**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**

April 26, 2021

Matt Wimmer
Administrator
Division of Medicaid
Idaho Department of Health and Welfare
PO Box 83720
Boise, Idaho 83720

Dear Mr. Wimmer:

The Centers for Medicare & Medicaid Services (CMS) completed its review of the state's "Behavioral Health Transformation" Evaluation Design, which is required by the Special Terms and Conditions (STCs) for the Section 1115 Demonstration, Project Number (11-W-00339/10). CMS determined that the evaluation design meets the requirements set forth in the STCs and, therefore, hereby approves the state's evaluation design.

The evaluation design is approved for the demonstration period through March 31, 2025, and is incorporated into the attached demonstration STCs as Attachment F. Per 42 CFR 431.424(c), the approved "Behavioral Health Transformation" evaluation design may now be posted to your state's Medicaid website. CMS will also post the approved evaluation design as a standalone document, separated 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, the state must submit to CMS a draft of the final evaluation report within 120 days after expiration of the demonstration, consistent with this approved design.

Your CMS project officer, Ms. Kelsey Smyth, is available to answer any questions concerning this approval or your section 1115 demonstration. Ms. Smyth may be reached by email at kelsey.smyth@cms.hhs.gov. We look forward to our continued partnership on the Idaho Behavioral Health Transformation section 1115 demonstration.

Sincerely,

Danielle Daly -S
Digitally signed by Danielle Daly -S
Date: 2021.04.26 11:28:19 -04'00'

Andrea J. Casart -S
Digitally signed by Andrea J. Casart -S
Date: 2021.04.26 11:37:42 -04'00'

Danielle Daly
Director
Division of Demonstration Monitoring and Evaluation

Andrea Casart
Director
Division of Eligibility and Coverage Demonstrations

cc: Laura D'Angelo, State Monitoring Lead, CMS Medicaid and CHIP Operations Group

# Evaluation Plan
# for
# Idaho Behavioral Health Transformation
## Section 1115 Medicaid Waiver Demonstration Project

**Prepared by**
**Penn State University**
**February 25, 2021**

**Evaluation Plan for Idaho's Behavioral Health Transformation Waiver**

**February 25, 2021**

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# SECTION A: General Background Information

## A.1 General Background, Demonstration Name, approval date, and evaluation period

Similar to states across the country, Idaho has struggled in recent years with a rise in substance use disorders (SUD), in particular opioid use disorder (OUD), with 14.8 drug overdose deaths per 100,000 population in 2019[1]. In addition, Idaho faces significant mental health challenges, including a high rate of suicide (23.8 suicide deaths per 100,000 population in 2018, 20.4 suicide deaths per 100,000 in 2019)[2], which is the fourth leading cause of premature death for Idahoans under age 75[3]. Although the population is relatively small at 1.8 million people, it is the 14th largest state in geographic area, highlighting issues with coordinating care across large, often rural, geographic areas. Furthermore, one third of the population lives in rural or frontier counties, and overall the population density is 19 people per square mile, much lower than the US average of 83 people per square mile.

Further complicating access to behavioral health care, Idaho's terrain is largely mountainous or desert, with limited infrastructure for transportation, business, health care, and digital services[3]. This has resulted in a behavioral health care system that is fragmented and has significant problems related to access to behavioral health care services[3]. Additionally, 100% of the state has the federal designation of Health Professional Shortage Area for mental health services, 97.7% for primary care, and 94% for dental health[4]. To improve access for patients with serious mental illness (SMI) and serious emotional disturbance (SED), IDHW has made meaningful progress in improving access to crisis care for behavioral health. Yet significant gaps remain across the entire continuum of behavioral health care.

In January of 2020 Idaho expanded their Medicaid program, increasing access to mental health services for a total of 100,529 members by the start of 2021. At the time of approval for their 1115 SMI/SUD waiver demonstration they had already added 72,551 individuals.[5] However, with limited behavioral health care capacity due to lack of mental health care providers, a remaining concern is ensuring that all Medicaid enrollees are able to access needed care for treatment of mental health and substance use concerns. The Centers for Medicare and Medicaid Services (CMS) approved Idaho's Section 1115 Medicaid demonstration to address these gaps for people with SMI, SED, and SUD. The demonstration period for the "Idaho Behavioral Health Transformation" continues through March 31, 2025.

One component of the 1115 waiver approval is an evaluation of the demonstration's impacts, whether the demonstration is being implemented as intended, if intended effects are occurring, and whether outcomes observed in the targeted population differ from outcomes in similar populations not affected by the demonstration. **The evaluation period considers the following three periods: i)** baseline period of January 2018 through March 2020; **ii)** early demonstration period of April 2020 through December 2022; and **iii)** late demonstration period of January 2023 through March 2025. An additional, important evaluation challenge of note is that the COVID-19 pandemic struck near the beginning of the demonstration period. The pandemic will likely have important impacts on both mental health (due to isolation, stress, anxiety, etc.) as well as access to care (both due to facility closures/reductions in care, as well as patients deciding to avoid places of care).

## A.2: Demonstration Goals and Key Change Actions

The 1115 SUD/SMI waiver provides the state with the authority to provide high-quality, clinically appropriate treatment to Medicaid beneficiaries aged 21-64 with a diagnosis of SMI, SED, and/or SUD in an IMD setting. The subsequent demonstration supports efforts by the state to expand access to a continuum of evidence-based care at varied levels of intensity. The overarching goal of the waiver is to ensure that Medicaid enrollees aged 21-64 in Idaho are able to access needed care and treatment when they need it. To this end, Idaho is implementing a multi-pronged strategy to address behavioral health care reform. This approach has three broad, overarching reform aims:

> **Aim 1.** Expand coverage of Medicaid reimbursable services for individuals with SUD and/or SMI/SED
>
> **Aim 2.** Expand availability and access to services across the state (particularly in rural and frontier areas)
>
> **Aim 3.** Improve coordination of care including transitions of care for Medicaid beneficiaries.

Within the framework of these three aims, Idaho and their evaluation team have aligned the 11 specific goals set by CMS. Goals are divided across both SUD and SMI/SED care:

**SUD Specific Goals:**

1. Increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs.
2. Increased adherence to and retention in treatment for OUD and other SUDs.
3. Reductions in overdose deaths, particularly those due to opioids.
4. Reduced utilization of emergency departments 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.
5. Fewer readmissions to the same or higher level of care, where the readmission is preventable or medically inappropriate for OUD and other SUDs.
6. Improved access to care for physical health conditions among beneficiaries with OUD or other SUDs.

**SMI/SED Specific Goals:**

1. Reduced utilization and lengths of stay in emergency departments among Medicaid beneficiaries with SMI or SED while awaiting mental health treatment in specialized settings.
2. Reduced preventable readmissions to acute care hospitals and residential settings.
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.

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 behavioral health care.
5. Improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities.

Critical to achieving these specific goals, IDHW will undertake a series of actions over the course of the 1115 waiver demonstration period. These actions are captured within demonstration implementation milestones which are outlined in detail in the state's SUD and SMI/SED implementation plans[6]. Below each action is categorized into five key domains of change, including:

**1. Provide Expanded Medicaid Coverage**

Idaho's 1115 waiver demonstration proposes providing expanded coverage to Medicaid enrollees. This includes the availability to use Medicaid funds for a wider range of services for those individuals aged 21-64. Expansion of coverage includes:

- Reimbursing institutions for mental diseases (IMDs)
- Reimbursing residential behavioral health services. Talks are ongoing about increasing reimbursement rates.

**2. Expand supply of providers and services**

- The 1115 waiver demonstration proposes expanding access to services for beneficiaries. Specific actions include:
    - Expand access and utilization of peer and family support services
    - Expand the number of MAT waivered providers
    - Develop a comprehensive statewide crisis service plan to expand availability of crisis services
    - Increase the integration of physical and behavioral health services
    - Expand the provision of transportation benefits for behavioral health care

**3. Transform Administrative Processes**

- To accomplish proposed changes a number of administrative processes will be transformed. These include:
    - Establish a certification process for newly enrolled behavioral health providers to improve access to high-quality providers
    - Establish mandatory post-discharge requirements following inpatient, residential, and ED visits
    - Require all IMDs to provide at least two forms of Medication Assisted Treatment (MAT)
    - Implement an interoperability platform to improve coordination between first responders and behavioral health treatment providers
    - Simplify and standardize telehealth coverage rules

- Adjust the details of the upcoming IBHP managed care contract to improve care coordination

4. **Provide education and training**

- To provide high-quality services the state proposes the following actions regarding education and training:
    - Develop a standardized approach for SUD identification
    - Promote training for early SUD identification
    - Educate providers on new reimbursement opportunities for SUD and SMI/SED care

5. **Fund health information technology (HIT)**

- Critical to coordination of care and care expansion the state proposes changes to HIT including:
    - Utilize federal opioid and SUD funding to improve IT for the purpose of improving SUD and SMI/SED care coordination
    - Utilize funding to improve providers integration with Prescription Drug Monitoring Program (PDMP) and Idaho Health Data Exchange (IHDE) platforms to further coordinate SUD and SMI/SED care

Finally, to meet the goals of the 1115 waiver demonstration, IDHW has agreed to implement recommended milestones outlined by CMS for SMI/ SUD demonstrations. These will inform the evaluation's assessment and research questions (Section B).

## A.3: Description of the demonstration and implementation timing.

Over the past decade, Idaho has made significant improvements in access to care for those with SUD and/or SMI/SED. However as mentioned above, gaps continue to exist. Idaho's 1115 waiver demonstration focuses on three broad reforms resulting in five change categories that encompass the demonstration's implementation (Section A.2). Implementation Milestones are provided in full in the CMS Special Terms and Conditions for the Demonstration[6], and are discussed further in the evaluation plan as they relate to research questions and hypotheses.

## A.4: Other relevant contextual factors

There are several important contextual factors which the evaluation design will consider alongside the direct impact of the demonstration. For example, Idaho Medicaid expansion began January 2020. This has significantly increased the number of Medicaid enrollees, including the number of enrollees with SMI and/or SUD who have coverage for behavioral health treatment. The Medicaid 1115 demonstration began shortly after Medicaid expansion. Given the proximity in timing, from an evaluation standpoint, it will be important to attempt to disentangle the effects of the changes to Idaho's Medicaid policy. To this end, the evaluator will make comparisons to changes in utilization for non-behavioral health treatment in order to tease out the relative

impacts of Medicaid expansion (which affects both behavioral and physical health care) and the 1115 waiver (which focuses on behavioral health care). While there are likely to be spillover effects from one to the other, this approach will provide a first approximation to the relative impacts.

In addition, prior to Medicaid expansion in January 2020, many behavioral health services were covered through the Idaho Department of Health and Welfare's (IDHW) Division of Behavioral Health (DBH). Following the State's Medicaid expansion, these services will be reimbursed using Medicaid funds, with the aim of improving coordination of comprehensive services.

Other factors to consider include that beginning January 1, 2020, Idaho Behavioral Health Plan (IBHP) began reimbursing partial hospitalizations for behavioral health care. On January 1, 2021, IBHP began reimbursing methadone maintenance care in opioid treatment programs (OTPs)--relevant coverage to the waiver. Additionally, the State is in the process of finalizing a Request for Proposals (RFP) to solicit vendor submissions that will result in a new contract award to operate the IBHP, which currently provides outpatient behavioral health care through a Medicaid carveout. The contract will be awarded in late 2021 with behavioral health services available through the new contract beginning on July 1, 2022, This RFP proposes a new structure for the IBHP, in which the selected contractor will assume responsibility for all behavioral health services across the continuum of care—both inpatient and outpatient. Crisis centers may be covered as part of the IBHP MCO contract in 2022. Through contract monitoring, the selected contractor will be held accountable for achieving specified performance targets, including affirmative treatment outcomes for IBHP enrollees. In reviewing responses to this RFP and performance targets of the awardee, the state will give special emphasis to candidates' demonstrated propensities for mitigating the need for inpatient admissions and maximizing the effectiveness of community-based services offered as part of the continuum of care.

Further, pursuant to state legislation passed in 2015, naloxone, an important overdose reversal drug, was made available to anyone in Idaho without a prescription by simply asking a pharmacist. In 2019, the law was further expanded to permit other licensed health professionals to dispense naloxone, rather than just prescribers and pharmacists. With eased regulations and easier access to this lifesaving drug, the Idaho Office of Drug Policy is now focused on expanding naloxone distribution, particularly to first responders, through a temporary grant program. Specific to crisis services, in 2016, the State established a Suicide Prevention Program, which provides support for the Idaho Suicide Prevention Hotline and public awareness campaigns. Regarding improvement of care for SMI/SED, coverage of crisis stabilization services and partial hospitalizations began in January 2020 but is independent of the 1115 waiver itself. Finally, an important but unavoidable complication to the evaluation is the COVID-19 pandemic that began just around the beginning of the demonstration period. The evaluator will flexibly vary the time periods examined in sensitivity analyses (including dropping the 2020 time period and dividing the demonstration period into both an early and a late period).

## SECTION B: Evaluation Research Questions and Hypotheses

This evaluation plan includes an overarching logic model (Appendix 3) depicting the demonstration's overall theory of change[7] – the underlying assumptions about how the demonstration will lead to outcomes and in what time frame. Broadly, the IDHW is utilizing

federal funding resources to implement the 1115 waiver demonstration with a goal of improving access, utilization, quality, and health outcomes related to both SUD and SMI/SED treatment. Appendices 2 and 3 describe the key demonstration actions that are occurring as part of the implementation plan, along with their anticipated outcomes. Given the complexity and multi-faceted nature of the demonstration, it is important to understand the timing and scope of how changes may ultimately be implemented.

As outlined in section A.2, the primary, initial set of demonstration activities include expansion to the types of care that can now be reimbursed using Medicaid funds for the eligible population of Medicaid enrollees ages 21-64. Second, ongoing work focuses on expanding funding as well as other strategies to increase the supply and breadth of behavioral services available in Idaho, particularly in rural areas. Third, an ongoing set of administrative process changes and initiatives further seek to improve the availability and quality of SUD and SMI/SED care. Fourth, IDHW has been working to provide education and training for providers regarding what services can be reimbursed using Medicaid funds as well as improving best practices for identifying SUD in the primary care setting. Finally, IDHW is utilizing federal funding to improve the health IT infrastructure to better connect providers as well as improve ability to query the PDMP.

Each demonstration goal will be accomplished through achieving specific implementation milestones that have been established considering demonstration aims, goals and milestones NB: Milestone numbering aligns with the order outlined in the implementation plan). The evaluator will test the below hypotheses—that build on and refine the tentative hypothesis proposed in the original waiver application. Each hypothesis will in turn be tested by multiple research questions.

***SUD Specific Goals:***

***Goal 1: Increased rates of identification, initiation, and engagement in treatment for OUD and other SUDs***

<u>Implementation Milestone 1: Access to critical levels of care for OUD and other SUDs</u>

- Hypothesis 1: The 1115 waiver demonstration will lead to improved access to critical levels of care for OUD and other SUDs.
    - Research Question 1.1: Did initiation of SUD treatment increase during the demonstration period?
    - Research Question 1.2: Did outpatient services increase during the demonstration period?
    - Research Question 1.3: Did intensive outpatient and partial hospitalization services increase during the demonstration period?
    - Research Question 1.4: Did residential and inpatient services increase during the demonstration period?

***Goal 2: Increased adherence to and retention in treatment for OUD and other SUDs***

<u>Implementation Milestone 3: Use of nationally recognized, evidence-based, SUD program standards to set residential treatment provider qualifications</u>

- Hypothesis 2: The 1115 waiver demonstration will lead to increased use of nationally recognized, evidence-based SUD program standards.
    - Research Question 2.1: Did screening increase during the demonstration period?

- Research Question 2.2: Did initiation of alcohol use disorder and SUD treatment increase during the demonstration period?
- Research Question 2.3: Did MAT utilization (sub-analysis specific to methadone) increase during the demonstration period?
- Research Question 2.4: Did adherence to MAT for OUD users increase during the demonstration period?
- Research Question 2.5: Did re-engagement of MAT for OUD patients increase during the demonstration period?

***Goal 3: Reductions in overdose deaths, particularly those due to opioids***

Implementation Milestone 2: Widespread use of evidence-based, SUD-specific patient placement criteria

- Hypothesis 3: The 1115 waiver demonstration will lead to increased use of evidence-based, SUD-specific patient placement criteria.
  - Research Question 3.1: Did opioid overdose death rate (overall, in-hospital, and out-of-hospital) increase during the demonstration period?
  - Research Question 3.2: Did ED visits for SUD increase during the demonstration period?
  - Research Question 3.3: Did repeat overdoses increase during the demonstration period?

***Goal 4: Reduced utilization of emergency departments 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***

Implementation Milestone 5: Implementation of comprehensive treatment and prevention strategies to address opioid abuse and OUD

- Hypothesis 4: The 1115 waiver demonstration will lead to implementation of comprehensive treatment and prevention strategies to address opioid abuse and OUD.
  - Research Question 4.1: Did use of opioids at high dosage in persons without cancer (OHD-AD) decrease during the demonstration period?
  - Research Question 4.2: Did use of opioids from multiple providers in persons without cancer (OMP) decrease during the demonstration period?
  - Research Question 4.3: Did use of opioids at high dosage and from multiple providers in persons without cancer (OHDMP) decrease during the demonstration period?
  - Research Question 4.4: Did concurrent use of opioids and benzodiazepines (COB-AD) decrease during the demonstration period?
  - Research Question 4.5: Did emergency department utilization for SUD per 1,000 Medicaid beneficiaries decrease during the demonstration period?
  - Research Question 4.6: Did ED visits for OUD and SUD decrease during the demonstration period?

***Goal 5: Fewer readmissions to the same or higher level of care, where the readmission is preventable or medically inappropriate for OUD and other SUDs***

Implementation Milestone 6: Improved care coordination and transitions between levels of care

- Hypothesis 5: The 1115 waiver demonstration will lead to improved care coordination and transitions between levels of care.
    - Research Question 5.1: Did follow-up after emergency department visits for mental illness (FUM-AD) increase during the demonstration period?
    - Research Question 5.2: Did readmissions among beneficiaries with SUD decrease during the demonstration period?
    - Research Question 5.3: Did preventive care utilization (connecting OUD patients to broader care) increase during the demonstration period?
    - Research Question 5.4: Did follow-up with patients prescribed an anti-psychotic increase during the demonstration period?
    - Research Question 5.5: Did follow-up with patients post-ED discharge increase during the demonstration period?
    - Research Question 5.6: Did medication continuation post inpatient discharge for SUD increase during the demonstration period?

***Goal 6: Improved access to care for physical health conditions among beneficiaries.***

Implementation Milestone 4: Sufficient provider capacity at each level of care, including MAT

- Hypothesis 6: The 1115 waiver demonstration will lead to sufficient provider capacity at each level of care.
    - Research Question 6.1: Did SUD provider availability increase during the demonstration period?
    - Research Question 6.2: Did SUD provider availability for MAT increase during the demonstration period?
    - Research Question 6.3: Did provider availability for MAT increase during the demonstration period?
    - Research Question 6.4: Did provider availability for methadone increase during the demonstration period?
    - Research Question 6.5: Did availability of community-based SUD services increase during the demonstration period?
    - Research Question 6.6: Did patient satisfaction increase during the demonstration period?

**SMI/SED Specific Goals:**

***Goal 1: Reduced utilization and lengths of stay in emergency departments among Medicaid beneficiaries with SMI or SED while awaiting mental health treatment in specialized settings***

Implementation Milestone 1: Ensuring Quality of Care in Psychiatric Hospitals and Residential Settings

- Hypothesis 7: The 1115 waiver demonstration will lead to improved quality of care in psychiatric hospitals and residential settings.
    - Research Question 7.1: Did utilization of behavioral health treatment services increase during the demonstration period?

***Goal 2: Reduced preventable readmissions to acute care hospitals and residential settings***

Implementation Milestone 4: Earlier Identification and Engagement in Treatment, Including Through Increased Integration

- Hypothesis 8: The 1115 waiver demonstration will lead to earlier identification and engagement in treatment through increased integration.
    - R8.1 Did the number of enrollees receiving care from co-located physical and behavioral health facilities increase during the demonstration period?

***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***

Implementation Milestone 3: Increasing Access to Continuum of Care, Including Crisis Stabilization Services

- Hypothesis 9: The 1115 waiver demonstration will lead to increasing access to continuum of care, including crisis stabilization services.
    - Research Question 9.1: Did mental health services utilization increase in inpatient settings during the demonstration period?
    - Research Question 9.2: Did mental health services utilization increase in intensive outpatient and partial hospitalization settings during the demonstration period?
    - Research Question 9.3: Did mental health services utilization increase in ED settings during the demonstration period?
    - Research Question 9.4: Did crisis service utilization increase during the demonstration period?
    - Research Question 9.5: Did outpatient rehabilitation increase during the demonstration period?
    - Research Question 9.6: Did case management increase during the demonstration period?
    - Research Question 9.7: Did home and community services increase during the demonstration period?
    - Research Question 9.8: Did long-term services/supports increase during the demonstration period?
    - Research Question 9.9: Did ED visits for SMI/SED increase during the demonstration period?

***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 behavioral health care***

Implementation Milestone 3: Increasing Access to Continuum of Care, Including Crisis Stabilization Services

- Hypothesis 10: The 1115 waiver demonstration will lead to increasing access to continuum of care, including crisis stabilization services.

- Research Question 10.1: Did availability of community-based behavioral health services (overall, outpatient, inpatient/residential, office-based) increase during the demonstration period?
- Research Question 10.2: Did suicide rates decrease during the demonstration period?
- Research Question 10.3: Did availability of virtual visits increase during the demonstration period?
- Research Question 10.4: Did availability of clinics with co-located physical and behavioral health providers increase during the demonstration period?
- Research Question 10.5: Did availability of crisis care (overall; crisis call centers; mobile crisis units; crisis assessment centers; coordinated community response teams) increase during the demonstration period?
- Research Question 10.6: Did availability of behavioral health in FQHCs increase during the demonstration period?
- Research Question 10.7: Did per capita availability of outpatient mental health professionals, by type (e.g., psychologists, social workers) increase during the demonstration period?

***Goal 5: Improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities***

Implementation Milestone 2: Improving Care Coordination and Transitioning to Community-Based Care

- Hypothesis 11: The 1115 waiver demonstration will lead to improved care coordination and transition to community-based care?
    - Research Question 11.1: Did 30-day readmission following psychiatric hospitalization in an inpatient psychiatric facility (IPF) increase during the demonstration period?

***Qualitative Research Questions***

Additionally, the evaluator will conduct a qualitative analysis to contextualize and provide further insights into the implementation and consequent outcomes. These include the following research questions:

- Research Question 12.1: Is the demonstration being implemented as intended?
- Research Question 12.2: Is the demonstration having the intended effects on the target population?
- Research Question 12.3: What factors may have driven the observed results in terms of access to SUD and SMI/SED care?
- Research Question 12.4: What factors may have driven the observed results in terms of health care outcomes?
- Research Question 12.5: What are the valuable lessons learned and successes?

***Cost Analysis Research Questions***

The evaluator will also estimate impacts of the demonstration on costs both on SUD- and SMI/SED-specific treatment as well as on overall spending. This will include addressing the following research questions:

- Research Question 13.1: Has total spending for SUD-related care changed over the 1115 waiver demonstration period?
- Research Question 13.2: Has total spending for SMI/SED-related care changed over the 1115 waiver demonstration period?
- Research Question 13.3: Has total spending by site of care for SUD-related care changed over the 1115 waiver demonstration period?
- Research Question 13.4: Has total spending by site of care for SMI/SED-related care changed over the 1115 waiver demonstration period?
- Research Question 13.5: Has total federal spending changed over the 1115 waiver demonstration period (including both FMAP for SUD and SMI/SED care as well as additional administrative costs)?

# SECTION C: Methodology

## C.1 Evaluation Methodology

The methodology will be similar for both the SUD and the SMI/SED portions of the evaluation. The methods outlined below will apply to both portions of the evaluation except where indicated. The evaluator will use an explanatory sequential mixed methods approach. Initially, the evaluator will utilize both quantitative and qualitative data collection. The quantitative approach will include aggregation of data from multiple sources (further detailed below) to assess changes in availability, utilization, quality of care, and health outcomes. Concurrently, the evaluator will collect qualitative data from key stakeholders in order to understand more precisely what specific components of the demonstration plan have been implemented, the fidelity to the implementation plan, the timing of implementation, and an understanding of how widespread implementation may be (effectively the "dose" of the intervention). This will help to guide subsequent refinement of the quantitative approach. For example, if certain components of the waiver demonstration are delayed, that can then be appropriately accounted for in the quantitative analyses. Similarly, if certain components appear to be implemented more quickly than expected that can also be accounted for quantitatively. Results of the qualitative assessment can also be used to inform Idaho demonstration leaders of progress and if, or where changes might be needed. In later stages of the evaluation, key informant interviews will be used to identify demonstration programs and interventions that were most effective as well as understanding barriers and facilitators for success.

Quantitative analyses are outlined in more detail in section C.4. Broadly, the evaluator proposes an interrupted time series approach to assess changes in each of the outcomes across both SUD and SMI/SED treatment from before to after the 1115 waiver demonstration. For each set of research questions, the evaluator includes accompanying hypotheses.

***Testing Hypotheses***

For each research question and related hypothesis, the evaluator will test whether the demonstration has been successful in meeting that particular objective by testing for whether the evaluator can observe a significant change in a majority of the relevant, primary outcomes (see Appendix 4 for a list of outcomes. Where feasible, the evaluator will also attempt to incorporate a control group or benchmark data. For the access to care outcomes, the evaluator will attempt to use the Treatment Episode Data Set (TEDS) data to provide a control group in a difference-in-differences framework. Similarly, for the mortality-related health outcomes the evaluator will use the Center for Disease Control (CDC)Vital Statistics detailed mortality data as a control group. For utilization and quality outcomes, the evaluator will continue to explore benchmark data options for the accounting of secular changes occurring outside the 1115 waiver demonstration. Finally, to provide additional explanatory clarity to our quantitative results, the evaluator will supplement with qualitative data including the collection of barriers and facilitators of success, approaches that drove successes, and lessons learned.

## C.2 Evaluation Period

The demonstration period began on April 17, 2020 and concludes on March 31, 2025. The final evaluation report is due 18 months later, on August 31, 2026. Data from January 2018 – March 2020 will be considered the baseline, or "pre-demonstration" data. The evaluator will divide the demonstration period into an "early" period (April 17, 2020 – December 2022) and a "late" period (January 2023 – March 2025). This is in part to account for the transition to a new behavioral health MCO contract which will begin services in 2022. This design will explicitly capture these potentially differential impacts on outcomes. In addition, given the complexity of the demonstration, the evaluation should explicitly account for both the phased roll-out of various components of the implementation as well as the anticipated time for changes to be realized in the form of impacts on the stated outcomes. The analytic plan will account for Idaho's multi-pronged approach to address health care reform in the state (Appendix 2). Finally, the evaluation will also include analyses that omit 2020 both to allow for time for the demonstration to be implemented and to account for disruptions from the COVID-19 pandemic. The summative evaluation report will include data from January 2018 through December 2025. Thus, the evaluation will include nine quarters of data for the baseline period prior to the start of the demonstration, and data for all but the final quarter of demonstration implementation. This will allow the evaluator to complete the analysis and report prior to the August 2026 deadline.

## C.3 Data Sources and Preparation

The quantitative portion of the evaluation will include member-level data from Idaho Medicaid and Department of Behavioral Health (claims, enrollment, and pharmacy data; IMD utilization data), Optum Idaho (outpatient behavioral health claims), the new behavioral health vendor starting in 2022 (inpatient, residential, and outpatient behavioral health claims), Vital Statistics (data on overdose and other causes of death). In addition, provider-level data about waivers for and use of medication-assisted treatment (MAT) as well as naloxone availability will be obtained from the Board of Pharmacy and the Prescription Data Monitoring Program (PDMP). Finally, the Mental Health Availability Assessment will require collecting data from insurance carriers,

providers, licensing boards, and other associations to obtain information regarding staff counts and facility characteristics (number of beds, providers, etc.). Prior to the MCO change, the evaluator will utilize claims data, licensing board information, and other data sources to determine mental health availability as well as conduct quantitative analyses. After the MCO transition, the evaluator will continue to use these sources of data, but direct comparisons pre and post MCO transition will be undertaken to ascertain if the transition itself has influenced any of the outcomes data. The state will monitor and manage data quality throughout the process using tools within its IBM supported data system to identify and rectify missingness incorrect values or any other system errors potentially due to input and linking.

The qualitative portion of the evaluation will require secondary document analysis and key informant interviews. Methodology for the qualitative portion of the evaluation is described in section C.8.

The evaluator will obtain all data for quantitative analysis via secure file transfer protocol (SFTP) or other approved, secure transfer methods from IDHW. IDHW's data team will perform quality checking and assurance with their data warehouse vendor, IBM. Data from disparate sources will be linked using unique and persistent identifiers (Medicaid ID) and/or via probabilistic "fuzzy" and deterministic matching when needed. The evaluator will prepare the data received from IDHW to be loaded into an analytic database, a process called staging. They will then organize the staged data into a relational database structure that will enable them to track Medicaid members and their outcomes over time and across data sources.

Data from multiple sources are required for some analyses, and not all sources use the same unique member identifiers. Thus, a major component of the staging process will be linking members across data sources. This will require the evaluator to create its own unique member identifier and then use an algorithm to match members between datasets. The algorithm will use member information such as name, gender, date of birth, zip code, and other identifiers, and a process called "fuzzy matching." This process is needed because the identifiers listed above are not always entered accurately and consistently across data sources. For example, one data source may list a member as "Elizabeth Doe", while in other data sources she is listed as "Beth Doe," "Liz Doe," "Elizabeth A Doe," "Elizabeth Dole," or other variations. The fuzzy matching process gives different weights to different potential matches, based on the probability that the individuals are the same person in the different sources.

## C.4 Quantitative Analysis Plan

Prior to beginning the processes described above of creating the analytic database, the evaluator will propose a detailed Quantitative Analysis plan, which will include specifics regarding:

- **Measure specifications:** Precise definitions for all measures to be used for the evaluation, as specified by the organization that defined the measure (e.g., Healthcare Effectiveness Data and Information Set (HEDIS) or National Committee for Quality Assurance (NCQA), Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators (PQI), Pharmacy Quality Alliance-PQA). The monitoring protocol metric specifications will be updated annually based on guidance from CMS.
- **Medicaid population and subgroup definitions:** Criteria that will be used to identify all populations and subgroups for whom measures will be reported (e.g., Medicaid eligibility

codes, continuous enrollment criteria, and diagnosis or procedure codes that will be used to identify members with specific conditions).

- **Subgroups:** Subgroups of interest for each measure, and criteria that will be used to identify these groups outcomes of interest (e.g., geographic region, gender, age, eligibility category). Further, three subgroups of specific interest will be: i) children in foster care; ii) mothers with OUD and infants with neonatal abstinence syndrome; and iii) individuals prescribed multiple anti-psychotic medications.
- **Statistical models:** Statistical models that will be used to estimate change in outcomes associated with the demonstration, including functional form, control variables, and baseline periods. A general model is discussed below, and detailed models will be included in the detailed analysis plan.
  **Steps to address other methodological challenges:** The evaluation design lists potential challenges with evaluating the waiver's effects, including Medicaid members who "churn" between Medicaid and other coverage (or no coverage), unequal penetration of waiver reforms in different geographic regions, and state or national policy changes occurring at the same time as the waiver. The analysis plan will describe how such challenges may affect results and any steps planned to address such challenges.

## C.5 Calculate Measures

The evaluator will calculate values for each proposed measure using data from the analytic database. Standard metrics from HEDIS or NCQA will be used whenever possible, and published definitions from the metric stewards will be used to create the metrics. Measures with binary outcomes—for example, whether or not the member received any services from an Institution for Mental Disease (IMD) —are calculated by determining who was eligible for the measure based on the published definition (the denominator) and then calculating whether eligible members met the criteria for the measure within a given timeframe (the numerator). Measures with non-binary outcomes—for example, number of visits of a specific type—are calculated by determining who was eligible for the measure (the denominator) and calculating a total for each eligible member (the numerator). A value is calculated for each individual for each calendar quarter, so that measures are available at the person/quarter level. Results are aggregated to calculate outcome measures for Medicaid members as a whole and for specific subgroups of Medicaid members. See Appendix 4 for a complete list of data elements.

## C.6 Perform the Quantitative Analysis

The evaluator will perform a series of analyses to address each of the hypotheses outlined in section B.2. The gold standard analytic approach is to find a comparison group that is similar to the intervention group (in this case, adult Idaho Medicaid recipients with SUD and/or SMI/SED). Because the intervention in Idaho is statewide, the evaluator cannot create a comparison group based on Idaho Medicaid members who do not receive the intervention. While some states may be able to take advantage of geographically staggered implementation, the unique geography of Idaho precludes this – nearly half of the population lives in the Boise metropolitan area. In looking at other states that could potentially serve as comparisons, the state should:

- Be similar to Idaho

- Not have CMS waivers related to SUD and/or SMI/SED
- Be willing to share de-identified Medicaid claims data with Idaho for this purpose across the entire demonstration period plus the baseline

Many western states have waivers related to SMI/SED or SUD, making it difficult to find a reasonable comparison state.[8] Thus, the evaluator proposes an interrupted time series approach. In addition to the traditional approach defining a time variable as a running count of quarter since the beginning of the baseline period, the evaluator will also estimate an alternate model that drops the "early" implementation period prior to new MCO contract, which will likely lead to additional changes. Thus, would allow distinguishing between three time periods: baseline (January 2018 – March 2020), early post-implementation (April 2020 – December 2022), late post-implementation (January 2023 – March 2025). However, empirically, in both models, the evaluator treats April – December 2020 as a washout period. The unit of analysis will be the person-quarter (although unit of analysis may vary by outcome – see Appendix 4), and members will be included if they are enrolled for all 3 months of a quarter. Those enrolled for only part of the quarter will be excluded from the analysis for that particular quarter. The analytic model will be:

$$Y_{it} = \beta_0 + \beta_1 Time + \beta_2 Post + \beta_3 (Time * Post) + \theta X_{it} + e_{it}$$

Definitions within the model are as follows:

*Time* is a running count of quarters since the beginning of the baseline period (i.e., January 2018)
*Post* is an indicator for the period after the implementation of the 1115 waiver (i.e., April 2020)
$X_{it}$ is a vector of demographic, geographic, and risk-adjustment covariates; and
$e_{it}$ is a random error term associated with the unmeasured variation in the outcome of interest.
Given the uncertainty surrounding the timing of the different components as well as the complexity surrounding the broader Medicaid expansion and the COVID-19 pandemic, the evaluator highlights a series of sensitivity analyses surrounding the definition of the "pre-" and "post-periods'. First, as mentioned above, the evaluation will consider three time periods: baseline (January 2018 – March 2020), early post-implementation (January 2021 – December 2022), late post-implementation (January 2023 – December 2025. In baseline analyses, the evaluator considers April 2020 through the end of the year a wash-out period. In sensitivity analyses, the evaluator will alternatively drop January – March 2020 from the baseline period and focus exclusively on that period. These analyses will account for the initial three-month period of Medicaid expansion prior to the 1115 waiver demonstration. The evaluator will also consider shortening the early post-implementation period depending on how the COVID-19 vaccination roll-out continues.

The model specification above is general and can be used for a variety of different outcome variables. The specific model used will vary based on the distribution of the outcome variable. For example, the evaluator will use logistic regression models for dichotomous outcomes, i.e., those coded as "Yes/No" or "Present/Absent." For continuous outcomes, the evaluator prefers linear models; with large N available, linear models are appropriate even when some of the usual assumptions are not met[9]. Linear models have the additional advantage of having coefficients that are easily interpretable. The evaluator will also consider count models, two-part models or mixed effects models where appropriate. All statistical tests will be 2-sided with $p < 0.05$ considered statistically significant.

Model covariates: Models will be adjusted for demographic, geographic, and physical health factors including:

*Demographic factors*: Age, gender, Medicaid eligibility group, race/ethnicity. Note: based on the distribution of racial groups in Idaho, the evaluator may be able to focus on only a limited number of racial/ethnic categories, for example, non-Hispanic White, Hispanic, and Native American, with all other racial groups defined as "Other." This will be determined by the racial/ethnic distribution of the data; all racial groups with sufficient numbers will be included as separate race categories.

*Geographic factors*: urban/rural/frontier residence, Region (1 – 7), residence on Indian reservation.

*Physical health*: Chronic conditions will be identified based on either the Chronic Illness and Disability Payment System (CDPS)[10], or the CMS Chronic Condition Warehouse[11]. Both of these sources include ICD-10 definitions of common chronic conditions in a Medicaid population. To account for the presence of comorbid conditions, the evaluator will define the Elixhauser comorbidity index[12,13].

*Outcome Metrics*: Outcome metrics are listed in Appendix 4, based on CMS evaluation guidance. Additional metrics may be added if Idaho chooses to monitor additional metrics, and changes may be made based on future guidance from CMS as well as data availability. For example, should data availability preclude measurement of a specific outcome, it may be omitted from the analysis. The analytic and modeling approaches described above are appropriate for all outcomes that measure member-level outcomes (e.g., ED use, IMD use and length of stay).

In addition to these measures, the evaluator will include quarter of year fixed effects to account for seasonality.

Hypothesis Testing. This evaluation will employ a hypothesis testing approach that seeks to build convergent evidence from multiple research questions. In this context, hypotheses will be rejected or confirmed based on analyses of multiple research questions. If research questions indicate mixed evidence for a hypothesis in either direction, findings will be contextualized in terms of each proposed question,

### *C.6.1 Subgroups of Focus*

It is important that the interventions do not perpetuate or exacerbate historical inequities in health care access or treatment among various subgroups of the population. In Idaho, these groups have included racial/ethnic minority groups, those living in frontier areas, and those with mental health and substance use disorders. The demonstration targets those with SMI/SED or SUD concerns, so all analyses that look for improvements in access or care outcomes will assess whether the demonstration has narrowed the gaps in care experienced by this group. For other historically marginalized or underrepresented groups, analyses will be designed to assess whether changes experienced by these groups were comparable to those experiences by their counterparts that do not face the same disparities. For example, did racial or ethnic minorities with SUD experience the same improvements in access to MAT as white members? Additional subgroups of interest that Idaho is monitoring include individuals with multiple anti-psychotic medications, pregnant women and SUD/OUD, children born with neonatal abstinence syndrome (NAS), families with experience in the foster care / child welfare system, individuals residing in

rural and non-rural locations, and criminally and not criminally involved individuals. The evaluator will also consider inclusion of these additional sub-populations to examine differential outcomes in the four areas of outcomes. Analyses will also address whether gaps widened or narrowed during the demonstration period. For each of the subgroups identified in Section C.4, we will add an additional interaction term per subgroup to the equation above (i.e. interact the post variables by the subgroups one-by-one).

## C.7 Cost Analysis

The evaluator will examine the impact of the 1115 waiver demonstration on spending with the goal of better quantifying the Medicaid program costs for SMI/SED and SUD and will conduct three levels of analyses following CMS guidance on conducting cost analyses.[14]

Level 1:

*Total Costs of Demonstration:* The total costs will be calculated as the sum of all benefit and administrative costs due to waiver. Specifically, to understand the overall impact on federal spending, the evaluator will estimate changes to SUD and SMI/SED spending multiplied by the FMAP and added to the total spending on additional federal administrative funding for the demonstration. Separate cost analysis will be conducted for SMI/SED and SUD beneficiaries.

Level 2:

*Costs Related to Diagnosis and Treatment SMI/SED and SUD*: The second level is the costs related to SMI/SED and SUD. Specifically, the evaluator will focus on spending specifically for SUD diagnosis and treatment and SMI/SED diagnosis and treatment among the target population. This analysis will include identification of cost drivers by identifying major costs associated with a SMI/SED diagnosis and/or service receipt as well as with SUD diagnosis and/or services. Separate cost analysis will be conducted for SMI/SED and SUD beneficiaries.

Level 3:

*Source of Treatment Drivers*: The third level will identify key treatment cost drivers for SMI/SED and SUD populations separately. Benefit costs will be split by outpatient, inpatient, RX drugs and long-term care costs. Additionally, ED costs will be separated from other forms of outpatient costs. In particular, the evaluator will seek to understand whether variation in changes in spending by specific categories of care (IMD/inpatient, ED, outpatient, prescription drug, crisis services, and telehealth) to understand potential drivers of changes in spending. Separate cost analysis will be conducted for SMI/SED and SUD beneficiaries.

Dataset construction for the cost analysis will also follow CMS guidance. In particular, the evaluator will construct separate beneficiary level datasets from both populations of beneficiary level claims. This will include identifying all beneficiaries with relevant diagnosis and/or service utilization during the demonstration evaluation time periods. Then the evaluator will create datasets that identify each month a beneficiary is enrolled and has relevant diagnoses and/or service utilization and the 11 months following the most recent relevant diagnosis and/or service use. For each month during the identification and follow-up period, the beneficiary's Medicaid costs for that month will be specified (total as well as breakdown across setting. Demographic variables will be included within the dataset. Using this dataset, the evaluator will calculate and report average and median costs--plotting mean and median trends visually.

In parallel to the quantitative analyses above, the evaluator will employ a similar time series modelling approach to understand costs and related predictors. The evaluator will adopt a similar strategy to previous work in this space to increase comparability where appropriate. Specifically, the evaluator will estimate linear effects in the pre-demonstration and post-demonstration periods including estimating marginal effects and standard errors in the evaluation reports. The evaluator will run separate ITS models for each cost outcome and each outcome of focus (SMI/SED or SUD).

## C.8 Qualitative Analysis

The qualitative portion of the evaluation will be focused on two primary goals. First, the evaluation team will seek to fully describe all components of the demonstration, including each of the key change actions, the timing of the key change actions, the change strategy, owner(s) of the change process/action, and key contextual factors in order to understand both which changes have been implemented and when they occurred. Second, the evaluation team will seek to identify what aspects of the demonstration were most effective in driving any observed changes in outcomes, as well as identifying barriers and facilitators to implementation encountered along the way. These lessons learned will be valuable to Idaho as well as other states considering 1115 behavioral health waivers.

### *Systematic document collection and review:*

The evaluation team will use two primary types of data to inform the qualitative component: 1) systematic collection of secondary documents and 2) semi-structured interviews with key informants.

Through ongoing and systematic document review of proposals, meeting minutes, progress reports, publicly available documents, websites, and media, the evaluation team will track the progress of the demonstration waiver, any pivots, and/or challenges in order to develop a full narrative and timeline of events, including key contextual factors. The evaluation team will collaborate with Idaho state Medicaid and Behavioral Health division staff to identify and access to relevant documents.

### *Key informant interviews:*

The evaluation team will conduct three phases of key informant interviews.

The first phase of key informant interviews is planned for the last quarter of 2021. Evaluation team members will interview 8-12 individuals who were involved in the design of the demonstration or who are actively involved in implementing it, as well as leaders or staff involved in each key change categories shown in the logic model. The evaluation team will work with Idaho state Medicaid and Behavioral Health division staff to identify relevant individuals and will use snowball sampling.

In conjunction with the document review, the first phase of interviews will provide a thorough description of the waiver demonstration and how it is expected to be implemented including each key change category, challenges, and key informant perspectives on the feasibility of on-time implementation of each component of the demonstration.

The second phase of key informant interviews is planned for early 2023. Evaluation team members will interview the same individuals interviewed in phase 1. The purpose of this round of interviews is to understand more precisely what specific pieces of the demonstration plan have

been implemented, the fidelity to the implementation plan, the timing of implementation, and an understanding of how widespread implementation may be. This will help to guide subsequent refinement of the quantitative approach. For example, if certain components of the waiver demonstration are delayed that can be appropriately accounted for in quantitative evaluations. Results of the qualitative assessment can also be used to inform Idaho demonstration leaders of progress and if or where changes might be needed.

The third phase of key informant interviews is planned for early 2025. Evaluation team members will interview 25-30 individuals or until saturation is reached, including key individuals leading the implementation and a variety of SUD and SMI/SED providers (making sure to incorporate members that provide for key subgroups including patients in rural areas, providers treating neonatal abstinence syndrome, providers with patients receiving multiple anti-psychotic medications, and providers caring for families involved in the child welfare/foster care systems). The evaluation team will work with Idaho state Medicaid and Behavioral Health division staff to identify relevant individuals and will use snowball sampling.

The third phase of interviews will be used to identify demonstration programs and interventions that were most effective as well as to understand barriers and facilitators for success. Interviews in all phases will be recorded and transcribed. Qualitative data will be stored in a qualitative analysis software program such as Dedoose, a software platform for team-based qualitative analysis. A team of analysts will draft a codebook to guide the systematic tagging of topics and concepts in each phase of interviews. After testing the codebook on numerous transcripts, the team will revise the codebook until the analysts reach consensus. Analysts will apply codes to each transcript and a second analyst will review the coding for quality and consistency.

Once all transcripts are coded in each phase, team members will analyze the coded passages, and write memos summarizing what was learned from each respondent related to the specific topics covered in the codebook. After aggregating what is learned on a specific topic across each type of interviewee, team members will draft a final memo for that topic, summarizing findings across all respondents. A second team member will review memos, and differences in interpretation and questions about clarity until all issues are resolved. Finally, the analytic memos will be synthesized by the lead analyst into the final evaluation report, which was then be reviewed by all evaluation team members and revised for clarity, where needed.

## C.9 Interim and Summative Reports

The evaluator will deliver Mid-point, Interim and Summative Evaluation Reports that are meaningful and accessible to the primary audiences for the evaluation. Given the six-month time lag for maturation of claims/encounter data and the time needed to analyze these data, the evaluator anticipates that the reports will cover results for the following time periods:

- The Midpoint Assessment due to CMS in March 2023 will include an overview of the state's methodology used for examining progress and assessing risk, the limitations of the methodologies, its determinations, and any recommendations.
- The Interim Report due to CMS in March 2024 will include results through June 2022.
- The Summative Report due to CMS in August 2026 will present results through December 2025, one quarter prior to the end of the demonstration period.

The evaluator anticipates that each of the above referenced reports will contain a large volume of quantitative results, including comparison of measures with benchmarks, changes associated with the waiver as identified by regression analysis, and results for populations of focus and other sub-populations. The reports will also include qualitative results such as whether the demonstration is being implemented as expected and whether the demonstration is having intended effects on the target population. The reports will use visual representations (e.g. charts) to convey information quickly and concisely to a general audience to facilitate general population interpretation of results. To provide context and help explain results, the reports will draw on information from Idaho's quarterly reports to CMS and other background documents as needed.

### C.10 Support Tasks

The evaluator will carry out the following tasks to support the quantitative and qualitative evaluations and deliver Interim and Summative Evaluation Reports:

- Facilitate kickoff meeting and regular meetings with state staff: The evaluator will facilitate a kickoff meeting with Idaho's Medicaid Division to introduce the evaluation team and clarify scope as needed. In addition, the evaluator will facilitate twice a month (every 2 weeks) check-ins with the division to provide progress updates and address any challenges with the evaluation. Ad-hoc meetings can occur as needed.
- Manage research compliance**:** The evaluator will obtain necessary permissions to collect and use data needed for the evaluation. This includes obtaining Institutional Review Board (IRB) approval for the evaluation protocol and executing any data use agreements needed to obtain and use the data.
- Provide project management: The evaluator will provide general project management to ensure deliverables are high-quality and delivered on time.

## SECTION D: Methodological Limitations

This evaluation will have a number of limitations. The first known limitation is the on-going COVID-19 global pandemic and its impacts on health care and mental health service utilization and access. The evaluator expects to see increases in health care and behavioral health utilization as well as an increase in telehealth services. The evaluation team will develop a timeline of critical contextual factors/events to relate to demonstration major milestone timelines and implementation. This information will be used to inform our methodology to more precisely isolate effects from the demonstration.

Second, the absence of a direct comparison group limits the ability to absolutely determine whether the demonstration caused the observed changes in outcomes and to assess what the outcomes would have been in the absence of the demonstration. The evaluator will leverage existing data sources where possible (e.g., TEDS, CDC detailed mortality, national benchmarks) to act as comparisons and/or benchmarks. These are outlined in Appendix Table 4. In cases where we are unable to identify appropriate benchmarks, we will work with CMS to identify national Medicaid benchmarks. In addition, the evaluator will develop synthetic cohorts, providing the availability of data, to serve as comparison groups. Lastly, the evaluator will make

comparisons to changes in utilization for non-behavioral health treatment in order to tease out the relative impacts of Medicaid expansion (which affects both behavioral and physical health care) and the 1115 waiver (which focuses on behavioral health care). While there are likely to be spillover effects from one to the other, this approach will provide a first approximation to the relative impacts.

A third known limitation is that Medicaid members often "churn" between Medicaid and other coverage (or no coverage), which can make it difficult to follow individuals over time and assess trends. The evaluation team will use identifiers above and beyond a unique Medicaid ID (e.g., name, address, DOB) to more precisely match data at the beneficiary level deterministically and probabilistically, including across data systems and over-time. Further, the state data team has been working with their data warehousing vendor, IBM to quality check unique identifiers to ensure correctness.

Fourth, there could be unequal penetration of waiver reforms across geographic regions, and this could lead to limitations. Much of Idaho's population is concentrated in a few urban areas, with the rest of the state characterized by low or very low population density. This makes implementing reforms in a uniform way across the state very difficult. The realities of population scatter may require modifications of planned reforms in some areas. The current intention of the demonstration is to have the new MCO drive workforce development within rural areas which may also address potential for unequal penetration rates.

Fifth, other state or national policy changes may occur at the same time as the waiver. This could limit the ability of the evaluator to determine whether observed changes were due to the 1115 demonstration or to other policy changes. As mentioned in the beginning of this section the evaluation team will develop a timeline of critical events and policy changes through document analysis and key informant interviews to account for changes within our quantitative analyses. Specific state and/or national policy changes that the evaluator considers include the following:

1. Idaho has had an Idaho Response to Opioid Crisis (IROC) grant to pay for MAT services for the past 3 ½ years. This grant was slated to end in September 2020 although has received an initial extension due to the pandemic. Outside of the grant, Idaho's Medicaid program has not paid for MAT services. Policies are being developed, with the plan that Medicaid will begin paying for MAT services through Optum in January 2021. The evaluation team will work with Idaho to understand the data available to assess MAT data availability during the IROC grant funding period and the subsequent transition to Optum January 2021. In addition, in the IBHP contractor change in 2022, the evaluator will continue to assess changes resultant from the transition and account for these changes in our quantitative and qualitative methods. At this time, it is not yet clear what data regarding MAT services have been collected by DBH during the IROC funding period program, so availability of baseline data for MAT may be limited or incomplete.

2. Idaho Medicaid currently has an MCO contract with a single vendor for all outpatient behavioral health care. Outpatient care is paid through this MCO contract, and inpatient care is paid through fee-for-service. Idaho is preparing a request for proposals to re-bid for this vendor in 2021, and all behavioral health care will transition to the MCO at that time. Services under the new vendor will start in 2022, and data submission is likely to differ between the old and new vendors. This could impact data quality, timeliness, and/or completeness.

# SECTION E: Additional Information/Attachments

## E.1 Independent Evaluator – No Attachment

The Center for Health Systems Effectiveness (CHSE) at Oregon Health & Science University was originally planning to perform the evaluation. However, due to COVID-related staffing changes and changes in workload, CHSE had to withdraw as the independent evaluator. CHSE developed the draft evaluation plan but was not involved beyond that point. Idaho Division of Medicaid staff contacted CMS for recommendations for potential experienced evaluators. From the list that CMS provided, Idaho Division of Medicaid contacted potential evaluators, sent them the draft evaluation plan, and invited them to submit proposals. Six potential evaluators submitted proposals, and The Pennsylvania State University (Penn State) was selected based on evaluation requirements as established by CMS and review evaluation budget.

IDHW and Penn State will execute a contract based on the evaluation design and CMS evaluation requirements. Penn State will conduct analysis of Idaho's Behavioral Health Transformation Demonstration and write the evaluation reports. Penn State and Idaho Medicaid utilized the draft evaluation plan design from OHSU and expanded on methodologies, data sources, design capabilities and effective timelines. Idaho will utilize contract monitoring practices to ensure Penn State will conduct a fair and impartial evaluation, as part of the state's contract and procurement laws. As part of the development of the contract with the evaluator, IDHW will create a risk assessment that includes mitigation strategies to address these potential situations.

## E.2 Timeline

The following timeline presents anticipated start and end dates for tasks described in the work plan based on deadlines.

**Evaluation Timeline**

| Task | Start | End | Status |
|---|---|---|---|
| Support Tasks | 12/1/20 | 3/31/25 | In Progress |
| Facilitate Kick off meetings | 12/1/20 | 12/31/20 | Complete |
| Prepare Quantitative Analysis Plan | 12/1/20 | 3/15/21 | In Progress |
| Obtain IRB approval (if needed) | 12/1/20 | 3/15/21 | In Progress |
| Execute data use agreements | 12/15/20 | 4/30/21 | In Progress |
| Facilitate bimonthly check-in | 1/25/21 | 3/31/25 | In Progress |
| Build database and process data | 2/1/21 | 7/15/25 | In Progress |
| Create database structures and schema | 2/1/21 | 4/1/21 | In Progress |
| Obtain baseline & Q1 data (Jan 2018 - Jun 2020), create database | 3/4/21 | 5/21/21 | |
| Calculate quality measures for quarterly report | 5/1/21 | 8/13/21 | |
| Calculate additional quality measures and add to staging process | 8/15/21 | 11/15/21 | |

| | | | |
|---|---|---|---|
| Obtain remaining 2020 data, process, & prep for analysis | 11/1/21 | 12/15/21 | |
| Obtain 2021 data, process, & prep for analysis | 7/1/22 | 7/15/22 | |
| Obtain/process Jan - Jun 2022 data for Interim Eval. Report | 9/1/22 | 3/30/23 | |
| Obtain 2022 data, process, & prep for analysis | 7/3/23 | 7/18/23 | |
| Obtain 2023 data, process, & prep for analysis | 7/1/24 | 7/15/24 | |
| Obtain 2024 data, process, & prep for analysis | 7/1/25 | 7/15/25 | |
| Mental Health Availability Assessment | 2/1/20 | 3/31/25 | In Progress |
| Demonstration Year 1 | 2/1/20 | 5/31/21 | In Progress |
| Demonstration Year 2 | 11/2/21 | 3/31/22 | |
| Demonstration Year 3 | 11/2/22 | 3/31/23 | |
| Demonstration Year 4 | 11/2/23 | 3/29/24 | |
| Demonstration Year 5 | 11/2/24 | 3/31/25 | |
| Mid-Point Assessment Report | 9/1/21 | 5/31/23 | Not Started |
| Key informant interviews and analysis for Mid-Point Report | 9/1/21 | 12/31/21 | |
| Prepare Draft #1 for IDHW review | 9/30/22 | 11/30/22 | |
| IDHW reviews Draft #1 (assume 30 days) | 11/30/22 | 12/30/22 | |
| Prepare Draft #2 for CMS review (OFFICIAL DUE DATE) | 1/2/23 | 5/31/23 | |
| Interim Evaluation Report | 1/2/23 | 3/29/24 | Not Started |
| Key informant interviews and analysis for Interim Report | 1/2/23 | 4/28/23 | |
| Calculate measures for Interim Report | 4/1/23 | 6/30/23 | |
| Perform quantitative analysis including modeling | 6/30/23 | 11/15/23 | |
| Prepare Draft #1 for IDHW review | 10/1/23 | 2/16/24 | |
| IDHW reviews Draft #1 (assume 30 days) | 2/16/24 | 3/15/24 | |
| Prepare Draft #2 for CMS review (OFFICIAL DUE DATE) | 3/16/24 | 3/29/24 | |
| Summative Evaluation Report | 1/6/25 | 8/31/26 | Not Started |
| Key informant interviews and analysis for Summative Report | 1/6/25 | 5/2/25 | |
| Obtain & process complete 2024 data | 7/1/25 | 8/29/25 | |
| Calculate measures for Summative Report | 9/1/25 | 10/31/25 | |
| Carry out quantitative analysis for Summative Report | 10/15/25 | 3/31/26 | |
| Prepare Draft #1 for IDHW review | 1/1/26 | 6/16/26 | |
| IDHW reviews Draft #1 (assume 30 days) | 6/16/26 | 7/16/26 | |
| Prepare Draft #2 for CMS review (OFFICIAL DUE DATE) | 7/16/26 | 8/31/26 | |

## E.3 Evaluation Budget –

Table E.1 below presents the total demonstration budget for tasks in this work plan.

| Demonstration Year 1 | Estimated Budget* |
|---|---|
| Project Planning and Management | $105,963.00 |
| Data Collection and Analysis | $97,372.00 |
| CMS Deliverables | $21,193.00 |
| Travel | $18,900.00 |
| **DY 1 TOTAL AMOUNT NOT TO EXCEED** | **$243,428.00** |

| Demonstration Year 2 | Estimated Budget* |
|---|---|
| Project Planning and Management | $119,942.00 |
| Data Collection and Analysis | $102,254.00 |
| CMS Deliverables | $23,988.00 |
| Travel | $18,900.00 |
| **DY 2 TOTAL AMOUNT NOT TO EXCEED** | **$265,084.00** |

| Demonstration Year 3 | Estimated Budget* |
|---|---|
| Project Planning and Management | $122,941.00 |
| Data Collection and Analysis | $104,653.00 |
| CMS Deliverables | $24,588.00 |
| Travel | $18,900.00 |
| **DY 3 TOTAL AMOUNT NOT TO EXCEED** | **$271,082.00** |

| Demonstration Year 4 | Estimated Budget* |
|---|---|
| Project Planning and Management | $106,848.00 |
| Data Collection and Analysis | $113,115.00 |
| CMS Deliverables | $106,816.00 |
| Travel | $18,900.00 |
| **DY 4 TOTAL AMOUNT NOT TO EXCEED** | **$345,679.00** |

| Demonstration Year 5 & Final Reports | Estimated Budget* |
|---|---|
| Project Planning and Management | $109,380.00 |
| Data Collection and Analysis | $109,346.00 |

| | |
|---|---|
| CMS Deliverables | $110,125.00 |
| Travel | $18,900.00 |
| **DY 5 through end of contract term TOTAL AMOUNT NOT TO EXCEED** | **$347,751.00** |

| | |
|---|---|
| **MAXIMUM CONTRACT AMOUNT** | **$1,473,024.00** |

# References


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14. SMI/SED and SUD Evaluation Design Guidance: Appendix C.

# Appendix 1. Demonstration Goals and Milestones

SUD Goals:

1. Increased rates of identification, initiation, and engagement in for OUD and other SUDs.
2. Increased adherence to and retention in treatment for OUD and other SUDs.
3. Reductions in overdose deaths, particularly those due to opioids.
4. Reduced utilization of emergency departments 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, where the readmission is preventable or medically inappropriate for OUD and SUD.
6. Improved access to care for physical health conditions among beneficiaries with OUD or SUDs.

*SUD Milestones*

1. Access to critical levels of care for OUD and other SUDs.
2. Widespread use of evidence-based, SUD-specific patient placement criteria.
3. Use of nationally recognized, evidence-based, SUD program standards to set residential treatment provider qualifications.
4. Sufficient provider capacity at each level of care, including Medication Assisted Treatment.
5. Implementation of comprehensive treatment and prevention strategies to address opioid abuse and OUD.
6. Improved care coordination and transitions between levels of care.

SMI/SED Goals:

1. Reduced utilization and lengths of stay in emergency departments among Medicaid beneficiaries with SMI or SED while awaiting mental health treatment in specialized settings.
2. Reduced preventable readmissions to acute care hospitals and residential settings
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.
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 behavioral health care
5. Improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities

*SMI/SED Milestones*

1. Ensuring quality of care in psychiatric hospitals and residential settings
2. Improving care coordination and transitioning to community-based care
3. Increasing access to continuum of care, including crisis stabilization services
4. Earlier identification and engagement in treatment, including through increased integration

# Appendix 2. Domains of Change Activities and Timelines

| Provide Expanded Coverage | | | |
|---|---|---|---|
| **Name of change** | **Description** | **Start Date** | **Outcome categories likely impacted** |
| Reimburse IMDs with Medicaid funds | Medicaid enrollees ages 21-64 can now access IMD services covered by Medicaid funds. | April 2020 | Utilization, Quality, Health Outcomes |
| Reimburse residential behavioral health services | Medicaid enrollees ages 21-64 can now access residential behavioral health services covered by Medicaid funds. | April 2021 | Utilization, Quality, Health Outcomes |
| Cover crisis services | Medicaid enrollees ages 21-64 can access crisis services covered through the IBHP MCO contract. | January 2020 | Utilization, Quality, Health Outcomes |
| Reimburse partial hospitalization services | Medicaid enrollees ages 21-64 can access partial hospitalization services covered by Medicaid funds. These services include support therapy, medication monitoring, and skills building from intensive ambulatory care programs offering less than 24-hour daily care. | January 2020 | Utilization, Quality, Health Outcomes |
| Reimburse Assertive Community Treatment (ACT) services | Medicaid enrollees ages 21-64 can access ACT services (integrated delivery of community mental health services to those with SMI/SED) covered by Medicaid funds. Goal is to facilitate a smoother transition to services post inpatient discharge for SMI/SED patients. | July 2022 | Utilization, Quality, Health Outcomes |
| Reimburse recovery coaching for SUD | Medicaid enrollees ages 21-64 can access recovery coaching covered by Medicaid | January 2020 | Access, Utilization, Quality, Health Outcomes |
| Reimburse OTPs for methadone maintenance treatment | Medicaid enrollees ages 21-64 will access methadone maintenance treatment provided by OTPs reimbursed by Medicaid. Ongoing discussions about increasing reimbursement rates to further facilitate expansion. | January 2021 | Utilization, Quality, Health Outcomes |

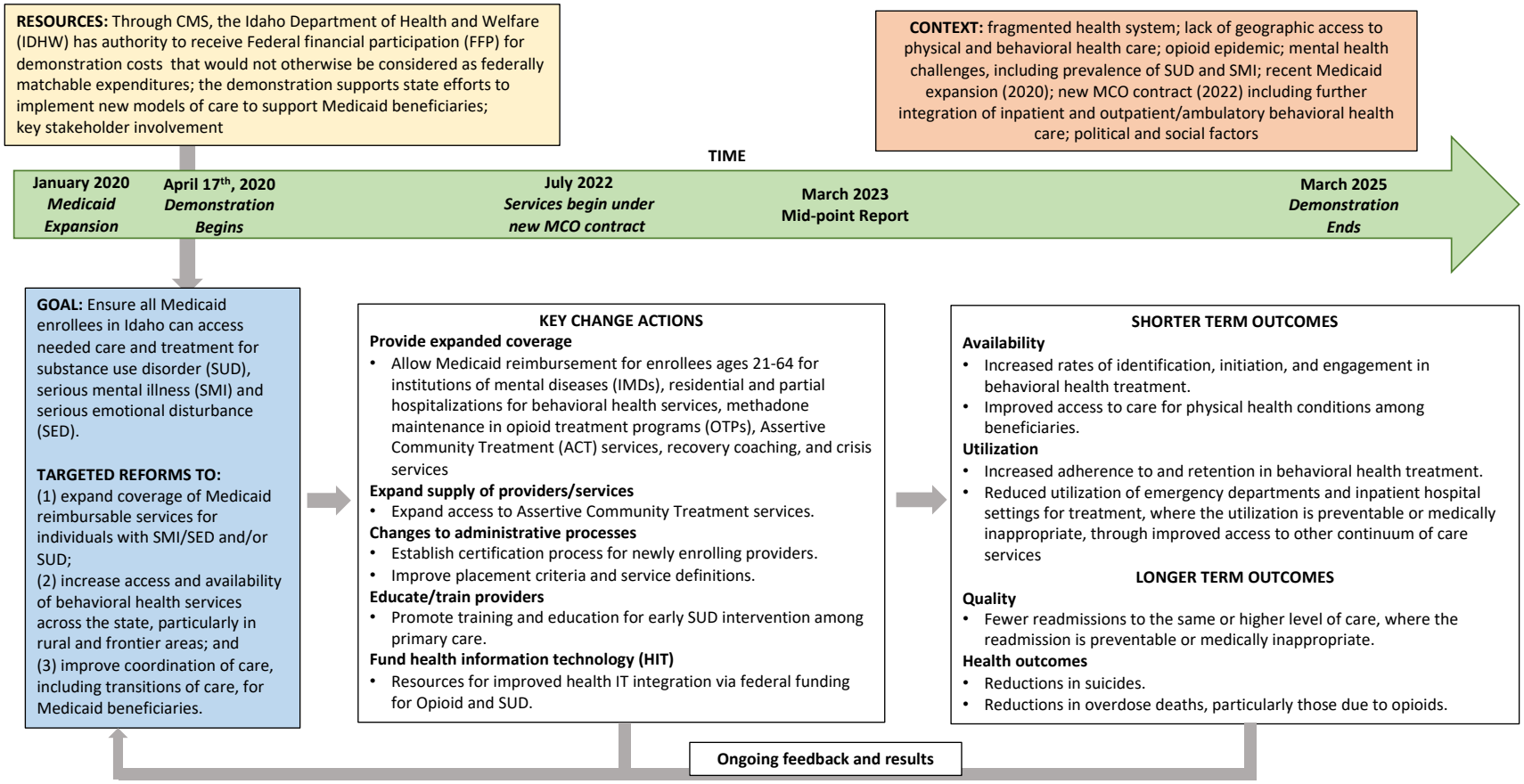
| Expand Supply of Providers and Services | | | |
|---|---|---|---|
| **Name of change** | **Description** | **Start Date** | **Outcome categories likely impacted** |
| Expand number of MAT waivered providers | Idaho Medicaid collaborates with Idaho ECHO to encourage more providers across the state to become waivered to prescribe MAT. | 2018 | Access, Utilization, Health Outcomes |
| Develop a comprehensive statewide crisis response plan and system to expand crisis service availability | Implementing a plan that:<br>• Develops a statewide inpatient and crisis bed registry<br>• Improve access to same day crisis services (in person or telehealth)<br>• Expand availability of mobile crisis units, particularly for rural areas<br>• Implement single, statewide crisis line<br>• Proactive and reactive crisis plans for all care transitions and discharges for those with SMI/SED | Bed Registry and same day crisis services April 2020<br><br>Mobile crisis and single statewide crisis line July 2022 | Availability, Utilization,<br>Quality,<br>Health Outcomes |
| Increase integration of physical and behavioral health | • Pursuing physical-behavioral health integration by:<br>• Adding behavioral health measures to quality evaluation<br>• Enable billing simplifications so primary care can more easily provide behavioral health<br>• Partner with Idaho ECHO to promote physical-behavioral health integration | August 2020 – October 2022 ECHO is ongoing<br><br>PHI will occur with new MCO contract July 2022 | Access,<br>Utilization,<br>Quality |
| Expand provision of transportation benefits | To increase access and utilization of behavioral health care in rural areas, the new NEMT contractor will improve uptake of the reimbursable travel fee. | 2022 | Access,<br>Utilization |

| Changes to Administrative Processes | | | |
|---|---|---|---|
| **Name of change** | **Description** | **Start Date** | **Outcome categories likely impacted** |
| Provider certification process | Establish certification process for newly enrolled behavioral health providers together with re-certification process to ensure availability of high-quality providers. | April 2021 | Availability, Quality |
| Improve discharge planning to community-based standards | Establish new mandatory post-discharge requirements (following inpatient, residential, and ED visits) including:<br>• Must follow-up with patient within 7- and 30-days post-discharge<br>• Case management for up to 30-days post-discharge<br>• Minimum standards (TBD) for discharge planning<br>• Plans to follow up with patients' MAT<br>• Work with MCO to ensure robust discharge plans via telehealth for patients being discharge in rural areas | July 2022 | Quality |
| Require all IMDs to provide at least 2 forms of MAT | Change IMD requirements that they must provide at least two forms of MAT in order to meet patient needs and increase utilization rates of MAT | July 2022 | Utilization, Quality, Health Outcomes |
| Improve coordination between first responders and treatment providers | Implement an interoperability platform to better enable information sharing | TBD | Utilization, Quality, Health Outcomes |
| Simplify telehealth coverage rules | IBHP will work to simplify and standardize coverage of telehealth to facilitate behavioral health care delivered via telehealth, particularly for rural areas | 2020 | Access, Utilization, Quality, Health Outcomes |
| IBHP improvements to care coordination | The new IBHP managed care contract will aim to incorporate the following changes to the existing behavioral managed care contract:<br>• Add inpatient and residential behavioral health services (in addition to current outpatient services)<br>• New minimum standards for discharge planning that will be mandatory in all provide agreements on which MCO will be evaluated | July 2022 | Access, Utilization, Quality |

| | | | |
|---|---|---|---|
| | • New requirement for case management for all hospitalized patients (both inpatient and ED visits) from early discharge through 30-day post-discharge on which MCO will be evaluated<br>• Requirements to provide staff to work with enrollees through post-discharge transition and post-discharge care coordination | | |
| **Educate/Train Providers** | | | |
| **Name of change** | **Description** | **Start Date** | **Outcome categories likely impacted** |
| Promote training for early SUD identification | Promote training for providers to identify SUD in primary care (e.g. using SBIRT). Promotion will be provided via the Health Connections primary care case management program. | July 2022 | Utilization |
| Create standardized assessment process for SUD identification | Create a standardized approach that can be given to providers, particularly primary care providers, in order to improve early identification of SUD. Goal would be to create a standardized SBIRT tool/approach. | July 2022 | Utilization |
| Educate providers on new reimbursement opportunities | Provide education to providers about the various behavioral health services that can now be reimbursed through Medicaid. | July 2022 | Availability,<br>Utilization |
| **Fund Health Information Technology (HIT)** | | | |
| **Name of change** | **Description** | **Start Date** | **Outcome categories likely impacted** |
| Improve health IT integration | Utilize federal opioid and SUD funding to improve health IT integration to better coordinate SUD and SMI/SED care | TBD | Access |
| Facilitate access to PDMP and Idaho Data Health Exchange | Provide funding to allow linking of these databases to an expanded set of providers in order to facilitate use of the PDMP and Idaho Data Health Exchange to further coordinate SUD care. | 2020, integration with IHDE is ongoing | Access |

# Appendix 3. Logic Model

## Idaho Behavioral Health Transformation Waiver Logic Model



# Appendix 4. Demonstration Evaluation Outcome Definitions

| | **Availability** | | | | |
|---|---|---|---|---|---|
| **Research Question(s)** | **Outcome** | **Sample*** | **Definition** | **Data source** | **Comparison Group** |
| 6.1; 6.5 | Availability of community-based SUD services | Providers | *Numerator*: # billing Medicaid for SUD<br>*Denominator*: All providers | *Numerator*: Medicaid claims; IDHW data<br>*Denominator*: Environmental scan | Possible matched control from TEDS data |
| 6.2; 6.3 | Provider availability for MAT | Providers | *Numerator*: # billing Medicaid for MAT<br>*Denominator*: All providers | *Numerator*: Medicaid claims; IDHW data<br>*Denominator*: Environmental scan | Possible matched control from TEDS data |
| 6.4 | Provider availability for methadone | Providers | *Numerator*5 # billing Medicaid for methadone<br>*Denominator*: All providers | *Numerator*: Medicaid claims; IDHW data<br>*Denominator*: Environmental scan | Possible matched control from TEDS data |
| 10.1 | Availability of community-based behavioral health services (overall, outpatient, inpatient/residential, office-based) | Providers | *Numerator*: # billing Medicaid for behavioral health<br>*Denominator*: All providers | *Numerator*: Medicaid claims; IDHW data<br>*Denominator*: Environmental scan | Possible matched control from TEDS data |
| 10.3 | Availability of virtual visits | Providers | *Numerator*: # billing Medicaid for SUD or SMI/SED telehealth visits<br>*Denominator*: All providers | *Numerator*: Medicaid claims; IDHW data<br>*Denominator*: Environmental scan | Possible matched control from TEDS data |
| 10.4 | Availability of clinics with co-located physical and behavioral health providers | Providers | *Numerator*: # of clinics with co-located physical/behavioral health | *Numerator*: Environmental scan | Possible matched control from TEDS data |

| | | | | | |
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| | | | *Denominator*: All providers | *Denominator*: Environmental scan | |
| 10.5 | Availability of crisis care (separate by: overall; crisis call centers; mobile crisis units; crisis assessment centers; coordinated community response teams | Providers | *Numerator*: # of providers overall and by type<br>*Denominator*: Population | Environmental scan | Possible matched control from TEDS data |
| 10.6 | Availability of behavioral health in FQHCs | Providers | *Numerator*: # FQHCs providing behavioral health<br>*Denominator*: All FQHCs | *Numerator*: Medicaid claims; IDHW data<br>*Denominator*: Environmental scan | Possible matched control from TEDS data |
| 10.7 | Per capita availability of outpatient mental health professionals, by type (e.g., psychologists, social workers) | Medicaid enrollees (ages 21-64); Providers | *Numerator*: # of providers<br>*Denominator*: All Medicaid enrollees | *Numerator*: Medicaid claims; IDHW data<br>*Denominator*: Environmental scan | Possible matched control from TEDS data |
| | **<u>Utilization</u>** | | | | |
| **Research Question(s)** | **Outcome** | **Sample*** | **Definition** | **Data source** | **Comparison Group** |
| 1.1; 1.2; 1.3; 1.4 | Utilization of SUD-related care by type:<br>• outpatient<br>• residential<br>• inpatient<br>• intensive outpatient and partial hospitalization | # Medicaid enrollees with SUD | *Numerator*: # using (and # of total uses) of each type of service<br>*Denominator*: # Medicaid enrollees with SUD | Medicaid claims; IDHW data | Non-behavioral health utilization |
| 2.1 | Substance use screening | Medicaid enrollees | *Numerator*: # enrollees receiving screening<br>*Denominator*: # Medicaid enrollees (ages 21-64) | Medicaid claims; IDHW data | Non-behavioral health utilization |
| 2.2 | Initiation of alcohol use disorder and SUD treatment | Medicaid enrollees with evidence of alcohol use | *Numerator*: # with claims for alcohol use disorder or SUD treatment (as defined by ICD-10 codes) | Medicaid claims; IDHW data | Non-behavioral health utilization |

| | | | | | |
|---|---|---|---|---|---|
| | | disorder or SUD | *Denominator*: # Medicaid enrollees with evidence of alcohol use disorder or SUD | | |
| 2.3 | MAT utilization (sub-analysis specific to methadone) | Medicaid enrollees with OUD | *Numerator*: # with claims for MAT<br>*Denominator*: # Medicaid enrollees with OUD | Medicaid claims; IDHW data | Non-behavioral health utilization |
| 5.3 | Preventive care utilization (connecting OUD patients to broader care) | Medicaid enrollees with OUD | *Numerator*: # with claims for preventive care<br>*Denominator*: # Medicaid enrollees with OUD | Medicaid claims; IDHW data | Non-behavioral health utilization |
| 7.1 | Utilization of behavioral health services | Medicaid enrollees with SMI/SED | *Numerator*: # enrollees with SMI/SED with claims for SMI/SED per month<br>*Denominator*: # Medicaid enrollees with evidence of SMI/SED | Medicaid claims; IDHW data | Non-behavioral health utilization |
| 8.1 | Increased utilization of services from co-located physical and behavioral health facilities | Medicaid enrollees with SMI/SED or SUD | *Numerator: # with SUD/SMI/SED Diagnosis*<br>*Denominator: All Medicaid enrollees* | Medicaid claims; IDHW data | Non-behavioral health utilization |
| 9.1; 9.5; 9.6; 9.7; 9.8; 9.9 | Utilization of behavioral health-related care by type:<br>• outpatient rehabilitation<br>• case management<br>• home & community services<br>• long-term services/supports<br>• ED<br>• inpatient | # Medicaid enrollees with SMI/SED | *Numerator*: # using (and # of total uses) of each type of service<br>*Denominator*: # Medicaid enrollees with SMI/SED | Medicaid claims; IDHW data | Non-behavioral health utilization |
| 9.2 | Utilization of partial hospitalizations for SMI/SED | # Medicaid enrollees with SMI/SED | *Numerator*: # with a partial hospitalization<br>*Denominator*: # Medicaid enrollees with SMI/SED | Medicaid claims; IDHW data | Non-behavioral health utilization |
| 9.4 | Crisis service utilization | Medicaid enrollees (or overall if unable to | *Numerator*: # of unique crisis service users (by type)<br>*Denominator*: # of Medicaid enrollees (ages 21-64) | Medicaid claims; IDHW data; data from crisis centers | Non-behavioral health utilization |

| | | | | | |
|---|---|---|---|---|---|
| | | identify Medicaid enrollment) | | | |
| | **Quality** | | | | |
| **Research Question(s)** | **Outcome** | **Sample*** | **Definition** | **Data source** | **Comparison Group** |
| 2.4 | Adherence to OUD for MAT users | Medicaid enrollees with OUD and at least one claim for MAT | *Numerator*: # with ≥180 days of continuous MAT without a gap of >7 days<br>*Denominator*: Medicaid enrollees with OUD and at least one claim for MAT | Medicaid claims; IDHW data | TBD |
| 2.5 | Re-engagement of MAT for OUD patients | Medicaid enrollees with OUD with at least one gap of >30 days following initiation of MAT | *Numerator*: # who re-initiate MAT<br>*Denominator*: Medicaid enrollees with OUD with at least one gap of >30 days following initiation of MAT | Medicaid claims; IDHW data | TBD |
| 5.2; 11.1 | Reduction of readmissions | Medicaid enrollees with an inpatient admission for SUD (separately SMI/SED) | *Numerator*: # readmitted within 30 days (60 days) with SUD (separately SMI/SED diagnosis)<br>*Denominator*: # admitted with SUD (separately SMI/SED) | Medicaid claims; IDHW data | TBD |
| 4.1 | High dosage opioid prescribing | Medicaid enrollees with no cancer diagnosis | *Numerator:* # with high dosage opioid prescriptions<br>*Denominator:* Medicaid enrollees (ages 21-64) with no cancer diagnosis | Medicaid claims; IDHW data | TBD |
| 4.2 | Opioid prescriptions from multiple providers | Medicaid enrollees with no cancer diagnosis | *Numerator:* # with opioid prescriptions from multiple providers in 60-day window | Medicaid claims; IDHW data | TBD |

| | | | | | |
|---|---|---|---|---|---|
| | | | *Denominator:* Medicaid enrollees (ages 21-64) with no cancer diagnosis | | |
| 4.3 | High dosage opioid prescribing from multiple providers | Medicaid enrollees | *Numerator:* # with high dosage opioid prescriptions AND opioid prescriptions from multiple providers in 60-day window<br>*Denominator:* Medicaid enrollees (ages 21-64) with no cancer | Medicaid claims; IDHW data | TBD |
| 4.4 | Concurrent use of opioids and benzodiazepines | Medicaid enrollees | *Numerator:* # of enrollees with concurrent prescriptions for an opioid and a benzodiazepine<br>*Denominator:* Medicaid enrollees (ages 21-64) | Medicaid claims; IDHW data | TBD |
| 4.5 | ED utilization for SUD patients | Medicaid enrollees with SUD | *Numerator:* # with an ED visit<br>*Denominator:* Medicaid enrollees with SUD | Medicaid claims; IDHW data | TBD |
| 4.6 | Mental health related ED utilization for OUD and SUD patients | Medicaid enrollees with OUD and SUD | *Numerator:* # with an ED visit<br>*Denominator:* Medicaid enrollees with OUD and SUD | Medicaid claims; IDHW data | TBD |
| 5.4 | Follow-up with patients prescribed an anti-psychotic (to test for possible unintended spillovers will also test for ages 6-17) | Medicaid enrollees prescribed an anti-psychotic | *Numerator*: # of enrollees with a behavioral health provider within 28 days of prescription<br>*Denominator*: Medicaid enrollees (ages 21-64) prescribed an anti-psychotic | Medicaid claims; IDHW data | TBD |
| 5.1; 5.5 | Follow-up with patients post-ED discharge (to test for possible unintended spillovers will also test for ages 6-17) | Medicaid enrollees with an ED visit for SMI/SED | *Numerator*: # with a behavioral health provider within 28 days of ED discharge<br>*Denominator*: Medicaid enrollees (ages 21-64) with an ED visit for SMI/SED | Medicaid claims; IDHW data | TBD |
| 5.6 | Medication continuation post inpatient discharge for SUD (to test for possible unintended spillovers will also test for ages 6-17) | Medicaid enrollees with an inpatient | *Numerator*: # with evidence-based prescription within 2 days prior to discharge and within 30 days post-discharge | Medicaid claims; IDHW data | TBD |

| | | | | | |
|---|---|---|---|---|---|
| | | admission for SUD | *Denominator*: Medicaid enrollees (ages 21-64) with an inpatient visit for SUD | | |
| 6.6 | Patient satisfaction | Providers | *Numerator*: # with overall satisfaction rating of 9 or 10<br>*Denominator*: Behavioral health providers (by type) | Medicaid claims; IDHW data | TBD |
| | **<u>Health Outcomes</u>** | | | | |
| **Research Question(s)** | **Outcome** | **Sample*** | **Definition** | **Data source** | **Comparison Group** |
| 3.1 | Opioid overdose death rate (overall, in-hospital, out-of-hospital) | Medicaid enrollees (with inpatient admission for SUD; without admission for SUD) | *Numerator*: # death with OUD overdose/poisoning diagnoses<br>*Denominator*: Medicaid enrollees (with/without an inpatient admission for SUD) | Medicaid claims; IDHW data; vital statistics | Synthetic control state using CDC mortality data |
| 3.2 | ED visits for SUD | Medicaid enrollees with SUD | *Numerator*: # with ED visit<br>*Denominator*: Medicaid enrollees with SUD | Medicaid claims; IDHW data | TBD |
| 3.3 | Repeat overdoses | Medicaid enrollees with SUD | *Numerator*: # with multiple overdose admissions within 30 days (or 90 days)<br>*Denominator*: Medicaid enrollees with SUD | Medicaid claims; IDHW data | TBD |
| 9.9 | Mental health-related ED visits for SMI/SED | Medicaid enrollees with SMI/SED | *Numerator*: # of mental health-related ED visits per 1000 member months among members with SMI/SED<br>*Denominator*: Medicaid enrollees with SMI/SED | Medicaid claims; IDHW data | TBD |
| 9.3 | ED visits for SMI/SED | Medicaid enrollees with SMI/SED | *Numerator*: # of all-cause ED visits per 1000 member months among members with SMI/SED | Medicaid claims; IDHW data | TBD |

| | | | | | |
|---|---|---|---|---|---|
| | | | *Denominator*: Medicaid enrollees with SMI/SED | | |
| 10.2 | Suicide rate | Medicaid enrollees | *Numerator*: # with suicide as cause of death<br>*Denominator*: Medicaid enrollees | Vital statistics | Synthetic control state using CDC mortality data |
| | **<u>Qualitative Interim and Summative Findings</u>** | | | | |
| **Research Question(s)** | **Outcome** | **Sample*** | **Definition** | **Data source** | **Comparison Group** |
| 12.1; 12.2; 12.3; 12.4; 12.5 | Identification of demonstration activities or components that were most effective in facilitating or were barriers to:<br>• Improving access to SUD/SMI/SED treatment<br>• Increasing retention in SUD/SMI/SED treatment<br>• Reducing inpatient readmissions<br>• Improving patient satisfaction<br>• Improving care coordination<br>• Improving data sharing | Providers; Policymakers; TBD stakeholders | Key informant interviews will be conducted to gain an understanding of first-hand knowledge of the demonstration. | Qualitative primary data collection | N/A |
| | **<u>Costs</u>** | | | | |
| **Research Question(s)** | **Outcome** | **Sample*** | **Definition** | **Data source** | **Comparison Group** |
| 13.1 | Total SUD spending | Medicaid enrollees with SUD | Total expenditures for SUD care | Medicaid claims; IDHW data | Non-behavioral health spending |
| 13.2 | Total SMI/SED spending | Medicaid enrollees with SMI/SED | Total expenditures for SMI/SED care | Medicaid claims; IDHW data | Non-behavioral health spending |
| 13.3 | Total SUD spending by site of care | Medicaid enrollees with SUD | Total expenditures for SUD care by site of care | Medicaid claims; IDHW data | Non-behavioral health spending |
| 13.4 | Total SMI/SED spending by site of care | Medicaid enrollees with SMI/SED | Total expenditures for SMI/SED care by site of care | Medicaid claims; IDHW data | Non-behavioral health spending |

| | | | | | |
|---|---|---|---|---|---|
| 13.5 | Total federal spending | Medicaid enrollees with SUD or SMI/SED | Total federal spending (including both FMAP for SUD and SMI/SED care as well as additional administrative costs)<br><br>Alternative analyses to split by SUD and SMI/SED as well as examine all spending | Medicaid claims; IDHW data | Non-behavioral health spending |