218,211	251,538	33,327	15.3%
Pregnant	4,255	4,395	140	3.3%
	-	-	-	
Criminal Justice	10,013	13,648	3,635	36.3%
	-	-	-	
OUD	72,761	86,256	13,495	18.5%
	-	-	-	
Total	222,466	255,933	33,467	15.0%

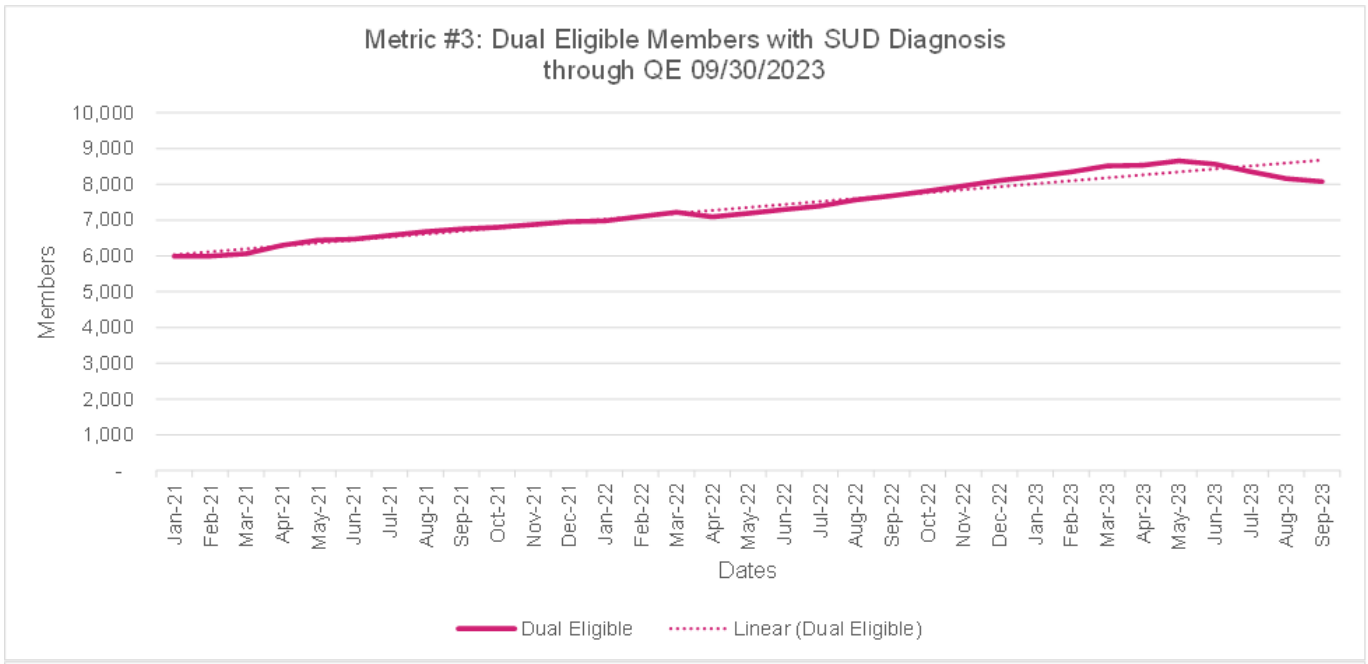
Subpopulations:

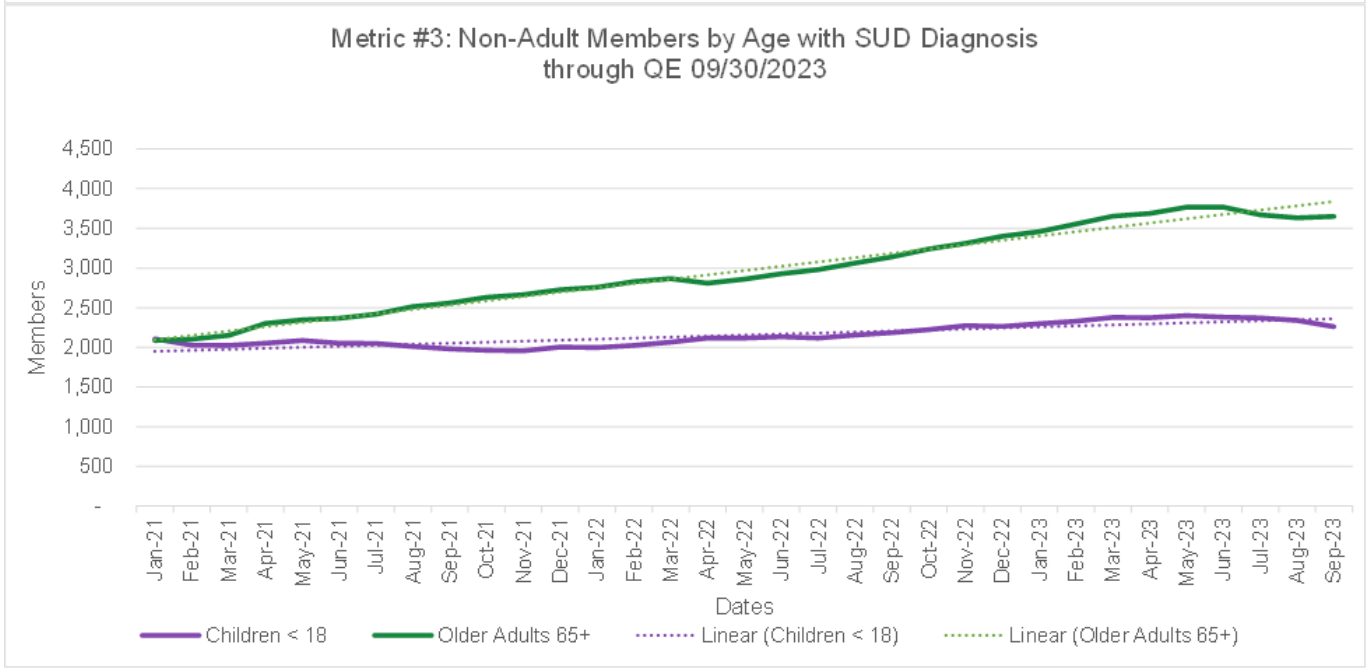
- The number of pregnant women with SUD diagnoses under the demonstration is almost the same as at the beginning of the demonstration with only a 3.3% increase in the latest quarter of data compared to the first quarter of data. This was less than the increase in the overall population.
- The number of older adults, dual eligible individuals, and individuals with criminal justice involvement with a SUD diagnosis increased more than double the rate of increase for the overall population.
- The number of children and members with OUD with SUD diagnoses increased at roughly the same rate as the increases in the overall population.

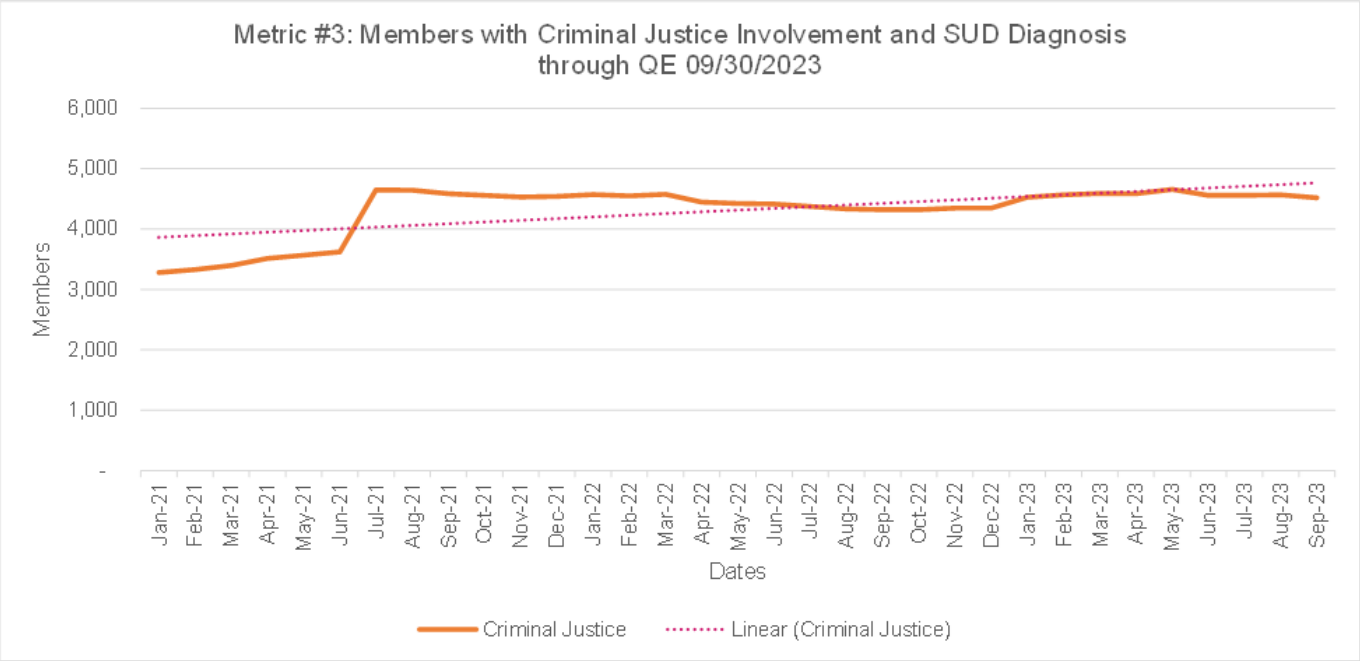
[64] Metrics are numbered according to CMS requirements under the Demonstration.

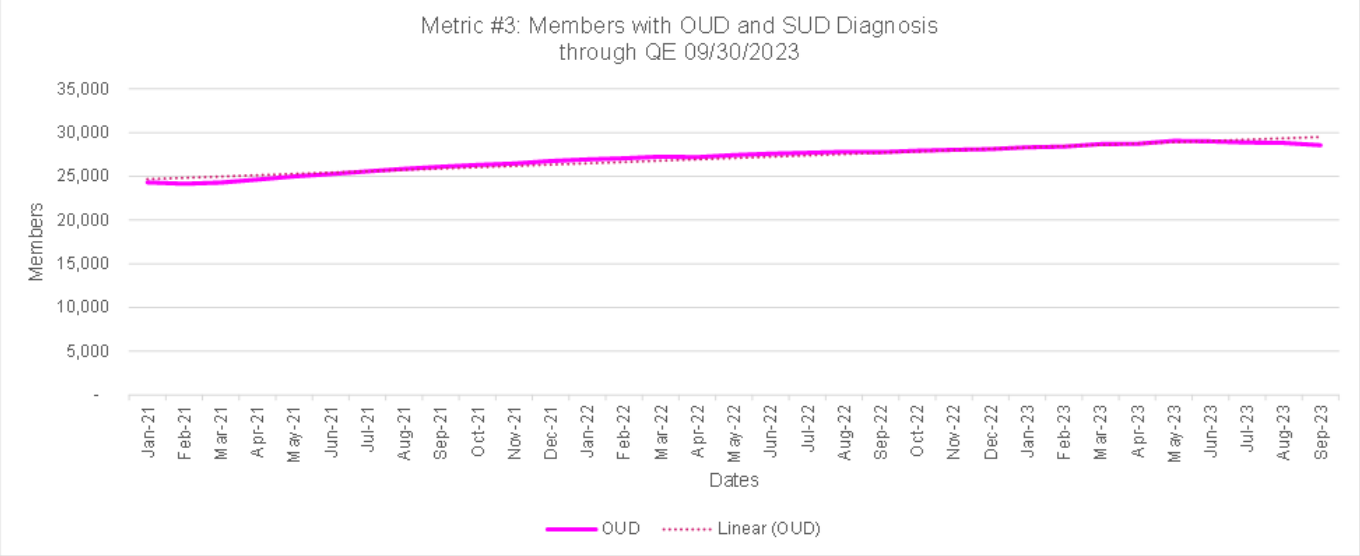

Metric #3: Members with SUD Diagnosis through QE 09/30/2023
Members
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
-
Jan-21
Feb-21
Mar-21
Apr-21
May-21
Jun-21
Jul-21
Aug-21
Sep-21
Oct-21
Nov-21
Dec-21
Jan-22
Feb-22
Mar-22
Apr-22
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
May-23
Jun-23
Jul-23
Aug-23
Sep-23
Dates
Total
Linear (Total)


Metric #3: Pregnant Members with SUD Diagnosis through QE 09/30/2023
Members
1,600
1,400
1,200
1,000
800
600
400
200
-
Jan-21
Feb-21
Mar-21
Apr-21
May-21
Jun-21
Jul-21
Aug-21
Sep-21
Oct-21
Nov-21
Dec-21
Jan-22
Feb-22
Mar-22
Apr-22
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
May-23
Jun-23
Jul-23
Aug-23
Sep-23
Dates
Pregnant
Linear (Pregnant)


Metric #3: Dual Eligible Members with SUD Diagnosis through QE 09/30/2023
Members
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
-
Jan-21 Feb-21 Mar-21 Apr-21 May-21 Jun-21 Jul-21 Aug-21 Sep-21 Oct-21 Nov-21 Dec-21 Jan-22 Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22 Dec-22 Jan-23 Feb-23 Mar-23 Apr-23 May-23 Jun-23 Jul-23 Aug-23 Sep-23
Dates
Dual Eligible
Linear (Dual Eligible)


Metric #3: Non-Adult Members by Age with SUD Diagnosis through QE 09/30/2023
Members
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
-
Jan-21 Feb-21 Mar-21 Apr-21 May-21 Jun-21 Jul-21 Aug-21 Sep-21 Oct-21 Nov-21 Dec-21 Jan-22 Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22 Dec-22 Jan-23 Feb-23 Mar-23 Apr-23 May-23 Jun-23 Jul-23 Aug-23 Sep-23
Dates
Children < 18
Older Adults 65+
Linear (Children < 18)
Linear (Older Adults 65+)





Access to Critical LOCs for OUD and other SUDs (Milestone 1)

Metrics #6-#12 report the number of members by month receiving services through DY3 Q3. See the graphs and Table below associated with these metrics.

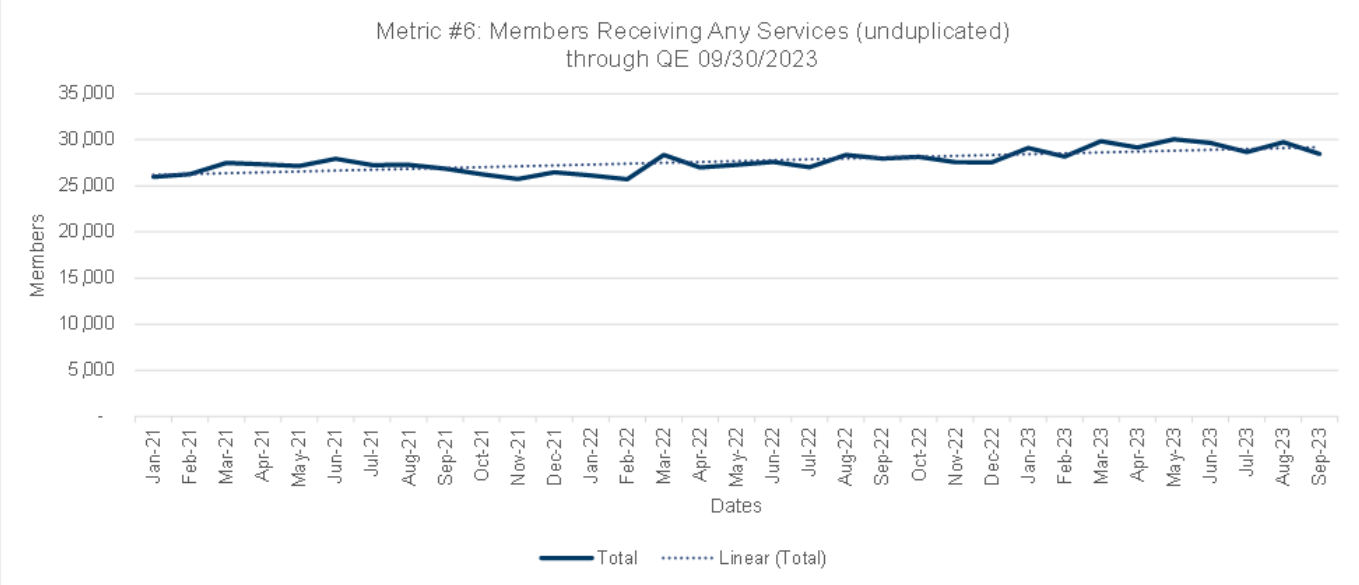
Metric #6 The number of unduplicated individuals receiving any services has increased 8.9% in the last quarter over the beginning quarter of the Demonstration.

Metric 6	DY1Q1 1/1/2021 –3/31/2021	DY3Q3 7/1/2023 –9/30/2023	Count Change	Percentage of Change
Medicaid Only	73,753	79,757	6,004	8.1%
Dual Eligible	5,952	7,068	1,116	18.8%
	-	-	-	
Children <18	1,309	1,319	10	0.8%
Adults 18-64	75,975	82,217	6,242	8.2%
Older Adults 65+	2,421	3,289	868	35.9%
	-	-	-	
Not Pregnant	78,005	85,220	7,215	9.2%
Pregnant	1,700	1,605	(95)	-5.6%
	-	-	-	
Criminal Justice	3,387	4,602	1,215	35.9%
	-	-	-	
OUD	33,442	38,653	5,211	15.6%
	-	-	-	
Total	79,705	86,825	7,120	8.9%

Subpopulations:

- Individuals with dual eligibility and OUD who utilized SUD services increased by roughly double the overall population rate under the demonstration (18.8% and 15.6% quarter).
- Pregnant Women who utilized SUD services decreased by 5.6% under the Demonstration.
- Individuals ages 65 and over as well as individuals with criminal justice involvement who utilized SUD services increased under the demonstration at almost four times the rate of the overall population (35.9% for both populations).
- Children's services did not increase significantly under the Demonstration (0.8%).

The graph below shows the monthly changes in all diagnoses under the demonstration.

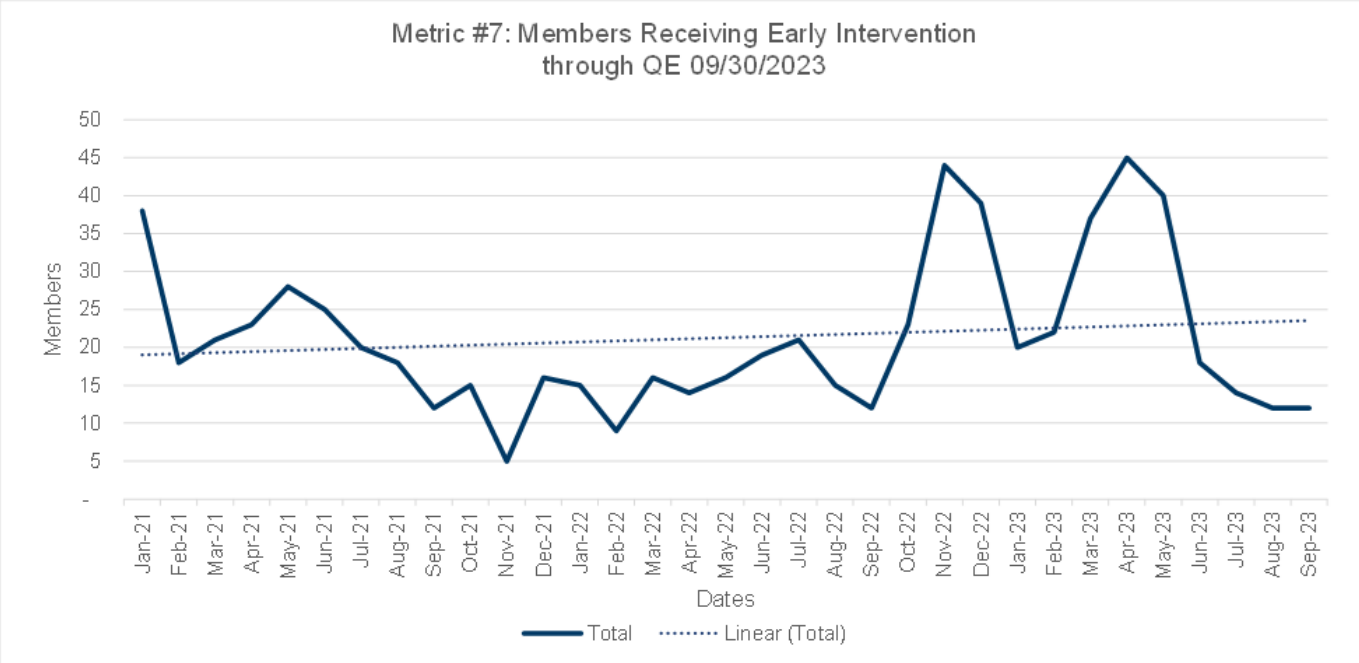


Analysis by service:

Metric #7 reports the number of individuals receiving early intervention. The number of individuals receiving early intervention has remained low (under 80 individuals a quarter) under the demonstration with month-to-month fluctuations.

Metric 7	DY1Q1 1/1/2021 -3/31/2021	DY3Q3 7/1/2023 -9/30/2023	Count Change	Percentage of Change
Medicaid Only	67	33	(34)	-50.7%
Dual Eligible	10	5	(5)	-50.0%
	-	-	-	
Children <18	-	1	1	-
Adults 18-64	73	34	(39)	-53.4%
Older Adults 65+	4	3	(1)	-25.0%
	-	-	-	
Not Pregnant	74	38	(36)	-48.6%
Pregnant	3	-	(3)	-100.0%
	-	-	-	
Criminal Justice	4	3	(1)	-25.0%
	-	-	-	
OUD	51	17	(34)	-66.7%
	-	-	-	
Total	77	38	(39)	-50.6%

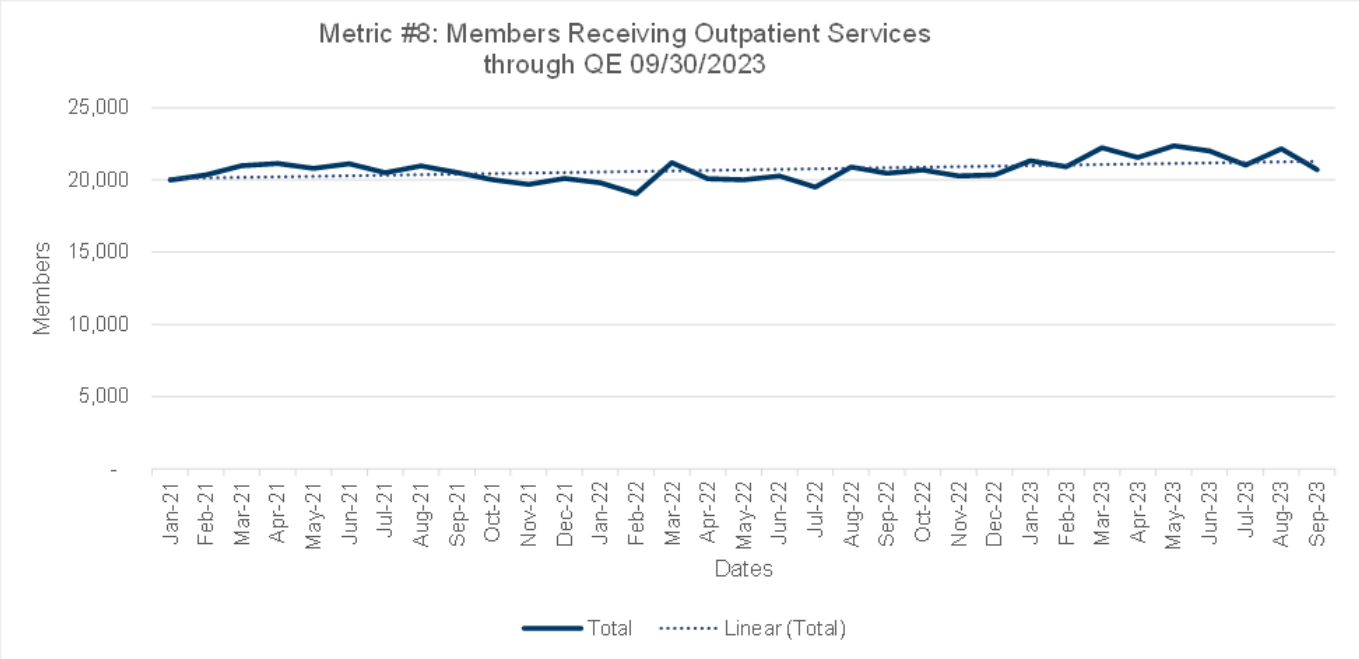
Monthly utilization of Early Intervention can be seen in the chart below.



Metric #8 reports the number of individuals receiving outpatient services. The number of individuals receiving outpatient care increased 4.2% in the last quarter compared to the first quarter of the demonstration.

Metric 8	DY1Q1 1/1/2021 -3/31/2021	DY3Q3 7/1/2023 -9/30/2023	Count Change	Percentage of Change
Medicaid Only		60,031	1,834	3.2%
Dual Eligible	3,154	3,897	743	23.6%
	-	-	-	
Children <18	1,011	846	(165)	-16.3%
Adults 18-64	59,534	61,748	2,214	3.7%
Older Adults 65+	806	1,334	528	65.5%
	-	-	-	
Not Pregnant	59,943	62,695	2,752	4.6%
Pregnant	1,408	1,233	(175)	-12.4%
	-	-	-	
Criminal Justice	2,578	3,397	819	31.8%
	-	-	-	
OUD	27,934	31,124	3,190	11.4%
	-	-	-	
Total	61,351	63,928	2,577	4.2%

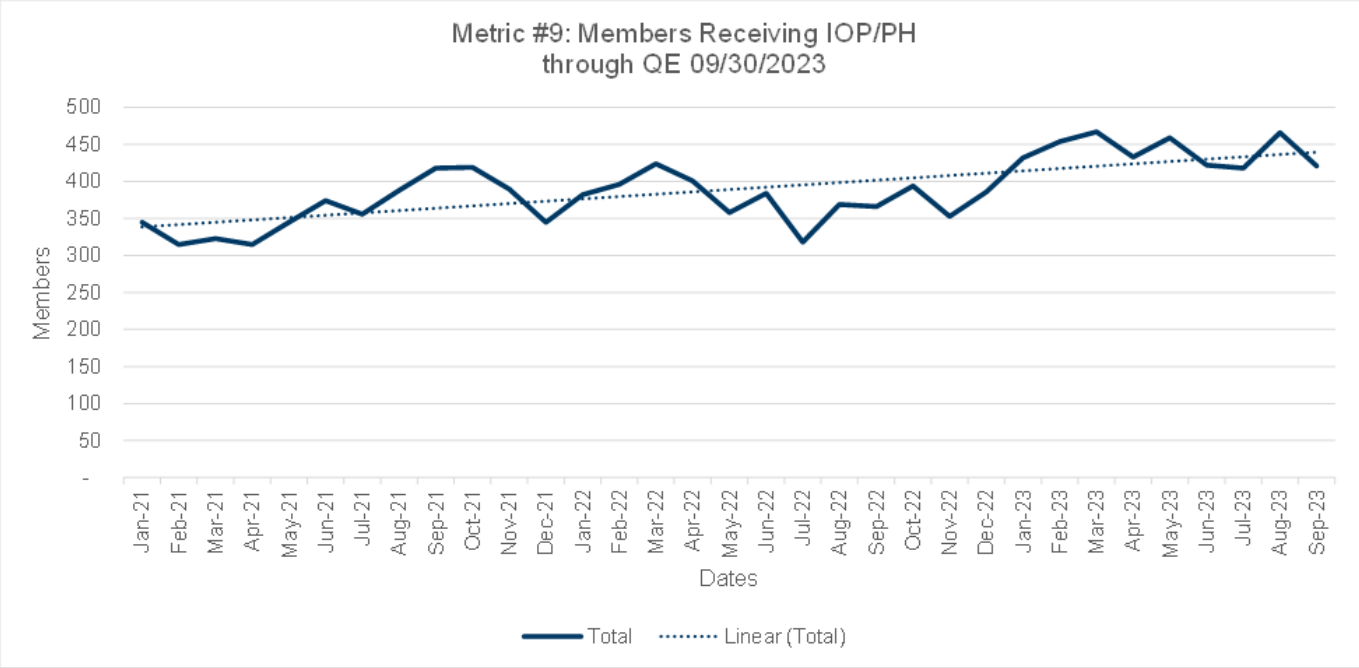
Monthly outpatient utilization is seen below.



Metric #9 reports the number of individuals receiving Intensive Outpatient Services. The number of individuals receiving IOP has increased 32.8% in the last quarter compared to the first demonstration quarter.

Metric 9	DY1Q1 1/1/2021 -3/31/2021	DY3Q3 7/1/2023 -9/30/2023	Count Change	Percentage of Change
Medicaid Only	959	1,265	306	31.9%
Dual Eligible	24	40	16	66.7%
	-	-	-	
Children <18	10	40	30	300.0%
Adults 18-64	972	1,256	284	29.2%
Older Adults 65+	1	9	8	800.0%
	-	-	-	
Not Pregnant	957	1,280	323	33.8%
Pregnant	26	25	(1)	-3.8%
	-	-	-	
Criminal Justice	47	40	(7)	-14.9%
	-	-	-	
OUD	246	310	64	26.0%
	-	-	-	
Total	983	1,305	322	32.8%

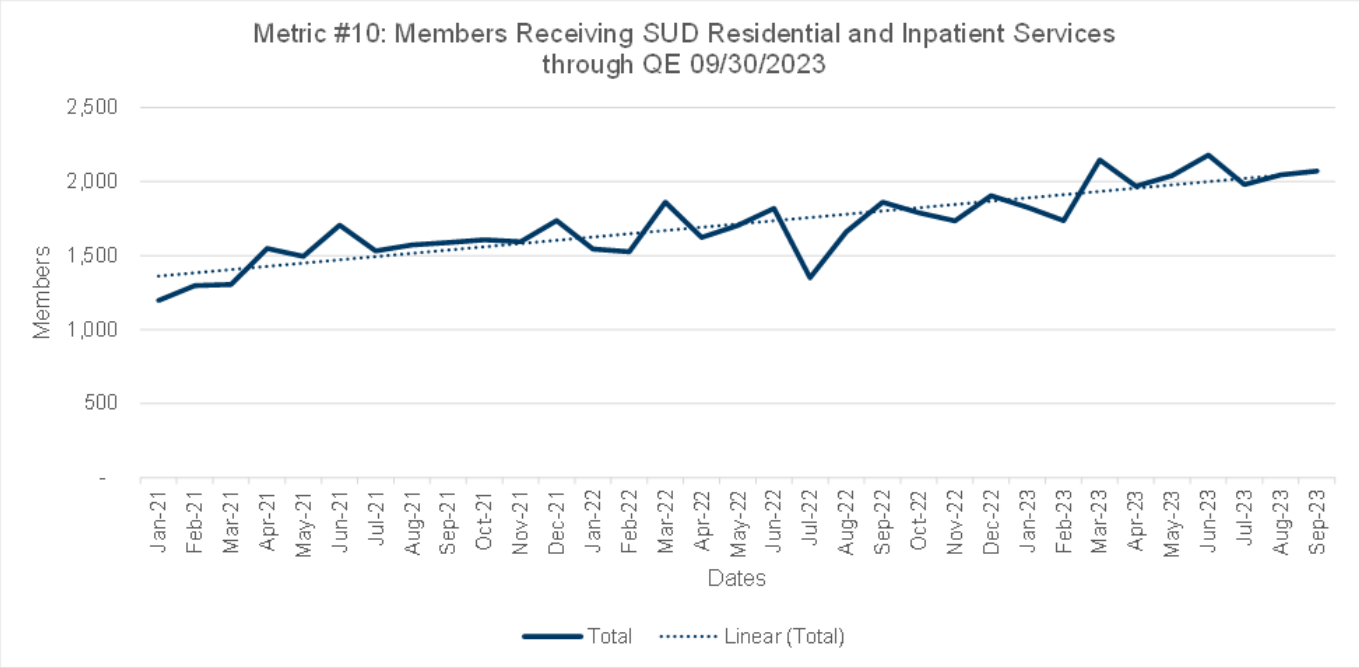
Monthly utilization of intensive outpatient services can be seen below.



Metric #10 reports the number of individuals receiving residential and inpatient services. The number of individuals receiving residential and inpatient services increased in the last quarter of the demonstration 60% compared to the first quarter of the demonstration.

Metric 10	DY1Q1 1/1/2021-3/31/2021	DY3Q3 7/1/2023-9/30/2023	Count Change	Percentage of Change
Medicaid Only	3,490	5,652	2,162	61.9%
Dual Eligible	308	445	137	44.5%
	-	-	-	
Children <18	37	29	(8)	-21.6%
Adults 18-64	3,604	5,842	2,238	62.1%
Older Adults 65+	157	226	69	43.9%
	-	-	-	
Not Pregnant	3,746	5,980	2,234	59.6%
Pregnant	52	117	65	125.0%
	-	-	-	
Criminal Justice	213	435	222	104.2%
	-	-	-	
OUD	654	1,678	1,024	156.6%
	-	-	-	
Total	3,798	6,097	2,299	60.5%

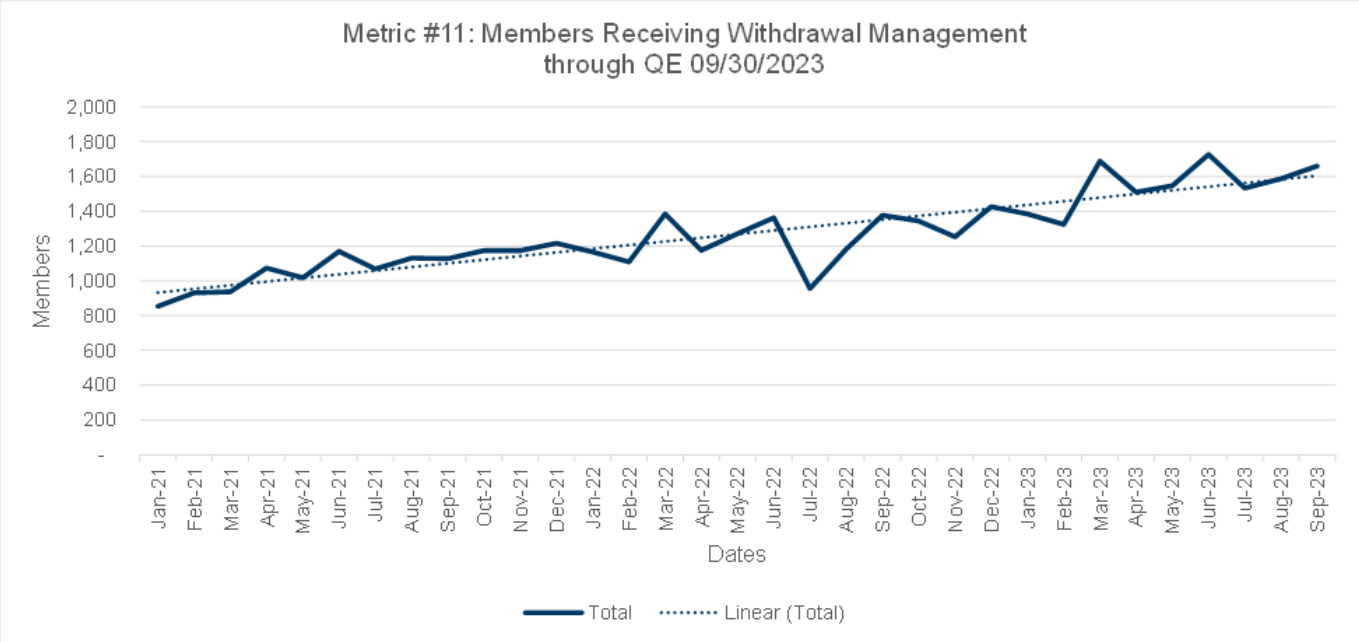
Monthly utilization trends can be seen below.



Metric #11 reports the number of individuals receiving Withdrawal Management (WM) services. The number of individuals receiving WM services increased 75.6% in the last quarter of the demonstration compared to the first quarter of the demonstration.

Metric 11	DY1Q1 1/1/2021-3/31/2021	DY3Q3 7/1/2023-9/30/2023	Count Change	Percentage of Change
Medicaid Only	2,572	4,534	1,962	76.3%
Dual Eligible	152	248	96	63.2%
	-	-	-	
Children <18	5	6	1	20.0%
Adults 18-64	2,676	4,689	2,013	75.2%
Older Adults 65+	43	87	44	102.3%
	-	-	-	
Not Pregnant	2,677	4,677	2,000	74.7%
Pregnant	47	105	58	123.4%
	-	-	-	
Criminal Justice	169	363	194	114.8%
	-	-	-	
OUD	589	1,514	925	157.0%
	-	-	-	
Total	2,724	4,782	2,058	75.6%

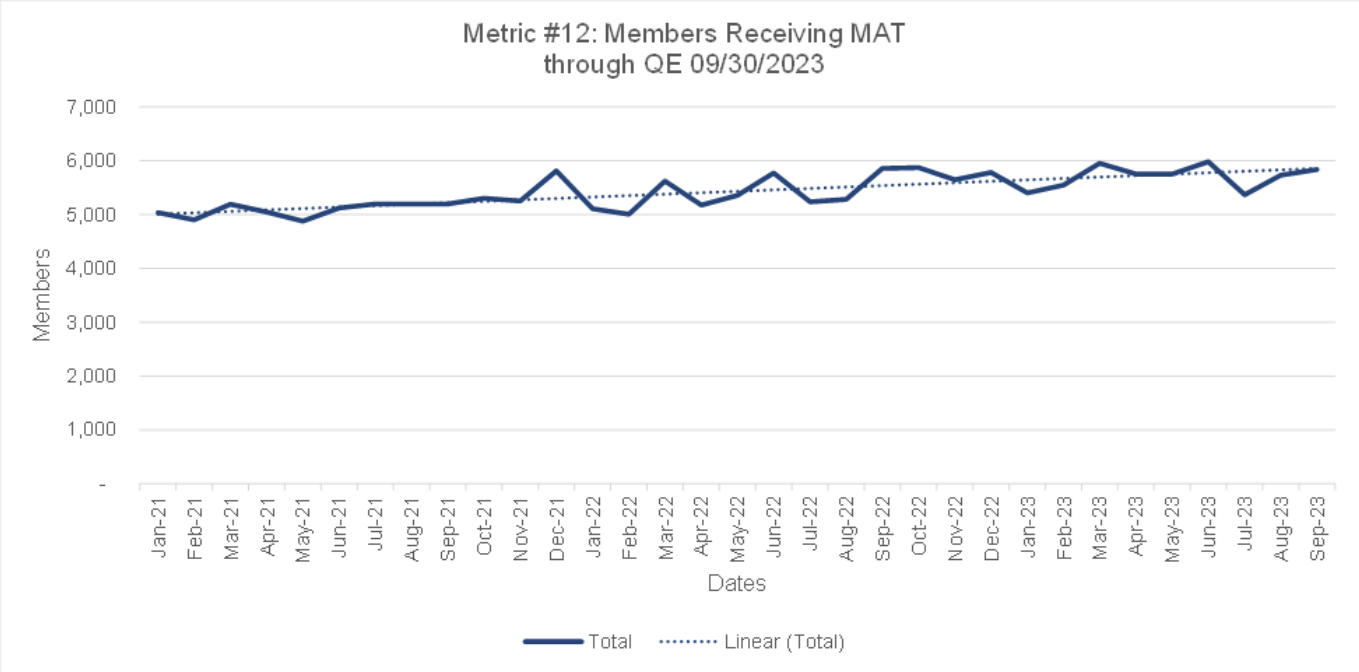
Monthly trend rates can be seen below.



Metric #12 reports the number of individuals receiving MAT services which have increased 11.9% in from the first quarter to the last quarter of the demonstration. MAT for dual eligibles has decreased under the demonstration potentially because of Medicare's new coverage of MAT.

Metric 12	DY1Q1 1/1/2021-3/31/2021	DY3Q3 7/1/2023-9/30/2023	Count Change	Percentage of Change
Medicaid Only	14,662	16,520	1,858	12.7%
Dual Eligible	467	416	(51)	-10.9%
	-	-	-	
Children <18	13	51	38	292.3%
Adults 18-64	14,973	16,726	1,753	11.7%
Older Adults 65+	143	159	16	11.2%
	-	-	-	
Not Pregnant	14,829	16,592	1,763	11.9%
Pregnant	300	344	44	14.7%
	-	-	-	
Criminal Justice	511	952	441	86.3%
	-	-	-	
OUD	13,876	15,861	1,985	14.3%
	-	-	-	
Total	15,129	16,936	1,807	11.9%

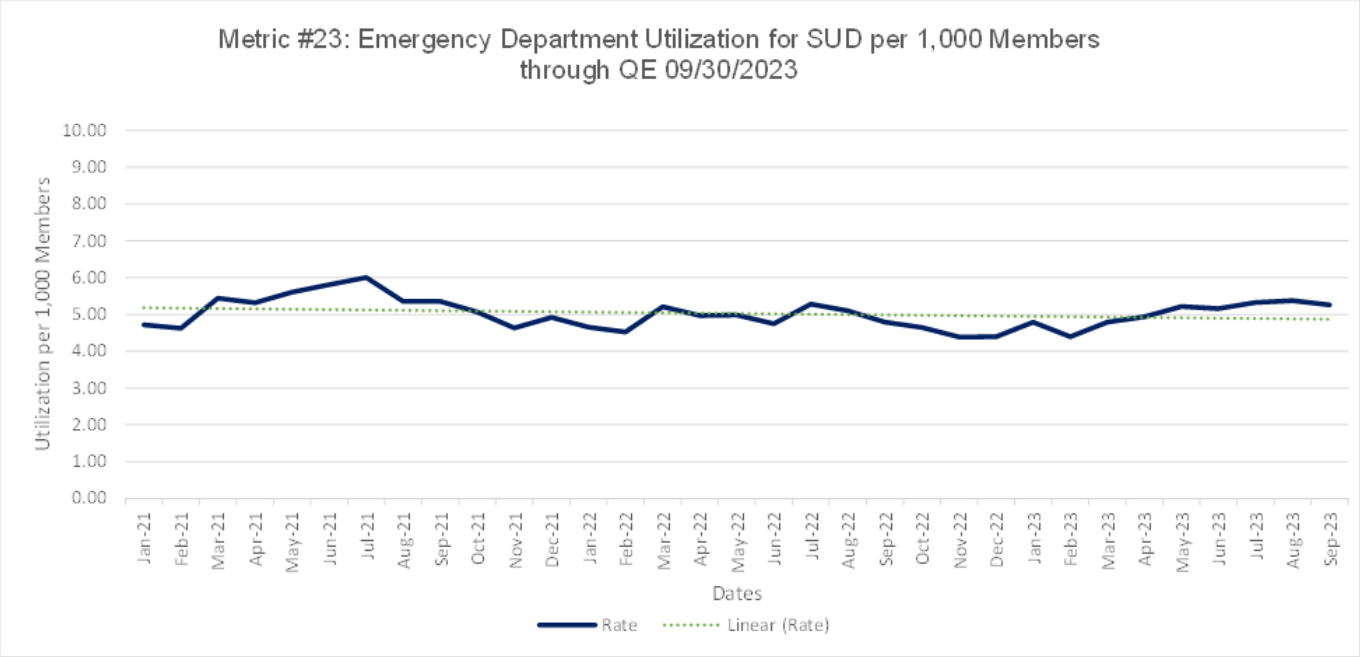
Monthly Utilization can be seen below.



Metric #23 reports the number of individuals receiving emergency room services which have increased 7.9% in from the first quarter to the last quarter of the demonstration. Emergency room visits for children and older adults for SUD have increased at even higher rates.

Metric 23	**Percentage of Change**
Rate	7.9%
Rate children	47.4%
Rate adults	4.0%
Rate older adults	33.9%
OUD rate	3.9%

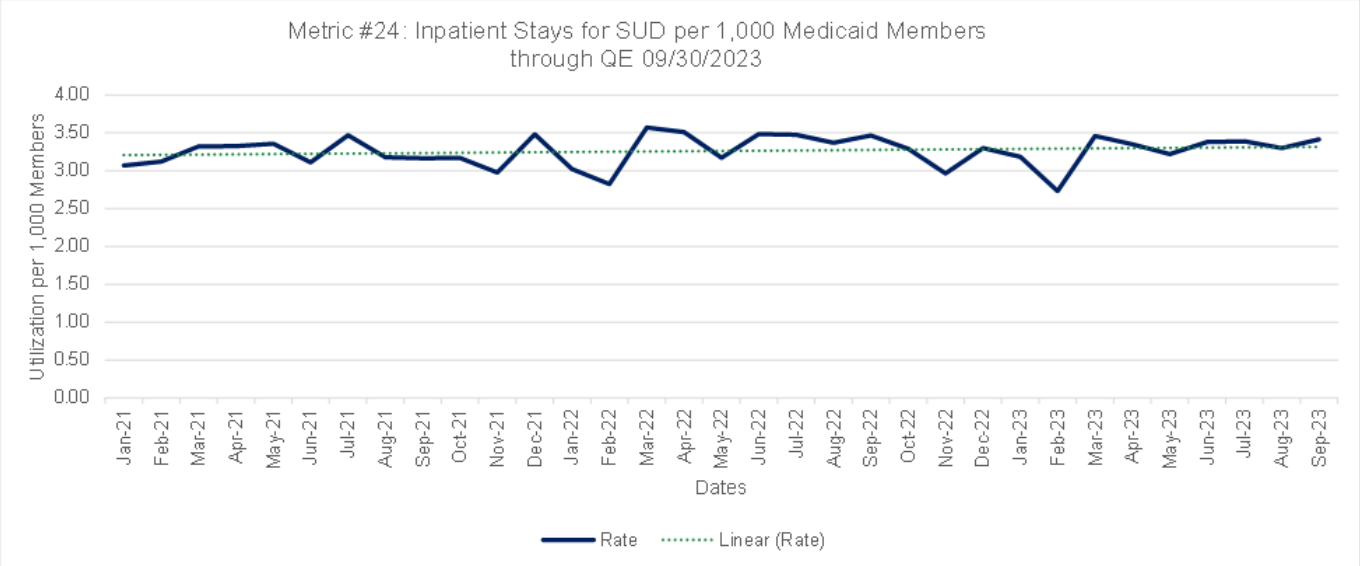
Monthly trends in emergency room utilization can be seen in the chart below.



Metric #24 reports the number of individuals who were hospitalized for SUD which have increased 6.2% in from the first quarter to the last quarter of the demonstration. Emergency room visits for children increased at even higher rates. However, hospitalizations for older adults and individuals with OUD have fallen in the last quarter of the demonstration period compared to the first quarter.

Metric 24	Percentage of Change
Rate	6.2%
Rate children	23.9%
Rate adults	0.3%
Rate older adults	-7.1%
OUD rate	-7.9%

Monthly trends in inpatient hospitalization utilization can be seen in the chart below.



Grievance and Appeal Reporting

At the beginning of the demonstration, Colorado was unable to track and trend grievances and appeals related to SUD. Beginning with the DY2Q3 quarterly report, Colorado was able to begin reporting SUD related grievances and appeals. While there has been an increase in the reported grievances and appeals, Colorado does not have enough experience with the reports to understand if the increases were due to systemic issues or a result of the new reporting processes becoming more standardized.

Table 14. Reported SUD Grievances

	7/112022-9/30/2022	10/1/2022-12/31/2022	1/1/2023-3/31/2023	3/31/2023-6/30/2023	7/1/202-9/30/2023	10/1/2023-12/31/2023	Description
N	11	2	3	5	2	8	Increase in reported SUD grievances

Table 15. Reported SUD Appeals

	7/1/2022-9/30/2022	10/1/2022-12/31/2022	1/1/2023-3/31/2023	3/31/2023-6/30/2023	7/1/2023-9/30/2023	10/1/2023-12/31/2023	Description
N	0	18	3	5	3	16	Increase in reported SUD appeals

Appendix E: New Presumptive Eligibility Request

Section I. Program Description and Objectives

HCPF, Colorado's single state agency for Medicaid, is requesting an additional authority to the State's 1115 demonstration from the Centers for Medicare and Medicaid Services (CMS): presumptive eligibility for people experiencing identified crisis criteria who are in need of a targeted set of long-term services and supports (LTSS). The targeted implementation date for this demonstration extension is January 1, 2026.

The LTSS PE proposal seeks federal authority and Federal Financial Participation (FFP) to provide a 90-day presumptive eligibility period for individuals seeking Home and Community Based Services (HCBS) who:

- Attest to Nursing Facility (NF), Hospital, or Intermediate Care Facility level of care,
- Attest to disability,
- Attest to income under 300% of the Federal Poverty Level (FPL), resources under the designated limit, and having no transfer of assets within the required time period, and
- Are determined to be experiencing one or more identified crisis situations that would put the individual at risk of nursing facility or hospital admission

Individuals in crisis situations face unique challenges accessing the care they need, threatening their ability to live safely in the setting of their choice. Some of the crisis situations Colorado has identified as being most impactful include experiencing a loss of caregiver, being a danger to one's self or others, or having recently experienced an acute medical or mental health episode. In the current landscape of Health First Colorado services, individuals in need of immediate care due to a crisis circumstance remain underserved. This provision gap is highlighted further by the lengthy LTSS enrollment process our members are currently experiencing. Presumptive eligibility (PE) is one solution to this barrier. Presumptive eligibility permits the State to determine member eligibility for Medicaid benefits based on member self-attestation of financial eligibility and level-of-care eligibility. Individuals certified through presumptive eligibility programs are able to rapidly access supports intended to divert institutionalization or other care that is more costly and restrictive. Colorado's stakeholders strongly support implementation of LTSS PE to address current challenges and opportunities in Colorado's LTSS system.

The State received approval through House Bill 24-1229, which was signed into law as Colorado Statute C.R.S. 25.5-5-204 on June 3, 2024 by Governor Polis. With the passage of this bill, the State is authorized to apply for any federal authorization needed to implement PE for those requiring LTSS within its appropriation. The target implementation date for LTSS PE is January 1, 2026.

Background

Presumptive eligibility permits states to designate certain entities to enroll members in benefit programs who are likely to be ultimately eligible for the program. During the PE period, the member's full eligibility for Medicaid is processed while the member receives Medicaid services and, in this case, some HCBS benefits for which they are applying.

Presumptive eligibility in Colorado is allowable for children (42 CFR § 435.1102), pregnant women, those with diagnoses of breast or cervical cancer, and those eligible for limited family planning benefits (42 CFR § 435.1103). In addition, the current Colorado Medicaid State Plan

allows for Federal Financial Participation for PE as stated in 42 CFR § 435.1001 and 1002 pursuant to subpart L.

Goals and Objectives

Receipt of authority for LTSS PE will help close a barrier to services currently experienced by Colorado Medicaid members in crisis situations. The goals of this program support HCPF objectives including:

1. **Improving health care access.** Reducing the time that members in crisis situations must wait before receiving needed services and supports will improve access to care, allowing members a greater chance of residing in their environment of choice. This program will allow members to receive services and benefits while their Long Term Care Medicaid application is being processed.

2. **Improving health care outcomes.** Reducing the barrier of long enrollment timelines for eligible members who need care right away will improve health outcomes. Allowing members to self-declare eligibility and start receiving services right away will help avoid or delay more intensive and/or costly levels of care and improve life quality and expectancy.

3. **Saving Coloradans money on health care.** HCPF believes that both members and the State will benefit through LTSS PE. Members will be able to access needed supports right away, in some cases discharging from more costly settings like hospitals or NFs, using the LTSS PE expedited time frame. This program will also serve to allow members a choice of living environment while ensuring their service needs are met.

Rationale

Members experiencing urgent life circumstances face unique challenges accessing the care they need, threatening their ability to live safely in the setting of their choice. In the current landscape of Health First Colorado services, those in need of immediate care due to crucial life situations remain underserved.

Precedence

1115 demonstrations provide states with flexibility to implement presumptive eligibility programs for members accessing LTSS. CMS has granted this authority in Washington, Rhode Island, and Indiana.

Washington: The Medicaid Transformation Project Demonstration operates under the state's 1115 demonstration and features four PE programs that offer in-home services to eligible adults needing support; Tailored Support for Older Adults (TSOA), Medicaid Alternative Care (MAC), Nursing Facility Level of Care (NFLOC) PE, and Medicaid Personal Care (MPC) PE. The TSOA and MAC programs offer services that support caregivers to enable them to continue caring for members, and also offer services similar to LTSS that are available to the member.

The NFLOC PE and MCP PE programs were approved by CMS June 30, 2023, and provide LTSS services right away while an individual's LTSS application is being processed. Through LTSS PE, Washington was granted authority to extend PE to those applying for LTSS services. The LTSS PE programs serve as a direct pathway to 1915(k) and 1915(c) programs in Washington. Washington's PE program eligibility includes those who are current recipients of categorically needy or alternative benefit plan Medicaid coverage.

Washington's STC states that individuals will self-attest to functional eligibility to determine if the individual appears to meet NFLOC or MPC level of care as defined in state rule. Individuals

will also self-attest to meeting financial eligibility requirements to determine if the applicant meets the eligibility requirements. Presumptive eligibility services include:

- Personal care up to 103 hours per month
- Nurse delegation
- Personal emergency response system
- Home delivered meals up to two meals per day
- Community transition or sustainability services
- Medical equipment and supplies

Those eligible for PE also receive state plan benefits including medical care, hospital visits, dental care, and inpatient psychiatric care.

For members already enrolled in the MAC and TSOA programs, Washington found that emergency room visits and hospitalizations decreased significantly within six months of program enrollment. See figure 2 below:

Figure 2.

Exhibit 12.3: MAC Participants' Utilization of Health Services Before and After Program Enrollment, compared with Individuals Receiving Medicaid In-home Services

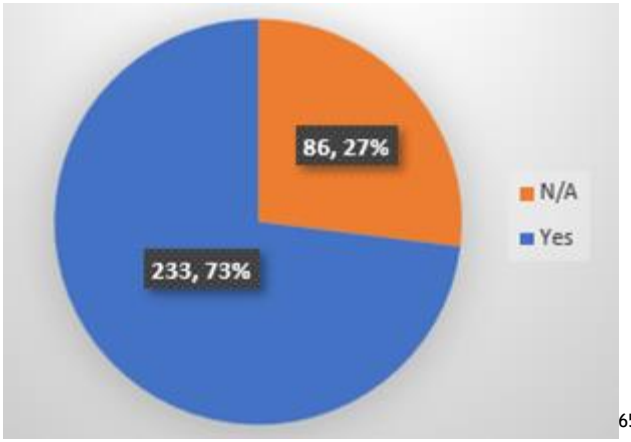
Baseline Health Care Utilization	MAC participants (N= 48)	TSOA participants with an informal caregiver	TSOA participants without an informal caregiver	People receiving Medicaid in-home services (N= 43,976)
Emergency department visits (per 1,000 member months)	125	NA	NA	93
Hospitalizations (per 1,000 member months)	59	NA	NA	30
30-day readmissions rate (%)	26	NA	NA	17

Health Care Utilization Within 6 Months of Program Enrollment	MAC participants (N = 37)	TSOA participants with an informal caregiver	TSOA participants without an informal caregiver	Individuals receiving Medicaid in-home services (N = 34,372)
Emergency department visits (per 1,000 member months)	81	NA	NA	73
Hospitalizations (per 1,000 member months)	9	NA	NA	22
30-day readmission rate (%)	0	NA	NA	15

Source: Center for Health Systems Effectiveness, Medicaid Transformation Project Evaluation, Interim Report, December 13, 2020, p. 136, accessed at www.hca.wa.gov/assets/program/mtp-interim-report.pdf on July 13, 2024.

Washington reports also show that there are low risks of individuals being erroneously determined eligible for Medicaid. In the latest 2024 Quarterly Report to CMS, Washington reported that most PE members were appropriately determined to be at nursing facility level of care (see Figure 3). Results of the quarterly PE quality assurance review using a statistically valid sample size are below.

Figure 3. Was the client appropriately determined to be nursing facility level of care eligible for PE?

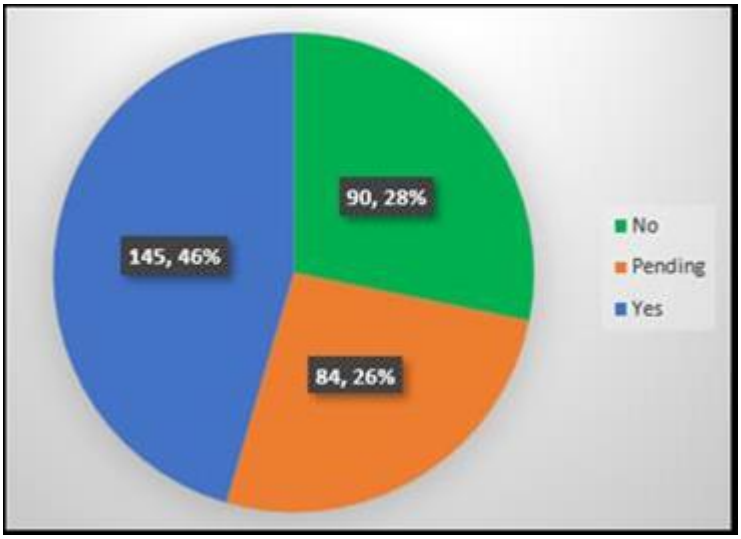


[65]

233 Yes (73%) and 86 No (27%)

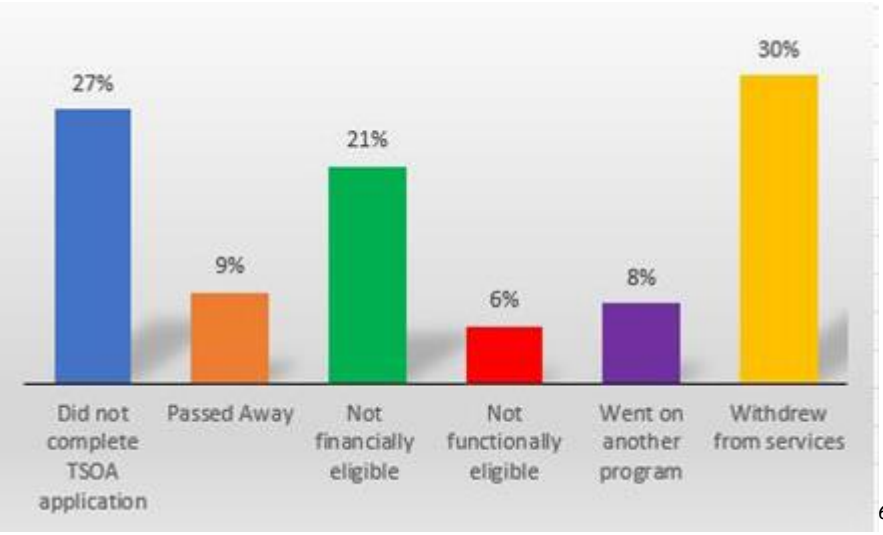
Washington also reported that 72% of members remained eligible, or were pending eligibility, after the PE period. Of the 28% who did not remain eligible after the PE period, the majority withdrew from services or did not complete the Medicaid application (see Figure 4 and Figure 5).

Figure 4. Did the client remain eligible after the PE period?



[65] https://app.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=MTP%20DY8%20reporting%20period%203%20January%201-March%2031%202024_b027a106-6a98-48d7-8ff3-4888f43d49cd.pdf

Figure 5. If the client did not remain eligible, why?



[66]

Note: These percentages represent the "No" population in the previous table (the 28%; 90 participants outlined above). For example, the 21% of PE clients found to be not financially eligible are 21% of the 90 participants illustrated in the Table for this follow-up question.

Rhode Island: Rhode Island's PE program, sometimes referred to as "expedited eligibility," is the default eligibility for new applicants and existing non-LTSS Medicaid beneficiaries who meet the program requirements. Expedited eligibility functions under the state's 1115 demonstration and allows home care services to begin based on self-attestation of financial eligibility and medical professional attestation of level of care eligibility. This program allows a defined set of LTSS services for an approved amount of time during the duration of PE. For a period of up to 90 days, members can receive:

- Up to 20 hours per week of personal care
- Up to three days per week of adult day services
- Limited skilled nursing services

During the presumptive eligibility period, members must complete a full LTSS application. Rhode Island's PE program is funded through shared state and federal funds. Those found ineligible for LTSS are not responsible for funding PE services rendered, and are provided alternate referrals for programs that offer LTSS-type services.

Rhode Island's STC 24 states:

> The state may accept self-attestation of the financial eligibility criteria for new LTC applicants for a maximum of ninety (90) days. Eligible individuals would be required to complete the LTC Clinical and Financial Application for LTC services. After Clinical Eligibility criteria has been verified by the state, the individual would provide a self-attestation of the LTC financial eligibility criteria to receive a limited benefit package of community based LTSS for up to 90 days pending the determination of the full LTC financial application. The limited benefit package includes a maximum of twenty (20) hours weekly of personal care/homemaker services and/or a maximum of three (3) days weekly of Adult Day Care Services and/or limited skilled nursing services based upon assessment. Upon determination of the approval of the full LTC financial application, the individual will receive the full LTC benefit package. The limited

[66] https://app.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=MTP%20DY8%20reporting%20period%203%20January%201-March%2031%202024_b027a106-6a98-48d7-8ff3-4888f43d49cd.pdf

community based LTSS services are available for up to ninety (90) days or until the eligibility for LTC decision is rendered, whichever comes first.

Following determination of eligibility for the 1115 demonstration waiver, beneficiaries are entitled to receive primary care essential health benefits including primary and preventive care, including acute and subacute services. State plan benefit coverage is also extended to those with a third party insurance.

Demonstration Hypotheses and Evaluation

With the help of an independent evaluator, the State will amend the approved SUD evaluation plan to include evaluating the presumptive eligibility-related hypotheses indicated below. The State will calculate and report all performance measures required by CMS under the Demonstration. The State will submit the updated evaluation plan to CMS for approval.

The State will conduct ongoing monitoring of this Demonstration and will provide information regarding monitoring activities in the required quarterly and annual monitoring reports.

The State will assess, and comprehensively evaluate through robust hypothesis testing, the effectiveness of LTSS PE services in achieving the articulated goals and hypotheses of the initiative. The following goals and associated hypotheses will be tested during the approval period:

The goals of this program support HCPF objectives including:

1. Improve health care access.
    a. Reducing the time that members in identified crisis situations must wait before receiving needed services and supports will improve access to care.
2. Improve health care outcomes.
    a. Reducing the barrier of long enrollment timelines for eligible members who need care right away will improve health outcomes.
    b. Allowing members to self-declare eligibility and start receiving services right away will provide members a greater chance of residing in their environment of choice, improving life quality and expectancy.
3. Save Coloradans money on health care.
    a. The LTSS PE program will allow eligible members the option of safely discharging from more costly settings like hospitals or nursing facilities by providing immediate services and supports.

Table 16. Demonstration Goals, Hypotheses and Data Sources

Goal	Research Hypothesis	Plan to Test Hypothesis	Data Sources	Evaluation Design
By providing presumptive eligibility to those eligible for LTSS, the State will improve health care access.	Reducing the time that members in identified crisis situations must wait before receiving needed services and supports will improve access to care.	Measure changes in the time individuals wait to obtain services	Data Source: HCBS file review of time to obtain services from initial contact	Independent Evaluator will design qualitative and quantitative measures to include quasi-experimental comparisons and interrupted time series analysis.
By providing PE to LTSS members, the State will improve health care outcomes.	Reducing the barrier of long enrollment timelines for eligible members who need care right away will improve health outcomes.	Measure changes in the rates of relevant health outcomes	Measure: Number of hospitalizations and emergency room visits for HCBS members Data Source: Claims/Encounter data	Independent Evaluator will design qualitative and quantitative measures to include quasi-experimental comparisons and interrupted time series analysis
By providing PE to LTSS members, the State will improve health care outcomes.	Allowing members to self-declare eligibility and start receiving services right away will provide members a greater chance of residing in their environment of choice, improving life	Measure satisfaction in the quality of life of the member	Data Source: Quality of Life or Satisfaction survey of members receiving PE	Independent Evaluator will design qualitative and quantitative measures to include quasi-experimental comparisons and interrupted time series analysis

Goal	Research Hypothesis	Plan to Test Hypothesis	Data Sources	Evaluation Design
	quality and expectancy.			
By providing PE to LTSS members, the State will save Coloradans money on health care.	LTSS PE will allow eligible members the option of safely discharging from more costly settings like hospitals or nursing facilities by providing immediate services and supports.	Number of days admitted to a hospital or nursing facility after referral and prior to HCBS enrollment.	Data Source: Claims/Encounter data	Independent Evaluator will design qualitative and quantitative measures to include quasi-experimental comparisons and interrupted time series analysis.

Service Areas

This demonstration will operate across the entire state.

Demonstration Timeframe

The State intends to implement the LTSS PE program on January 1, 2026, and operate it through December 31, 2030.

Section II. Demonstration Eligibility

The proposed demonstration grants temporary eligibility to benefits and supports for those presumed eligible for LTSS while their Long Term Care Medicaid application is processed and HCBS services are initiated. Colorado is seeking a waiver of Comparability of Eligibility Standards under Section 1902(a)(17) of the Social Security Act to permit the state to allow self-attestation and, as a result, to apply standards different from those specified in the Medicaid State Plan for determining eligibility, including but not limited to different income counting methods.

One important goal for LTSS PE is to enable members experiencing defined crisis circumstances to receive targeted services and supports right away with the intent of circumventing more costly levels of care.

To qualify for LTSS PE, a beneficiary must meet the following requirements:

- Require nursing facility, hospital, or Intermediate Care Facility level of care as determined by self declaration
- Meet financial, disability, and citizenship eligibility criteria as required for long term care Medicaid as determined by self-declaration
- Be determined to be experiencing one or more identified crisis situations that would put an individual at risk of nursing facility or hospital admission. Crisis criteria may include criteria like a loss or incapacitation of caregiver, being a danger to self or others, or having recently experienced an acute medical or mental health episode by self-declaration or attestation from a physician or other provider.

Section III. Demonstration Benefits and Cost-Sharing Requirements

The LTSS Presumptive Eligibility program will offer individuals in crisis situations critical Medicaid and home and community based services. These services will represent a benefit package intended to support individuals in crisis as they plan for long-term care. The benefit package will consist of targeted services from Colorado's 1915(c) waiver and 1915(k) state plan programs and may include services like: personal care, personal emergency response system, respite, transition supports, and home-delivered meals. Through their presumed eligibility for the 1115 program, individuals will also be eligible for Health First Colorado State Plan benefits.

If an individual is determined to be ineligible for Long Term Care Medicaid, there will be no recoupment of funds for LTSS PE services rendered. Medicaid will only reimburse for services prior to the member being found ineligible or 90 days, whichever is shorter. The Medicaid budget will include service funding for all Medicaid members found presumptively eligible for Medicaid.

Cost sharing for individuals with LTSS Presumptive Eligibility will be the same as under the regular State Plan and HCBS programs including any liability for post-eligibility treatment of income.

Section IV. Delivery System and Payment Rates

The State will deliver benefits through a combination of fee-for-service (FFS) and managed care systems to align with the delivery systems already in place in the State. Although physical health claims are paid for through HCPF's Medicaid Management Information Systems (MMIS), the Managed Care Entities (MCEs) coordinate member care and pay for behavioral health services.

The state will deliver LTSS PE program benefits through its existing FFS program using existing payment schedules for those benefits.

Section V. Implementation and Enrollment in Demonstration

Individuals will be enrolled onto LTSS PE through an online referral specific to this program, which will contain questions to allow for the self-declaration of financial and functional eligibility, as well as the self-declaration of identified crisis circumstances. A financial eligibility entity, or state FTE, will be designated for this program to receive the LTSS PE referral, review for completeness, approve the application, and forward the case to the appropriate county office for LTC Medicaid financial eligibility processing. Another entity will be designated to facilitate the LTSS PE program. These LTSS PE facilitators will receive referrals from the financial eligibility entity or FTE and contact the individual to confirm needed LTSS PE services and assess for other resources needed. The LTSS facilitators will initiate and authorize the LTSS PE services. As appropriate, LTSS PE facilitators will refer individuals to their assigned Case Management Agency (CMA) so intake and assessment steps can be completed, including completing the Level of Care assessment for HCBS.

Case management agencies will follow processes and timelines currently in place for Level of Care assessments and other HCBS intake steps. Once the individual's financial LTC Medicaid eligibility is approved, and their HCBS eligibility approved by the CMA, the case will transition to the CMA for HCBS tracking, case management, and service management.

Services for LTSS PE will be delivered consistent with the HCBS delivery system for which the individual is applying. The LTSS PE services will be the choice of the beneficiary. Beneficiaries can opt out of LTSS PE services at any time. The State will submit any additional details on covered LTSS PE services to CMS as required in the approved Standard Terms and Conditions (STC) after CMS approval.

The LTSS PE services will not supplant any other available funding sources available to beneficiaries through local, state, or federal programs. The LTSS PE services do not absolve the state of its responsibilities to provide required coverage for other medically necessary Medicaid services. State spending on LTSS services prior to the approval of the 1115 demonstration will be maintained or increased.

Quarterly, the State will report to CMS on LTSS PE service implementation, including progress made and challenges experienced, LTSS PE service utilization, quality of services, and health outcomes for individuals receiving LTSS PE services. The State will report on all mandatory CMS health equity metrics, stratified as required in the approved STCs.

Section VI. Proposed Waiver and Expenditure Authority

The State seeks such waiver authority as necessary under the Demonstration to receive a federal match on costs not otherwise matchable for services rendered to HRSN services-eligible individuals. The State also requests the following proposed waivers and expenditure authority to operate the Demonstration.

Table 17. Requested Waiver Authorities and Associated Reasons

Waiver Authority	Reason and Use of Waiver Authority Will Enable the State To:
Comparability of Eligibility Standards Section 1902(a)(17)	To permit the state to apply standards different from those specified in the Medicaid state plan for determining eligibility, including but not limited to, different income counting methods.
Section 1902(a)(23)(A) - Freedom of Choice	To the extent necessary to enable the state to restrict freedom of choice of provider for individuals receiving benefits through the State's PE LTSS program.
Section 1902(a)(10)(B) - Amount, Duration, Scope	To permit the state to provide benefits for the PE LTSS program that are not available in the standard Medicaid benefit package.

Expenditure Authority

Table 18. Requested Expenditure Authorities

Title XIX Expenditure Authority	Expenditures
Presumptive eligibility for the LTSS PE program	Expenditures for each individual presumptively determined to be eligible for the PE LTSS program, during the presumptive eligibility period described in the eligibility section. In the event the state implements a waitlist, the authority for presumptive eligibility terminates.

Section VII. Demonstration Financing and Budget Neutrality

The State's actuary has developed the Budget Neutrality (BN) calculation. The State developed the BN analysis for this Section 1115 Medicaid Demonstration Waiver amendment as a comparison of WoW expenditures to WW expenditures under a hypothetical model. Budget Neutrality to members eligible for the LTSS PE Program is based on the ability to serve people who are otherwise eligible for Medicaid before their needs require higher-cost health care.

LTSS PE Proposal

The LTSS PE proposal seeks authority and Federal Financial Participation to provide 90-day presumptive eligibility for individuals attesting to NF, Hospital, or Intermediate Care Facility level of care, attesting to disability requirement, and attesting to income under 300%, resources under the designated limit, and no transfer of assets. HCPF requests a per capita limit for this proposal.

If an individual is determined to be ineligible for Long Term Care Medicaid, there will be no recoupment of funds for LTSS PE services rendered. Service funding for those ineligible for Long Term Care Medicaid will be built into the program budget.

To develop budget neutrality estimates, HCPF utilized projected SFY25, (July 1, 2024, to June 30, 2025), HCBS data on a statewide basis for individuals aged 55+ who met the state's criteria for long-term nursing facility as well as those enrolled in a HCBS waiver. HCPF does not operate a managed long-term service and supports (MLTSS) program; the majority of members who meet the level of care criteria are in fee-for-service (FFS). In addition to the historical FFS data, capitated rate information from the states behavioral health program was utilized.

The projected SFY25 data utilized excluded individuals who were dually eligible for Medicaid and Medicare. This exclusion reflects the expectation that the LTSS PE proposal will impact Medicaid Only individuals since dual eligibles have Medicaid coverage options through emergency HCBS waiver slots and Medicare coverage for short-term nursing facility stays.

The historical LTSS FFS data reflected in the SFY25 estimate classified individuals in to nursing facility and HCBS settings of care based on the following:

- **Nursing Facility Setting of Care:** Individuals who used nursing facility services for at least four consecutive months with the first month costing at least $2,000
- **HCBS Setting of Care:** Individuals who used waiver services for at least four consecutive months and the HCBS expenditure each month exceeded $300

The projected SFY25 includes adjustments for the following:

- Incurred but not reported (IBNR) estimates
- Adjustments to FFS expenditures for recoupments associated with lawsuit settlements as well as allocations for financial transactions processed through MMIS but not assigned to a specific claim
- Frailty adjustment for behavioral health capitation expenditures
- HCPF implemented provider reimbursement increases

The projected SFY25 data does not reflect Medicaid pharmacy rebate adjustments because 1115 waivers typically direct states to report pharmacy rebates for the populations included in the demonstration and budget neutrality within the CMS 64.9 BASE form.

The SFY25 projected data for the nursing facility and HCBS settings of care were blended to develop a single MEG. The blend assumed a 90% nursing facility and 10% HCBS setting of care mix to reflect the likelihood that the nursing facility population will comprise the majority of the LTSS PE. This SFY25 projected PMPM serves as the base period per capita that is used to project to DY6 through DY10 as illustrated in Table 19 below.

Table 19. LTSS PE Without and With Waiver Caseload and Expenditure Projections

	DY6	DY7	DY8	DY9	DY10
MEG — LTSS PE (Medicaid Only)					
Member Months	264	288	291	294	297
Per Capita (PMPM)	$11,593	$12,184	$12,805	$13,458	$14,145
Projected Expenditures	$3,060,444	$3,508,938	$3,726,309	$3,956,726	$4,200,953

Notes:
1. Member months reflect an estimated three-month (3) duration.
2. Trend rate used: 1% for member months and 5.1% for services PMPM. Base year is SFY25.

Appendix F: Budget Neutrality Language and Worksheets

Hypothetical Budget Neutrality Test 1: SUD Services (see Expenditure Authority #1). The table below identifies the MEGs that are used for Hypothetical Budget Neutrality Test 1. MEGs that are designated "WOW Only" or "Both" are the components used to calculate the budget neutrality expenditure limit. The Composite Federal Share for the Hypothetical Budget Neutrality Test is calculated based on all MEGs indicated as "WW Only" or "Both." MEGs that are indicated as "WW Only" or "Both" are counted as expenditures against this budget neutrality expenditure limit. Any expenditures in excess of the limit from Hypothetical Budget Neutrality Test are counted as WW expenditures under the Main Budget Neutrality Test.

Original Approved

MEG	PC or Agg	WOW Only, WW Only, or Both	Base Year	TREND	DY1 PMPM	DY2 PMPM	DY3 PMPM	DY4 PMPM	DY5 PMPM
Legacy	PC	Both	2020	4.9%	$1,088	$1,141	$1,197	$1,256	$1,317
Expansion	PC	Both	2020	5.6%	$501	$529	$559	$590	$623

Technical Correction

MEG	PC or Agg	WOW Only, WW Only, or Both	Base Year	TREND	DY 1 PMPM	DY 2 PMPM	DY 3 PMPM	DY 4 PMPM	DY 5 PMPM
Legacy	PC	Both	2020	4.9%	$2,421	$2,539	$2,664	$2,794	$2,931
Expansion	PC	Both	2020	5.6%	$2,199	$2,322	$2,452	$2,589	$2,734

Extension proposed with five additional years for all pending amendments

MEG	TREND	DY1 PMPM	DY2 PMPM	DY3 PMPM	DY4 PMPM	DY5 PMPM	DY6 PMPM	DY7 PMPM	DY8 PMPM	DY9 PMPM	DY10 PMPM
MEG 1 - Legacy (SUD)	4.90%	$2,421	$2,539	$2,664	$2,794	$ 2,931.05	$3,075	$3,225	$3,383	$3,549	$3,723
MEG 2 - Expansion (SUD)	5.60%	$2,199	$2,322	$2,452	$2,589	$ 2,734.47	$2,888	$3,049	$3,220	$3,400	$3,591

MEG 3 - SMI Non-Expansion Adults											
Member Months	1.0%					4	8	8	8	8	
PMPM	5.1%					$ 39.83	$ 41.35	$ 43.46	$ 45.67	$ 48.00	
Expenditures	6.2%					$ 159	$ 331	$ 348	$ 365	$ 384	
MEG 4 - SMI Expansion Adults											
Member Months	1.0%					53	107	108	109	110	
PMPM	5.1%					$ 57.06	$ 59.23	$ 62.25	$ 65.42	$ 68.76	
Expenditures	6.2%					$ 3,024	$ 6,337	$ 6,723	$ 7,131	$ 7,563	
MEG 5 - JI Youth											
Member Months	1.0%					40	80	81	82	83	
PMPM	5.1%					$ 896.59	$ 930.68	$ 978.14	$ 1,028.03	$ 1,080.45	
Expenditures	6.2%					$ 35,864	$ 74,454	$ 79,229	$ 84,298	$ 89,678	
MEG 6 - JI Non-Expansion Adults											
Member Months	1.0%					138	278	281	284	287	
PMPM	5.1%					$ 886.52	$ 920.21	$ 967.14	$ 1,016.47	$ 1,068.31	
Expenditures	6.2%					$ 122,339	$ 255,819	$ 271,767	$ 288,677	$ 306,604	
MEG 7 - JI Expansion Adults											
Member Months	1.0%					3,906	7,871	7,950	8,030	8,110	
PMPM	5.1%					$ 934.30	$ 969.81	$ 1,019.27	$ 1,071.25	$ 1,125.89	
Expenditures	6.2%					$ 3,649,362	$ 7,633,375	$ 8,103,200	$ 8,602,163	$ 9,130,945	
MEG 8 - CE for Children											
Member Months	1.0%					-	538,368	543,752	549,190	554,682	
PMPM	5.1%					$ -	$ 317.26	$ 333.44	$ 350.44	$ 368.32	
Expenditures	6.2%					$ -	$ 170,801,550	$ 181,307,660	$ 192,460,062	$ 204,298,318	
MEG 9 - CE for JI Youth											
Member Months	1.0%					-	304	441	445	450	
PMPM	5.1%					$ -	$ 698.49	$ 734.12	$ 771.56	$ 810.91	
Expenditures	6.2%					$ -	$ 212,635	$ 323,746	$ 343,660	$ 364,798	

MEG 10 CE for JI Non-Expansion Adults											
Member Months	1.0%					-	766	1,059	1,070	1,080	
PMPM	5.1%					$ -	$ 1,752.55	$ 1,841.93	$ 1,935.87	$ 2,034.60	
Expenditures	6.2%					$ -	$ 1,342,455	$ 1,950,607	$ 2,070,589	$ 2,197,951	
MEG 11 CE for JI Expansion Adults											
Member Months	1.0%					-	23,485	31,909	32,228	32,550	
PMPM	5.1%					$ -	$ 182.90	$ 192.23	$ 202.03	$ 212.34	
Expenditures	6.2%					$ -	$ 4,295,480	$ 6,133,904	$ 6,511,201	$ 6,911,705	
MEG 12 - HRSN Services											
Eligible Member Months	1.00%					69,256	139,550	140,946	142,355	143,779	
PMPM Cost	5.10%					$ 288.56	$ 299.52	$ 314.80	$ 330.85	$ 347.73	
Total Expenditure						$ 19,984,218	$ 41,798,589	$ 44,369,778	$ 47,098,811	$ 49,996,015	
MEG 13 - JI Non-Services Capped Hypo						$ 870,000.00	$ 585,000.00	$579,000	$605,500	$663,500	
MEG 14 - Planning and Implementation (HRSN Infrastructure) Capped Hypo						$ 3,526,627	$ 7,376,222	$ 7,829,961	$ 8,311,555	$ 8,822,826	
MEG 15- LTSS PE						$ -	$ 11,590.81	$12,182	$12,803	$13,456	$14,142

Extension proposed with an additional year (DY6) at a no trend increase for all pending amendments

MEG	TREND	DY1 PMPM	DY2 PMPM	DY3 PMPM	DY4 PMPM	DY5 PMPM	DY6 PMPM	DY7 PMPM	DY8 PMPM	DY9 PMPM	DY10 PMPM	DY11 PMPM
MEG 1 - Legacy (SUD)	4.90%	$2,421	$2,539	$2,664	$2,794	$2,931	$2,931	$3,075	$3,225	$3,383	$3,549	$3,723
MEG 2 - Expansion (SUD)	5.60%	$2,199	$2,322	$2,452	$2,589	$2,734	$2,734	$2,888	$3,049	$3,220	$3,400	$3,591
MEG 3 - SMI Non-Expansion Adults												
Member Months	1.0%							9	9	9	9	9
PMPM	5.1%							$ 43.46	$ 45.67	$ 48.00	$ 50.45	$ 53.02
Expenditures	6.2%							$ 391	$ 411	$ 432	$ 454	$ 477
MEG 4 - SMI Expansion Adults												

Member Months	1.0%							108	109	110	111	112
PMPM	5.1%							$ 62.25	$ 65.42	$ 68.76	$ 72.26	$ 75.95
Expenditures	6.2%							$ 6,723	$ 7,131	$ 7,563	$ 8,021	$ 8,506
MEG 5 - JI Youth												
Member Months	1.0%							81	82	83	84	85
PMPM	5.1%							$ 978.14	$ 1,028.03	$ 1,080.45	$ 1,135.56	$ 1,193.47
Expenditures	6.2%							$ 79,229	$ 84,298	$ 89,678	$ 95,387	$ 101,445
MEG 6 - JI Non-Expansion Adults												
Member Months	1.0%							281	284	287	290	293
PMPM	5.1%							$ 967.14	$ 1,016.47	$ 1,068.31	$ 1,122.79	$ 1,180.05
Expenditures	6.2%							$ 271,767	$ 288,677	$ 306,604	$ 325,610	$ 345,756
MEG 7 - JI Expansion Adults												
Member Months	1.0%							7,949	8,028	8,108	8,189	8,271
PMPM	5.1%							$ 1,019.27	$ 1,071.25	$ 1,125.89	$ 1,183.31	$ 1,243.66
Expenditures	6.2%							$ 8,102,181	$ 8,600,021	$ 9,128,693	$ 9,690,104	$ 10,286,279
MEG 8 - CE for Children												
Member Months	1.0%							543,752	549,190	554,682	560,229	565,831
PMPM	5.1%							$ 333.44	$ 350.44	$ 368.32	$ 387.10	$ 406.84
Expenditures	6.2%							$ 181,307,660	$ 192,460,062	$ 204,298,318	$ 216,864,777	$ 230,204,011
MEG 9 - CE for JI Youth												
Member Months	1.0%							307	444	448	452	457
PMPM	5.1%							$ 734.12	$ 771.56	$ 810.91	$ 852.26	$ 895.73
Expenditures	6.2%							$ 225,374	$ 342,572	$ 363,286	$ 385,223	$ 409,348
MEG 10 CE for JI Non-Expansion Adults												
Member Months	1.0%							773	1,066	1,077	1,088	1,099
PMPM	5.1%							$ 1,841.93	$ 1,935.87	$ 2,034.60	$ 2,138.37	$ 2,247.42
Expenditures	6.2%							$ 1,423,814	$ 2,063,639	$ 2,191,265	$ 2,326,542	$ 2,469,917
MEG 11 CE for JI Expansion Adults												

Member Months	1.0%							23,720	32,146	32,467	32,792	33,120
PMPM	5.1%							$ 192.23	$ 202.03	$ 212.34	$ 223.17	$ 234.55
Expenditures	6.2%							$ 4,559,723	$ 6,494,616	$ 6,894,002	$ 7,318,126	$ 7,768,282
MEG 12 - HRSN Services												
Eligible Member Months	1.00%							140,945	142,354	143,778	145,216	146,668
PMPM Cost	5.10%							$ 314.80	$ 330.85	$ 347.73	$ 365.46	$ 384.10
Total Expenditure								$ 44,369,463	$ 47,098,480	$ 49,995,667	$ 53,070,981	$ 56,335,316
MEG 13 - JI Non-Services Capped Hypo								$ 870,000	$ 585,000	$ 579,000	$ 605,500	$ 663,500
MEG 14 - Planning and Implementation (HRSN Infrastructure) Capped Hypo								$ 7,829,905	$ 8,311,496	$ 8,822,765	$ 9,365,467	$ 9,941,526
MEG 15- LTSS PE								$ 12,181.95	$12,803	$13,456	$14,142	$14,864

SUD- IMD Renewal Build Up

DEMONSTRATION YEARS		Last Historic Year	DY6	DY7	DY8	DY9	DY10
DY Period Begin Date		7/1/2024	1/1/2026	1/1/2027	1/1/2028	1/1/2029	1/1/2030
DY Period End Date		6/30/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030
WITHOUT WAIVER PER CAPITA (PMPM)							
		Last Historic Year	DY6	DY7	DY8	DY9	DY10
MEG		7/1/24 - 6/30/25	1/1/26 - 12/31/26	1/1/27 - 12/31/27	1/1/28 - 12/31/28	1/1/29 - 12/31/29	1/1/30 - 12/31/30
MEG: LTSS PE		$ 10,757	$ 11,593	$ 12,184	$ 12,805	$ 13,458	$ 14,145
TREND FACTORS TABLE							
MEG		Mem-Mon	PMPM				
MEG: LTSS PE		1.0%	5.1%				
Trend Months Between Base Year and DY6		1.503					
		DY6	DY7				
Assumed Member Months		264	288				
Assumed Duration Per Member		3					
		Last Historic Year	DY6	DY7	DY8	DY9	DY10
WoW		7/1/24 - 6/30/25	1/1/26 - 12/31/26	1/1/27 - 12/31/27	1/1/28 - 12/31/28	1/1/29 - 12/31/29	1/1/30 - 12/31/30
MEG: LTSS PE	Total	$ -	$ 3,060,444	$ 3,508,938	$ 3,726,309	$ 3,956,726	$ 4,200,953
	PMPM	$ 10,757	$ 11,593	$ 12,184	$ 12,805	$ 13,458	$ 14,145
	Mem-Mon		264	288	291	294	297
Total		$ -	$ 3,060,444	$ 3,508,938	$ 3,726,309	$ 3,956,726	$ 4,200,953
WoW Notes:							
1. Actual PMPM is based on SFY25 CO PACE program development.							
		Last Historic Year	DY6	DY7	DY8	DY9	DY10
WW		7/1/24 - 6/30/25	1/1/26 - 12/31/26	1/1/27 - 12/31/27	1/1/28 - 12/31/28	1/1/29 - 12/31/29	1/1/30 - 12/31/30
MEG: LTSS PE	Total	$ -	$ 3,060,444	$ 3,508,938	$ 3,726,309	$ 3,956,726	$ 4,200,953
	PMPM	$ 10,757	$ 11,593	$ 12,184	$ 12,805	$ 13,458	$ 14,145
	Mem-Mon	-	264	288	291	294	297
Total		$ -	$ 3,060,444	$ 3,508,938	$ 3,726,309	$ 3,956,726	$ 4,200,953
WoW Notes:							

1. Without waiver set equal to with waiver calculation							
Variance	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	

DEMONSTRATION YEARS		**Actual DY1**	**Actual DY2**	**Actual DY3**	***Projection* DY4**	***Projection* DY5**	**DY6**	**DY7**	**DY8**	**DY9**	**DY10**
DY Period Begin Date		1/1/2021	1/1/2022	1/1/2023	1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2028	1/1/2029	1/1/2030
DY Period End Date		12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030
WoW PER CAPITA (PMPM)							**RENEWAL PERIOD**				
		Actual DY1	**Actual DY2**	**Actual DY3**	***Projection* DY4**	***Projection* DY5**	**DY6**	**DY7**	**DY8**	**DY9**	**DY10**
MEG		**1/1/21 - 12/31/21**	**1/1/22 - 12/31/22**	**1/1/23 - 12/31/23**	**1/1/24 - 12/31/24**	**1/1/25 - 12/31/25**	**1/1/26 - 12/31/26**	**1/1/27 - 12/31/27**	**1/1/28 - 12/31/28**	**1/1/29 - 12/31/29**	**1/1/30 - 12/31/30**
MEG: Legacy		$ 2,421	$ 2,539	$ 2,664	$ 2,794	$ 2,931	$ 3,075	$ 3,225	$ 3,383	$ 3,549	$ 3,723
MEG: Adult Expansion		$ 2,199	$ 2,322	$ 2,452	$ 2,589	$ 2,734	$ 2,888	$ 3,049	$ 3,220	$ 3,400	$ 3,591
TREND FACTORS TABLE											
MEG		**Mem-Mon**	**PMPM**								
MEG: Legacy		2.0%	4.9%								
MEG: Adult Expansion		2.0%	5.6%								
							RENEWAL PERIOD				
		Actual DY1	**Actual DY2**	**Actual DY3**	***Projection* DY4**	***Projection* DY5**	**DY6**	**DY7**	**DY8**	**DY9**	**DY10**
WoW		**1/1/21 - 12/31/21**	**1/1/22 - 12/31/22**	**1/1/23 - 12/31/23**	**1/1/24 - 12/31/24**	**1/1/25 - 12/31/25**	**1/1/26 - 12/31/26**	**1/1/27 - 12/31/27**	**1/1/28 - 12/31/28**	**1/1/29 - 12/31/29**	**1/1/30 - 12/31/30**
MEG: Legacy	Total	$ 275,947	$ 281,851	$ 218,417	$ 3,243,997	$ 4,628,128	$ 4,953,296	$ 5,299,218	$ 5,670,531	$ 6,069,058	$ 6,493,026
	PMPM	$ 2,421	$ 2,539	$ 2,664	$ 2,794	$ 2,931	$ 3,075	$ 3,225	$ 3,383	$ 3,549	$ 3,723
	Mem-Mon	114	111	82	1,161	1,579	1,611	1,643	1,676	1,710	1,744
MEG: Adult Expansion	Total	$ 894,977	$ 947,417	$ 811,658	$ 4,070,631	$ 5,849,031	$ 6,300,744	$ 6,787,755	$ 7,312,772	$ 7,875,305	$ 8,481,500
	PMPM	$ 2,199	$ 2,322	$ 2,452	$ 2,589	$ 2,734	$ 2,888	$ 3,049	$ 3,220	$ 3,400	$ 3,591
	Mem-Mon	407	408	331	1,572	2,139	2,182	2,226	2,271	2,316	2,362
Total		**$ 1,170,924**	**$1,229,268**	**$1,030,075**	**$ 7,314,628**	**$10,477,159**	**$11,254,040**	**$12,086,973**	**$12,983,303**	**$13,944,363**	**$14,974,526**
WoW Notes:											
1. Actual PMPM is based on July 2022 submission for data rebase and correction.											

2. Mem-Mon sources from actual 1115 SUD-IMD monitoring spreadsheet |**MemMon Actual**| for DY1 through DY3. DY4 and DY5 are based on 1115 SUD-IMD monitoring spreadsheet |**MemMon Projected**|.											
3. Projected Member months and PMPM are based on DY5 values projected using trend factors in the Trend Factors table.											
							RENEWAL PERIOD				
		Actual DY1	**Actual DY2**	**Actual DY3**	***Projection* DY4**	***Projection* DY5**	**DY6**	**DY7**	**DY8**	**DY9**	**DY10**
WITH WAIVER		**1/1/21 - 12/31/21**	**1/1/22 - 12/31/22**	**1/1/23 - 12/31/23**	**1/1/24 - 12/31/24**	**1/1/25 - 12/31/25**	**1/1/26 - 12/31/26**	**1/1/27 - 12/31/27**	**1/1/28 - 12/31/28**	**1/1/29 - 12/31/29**	**1/1/30 - 12/31/30**
MEG: Legacy	Total	$ 295,758	$ 221,585	$ 141,669	$ 3,243,997	$ 4,628,128	$ 4,953,296	$ 5,299,218	$ 5,670,531	$ 6,069,058	$ 6,493,026
	PMPM	$ 2,594	$ 1,996	$ 1,728	$ 2,794	$ 2,931	$ 3,075	$ 3,225	$ 3,383	$ 3,549	$ 3,723
	Mem-Mon	114	111	82	1,161	1,579	1,611	1,643	1,676	1,710	1,744
MEG: Adult Expansion	Total	$ 901,687	$ 669,044	$ 566,176	$ 4,070,631	$ 5,849,031	$ 6,300,744	$ 6,787,755	$ 7,312,772	$ 7,875,305	$ 8,481,500
	PMPM	$ 2,215	$ 1,640	$ 1,711	$ 2,589	$ 2,734	$ 2,888	$ 3,049	$ 3,220	$ 3,400	$ 3,591
	Mem-Mon	407	408	331	1,572	2,139	2,182	2,226	2,271	2,316	2,362
Total		**$1,197,445**	**$ 890,629**	**$ 707,845**	**$ 7,314,628**	**$10,477,159**	**$11,254,040**	**$12,086,973**	**$12,983,303**	**$13,944,363**	**$14,974,526**
With Waiver Notes:											
1. Actual PMPM is based on expenditures reported in the 1115 SUD-IMD monitoring spreadsheet |**Schedule C**|.											
2. Mem-Mon sources from actual 1115 SUD-IMD monitoring spreadsheet |**MemMon Actual**| for DY1 through DY3. DY4 and DY5 are based on 1115 SUD-IMD monitoring spreadsheet |**MemMon Projected**|.											
3. Projected Member months and PMPM are based on DY5 values projected using trend factors in the Trend Factors table. The With Waiver is set equal to Without Waiver.											
Variance		**$ (26,521)**	**$ 338,639**	**$ 322,230**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
HYPOTHETICALS TEST 1 Cumulative Target Limit							**RENEWAL PERIOD**				
		Actual DY1	**Actual DY2**	**Actual DY3**	***Projection* DY4**	***Projection* DY5**	**DY6**	**DY7**	**DY8**	**DY9**	**DY10**
		1/1/21 - 12/31/21	**1/1/22 - 12/31/22**	**1/1/23 - 12/31/23**	**1/1/24 - 12/31/24**	**1/1/25 - 12/31/25**	**1/1/26 - 12/31/26**	**1/1/27 - 12/31/27**	**1/1/28 - 12/31/28**	**1/1/29 - 12/31/29**	**1/1/30 - 12/31/30**
Cumulative Target Percentage (CTP)		2.0%	1.5%	1.0%	0.5%	0.0%	2.0%	1.5%	1.0%	0.5%	0.0%
Cumulative Budget Neutrality Limit (CBNL)		$ 1,170,924	$2,400,192	$ 3,430,267	$10,744,895	$21,222,054	$32,476,094	$44,563,066	$57,546,370	$71,490,733	$86,465,258
Allowed Cumulative Variance (= CTP X CBNL)		$ 23,418	$ 36,003	$ 34,303	$ 53,724	$ -	$ 649,522	$ 668,446	$ 575,464	$ 357,454	$ -

Actual Cumulative Variance (Positive = Overspending)	$ 26,521	$ (312,118)	$ (634,348)	$ (634,348)	$ (634,348)	$ (634,348)	$ (634,348)	$ (634,348)	$ (634,348)	$ (634,348)

Without Waiver Projections

DEMONSTRATION WITHOUT WAIVER (WoW) BUDGET PROJECTION: COVERAGE COSTS FOR POPULATIONS								
ELIGIBILITY	**BASE YEAR**	**TREND**	**DEMONSTRATION YEARS (DY)**					**TOTAL**
GROUP	**DY5**	**RATE**	**DY6**	**DY7**	**DY8**	**DY9**	**DY10**	**WOW**
Hypo 1 - SUD-IMD Renewal								
Pop Type: MEG 1 - Legacy								
Eligible Member Months	1,579	2.0%	1,611	1,643	1,676	1,710	1,744	
PMPM Cost	$2,931.05	4.9%	$3,075	$3,225	$3,383	$3,549	$3,723	
Total Expenditure	$4,628,128		$4,953,296	$5,299,218	$5,670,531	$6,069,058	$6,493,026	$28,485,128
Hypo 1 - SUD-IMD Renewal								
Pop Type: MEG 2 - Expansion Adults								
Eligible Member Months	2,139	2.0%	2,182	2,226	2,271	2,316	2,362	
PMPM Cost	$ 2,734.47	5.6%	$2,888	$3,049	$3,220	$3,400	$3,591	
Total Expenditure	$5,849,031		$ 6,300,744	$ 6,787,755	$ 7,312,772	$ 7,875,305	$ 8,481,500	$ 36,758,076
ELIGIBILITY	**BASE YEAR**	**TREND**	**DEMONSTRATION YEARS (DY)**					**TOTAL**
GROUP	**SFY25**	**RATE**	**DY6**	**DY7**	**DY8**	**DY9**	**DY10**	**WOW**
Hypo 1 - LTSS Presumptive Eligibility (PE)								
Pop Type: MEG 3								
Eligible Member Months		1.0%	264	288	291	294	297	
PMPM Cost	$10,757.46	5.1%	$11,593	$12,184	$12,805	$13,458	$14,145	
Total Expenditure	$0		$3,060,444	$3,508,938	$3,726,309	$3,956,726	$4,200,953	$18,453,370
** Trend months between SFY25 and DY06 = 1.503 years*								

With Waiver Projections

DEMONSTRATION WITH WAIVER (WW) BUDGET PROJECTION: COVERAGE COSTS FOR POPULATIONS								
ELIGIBILITY		**TREND**	**DEMONSTRATION YEARS (DY)**					**TOTAL**
GROUP	**DY5**	**RATE**	**DY6**	**DY7**	**DY8**	**DY9**	**DY10**	**WW**
Hypo 1 - SUD-IMD Renewal								
Pop Type: MEG 1 - Legacy	Hypothetical							
Eligible Member Months		2.0%	1,611	1,643	1,676	1,710	1,744	
PMPM Cost		4.9%	$3,075	$3,225	$3,383	$3,549	$3,723	
Total Expenditure			$ 4,953,296	$ 5,299,218	$ 5,670,531	$ 6,069,058	$ 6,493,026	$ 28,485,128
Hypo 1 - SUD-IMD Renewal								
Pop Type: MEG 2 - Expansion Adults	Hypothetical							
Eligible Member Months		2.0%	2,182	2,226	2,271	2,316	2,362	
PMPM Cost		5.6%	$2,888	$3,049	$3,220	$3,400	$3,591	
Total Expenditure			$ 6,300,744	$ 6,787,755	$ 7,312,772	$ 7,875,305	$ 8,481,500	$ 36,758,076
ELIGIBILITY	**BASE YEAR**	**TREND**	**DEMONSTRATION YEARS (DY)**					**TOTAL**
GROUP	**SFY25**	**RATE**	**DY6**	**DY7**	**DY8**	**DY9**	**DY10**	**WW**
Hypo 1 - LTSS Presumptive Eligibility (PE)								
Pop Type: MEG 3	Hypothetical							
Eligible Member Months		1.0%	264	288	291	294	297	
PMPM Cost		5.1%	$11,593	$12,184	$12,805	$13,458	$14,145	
Total Expenditure			$ 3,060,444	$ 3,508,938	$ 3,726,309	$ 3,956,726	$ 4,200,953	$ 18,453,370
** Trend months between SFY25 and DY06 = 1.503 years*								

Budget Neutrality Summary						
HYPOTHETICALS ANALYSIS						
WoW Total Expenditures						
	DEMONSTRATION YEARS (DY)					**TOTAL**
	DY6	**DY7**	**DY8**	**DY9**	**DY10**	
Hypo 1 - SUD-IMD Renewal						
Pop Type: MEG 1 - Legacy	$ 4,953,296	$ 5,299,218	$ 5,670,531	$ 6,069,058	$ 6,493,026	$ 28,485,128

Pop Type: MEG 2 - Expansion Adults	$ 6,300,744	$ 6,787,755	$ 7,312,772	$ 7,875,305	$ 8,481,500	$ 36,758,076
Hypo 1 - LTSS PE						
Pop Type: MEG 3	$ 3,060,444	$ 3,508,938	$ 3,726,309	$ 3,956,726	$ 4,200,953	$ 18,453,370
TOTAL	$ 14,314,483	$ 15,595,911	$ 16,709,612	$ 17,901,089	$ 19,175,479	$ 83,696,574
WW Total Expenditures						
	DEMONSTRATION YEARS (DY)					**TOTAL**
	DY6	**DY7**	**DY8**	**DY9**	**DY10**	
Hypo 1 - SUD-IMD Renewal	$ 4,953,296	$ 5,299,218	$ 5,670,531	$ 6,069,058	$ 6,493,026	$ 28,485,128
Pop Type: MEG 1 - Legacy	$ 6,300,744	$ 6,787,755	$ 7,312,772	$ 7,875,305	$ 8,481,500	$ 36,758,076
Pop Type: MEG 2 - Expansion Adults						
Hypo 1 - LTSS PE						
Pop Type: MEG 3	$ 3,060,444	$ 3,508,938	$ 3,726,309	$ 3,956,726	$ 4,200,953	$ 18,453,370
TOTAL	$ 14,314,483	$ 15,595,911	$ 16,709,612	$ 17,901,089	$ 19,175,479	$ 83,696,574
HYPOTHETICALS VARIANCE	$ -	$ -	$ -	$ -	$ -	$ -

Appendix G

Summaries of Pending 1115 Amendments to be Incorporated into the Extension

Amendment Submitted April 1, 2024

HCPF is seeking an amendment to the Expanding the Substance Use Disorder (SUD) Continuum of Care Section 1115 Demonstration (Demonstration) to authorize:

1. Re-entry services for individuals transitioning from state-run correctional facilities
2. Reimbursement for acute inpatient and residential stays in IMD for individuals diagnosed with a SMI or SED
3. Continuous eligibility for children ages 0-3 and adults leaving a Colorado Department of Corrections (DOC) facility

Re-entry Initiative

In alignment with House Bill 24-1045 and Senate Bill 22-196, this amendment request would authorize Medicaid-funded re-entry services to incarcerated individuals across several settings, including state prisons and youth in correctional facilities. The 90-day re-entry services would include:

- Case management (care coordination) services that include physical and behavioral health clinical screenings and consultation services
- A 30-day supply of prescription medications and medication administration upon release
- Medication assisted treatment (MAT) for all FDA-approved medications (including counseling and long acting injectables)

HCPF is seeking to implement pre-release services for individuals transitioning from state-run facilities operated by the Colorado DOC and Division of Youth Services (DYS) facilities by July 1, 2025.

SMI Initiative

Currently, Colorado utilizes “in lieu of" authority under its managed care 1915(b) Waiver to pay for care in an IMD. This allows managed care entities (MCE) to provide IMD reimbursement for stays of up to 15 days in a calendar month. This authority provides sufficient coverage for most acute psychiatric inpatient stays. However, there remain IMD stays that exceed the 15-day limit due to issues such as patient acuity and additional time needed to ensure a safe and appropriate transition to community-based services.

Currently, the State utilizes “in lieu of” authority through its managed care contracts with MCEs to provide IMD reimbursement for stays of up to 15 days in a calendar month. This authority provides sufficient coverage for most acute psychiatric inpatient stays. However, there remain IMD stays that exceed the 15-day limit due to issues such as patient acuity and additional time needed to ensure a safe and appropriate transition to community-based services. In these cases, the State is not able to cover any portion of the stay. This amendment incorporates feedback from stakeholders that requests HCPF seeks authority to reimburse for stays up to 60 days while maintaining an average length of stay of 30 days. This will permit the State to modify its current practice through which a prorated capitation payment is made to the MCE for the days within the month that the enrollee was not in an IMD and the MCE’s subsequent payment recoupment from the IMD for the entire stay.

HCPF is requesting an effective date of July 1, 2025, for the IMD component of this amendment.

Continuous Eligibility Initiative

Colorado House Bill 23-1300 (HB23-1300) authorizes HCPF to seek federal authority to provide continuous Health First Colorado and Child Health Plan Plus (CHP+) coverage for children up to age three and for 12 months for adults who have been released from a Colorado DOC facility, regardless of any change in income during that time. Through this Demonstration amendment, Colorado aims to improve the health and well-being of enrollees through consistent access to health care coverage during critical periods in life. Providing continuous coverage can decrease gaps in insurance coverage, and enhance the continuity of care and delivery of physical and behavioral health services during early childhood and when adults experience the difficult transition of leaving the criminal justice system.

HCPF is seeking to implement the continuous eligibility component of this amendment by January 1, 2026.

Amendment Objectives and Goals

Re-entry Initiative

This Demonstration amendment will allow for the continuity of medical assistance services for individuals leaving the DOC and DYS facilities. Consistent with the CMS goals as outlined in the April 17, 2023, State Medicaid Director (SMD) letter, the State's specific goals for the Re-entry Initiative are to:

1. **Increase coverage, continuity of coverage, and appropriate service uptake** through assessment of eligibility and availability of coverage for benefits in carceral settings just prior to release.
2. **Improve access to services** prior to release and improve transitions and continuity of care into the community upon release and during re-entry.
3. **Improve coordination and communication** between correctional systems, Medicaid systems, administrative services organizations, and community-based providers.
4. **Increase additional investments in health care and related services**, aimed at improving the quality of care for beneficiaries in carceral settings and in the community to maximize successful re-entry post-release.
5. **Improve connections between carceral settings and community services** upon release to address physical health, behavioral health, and HRSN.
6. **Reduce all-cause deaths** in the near-term post-release.
7. **Reduce the number of ED visits and inpatient hospitalizations** among recently incarcerated Medicaid beneficiaries through increased receipt of preventive and routine physical and behavioral health care.

The State intends to implement the Demonstration statewide on or after July 1, 2025. The State requests to operate the Demonstration through the end of the current SUD Demonstration approval period, which is December 31, 2025.This amendment request provides a detailed overview of coverage and service provisions, as well as Re-entry initiative objectives, financing, implementation, and monitoring/evaluation.

Severe Mental Illness Initiative

The State's goals for reimbursement of short term stays in IMDs are aligned with those of CMS for this Demonstration opportunity including:

- Reduced utilization and lengths of stay in EDs among Medicaid beneficiaries with SMI or SED while awaiting mental health treatment in specialized settings

- Reduced preventable readmissions to acute care hospitals and residential settings
- Improved availability of crisis stabilization services including services made available through call centers and mobile crisis units, intensive outpatient services, as well as services provided during acute short-term stays in residential crisis stabilization programs, psychiatric hospitals, and residential treatment settings throughout the state
- Improved access to community-based services to address the chronic mental health care needs of beneficiaries with SMI or SED including through increased integration of primary and behavioral health care
- Improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities

Continuous Eligibility Initiative

This Demonstration amendment will end churn among Medicaid and CHP+ enrolled children through age three, enabling families and providers to better address their primary and preventive health care needs. This request seeks to:

- Ensure continuous Medicaid and CHP+ coverage for young children;
- Promote longer-term access to and continuity of physical health care, behavioral health care, dental care, and preventive services;
- Combat racial inequities; and
- Improve health outcomes and well-being for low income young children.

This request will also ensure that coverage disruptions do not prevent adults leaving incarceration in Colorado DOC facilities from receiving ongoing treatment for physical or behavioral health needs during a critical time. This is anticipated to improve SUD and mental health treatment, reduce recidivism rates, and reduce costly hospitalizations and unnecessary ED visits. This request seeks to:

- Ensure 12 months of continuous Medicaid coverage for adults leaving a DOC facility
- Promote longer-term access to and continuity of physical and behavioral health care and care coordination
- Combat racial inequities
- Improve short and long-term physical and behavioral health outcomes and reduce recidivism for adults leaving a Colorado DOC facility

Health Care Delivery

Health First Colorado is a Medicaid program that provides access to physical and behavioral health care, hospitalization, nursing facility care, prescription drugs, dental care and other benefits for qualifying adults and children. Physical health services are paid for through the traditional FFS structure through HCPF. While behavioral health and care coordination services are capitated and provided by RAEs through contracts with HCPF. The RAEs have data sharing agreements with the DOC to better support members as they transition to community.

Since 2011, the ACC has served as the core vehicle for delivering and managing member care for Health First Colorado. All full-benefit Health First Colorado members are enrolled in the ACC except for members enrolled in the Program for All Inclusive Care for the Elderly. The ACC integrates managed FFS physical health care and managed care for behavioral health. The ACC's

regional model allows it to be responsive to unique community needs. Key components of the ACC include care coordination and member support.

The health care delivery system is not anticipated to change under this amendment.

Eligibility

Re-entry Initiative

Suspension of Coverage. As noted above, in the prison system, there is a manual process for moving eligibility from a full Medicaid benefit package to a limited inpatient benefit package. However, in the youth detention facilities, there is no formal process. The State is interested in automating the "suspend" functionality for Medicaid members in DOC. In addition, DOC staff will need to increase their timeframe for review of documents to ensure all eligible members are actively enrolled in Medicaid to access 90-day pre-release benefits. DYS staff will need to implement practices to identify Medicaid-eligible youth to ensure access to 90-day pre-release services status with the additional component of notifying the individual of status.

As is required for JI 1115 Demonstrations, HCPF will work to maintain and enhance eligibility processes to ensure individuals who were enrolled in Medicaid at the time they entered the correctional system can have their coverage quickly and easily reinstated as part of pre-release planning, and ensure that for those who were not enrolled in Medicaid when entering the correctional system, the State will improve its eligibility process for Medicaid coverage applicable to all individuals leaving a prison or jail setting, ensuring that individuals receive assistance with completing and submitting an application for Medicaid, unless the individual declines such assistance or wants to decline enrollment.

If an individual who is incarcerated would be eligible for CHIP if not for their incarceration status, and qualify to receive pre-release services, then pre-release services will be covered under this amendment.

Re-entry Demonstration Initiative populations are defined as persons who are enrolled in Medicaid or who would be eligible for CHIP except for their incarceration status, or who are incarcerated in a State prison or juvenile facility who meet the eligibility criteria below. Like Washington, no specific health condition is required for demonstration eligibility. To receive services under the Re-entry Demonstration, a beneficiary will meet the following qualifying criteria:

1. Meet the definition of an inmate of a public institution, as specified in 42 CFR 435.1010, and be incarcerated in a State prison or juvenile facility.
2. Be enrolled in Medicaid or otherwise eligible for CHIP if not for their incarceration status.
3. Identified as expected to be released in the next 90 days and identified for participation in the Demonstration.

Severe Mental Illness Initiative

All enrollees eligible for a mandatory or optional eligibility group approved for full Medicaid coverage would be eligible for stays in an IMD under the Demonstration. Only the eligibility groups outlined in Table 20 below will not be eligible for stays in an IMD as they receive limited Medicaid benefits only.

Table 20. Eligibility Groups Excluded from the Demonstration

Eligibility Group	Social Security Act and CFR Citations
Limited Services Available to Certain Aliens	42 CFR §435.139

Eligibility Group	Social Security Act and CFR Citations
Qualified Medicare Beneficiaries	1902(a)(10)(E)(i) 1905(p)
Specified Low Income Medicare Beneficiaries	1902(a)(10)(E)(iii)
Qualified Individual Program	1902(a)(10)(E)(iv)
Qualified Disabled Working Individual Program	1902(a)(10)(E)(ii) 1905(s)
Presumptively Eligible Pregnant Women	1920 42 CFR §435.1103

The proposed continuous eligibility policy will apply to Health First Colorado enrolled children with incomes up to 215% of the FPL, CHP+ children with incomes up to 260% FPL, and children who would be eligible for medical assistance coverage but are not because of their immigration status. Once enrolled in Medicaid or CHP+, these children will remain continuously enrolled during their first three years of life without regard to family income. Additionally, Medicaid-eligible adults leaving a Colorado DOC facility will remain continuously eligible for Medicaid without regard to income for a period of 12 months beginning on the date of release.

HCPF will continue disenrollment of individuals who move out of state, request voluntary disenrollment, had initial eligibility erroneously determined, or die. The Demonstration will have no enrollment limits and no other eligibility modifications are proposed under this amendment.

Benefits

Through this amendment, HCPF proposes to provide the following services to incarcerated individuals during the 90 days prior to their release date:

- Case management (care coordination) services that include physical and behavioral health clinical screenings and consultation services
- A 30-day supply of prescription medications and medication administration post release
- MAT for all FDA-approved medications (including counseling and long acting injectables)

Additionally, HCPF proposes to reimburse the first 15-days of acute psychiatric care stays in an IMD that exceed the current 15-day limit under “in lieu of service” authority.

The continuous eligibility provisions will not affect benefits under the demonstration.

Cost Sharing

There are no proposed changes to cost sharing under this amendment.

Delivery System

No changes to Colorado’s delivery system are proposed under this amendment. Benefits will continue to be managed by the state’s MCEs.

Demonstration Hypotheses and Measures

Re-entry Initiative

With the help of the independent evaluator, the State will amend the approved SUD evaluation plan for evaluating the hypotheses indicated below. The State will calculate and report all

performance measures under the Demonstration. The State will submit the updated SUD evaluation plan to CMS for approval.

The State will conduct ongoing monitoring of this Demonstration related to the five Re-entry milestones as required in CMS guidance and will provide information regarding monitoring activities in the required quarterly and annual monitoring reports.

By providing Medicaid coverage prior to an individual's release from incarceration, the State will be able to bridge relationships between community-based Medicaid providers and JI populations prior to release, thereby improving the likelihood that individuals with a history of behavioral health conditions and/or chronic diseases will receive stable and continuous care. The following hypotheses and goals will be tested during the approval period.

Hypotheses: The full 90-day timeline will enable the State to support pre-release identification, stabilization, and management of certain serious physical and behavioral health conditions that may respond to ambulatory care and treatment (e.g., diabetes, heart failure, hypertension, schizophrenia, SUDs) which could reduce post-release acute care utilization.

By allowing early interventions to occur in the full 90-day period immediately prior to expected release, such as for certain behavioral health conditions, including stabilizing medications like long-acting injectable antipsychotics and medications for addiction treatment for SUDs, the State expects that it will be able to reduce decompensation, suicide-related deaths, overdoses, and overdose-related deaths in the near-term post-release.

Questions: The State will test, and comprehensively evaluate through robust hypothesis testing, the effectiveness of the extended full 90-day coverage period before the beneficiary's expected date of release on achieving the articulated goals of the initiative:

1) Increase coverage, continuity of coverage, and appropriate service uptake through assessment of eligibility and availability of coverage for benefits in carceral settings just prior to release.

2) Improve access to services prior to release and improve transitions and continuity of care into the community upon release and during re-entry.

3) Improve coordination and communication between correctional systems, Medicaid systems, administrative services organizations, and community-based providers.

4) Increase additional investments in health care and related services, aimed at improving the quality of care for beneficiaries in carceral settings and in the community to maximize successful re-entry post-release.

5) Improve connections between carceral settings and community services upon release to address physical and behavioral health, and HRSN.

6) Reduce all-cause deaths in the near-term post-release.

7) Reduce the number of ED visits and inpatient hospitalizations among recently released Medicaid beneficiaries through increased receipt of preventive and routine physical and behavioral health care.

Data Source: Claims/encounter data.

Evaluation Design: Independent evaluator will design quantitative and qualitative measures to include quasi-experimental comparisons and interrupted time series analysis.

Severe Mental Illness Initiative

The State's Independent Evaluator will work with CMS to amend the Demonstration evaluation design. Below are proposed hypotheses for this initiative. The specific evaluation methodology will be submitted with the updated Evaluation Design upon approval of the amendment.

Hypothesis	Evaluation Questions	Evaluation Parameters/Methodology
Goal 1: Reduced utilization and lengths of stay in EDs among Medicaid beneficiaries with SMI or SED while awaiting mental health treatment in specialized settings.		
The demonstration will result in reductions in utilization and length of stays in EDs among Medicaid beneficiaries with SMI or SED while awaiting mental health treatment.	Does the demonstration result in reductions in utilization and lengths of stay in EDs among Medicaid beneficiaries with SMI/SED while awaiting mental health treatment in specialized settings? How does the demonstration effect utilization reduction and lengths of stay in EDs among Medicaid beneficiaries with SMI/SED by geographic area or beneficiary characteristics? How do demonstration activities contribute to reductions in utilization and lengths of stays in EDs among Medicaid beneficiaries with SMI/SED while awaiting mental health treatment in specialized settings?	Data Sources: • Claims data • Medical or administrative records • Interviews or focus groups Analytic Approach: • Difference-in- differences model • Subgroup analyses • Qualitative analysis
Goal 2: Reduced preventable readmissions to acute care hospitals and residential settings.		
The demonstration will result in reductions in preventable readmissions to acute care hospitals and residential settings.	Does the demonstration result in reductions in preventable readmissions to acute care hospitals and residential settings (including short-term inpatient and residential admissions to both IMDs and non-IMD acute care hospitals, critical access hospitals, and residential settings)? How does the demonstration effect preventable readmissions to acute care hospitals and residential settings by geographic area or beneficiary characteristics? How do demonstration activities contribute to reductions in preventable readmissions to acute care hospitals and residential settings? Does the demonstration result in increased screening and intervention for comorbid SUD and physical health conditions during acute care psychiatric hospital and residential setting stays and increased treatment for such conditions after discharge?	Data Sources: • Claims data • Interviews or focus groups • Medical records • Beneficiary survey Analytic Approach: • Difference-in- differences models • Qualitative analysis • Descriptive quantitative analysis

Hypothesis	Evaluation Questions	Evaluation Parameters/Methodology
Goal 3: Improved availability of crisis stabilization services, including services made available through call centers and mobile crisis units, intensive outpatient services, as well as services provided during acute short-term stays in residential crisis stabilization programs, psychiatric hospitals, and residential treatment settings throughout the State.		
The demonstration will result in improved availability of crisis stabilization services throughout the State.	To what extent does the demonstration result in improved availability of crisis outreach and response services (including crisis call centers, mobile crisis units, crisis observation/assessment centers, and coordinated community crisis response teams) throughout the State? To what extent does the demonstration result in improved availability of intensive outpatient services and partial hospitalization? To what extent does the demonstration improve the availability of crisis stabilization services provided during acute short-term stays in each of the following: public and private psychiatric hospitals, residential treatment facilities, general hospital psychiatric units, and community-based settings?	Data Sources: • Annual assessments of availability of mental health services • AHRF data • NMHSS survey • Administrative data • Provider survey Analytic Approach: • Descriptive quantitative analysis
Goal 4: Improved access to community-based services to address the chronic mental health care needs of beneficiaries with SMI or SED including through increased integration of primary and BH care.		
Access of beneficiaries with SMI/SED to community-based services to address their chronic mental health care needs will improve under the demonstration, including through increased integration of primary and BH care.	Does the demonstration result in improved access of beneficiaries with SMI/SED to community-based services to address their chronic mental health needs? To what extent does the demonstration result in improved availability of specific types of community-based services needed to comprehensively address the chronic needs of beneficiaries with SMI/SED? To what extent does the demonstration result in improved access of SMI/SED beneficiaries to specific types of community-based services that they need? How does the demonstration effect access to community-based services by geographic area or beneficiary characteristics? Does the integration of primary and BH care to address the chronic mental health care needs of	Data Sources: • Claims data • Annual assessments of availability of mental health services • AHRF • NMHSS survey • Administrative data • Uniform Reporting System • Child and Adult Core Set • Medical records Analytic Approach: • Descriptive quantitative analysis • Chi-squared analysis • Difference-in- differences model

Hypothesis	Evaluation Questions	Evaluation Parameters/Methodology
	beneficiaries with SMI/SED increase under the demonstration?	
Goal 5: Improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities.		
The demonstration will result in improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities.	Does the demonstration result in improved care coordination for beneficiaries with SMI/SED? Does the demonstration result in improved continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities? Does the demonstration result in improved discharge planning and outcomes regarding housing for beneficiaries who are transitioning out of acute psychiatric care in hospitals and residential treatment facilities? How do demonstration activities contribute to improved continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities?	Data Sources: • Claims data • Child and Adult Core Set • Inpatient Psychiatric Facility Quality Reporting program • Medical records • Interviews or focus groups • Facility records Analytic Approach: • Difference-in- differences model • Descriptive quantitative analysis • Qualitative analysis

In addition to the independent evaluation, HCPF will provide quarterly and annual reporting specific to this amendment and in accordance with a CMS-approved Monitoring Protocol to be submitted following approval.

Continuous Eligibility Initiative

The State's Independent Evaluator will work with CMS to amend the Demonstration evaluation design. Below are proposed hypotheses for this initiative. The specific evaluation methodology will be submitted with the updated Evaluation Design upon approval of the amendment.

Population: Children zero to age three continuously enrolled in Medicaid and CHP+

Hypothesis	Evaluation Questions	Evaluation Parameters/Methodology
Goal 1: Ensure continuous Medicaid and CHP+ coverage for young children		
Continuous coverage will reduce churn and gaps in coverage for young children enrolled in Medicaid	Does continuous enrollment reduce gaps in coverage?	Examine Medicaid and CHP+ enrollment data by age to determine changes in insured rates and gaps in coverage over time.
Goal 2: Promote longer-term access to and continuity of physical health, BH, dental care, and preventive services.		
Continuous coverage will increase preventive care utilization, primary care utilization, and dental care visits.	Does continuous coverage improve utilization of preventive care and well child visits?	Analyze administrative claims data to determine changes in preventive care, well child visits, primary care visits.

Hypothesis	Evaluation Questions	Evaluation Parameters/Methodology
Goal 3: Combat racial inequities.		
Continuous coverage will reduce churn and gaps in coverage for young children enrolled in Medicaid, including for racial and ethnic groups that experience disproportionately high rates of churn.	Does continuous enrollment reduce gaps in coverage for all racial and ethnic groups?	Examine Medicaid and CHP+ enrollment data by race and ethnicity to determine gaps in coverage over time.
Goal 4: Improve health outcomes and well-being for low income young children.		
Coverage with fewer gaps in coverage for young children will result in improved health outcomes and well-being.	Does continuous coverage improve health outcomes and well-being?	Measures will be selected from the list of measures that HCPF is calculating as part of the development of its quality metrics program.

Population: Medicaid enrolled adults leaving a correctional facility

Hypothesis	Evaluation Questions	Evaluation Parameters/Methodology
Goal 1: Ensure 12 months of continuous Medicaid coverage for adults leaving a DOC facility.		
Continuous coverage will reduce gaps in coverage for adults leaving a correctional facility.	Does 12 months of continuous enrollment reduce gaps in coverage?	Examine Medicaid enrollment data by age to determine changes in insured rates and gaps in coverage over time.
Goal 2: Promote longer-term access to and continuity of physical and BH care and care coordination.		
Continuous coverage will increase preventive, primary care, and BH engagement.	Does continuous coverage increase primary care and preventive service utilization and BH service utilization?	Measures will be selected from the list of measures the HCPF is calculating as part of the development of a Providers of Distinction quality metrics program.
Goal 3: Combat racial inequities.		
Continuous coverage will reduce churn and gaps in coverage for adults leaving correctional facilities and enrolled in Medicaid, including for racial and ethnic groups.	Does continuous coverage reduce gaps in coverage for all racial and ethnic groups?	Examine Medicaid enrollment data by race and ethnicity to determine gaps in coverage over time.
Goal 4: Improve short and long-term physical and BH outcomes and reduce recidivism for adults leaving a State DOC facility.		
Continuous coverage will reduce ED visits, hospitalizations, and crisis services.	Does continuous coverage reduce ED visits, hospitalizations, and crisis services?	Analyze administrative claims data to determine changes in preventive care, ED utilization, hospitalizations, crisis service utilization.

Proposed Federal Demonstration Authorities

Re-entry Initiative

The State seeks the following waiver authority as necessary under the Demonstration to receive a federal match on costs not otherwise matchable for services rendered to individuals who are incarcerated 90 days prior to their release. The State also requests the following proposed waivers authority to operate the Demonstration.

Waiver Authority	Reason and use of Waiver Authority will enable the State to:
Statewide Section 1902(a)(1) 42 CFR 431.50	To enable the State to provide pre-release services, as authorized under this Demonstration, to qualifying beneficiaries on a geographically limited basis according to the statewide implementation phase-in plan, in accordance with the Re-entry Demonstration Initiative implementation plan.
Amount, Duration, and Scope of Services and Comparability Section 1902(a)(10)(B) and 1902(a)(17)	To enable the State to provide only a limited set of pre-release services, as specified in these STCs, to qualifying beneficiaries that are different than the services available to all other beneficiaries outside of carceral settings in the same eligibility groups authorized under the State Plan or the Demonstration.
Freedom of Choice Section 1902(a)(23)(A) 42 CFR 431.51	To enable the State to require qualifying beneficiaries to receive pre-release services, as authorized under this Demonstration, through only certain providers.
Requirements for Providers under the Medicaid State Plan Section 1902(a)(27) and 1902(a)(78)	To enable the State to not require carceral providers to enroll in State Medicaid, in order to provide, order, refer, or prescribe pre-release services as authorized under this Demonstration.
Title XXI Requirements Not Applicable to the Title XXI Expenditure Authority Above Requirements for Providers Under the State Plan Section 2107(e)(1)(D)	To enable the State to not require carceral providers to enroll in State CHIP, in order to provide, order, refer, or prescribe pre-release services as authorized under this Demonstration.

Expenditure Authority

The State requests expenditure authority to provide Medicaid benefits to Demonstration eligible individuals.

Title XIX Expenditure Authority	Expenditures
Expenditures Related to Pre-Release Services	Expenditures for pre-release services, as described in these STCs, are provided to qualifying Medicaid beneficiaries and beneficiaries who would be eligible for Medicaid if not for their incarceration status for up to 90 days immediately prior to the expected date of release from a participating State prison or juvenile facility.
Expenditures for Allowable Administrative Costs to Support the Implementation of Pre-Release Services	Expenditures for allowable administrative costs to support the implementation of pre-release services as outlined in the April 17, 2023, SMD letter #23-003 relating to administrative information technology and transitional, non-service expenditures, including administrative costs under an approved cost allocation plan.

Title XXI Expenditure Authority	Expenditures
Expenditures Related to Pre-Release Services	Expenditures for pre-release services, as described in the STCs, are provided to qualifying Demonstration beneficiaries who would be eligible for CHIP if not for their incarceration status, for up to 90 days immediately prior to the expected date of release from a participating State prison or juvenile facility.

Severe Mental Illness Initiative

The State requests expenditure authority to provide Medicaid benefits to Demonstration eligible individuals.

Title XIX Expenditure Authority	Expenditures
Expenditures Related to IMD services	Expenditures for otherwise covered Medicaid services furnished to otherwise eligible individuals, who are primarily receiving treatment for an SMI/SED who are short-term residents in facilities that meet the definition of an IMD.

Continuous Eligibility Initiative

Waiver Authority	Reason and use of Waiver Authority will enable the State to:
Section 1902(a) to the extent it incorporates 42 CFR 435.916 42 CFR 457.343 Waive redetermination of eligibility regardless of changes in circumstances for children age zero until age three.	To enable the State to waive the annual redetermination requirements, including required procedures for reporting and acting on changes that would completely disenroll a children aged zero until age three from Medicaid and CHP+ (other than a change in residence to out of state, voluntary disenrollment, erroneously granted enrollment). The State will act on annual reported family income changes to re-assign children between Medicaid and CHP+ appropriately. Continuous enrollment for children at the time of application through the end of the month that their third birthday falls.
Section 1902(a) to the extent it incorporates 42 CFR 435.916 Waive redetermination of eligibility regardless of changes in circumstances for 12 months prior the release from correctional facilities for adults age 19 and over.	To enable the State to waive the annual redetermination requirements, including required procedures for reporting and acting on changes to would completely disenroll an adult. 12 Month Continuous Eligibility for adults leaving incarceration age 19 and over.

Title XIX Expenditure Authority	Expenditures
Continuous enrollment for children at the time of application through	Expenditures for continuous enrollment for Medicaid and CHIP children: authority to receive FFP for the continuous enrollment of Medicaid and CHIP

Title XIX Expenditure Authority	Expenditures
the end of the month their third birthday falls.	children, even if a child's family income exceeds eligibility limits. The State will act on annual reported family income changes to re-assign children between CHP+ and Medicaid appropriately.
12 Month continuous enrollment for adults leaving incarceration age 19 and over.	Expenditures for 12 months of continuous enrollment for adults leaving incarceration age 19 and over.

Estimated Impact of the Demonstration

The table below estimates the projected annual enrollment of beneficiaries (without and with the waiver) for each DY.

Estimated Projections of Annual Enrollment

Member Months under the Amendment*	DY5	DY6	DY7	DY8	DY9	5-year total
Total projected member months without the Amendment	0	0	0	0	0	
Total projected member months under the Amendment	8,208	568,240	582,531	588,356	594,240	2,341,575

*Using a 1% caseload growth rate; SMI/SED and Re-Entry Initiative effective July 1, 2025 (six-months of [DY5]); Continuous eligibility effective January 1, 2026 (DY6)

The table below estimates the projected annual expenditures (without and with the waiver) for each DY.

Estimated Projections of Annual Expenditures

Projected Services Costs under Amendment*	DY5	DY6	DY7	DY8	DY9	5-year total
Total projected costs without Amendment	0	0	0	0	0	0
Total projected costs under Amendment	$129,581,634	$290,878,023	$274,509,519	$211,782,255	$224,808,729	$1,131,560,160

*Using a 5.1% trend rate; SMI/SED and Re-Entry Initiative effective July 1, 2025 (six-months of (DY5)); Continuous eligibility effective January 1, 2026 (DY6)

Amendment Submitted on August 12, 2024

Colorado is requesting an amendment to the Demonstration to authorize Health Related Social Needs (HRSN) Services for certain Medicaid enrollees.

The proposed HRSN services are housing and nutrition supports. The State intends to help address unmet needs related to a lack of adequate housing and nutrition support in three target

populations. The lack of adequate housing and nutrition support contributes to poor health for individuals that are: 1) homeless or at risk of homelessness, 2) transitioning from residing in nursing facilities, or 3) transitioning out of foster care.

Amendment Objectives and Goals

Under Section 1115 of the Social Security Act, states may implement "experimental, pilot or Demonstration projects which, in the judgment of the Secretary [of Health and Human Services] are likely to assist in promoting the objectives of [Medicaid]." The State believes this Demonstration is likely to promote the objectives of Medicaid by providing services that address HRSN thereby leading to improved health outcomes.

HCPF is seeking to provide HRSN services beginning July 1, 2025. Consistent with the CMS policies as outlined in the November 16, 2023, Center for Medicaid and the Children's Health Insurance Program (CMCS) Information Bulletin, and in the CMS All States presentation on December 12, 2022, Colorado's specific goals for the HRSN Demonstration are to:

1. **Improve the health status of Medicaid beneficiaries** by removing social barriers to health by:
    a. Addressing unmet HRSN within the Medicaid-eligible population will improve health outcomes.
    b. Addressing unmet HRSN within the Medicaid-eligible population will reduce the total cost of care.
    c. HRSN services will result in a reduction of readmissions within 30 days, to EDs and hospitals.
2. **Improve connections between Medicaid beneficiaries and community services** to address physical health, behavioral health, and HRSN.
    d. HRSN services (improvements in housing stability and nutrition) will result in an increase in recommended and/or preventive care.

HCPF is seeking to provide HRSN services beginning July 1, 2025.

Health Care Delivery

Health First Colorado is a Medicaid program that provides access to physical and behavioral health care, hospitalization, nursing facility care, prescription drugs, dental care and other benefits for qualifying adults and children. Physical health services are paid for through the traditional FFS structure through HCPF. While behavioral health and care coordination services are capitated and provided by RAEs through contracts with HCPF. The RAEs have data sharing agreements with the DOC to better support members as they transition to the community.

Since 2011, the ACC has served as the core vehicle for delivering and managing member care for Health First Colorado. All full-benefit Health First Colorado members are enrolled in the ACC except for members enrolled in the Program for All Inclusive Care for the Elderly. The ACC integrates managed FFS physical health care and managed care for behavioral health. The ACC's regional model allows it to be responsive to unique community needs. Key components of the ACC include care coordination and member support.

The health care delivery system is not anticipated to change under this amendment.

Eligibility

The proposed amendment does not alter Medicaid eligibility.

To qualify for HRSN services under this waiver, a beneficiary must meet the requirements for one of the following three categories for some or all of the expected HRSN Services:

- Individuals eligible for Permanent Supportive Housing (PSH) vouchers experiencing a behavioral health need and/or chronic health condition.
- Individuals eligible for Colorado Fostering Success (CFS) vouchers.
- Individuals eligible for Community Access Team (CAT) vouchers.
- Individuals Eligible for Permanent Supportive Housing Vouchers

An individual must:

- Be 18 years of age or older.
- Have a disabling condition.
- Have a history of homelessness or be at risk of homelessness.
- Must be at or below 30% of the area median income.

For purposes of this Demonstration, the PSH population is further divided into three distinct eligibility groups based on the individual's status vis-à-vis a PSH voucher:

- Individuals matched to a PSH voucher within the past 12 months ("PSHa population").
- Individuals eligible for PSH but not yet matched to a voucher ("PSHb population").
- Individuals residing in PSH for more than one year ("PSHc population").

HCPF anticipates 11,000 individuals eligible for services under this category in the first year of operation.

Individuals eligible for Colorado Fostering Success Vouchers

Young adults ages 18 through 26 who left foster care on or after their 18 birthday, transitioning out of the foster care system:

- Be at least eighteen years of age or older but less than twenty-six years of age.
- Have prior foster care or kinship care involvement in at least one of the following ways:
    - Have been in foster care on or after the youth's fourteenth birthday.
    - Have been in noncertified kinship care on or after the youth's fourteenth birthday and have been adjudicated dependent and neglected.
    - Have turned eighteen years of age when the youth was a named child or youth in a dependency and neglect case.
- Reside in Colorado.
- Have an income level at or below 50% of the area median income based on the county where the young adult resides.

HCPF proposes to cap the number of individuals eligible for this category to 100 annually.

Individuals Eligible for CAT Vouchers

An individual must:

- Be 18 years of age or older.
- Be at or below 30% of the area median income.
- Meet the Housing and Urban Development (HUD) definition of a disability.
- Receive HCBS Medicaid services or State Plan services or are eligible for such services.

The goal of CATV is to move persons with disabilities out of nursing homes and other long-term care and into the community, and to prevent people with disabilities from being placed in an institution due to a lack of housing they can afford.

HCPF anticipates that 300 individuals in this category will be eligible for services in the first year of operation.

Benefits

Housing Services

HCPF proposes to provide the following housing supports through this Waiver amendment:

- Rent/temporary housing for up to six months
- Utility costs including activation expenses and back payments to secure utilities for individuals receiving rent/temporary housing as described above
- Pre-tenancy and tenancy sustaining services, including tenant rights education and eviction prevention
- Housing transition navigation services
- One-time transition and moving costs (e.g., security deposit, first month's rent, utility activation fees, movers, relocation expenses, pest eradication, pantry stocking, and the purchase of household goods and furniture)
- Housing deposits to secure housing, including application and inspection fees and fees to secure needed identification

Nutrition Services

Through this amendment, HCPF proposes to provide the following nutrition services:

- Nutrition counseling and instruction, tailored to health risk, nutrition-sensitive health conditions, and/or demonstrated outcome improvement
- Medically tailored meals to high-risk expectant individuals at risk of or diagnosed with diabetes up to three meals a day delivered in the home or private residence, for up to six months
- Home delivered meals or pantry stocking

Not all target populations will qualify for all of the services available under this Demonstration. HCPF is proposing to limit service availability based on the individual characteristics of each target population. Please see the two tables below for details of the populations eligible for each service.

Please see the Tables below for a complete list of Housing and Nutrition services by eligibility group.

Table 21. Proposed Eligibility by Housing Service

Housing Service	Population
Rent/temporary housing for up to six months including utility costs that are a part of the housing.	PSHa, CFS, and CAT
Pre-tenancy and housing transition navigation services.	PSHa, PSHb, and CFS
One-time transition and moving costs (e.g., security deposit, first month's rent, utility activation fees, movers, relocation expenses, pest eradication, pantry stocking, and the purchase of household goods and furniture). This also includes housing deposits to secure housing, including application and inspection fees and fees to secure needed identification.	PSHa and CFS

Tenancy sustaining services, including tenant rights education and eviction prevention.	PSHc and CAT

Table 22. Proposed Populations by Nutrition Service

Nutrition Service	Population
Nutrition counseling and instruction, tailored to health risk, nutrition-sensitive health conditions, and/or demonstrated outcome improvement including, for example, guidance on selecting healthy food and meal preparation for up to six months.	PSHa, PSHc, CFS, and CAT
Medically tailored meals to high-risk expectant individuals at risk of or diagnosed with diabetes up to three meals a day delivered in the home or private residence, for up to six months.	PSHa, PSHc, and CFS
Home delivered meals or pantry stocking.	PSHa, CFS, and CAT

Cost Sharing

There are no proposed changes to cost sharing under this amendment.

Delivery System

No changes to Colorado's delivery system are proposed under this amendment. The State will deliver HRSN benefits through a mix of FFS and managed care systems to align with the population mix outlined. Although physical health claims are paid for through HCPF's Medicaid MMIS, the MCEs coordinate member care and pay for behavioral health services. HCPF anticipates that MCEs will be key partners in identifying members potentially eligible for HRSN services and organizing necessary screenings to make such determinations.

Demonstration Hypotheses and Measures

The following goals and associated hypotheses will be tested during the approval period:

1. **Improve the health status of Medicaid beneficiaries** by removing social barriers to health by:
    a. Addressing unmet HRSN within the Medicaid-eligible population will improve health outcomes.
    b. Addressing unmet HRSN within the Medicaid-eligible population will reduce the cost of care.
    c. HRSN services will result in a reduction in avoidable hospitalizations (e.g., lower avoidable ED visits).
2. **Improve connections between Medicaid beneficiaries and community services** to address physical health, behavioral health, and HRSN.
    d. HRSN services (improvements in housing stability and nutrition) will result in an increase in recommended and/or preventive care.

Table 23. Demonstration Goals, Hypotheses, and Data Sources

Goal	Research Hypothesis	Plan to Test Hypothesis	Data Sources	Evaluation Design
Improve the health status of Medicaid	1. Addressing unmet HRSN within the	Measure changes in the rates of	Measure: Premature Death including Suicide	Evaluation Design: Independent evaluator will

Goal	Research Hypothesis	Plan to Test Hypothesis	Data Sources	Evaluation Design
beneficiaries by removing social barriers to health Objective a. Addressing unmet HRSN within the Medicaid-eligible population will improve health outcomes	Medicaid-eligible population will improve health outcomes.	relevant health outcomes	or Overdose Deaths for individuals receiving Medicaid Data Source(s): Medicaid claims /encounter data; State Vital Statistics Data; Centers for Disease Control and Prevention Wonder data (suicide and overdose deaths)	develop quantitative and qualitative measures to include in a quasi-experimental design, including an interrupted time series analysis.
Improve the health status of Medicaid beneficiaries by removing social barriers to health Objective b. Addressing unmet HRSN within the Medicaid-eligible population will reduce the cost of care.	2. Addressing unmet HRSN within the Medicaid-eligible population will reduce the cost of care.	Measure changes in the total cost of care	Measures: Total Medicaid cost associated with members receiving HRSN; Per Capita costs associated with Members receiving HRSN Data Source: Medicaid claims/ encounter data.	Evaluation Design: Independent evaluator will develop quantitative and qualitative measures to include in a quasi-experimental design, including an interrupted time series analysis.
Improve the health status of Medicaid beneficiaries by removing social barriers to health Objective c. HRSN services will result in a reduction of readmissions within 30 days, to EDs and hospitals.	3. HRSN services will result in a reduction of readmissions within 30 days, to EDs and hospitals.	Measure changes in the rates of readmissions within 30 days, to EDs and hospitals.	Measures: Inpatient and ED utilization per 1,000 Data Source: Medicaid claims/ encounter data.	Evaluation Design: Independent evaluator will develop quantitative and qualitative measures to include in a quasi-experimental design, including an interrupted time series analysis.
Improve connections between Medicaid beneficiaries and community services to address physical	4. HRSN services (improvements in housing stability and nutrition) will result in an increase in recommended	Measure changes in the utilization rates of recommended and/or preventive care among enrollees receiving	Measure: Access to Preventive/ Ambulatory Health Services for Medicaid beneficiaries	Evaluation Design: Independent evaluator will develop quantitative and qualitative measures to include in a quasi-experimental design,

Goal	Research Hypothesis	Plan to Test Hypothesis	Data Sources	Evaluation Design
health, behavioral health, and HRSN. Objective d. HRSN services (improvements in housing stability and nutrition) will result in an increase in recommended and/or preventive care.	and/or preventive care.	housing and nutrition supports.	Data Source: Medicaid claims/ encounter data.	including an interrupted time series analysis.

In addition to the independent evaluation, HCPF will provide quarterly and annual reporting specific to this amendment and in accordance with a CMS-approved Monitoring Protocol to be submitted following approval.

Proposed Federal Demonstration Authorities

The State seeks such waiver authority as necessary under the Demonstration to receive a federal match on costs not otherwise matchable for services rendered to HRSN services-eligible individuals. The State also requests the following proposed waivers and expenditure authority to operate the Demonstration.

Requested Waiver Authorities and Associated Reasons

Waiver Authority	Reason and Use of Waiver Authority Will Enable the State To:
Reasonable Promptness Section 1902(a)(8)	To allow the state to create service caps and the potential use of waiting lists for Housing and Food and Nutrition services.
Amount, Duration, and Scope of Services and Comparability Section 1902(a)(10)(B) and 1902(a)(17)	To enable the state to provide a varying amount, duration, and scope of HRSN services to a subset of beneficiaries depending on need, which are not otherwise available to all beneficiaries in the same eligibility group. To the extent necessary to enable the state to limit housing services and supports under the demonstration to certain targeted groups of participants.

The State requests expenditure authority to provide Medicaid benefits to Demonstration eligible individuals. Colorado requests FFP for evidence-based HRSN services subject to the restrictions described below. Expenditures for HRSN services will be limited to costs not otherwise covered under Title XIX, but consistent with Medicaid Demonstration objectives that enable Colorado to continue to improve health outcomes and increase the efficiency and quality of care.

Requested Expenditure Authorities

Title XIX Expenditure Authority	Expenditures
Health-Related Social Needs (HRSN) Services.	Expenditures for approved evidence-based health-related social needs services not otherwise eligible for Medicaid payment furnished to individuals who meet the qualifying HRSN criteria
Health-Related Social Needs (HRSN) Services Infrastructure.	Expenditures for allowable administrative costs and infrastructure not otherwise eligible for Medicaid payment, to the extent such activities are authorized as part of the approved HRSN infrastructure activities.

Estimated Impact of the Demonstration

The table below estimates the projected annual enrollment of beneficiaries (without and with the waiver) for each Demonstration Year (DY).

Estimated Projections of Annual Enrollment

Member Months under Amendment*	DY5	DY6	DY7	DY8	DY9	5-year total
Total projected member months without Amendment	0	0	0	0	0	
Total projected member months under Amendment	69,256	139,552	140,947	142,357	143,780	635,892

The table below estimates the projected annual expenditures (without and with the waiver) for each DY.

Estimated Projections of Annual Expenditures

Projected Services Costs under Amendment*	DY5	DY6	DY7	DY8	DY9	5-year total
Total projected administration and service costs without Amendment	0	0	0	0	0	0
Total projected service costs under Amendment	$19,983,420	$41,801,911	$44,373,147	$47,102,539	$49,999,816	$203,260,834

*Using a 5.1% trend rate; effective July 1, 2025 (six months of DY5)

Appendix H

Documentation of the State's compliance with the public notice process set forth in 42 CFR §§431.408 and 431.420.

Post Award Forums

The State held three sets of annual post-award forums for the SUD 1115 including dates in May 2021, October 2022, and October 2023.

First Annual Post Award Forum

The State held a virtual post award forum on May 20, 2021. The State also provided an additional opportunity for public comment on May 26, 2021, during the State of Colorado Medical Assistance and Services Advisory Council meeting.

The State highlighted the contribution of the RAEs, including their responsiveness regarding provider feedback, making system enhancements, providing toolkits and learning opportunities for providers, and offering individualized provider support.

From April 15, 2021, until May 31, 2021, the State prominently posted on the Colorado HCPF SUD webpage a Notice of Post Award Forum, which included the date, time, and virtual location of the public forums available, as well as information on how to participate and provide comments. The State offered two opportunities for public comments, as follows:

- May 20, 2021, 12:30–2:00 pm Post Award Forum #1 (virtual meeting).
- May 26, 2021, 6:00–7:30 pm Post Award Forum # 2 (State of Colorado Medical Assistance and Services Advisory Council meeting).

During the Post Award Forums, the State received comments and questions regarding how SUD treatment providers may contact RAEs, SUD provider lists, plans for future public forums and opportunities for providing comments, rates and reimbursement for providing SUD treatment, ascertaining providers' Medicaid ID numbers, monitoring and evaluating the 1115 SUD Demonstration, treatment authorizations, and RAE contracting processes. Below is a summary of the comments collected.

Question #1: Some providers are having problems contacting live staff at RAEs to ask questions. Can the State provide a RAE contact list for providers to help them with obtaining authorizations for treatment?

Response: The State is updating an existing RAE Contact list and will make available on the SUD webpage and SUD Stakeholders distribution list.

Question #2: State's current list of contracted SUD providers does not include the commenter's treatment agency, which is in the process of finalizing its contract with RAEs. Can we be added to the list?

Response: The list of contracted SUD providers is updated on a monthly basis. Based on information from the RAE in question, the commenter's treatment agency will be listed starting next month, in June 2021. Also, the treatment agency should contact their RAE directly.

Question #3: Is there another opportunity for providing comments regarding the 1115 SUD Demonstration?

Response: CMS requires states with an 1115 SUD Demonstration to hold a Post Award Forum within six months of the implementation of the Demonstration, and annually thereafter. The State also welcomes comments regarding the 1115 SUD Demonstration at any time.

Question #4: What is the process for determining rates of reimbursement for treatment next year?

Response: The State uses an external actuary to calculate reimbursement rates. Before the rates can be approved by the State, they must be actuarially sound and reflect actual benefit utilization.

Question #5: What is the process for determining rates of reimbursement for room and board (for SUD inpatient/residential treatment) next year?

Response: The CDHS allows for some variance when treatment providers calculate their room and board rates. CDHS remains open to discussions with MSOs and SUD treatment providers regarding its calculations of future reimbursement rates.

Question #6: How do SUD treatment providers ascertain their Medicaid ID number?

Response: Treatment providers may contact the State for this information.

Question #7: How is the State providing data to CMS?

Response: The State is required to provide quarterly and annual monitoring reports to CMS on its progress for goals and milestones of the 1115 SUD Demonstration. After CMS approval, the reports will be posted on the State's SUD webpage.

Question #8: An initial approval period of 14 days for pregnant or postpartum patients is too short; the approval period should be at least 30 days.

Response: RAEs manage utilization of the residential and inpatient SUD benefit according to unique members' Medicaid necessity. The State will be implementing a statewide, electronic patient assessment tool that will help the State monitor variations within and between RAEs.

Question #9: Initial approvals are usually for two weeks — is this common for most treatment approval requests?

Response: RAEs are having regular and ongoing conversations with treatment providers to address and provide guidance on various topics, including initial authorizations for treatment.

Question #10: The treatment provider has not completed its contracting process with all RAEs. What can be done to expedite this process?

Response: RAEs have the ability to use single case agreements to ensure that patients can access SUD treatment, even if the treatment provider is not contracted with a particular RAE.

Second Annual Post Award Forum

The second annual SUD stakeholder forum was held virtually in October 2022. During the annual forum, the Department reviewed the Annual Report for DY1, provided an update about the 1115 Waiver "Expanding the Substance Use Disorder Continuum of Care", and provided an opportunity for participants to ask questions. There were four opportunities for the public to attend. Forums were held on the following dates and times:

- Friday, October 7, 2022, 12:00–1:00 pm MST
- Thursday, October 13, 2022, 9:00–10:00 am MST
- Tuesday, October 18, 2022, 4:00–5:00 pm MST
- Thursday, October 27, 2022, 2:00–3:00 pm MST

Summary

Cumulative number of registrants: 71

Cumulative number of attendees: 39

Note: There were several people who registered for multiple webinars but did not attend all the webinars.

Q&A

Question #1: Will utilization management be more standardized for residential services to align with ASAM standards, as services that were not required in residential level of care previously are now?

Response: Utilization management reporting under 21-137 is standardized and uses ASAM criteria for making authorization and denial determinations.

Question #2: Is funding available to be able to enhance crisis services or to start these services to have this available across the state?

Response: Yes, there are funding opportunities for crisis services through both BHA and HCPF ARPA grants. Information can be found on the respective webpages by searching funding opportunities.

Question #3: For clarification, does this demonstration include young people under 18 years?

Response: Yes, all Medicaid members are included in the demonstration regardless of age.

Question #4: Is there a list of those organizations/facilities who are taking part in this waiver and have this continuum of care available?

Response: All organizations who are Medicaid providers of SUD services are required to deliver care in accordance with 1115 requirements as outlined by the Department and overseen by the MCEs. The SUD Benefits web page does list providers by level of care that are licensed by BHA, enrolled with Medicaid, and contracted with an MCE.

Question #5: What is happening right now with residential?

Response: Residential LOC services as defined by ASAM are licensed by BHA, enrolled with Medicaid and then contracted with one or more MCEs to deliver those levels of care to members.

Question #6: There is an insufficient number of residential settings to address substance misuse. With this waiver, are there funds that would allow them to build out this type of service within their own practice or in coordination with other organizations?

Response: The 1115 waiver does not provide funds for building infrastructure; it allows for SUD residential services to be delivered in settings with 16 or more individuals for more than 14 days and ensures all levels of care including outpatient level 1 and 2 and inpatient level 4 are provided to members in the State.

Question #7: Can I get information about requirements for harm reduction or peer support services in rural areas? If a community is interested in starting a program, what are the requirements for someone to start a program?

Response: More information about peer organizations across the State, including in rural areas, can be found through the BHA webpage and specifics about enrolling as a peer service organization with Medicaid and contracting with MCEs can be found on the Department Peer Services webpage. Harm reduction would be an approach to service delivery that SUD providers of services in the area may engage in and reviewing provider sites would be necessary to identify those providers.

For a community interested in starting a program, connecting with BHA would be a good starting point to determine what licensing requirements would need to be met to set up the program. Once a program is licensed, discussing with the Department to determine enrollment steps would be next.

Third Annual Post Award Forum

The third annual SUD stakeholder forum was held virtually on October 10, 2023. During the annual forum, the Department reviewed the Annual Report for DY2, provided an update about the 1115 Waiver "Expanding the Substance Use Disorder Continuum of Care", and provided an opportunity for participants to ask questions.

Number of registrants: 77

Number of attendees: 20

Question #1: Are these services per month? (referring to graphs in presentation)

Response: Yes, all of the graphs shown in today's presentation have the services shown per month, as seen on the x-axis.

Question #2: Are the graphs showing that there are three times as many members accessing withdrawal management (WM) services each month as intensive outpatient program (IOP)?

Response: Yes, this is accurate. The state is exploring possible reasons why WM services are utilized at a much higher rate than IOP services and other levels of care. IOP is less utilized than we would like to see and has room for improvement. The SUD Utilization Management report, produced quarterly and posted on the web page in accordance with SB21-137, has additional data on utilization as well.

Availability of Various Waiver-Related Reports for Public: The 1115 Demonstration requires quarterly and annual reporting on the specific milestones and measures to CMS. Part of the reporting also includes a summary of the public comments received at the post award forum to be provided to CMS. HCPF posts all the required information on the HCPF website, including budget neutrality information.

Public Notice for the Extension Request

1. Colorado is providing an open comment period for public comments from September 10, 2024 through October 10, 2024.

2. Colorado published a Public Notice on the Colorado Register. The notice can be found at https://www.sos.state.co.us/CCR/RegisterHome.do. The notice included a summary description of the Demonstration, the location and times of the public hearings, information on different ways to provide comments, and an active link to the full public notice document on the State's website.

3. The State also published on its website the full public notice with information about public input process and planned hearings, the draft Demonstration renewal application, and a link to the Demonstration page on the CMS Website. This can be found at https://hcpf.colorado.gov/1115sudwaiver

4. The State will conduct two public hearings on the 1115 Demonstration renewal application. These public hearings will be held on September 25, 2024, from 6:00–7:30pm during the State Medical Assistance and Services Advisory Council Meeting (Night MAC) via web conference and teleconference and on October 3, 2024 from 12:00–2:00 pm at the HCPF Office, via web conference, teleconference, or in person.

5. Colorado certifies that it used an electronic mailing list to notify the public. Colorado used the electronic mailing list that is used for the Night MAC.

6. The 30-day public comment period will begin on September 10, 2024, to October 10, 2024. Written comments at any of the public hearings or submitted by email will be accepted until 5:00 pm MST. As of close of the comment period, the following comments will be included in attachment 5, that pertain to the 1115 Demonstration submission.

7. The 60-day tribal comment period will begin on September 10, 2024 to November 9, 2024. Written comments or submitted by email will be accepted until 5:00 pm MST. As of close of the comment period, the following comments will be included in Attachment 7, that pertain to the 1115 Demonstration submission.

8. After review of the comments and concerns, the following changes to the renewal were made: TBD

Summary of Public Comments

A summary of feedback from commenters received during the public comment period will be provided in the attachments after the public comment period has been completed.

Public Notice Process

Information on the Extension Request and a copy of the public notices are available on the HCPF website at this link: https://hcpf.colorado.gov/1115sudwaiver. Additional information regarding the public notice process, including public hearings, will be updated after the public comment period has been completed.

Tribal Consultation

There are two federally recognized Tribes within the State of Colorado, the Southern Ute Indian Tribe and the Ute Mountain Ute Tribe. The State will solicit feedback and carry out recommendations from both Tribes by sending emails to the Tribal representatives and pertinent program staff with a summary of the Demonstration, plus a copy of the public notice, and waiver application (as well as a link to the HCPF website with the relevant documents). While this process follows the State's approved tribal consultation State Plan Amendment, the Department will continue to engage the Tribes in meaningful, in-person Tribal consultation upon request.

Demonstration Contact

Name and Title: Adela Flores-Brennan, State Medicaid Director

Telephone Number: (303) 910-5918

Email Address: adela.flores-brennan@state.co.us

Attachment 1. Public Notice Requirements

Attachment 2. Full Public Notice

Attachment 3. Abbreviated Public Notice

Attachment 4. Public Hearing Slides

Attachment 5. Public Notice Comments

Attachment 6. Tribal Consultation

Attachment 7. Tribal Consultation Comments