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

State Demonstrations Group

MAY 2 2 2019

Henry Lipman
Medicaid Director
New Hampshire Department of Health and Human Services
129 Pleasant Street Brown Building
Concord, New Hampshire 03301-3857

Dear Mr. Lipman:

Thank you to you and your staff for your work on the substance use disorder (SUD) evaluation design, which is a component of the state's section 1115(a), titled "New Hampshire SUD Treatment and Recovery Access" ("SUD TRA") (Project No. 11-W-00321/1). The draft SUD evaluation design submitted to Centers for Medicare & Medicaid Services (CMS) on May 13, 2019 has been found to fulfill the requirements set forth in the Special Term and Conditions (STC), section X—and State Medicaid Director Letter SMD #17-003, "Strategies to Address the Opioid Epidemic."

The SUD evaluation design is approved for the period starting with the date of this approval letter through June 30, 2023—and is hereby incorporated into the demonstration STCs as Attachment C (see attached). Per 42 CFR 431.424(c), the approved SUD evaluation design may now be posted to your state's Medicaid website.

If you have any questions, please contact your CMS project officer, Mr. Michael Trieger. Mr. Trieger is available to answer any questions concerning your section 1115(a) demonstration and his contact information is as follows:

Centers for Medicare & Medicaid Services
Center for Medicaid & CHIP Services
Mail Stop: S2-25-26
7500 Security Boulevard
Baltimore, MD 21244-1850
Telephone: (410) 786-0745
E-mail: Michael.Trieger1@cms.hhs.gov

Official communication regarding official matters should be simultaneously sent to Mr. Trieger and Mr. Francis McCullough, Director, Division of Medicaid Field Operations East. Mr. McCullough's contact information is as follows:

Mr. Francis McCullough
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Centers for Medicare & Medicaid Services
801 Market Street
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We look forward to our continued partnership on the New Hampshire SUD TRA section 1115(a) demonstration.

Sincerely,

[redacted]

Angela D. Garner
Director
Division of System Reform Demonstrations

Enclosure

cc: Francis McCullough, Director, Division of Medicaid Field Operations East
Joyce Butterworth, CMS State Lead, Regional Operations Group

NEW HAMPSHIRE SUBSTANCE USE DISORDER TREATMENT AND RECOVERY ACCESS DEMONSTRATION

EVALUATION DESIGN
APRIL 5, 2019
REVISED:
MAY 1, 2019 &
MAY 13, 2019

This program is operated under a Section 1115(a) Medicaid Demonstration initially approved by the Centers for Medicare and Medicaid Services (CMS) July 10, 2018, Revised August 3, 2018

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I. GENERAL BACKGROUND INFORMATION

The New Hampshire Substance Use Disorder (SUD) Treatment and Recovery Access demonstration is necessary to: address critical unmet needs for residential SUD treatment; improve quality of SUD treatment; and maintain or reduce cost. These needs continue to exist despite significant improvements to New Hampshire's SUD treatment delivery system and substantial state investments in treatment capacity. In response to the opioid crisis, New Hampshire invested more than 30 million over the last two years to build service capacity and support a full continuum of care to treat individuals with SUD. These investments include those that maintain existing prevention, treatment, and recovery capacity while also expanding access to medication assisted treatment (MAT), peer recovery support services (PRSS), direct prevention services, and coordination of care through a statewide crisis hotline and development of nine regional treatment Hubs to serve as 24/7 access points to addiction treatment. Hubs will provide screening, evaluation, care management, social service referral and addiction treatment services across the state. The goal of these investments has been to build a robust, Resiliency and Recovery-oriented system of care for individuals with SUD. Although capacity for services has increased, the limited availability of treatment in all settings, particularly residential treatment, continues to be a challenge.

A. RATIONALE FOR DEMONSTRATION

New Hampshire is experiencing one of the most significant public health crises in its history. The striking escalation of opiate use and opioid misuse over the last five years is affecting individuals, families, and communities throughout the state.

New Hampshire currently has the third highest overdose death rate in the country (39 per 100,000).[i] The number of overdose deaths has increased dramatically; from 2013 to 2017, the number rose from 192 to 488[ii]. Between 2013 and 2017, the number of times emergency medical personnel administered Narcan more than doubled, from 1,039 to 2,774[iii]. Most recent data show that opioid related emergency department visits rose by 9.8% from 2016 to 2017[iv].

As striking as these data are, the scope of the crisis extends beyond individuals with SUD to include family members. New Hampshire has seen a significant rise in neonatal abstinence syndrome (NAS), with the rate reaching 24.4 per 1,000 live births in 2015. Babies born with NAS require more complex medical care, with average hospital stays of twelve days.

The incidence of NAS is higher among Medicaid enrollees than other groups. In 2013, Medicaid paid for 78% of NAS births.[v] In 2015, the DHHS' Division for Children, Youth, and Families reported that it received 504 reports of children born drug-exposed, an increase of 37% from 2014.[vi]

In addition to the high rate of opioid use among the adult population, New Hampshire faces significant challenges with regard to adolescents. The state ranks among the top five for binge drinking among persons ages 12-20 years.[vii] According to the 2015-2016 National Survey on

Drug Use and Health (NSDUH), illicit drug use among individuals aged 12-17 in New Hampshire is higher than in the broader New England region and the United States. In 2015-2016, 8.98% (95% CI: 7.32-10.96) of New Hampshire adolescents ages 12-17 reported illicit drug use in the past month.[viii]

Despite having some of the nation's highest rates of youth alcohol and drug use, New Hampshire lacks both the outpatient and residential capacity to serve youth who present with substance use disorder (SUD).

Many adolescents are sent out-of-state to specialty treatment facilities. Still others go untreated until the progression of their disease leads them to involvement with the juvenile justice system, emergency departments, and other costly interventions.

B. PURPOSE OF DEMONSTRATION

The New Hampshire Substance Abuse Treatment and Recovery Access Section 1115(a) demonstration was approved by CMS on July 10, 2018, with clarifying, non-substantive revisions approved on August 3, 2018, for a five-year term ending June 30, 2023. The goal of New Hampshire's demonstration is to maintain critical access to opioid use disorder (OUD) and other SUD services and continue delivery system improvements that will support coordinated and comprehensive OUD/SUD treatment for Medicaid enrollees. This demonstration authorizes New Hampshire to provide high-quality, clinically appropriate SUD treatment services in residential and inpatient treatment settings that qualify as an Institution for Mental Diseases (IMD).

The demonstration will also encourage growth in SUD residential treatment capacity (IMD and non-IMD) and build on existing efforts to improve models of care focused on supporting enrollees in their home and community and strengthen the New Hampshire continuum of SUD services. New Hampshire's innovations and treatment decisions are based on the American Society of Addiction Medicine (ASAM) criteria and other nationally recognized assessment and placement tools that reflect evidence-based clinical treatment guidelines.

C. SUD BENEFITS AND DEMONSTRATION HISTORY

In August 2014, New Hampshire's expanded Medicaid program ("New Hampshire Health Protection Program") began offering a comprehensive benefit for SUD services to the Medicaid Expansion population. Approximately 7,500 enrollees in the New Hampshire Health Protection Program receive treatment services for SUD each quarter. Beginning in July of 2016, this SUD benefit, outlined in Table 1, was made available to all Medicaid enrollees, resulting in a total of 8,463 Medicaid enrollees receiving SUD treatment services as of March 31, 2018.

Table 1. New Hampshire Medicaid Substance Use Disorder Benefit

SUD Service Type	Description
Screening, by Behavioral Health practitioner	Screening for a SUD
SBIRT	Screening, Brief Intervention, Referral to Treatment
Crisis Intervention	Crisis services provided in an office or community setting
Evaluation	Evaluation to determine the level of care and/or other services needed
Medically Managed Withdrawal Management	Withdrawal management in a hospital setting, with or without rehabilitation therapy
Medically Monitored Withdrawal Management	Withdrawal management provided in an outpatient or residential setting
Opioid Treatment Program	Methadone or Buprenorphine treatment in a clinic setting
Office based Medication Assisted Treatment	Medication Assisted Treatment in a physician's office provided in conjunction with other SUD counseling services
Outpatient Counseling	Individual, group, and/or family counseling for SUDs
Intensive Outpatient	Individual and group treatment and recovery support services provided at least 3 hours per day, 3 days per week
Partial Hospitalization	Individual and group treatment and recovery support services for SUD and co-occurring mental health disorders provided at least 20 hours per week
Rehabilitative Services	Low, Medium, and High Intensity residential treatment provided by Comprehensive SUD Programs
Recovery Support Services	Community based peer and non-peer recovery support services provided in a group or individual setting
Case Management	Continuous Recovery Monitoring

In addition to expanding coverage for SUD services through Medicaid, the DHHS' Bureau of Drug and Alcohol Services (BDAS) contracts with thirteen SUD treatment providers across New Hampshire to provide SUD treatment and recovery services for those individuals who are not Medicaid eligible or whose commercial benefit plan leaves them underinsured for the medically necessary level of care.[ix]

Nearly all state-funded SUD residential treatment facilities in New Hampshire have more than sixteen beds and provide services to individuals aged 22-64. In addition, the State has designed capacity at the Sununu Youth Services Center to create a 36-bed residential SUD treatment facility available for adolescents under 18 years old. Services provided include both low and medium intensity adolescent residential treatment for adolescents aged 12 to 18 years of age who qualify for such a level of care using the ASAM patient placement criteria.

Although New Hampshire's significant commitment of time and financial resources to the transformation of its SUD delivery system over the last five years has increased service capacity, the limited availability of treatment to meet the demand on the system continues to be a major challenge. As of February 2018, the waitlist for both ASAM Level 3.5 (Clinically Managed High-Intensity Residential Services for adults) and Level 3.1 (Clinically Managed Low-Intensity Residential Services) was 28 days.

D. DEMONSTRATION GOALS AND MONITORING

The three goals of New Hampshire's SUD demonstration are to: 1) improve access to OUD and other SUD services; 2) improve the quality of the SUD treatment delivery system to provide high-quality coordinated and comprehensive OUD/SUD treatment for Medicaid enrollees; and 3) maintain budget neutrality. The demonstration will provide New Hampshire with the authority to offer high-quality, clinically appropriate SUD treatment services for short-term residents in residential and inpatient treatment settings that qualify as an IMD.

It also will build on New Hampshire's existing efforts to improve models of care focused on supporting enrollees in the community and home, outside of institutions and strengthen a continuum of SUD services based on the ASAM criteria or other nationally recognized assessment and placement tools that reflect evidence-based clinical treatment guidelines.

QUALITY STRATEGY AND SUD MONITORING PLAN

New Hampshire has a Comprehensive Quality Strategy (CQS) that integrates all aspects of quality improvement programs, processes, and requirements across the State's Medicaid Managed Care program. The CQS is the framework through which all aspects of Medicaid operations are assessed and measurable goals and targets for improvement are identified.

Through this demonstration, the State has added an SUD Monitoring Protocol (SUD MP) and SUD mid-point assessment to its quality improvement activities. The SUD MP includes: monthly, quarterly and annual descriptive detail (e.g., number of enrollees and service delivered); annual outcome and quality metrics (e.g., HEDIS® measures); and milestone-specific process measures (e.g., use of IT strategies to improve SUD services). The SUD MP identifies a baseline, a target to be achieved by the end of the demonstration and an annual goal for closing the gap between baseline and target expressed as percentage points.

The CQS and SUD MP represent comprehensive processes for DHHS to monitor progress on:

1. Increasing the rates of identification, initiation, and engagement in treatment;
2. Increasing adherence to and retention in treatment;
3. Reducing overdose deaths, particularly those due to opioids;
4. Reducing 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. Lowering readmissions to the same or higher level of care where the readmission is preventable or medically inappropriate; and
6. Improving access to care for physical health conditions among enrollees.

Elements from those activities will be used in the design of this evaluation.

E. DEMONSTRATION POPULATION

Medicaid beneficiaries with a SUD requiring residential treatment, based on ASAM placement criteria, are eligible for the demonstration.

II. EVALUATION QUESTIONS AND HYPOTHESES

The SUD demonstration supports the federal Medicaid program in its core mission: to meet the health and wellness needs of our nation's vulnerable and low-income individuals and families. Demonstration goals align with the Title XIX objective: to improve access to high-quality, person-centered services that produce positive health outcomes for individuals.

The SUD demonstration is specifically designed to maintain and enhance access to treatment for enrollees with a SUD, support high quality care, and to maintain budget neutrality. The evaluation will examine the demonstration's impact in each of these areas.

First, related to access to care, it is hypothesized that adult and adolescent enrollees will have improved access to residential care. The SUD demonstration is expected to maintain and encourage growth in adult capacity and support the development of in-state capacity for adolescents. Specifically, an increase in 36-beds for adolescents, at the Sununu Center, will begin in late 2018 and is expected to be completed by the end of 2019. The increased adolescent capacity will provide valuable cost-effective services for youth who may otherwise go out-of-state for residential SUD treatment or go untreated.

Second, related to quality of care, it is hypothesized that the demonstration will improve the quality of care as evidenced by: fewer Emergency Department (ED) admissions, both in total use and for SUD related visits; improved rates of initiation and engagement in alcohol and other drug dependence treatment; lower hospital and IMD readmission rates; and improved rates of treatment retention.

Residential SUD treatment is an important component of the ASAM level of care framework; maintaining and enhancing capacity is expected to support treatment success that will result in improved health outcomes. In addition, residential SUD treatment providers are expected to assess the comprehensive needs of participants and use the results in the development of high quality discharge plans for enrollees. As such, residential SUD treatment providers are responsible for: supporting enrollee referral and engagement with community based SUD treatment providers, including Medication Assisted Treatment; PCP engagement; recovery supports (e.g., Alcoholics/Narcotics Anonymous and peer recovery support specialist) and relapse prevention plans. It is expected that maintaining and enhancing access to residential SUD treatment under this demonstration, will support high quality care and improve health outcomes for enrollees.

To further enhance the quality of residential treatment, the demonstration's SUD Implementation Plan (STC Attachment D) includes updates to current New Hampshire rules. These changes necessitate rulemaking through the State's Administrative Procedures Act (APA). Specifically, rules are being updated to clarify SUD provider program expectations and licensing requirements, including the use of ASAM criteria and best practices in discharge planning across all levels of SUD treatment.

DHHS began working on amending the Substance Use Disorder Treatment and Recovery Support Services rule (He-W 513) in June 2018. The process includes formal review by New Hampshire's Medical Care Advisory Committee (MCAC) and discussions with SUD stakeholder groups to obtain input on rule changes. The final proposed rules incorporating public input were approved and effective on November 15, 2018. Corresponding changes will be made in two additional rules through coordination with the BDAS and the DHHS Health Facility Licensing Unit to align residential treatment expectations and limit administrative burden for providers.

Improvements in quality expected as a result of rule changes will be measured through structured provider interviews. Interviews will solicit provider feedback on their understanding of the DHHS rule changes and its impact relative to consistency in residential SUD programs and expanded discharge planning requirements.

Lastly, related to cost of care, the State is expected to maintain or reduce spending in comparison to what would have been spent absent the demonstration. In the case of adolescents, it is hypothesized that the cost of residential SUD treatment will be reduced as more youth access in-state treatment options in lieu of costlier out-of-state SUD treatment.

Please see Figures 1-3 for a visual depiction (Driver Diagram) of the relationship between the demonstration's purpose, the primary drivers that contribute to realizing that purpose and the secondary drivers that are necessary to achieve the primary drivers.

Figure 1: Access Driver Diagram

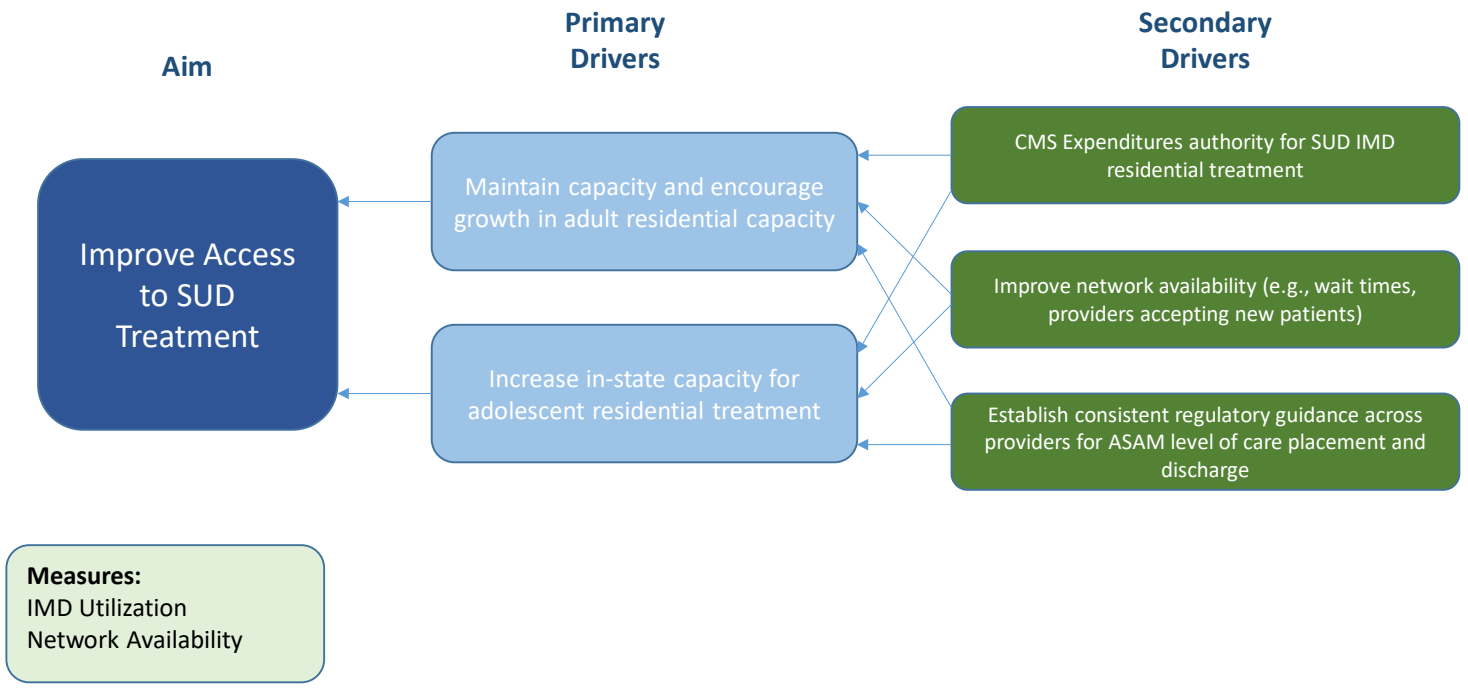


Figure 2: Quality Driver Diagram

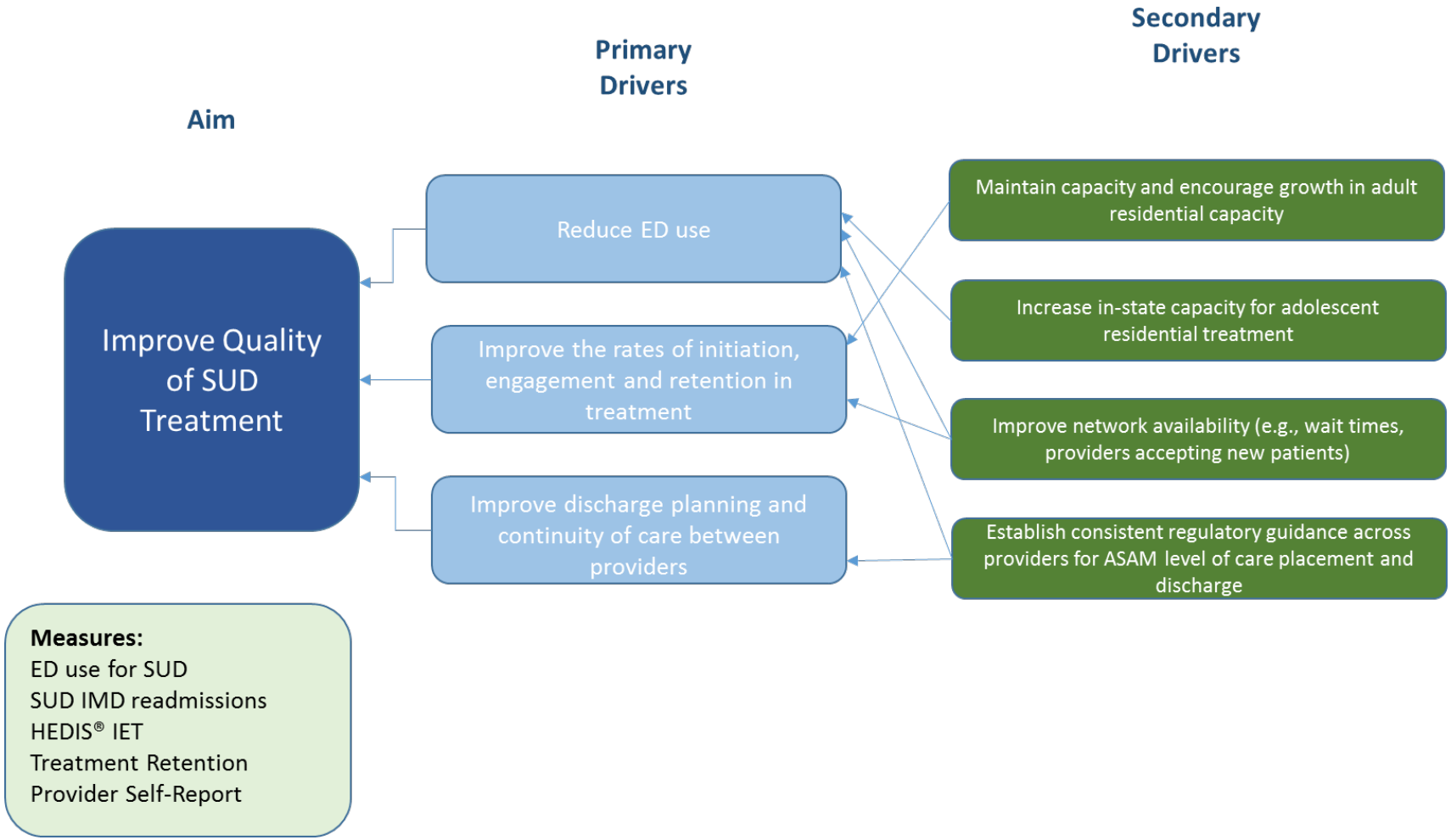
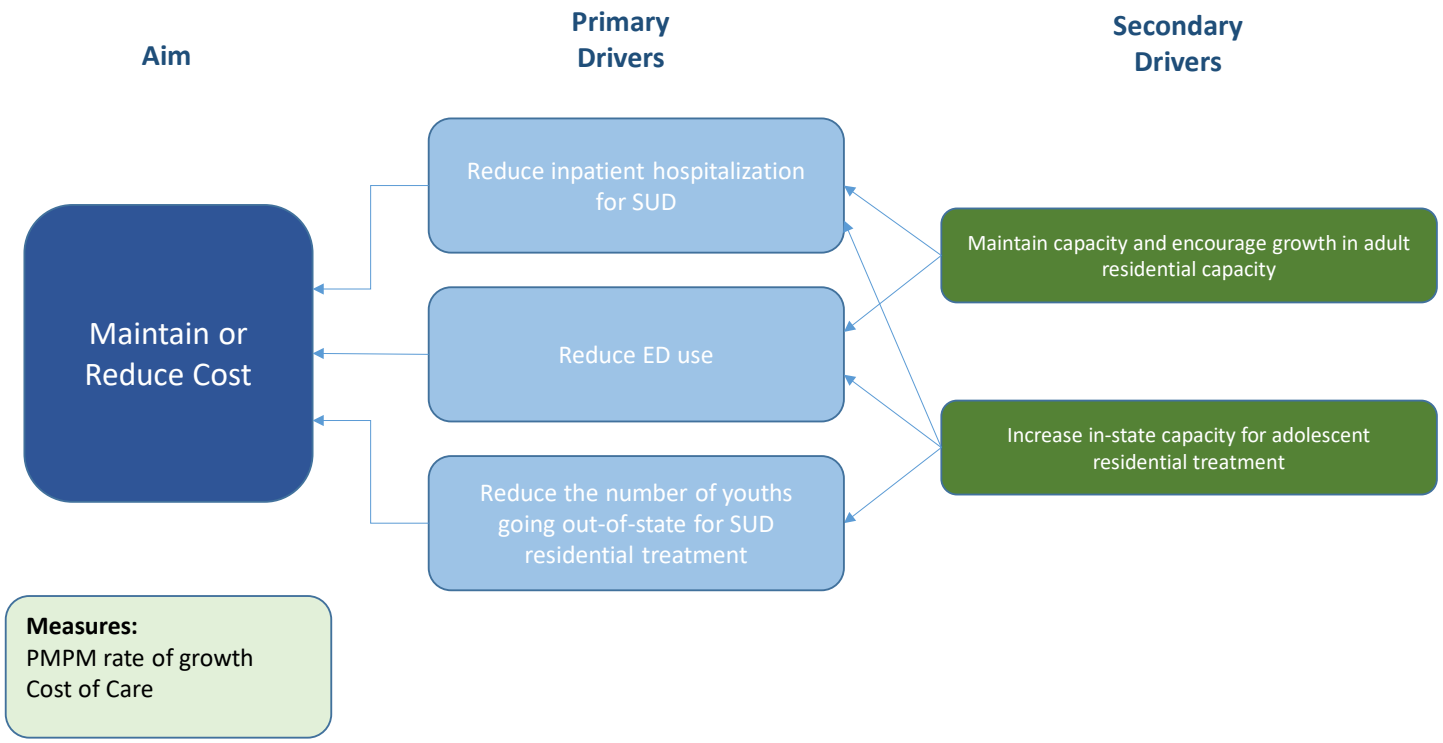


Figure 3: Cost Driver Diagram



The evaluation will study the impact of the demonstration on SUD program participation and examine certain hypotheses by age group and IMD service status. An overview of each goal, primary drivers, hypothesis, and measures is outlined in Tables 2a-c, on the following pages and further defined in Section III. In addition to analytic methods listed, descriptive statistics (e.g., frequency, year over year change, comparing to baseline) will be employed, where applicable.

Table 2a: Evaluation Hypothesis, Measures, Cohorts and Analytic Approach: ACCESS

Demonstration Goal: Improve Access to SUD Treatment							
Primary Driver	**Measure**	**Brief Description**	**Steward**	**Numerator**	**Denominator**	**Data Source**	**Analytic Approach**
To maintain residential treatment capacity and encourage growth	Hypothesis 1: Enrollees will have better access to SUD residential treatment services						
	Medicaid enrollees treated in an IMD for SUD	Percent of enrollees with an SUD claim for treatment in an IMD with a discharge date during the year	DHHS: SUD MP #5	Number of enrollees with a claim for treatment in an IMD	Total number of Medicaid enrollees age 12 to 64 with a SUD	MMIS paid claims	Mann-Whitney U-test Regression; Regression
	Adult enrollees treated in an IMD for SUD	Percent of adult enrollees with an SUD claim for treatment in an IMD with a discharge date during the year	DHHS: SUD MP #5	Number of adult enrollees with a claim for treatment in an IMD	Total number of Medicaid enrollees age 18 to 64 with a SUD	MMIS paid claims	
	Residential provider availability	Network availability (appointments, wait times, acceptance of Medicaid)	DHHS: Secret Shopper	Number of providers with available appointments	Total number of providers	Survey	McNemar Chi-square test; Mann-Whitney U-test Regression
				Number of providers accepting Medicaid	Total number of providers		
				Sum of wait times	Number of wait times measured		
	SUD residential capacity	Number of beds in SUD residential programs	DHHS	N/A	N/A	Survey; Provider Enrollment Files	
Increase in-state capacity for adolescent residential treatment	Hypothesis 2: Adolescent enrollees will have better access to in-state SUD residential treatment services						
	Adolescent enrollees treated in an IMD for SUD	Percent of adolescent enrollees with an SUD claim for treatment in an IMD with a discharge date during the year	DHHS: SUD MP# 5	Number of enrollees ages 12-17 with a claim for treatment in an in-state IMD	Total number of Medicaid enrollees age 12 to 17 with a claim for treatment in an IMD	MMIS paid claims	Mann-Whitney U-test Regression; Regression

Table 2b: Evaluation Hypothesis, Measures, Cohorts and Analytic Approach: QUALITY

Demonstration Goal: Improve Quality of SUD Treatment							
Primary Driver	**Measure**	**Brief Description**	**Steward**	**Numerator**	**Denominator**	**Data Source**	**Analytic Approach**
Reduce ED use	Hypothesis 1: Enrollees with SUD will have fewer ED visits for SUD						
	ED Utilization for SUD per 1,000 demonstration enrollees	Total number of ED visits for SUD per 1,000 demonstration enrollees during the year	DHHS: SUD MP #23	Total ED visits for SUD	Total number of demonstration enrollees	MMIS paid claims	Mann-Whitney U-test Regression; Regression
	Hypothesis 2: Enrollees with SUD will have fewer total ED visits						
	ED utilization for any reason per 1,000 demonstration enrollees	Total number of ED visits per 1,000 demonstration enrollees during the year	DHHS	Total ED visits	Total number of demonstration enrollees	MMIS paid claims	Mann-Whitney U-test Regression; Regression
	Hypothesis 3: Enrollees with SUD will have fewer ED visits post discharge from an SUD IMD						
	ED Use pre/post IMD treatment	The frequency and rate of change in ED use, 90-days prior to IMD admission and 90-days post IMD discharge	DHHS	Total number of ED visits in the 90-day period preceding an IMD admission	Total number of ED visits in the 90-day period post day of IMD discharge	MMIS paid claims	Mann-Whitney U-test Regression; Regression
Improve the rates of initiation, engagement and retention in treatment	Hypothesis 4: Enrollees with SUD will have improved rates of initiation and engagement in alcohol and other drug treatment (IET)						
	Initiation of AOD treatment	The percent of enrollees who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization,	DHHS: SUD MP #15	Number of enrollees who began treatment, as defined in SUD MP #15	Total number of enrollees who were diagnosed with a new episode of SUD, as defined in SUD MP #15	MMIS paid claims	Mann-Whitney U-test Regression;

Demonstration Goal: Improve Quality of SUD Treatment							
Primary Driver	**Measure**	**Brief Description**	**Steward**	**Numerator**	**Denominator**	**Data Source**	**Analytic Approach**
		telehealth, or MAT within 14 days of the diagnosis.					Regression
	Engagement of AOD Treatment	The percentage of enrollees who initiated treatment and who had two or more additional AOD services or MAT within 34 days of initiation visit	DHHS: SUD MP #15	Number of enrollees who continued treatment, as defined in SUD MP #15	Total number of enrollees who were diagnosed with a new episode of SUD, as defined in SUD MP #15	MMIS paid claims	
	Hypothesis 5: Enrollees with SUD will have lower IMD readmission rates						
	Readmissions for SUD IMD Treatment	The percent of SUD IMD stays during the measurement period followed by an readmission within 30 days	DHHS	Number of readmissions to any SUD IMD that occurred within 30-days of SUD IMD discharge	Total number of SUD IMD admissions	MMIS paid claims	Mann-Whitney U-test Regression; Regression
Improve discharge planning and continuity of care between providers	Hypothesis 6: Enrollees with SUD will have improved rates of treatment completion						
	Retention in SUD Treatment	Count and percent of members with a SUD who are retained in treatment	DHHS: SUD MP #15	Beneficiaries who received AOD treatment within 14 days of diagnosis (IET initiation) and received at least 6 additional services within 60 days of "initiation"	All individuals with a SUD diagnosis	MMIS paid claims	Mann-Whitney U-test Regression; McNemar Chi Square; Regression
	Hypothesis 7: Medicaid IMD providers will report consistency in program design and discharge planning policies						
	DHHS Rule Enhancement and Alignment	Provider perception of administrative burden and discharge planning	Independent Evaluator	N/A	N/A	Structured Interview	Thematic Analysis

Table 2c: Evaluation Hypothesis, Measures, Cohorts and Analytic Approach: COST

Demonstration Goal: Maintain or Reduce Cost							
Primary Driver	**Measure**	**Brief Description**	**Steward**	**Numerator**	**Denominator**	**Data Source**	**Analytic Approach**
Reduce ED and inpatient hospital utilization	Hypothesis 1: The demonstration will be cost neutral.						
	Rate of Growth in PMPM	Annual PMPM trend rates and per capita cost estimates for each eligibility group defined in STC 60	DHHS	Total demonstration payments made annually	Total annual member months in which a demonstration enrollee was in an IMD	MMIS paid claims	Mann-Whitney U-test Regression; Regression
Reduce the number of youth going out of state for SUD residential treatment	Hypothesis 2: The cost of adolescent residential SUD treatment services will be reduced.						
	Cost of Adolescent IMD Treatment	Total Medicaid IMD expenditures for adolescents receiving residential treatment services	DHHS	Number of adolescent enrollees receiving in-state residential Number of adolescents receiving out-of-state residential care	Total IMD SUD payments made during the year	MMIS: paid claims	Mann-Whitney U-test Regression; Regression
Patterns and Trends in Medicaid Costs associated with SUD IMD service recipients will be examined. These measures capture all costs for the measurement year, and are not associated with a demonstration hypothesis or budget neutrality reporting.							
Exploratory	Total Medicaid Costs	Per member per month (PMPM) Medicaid cost for individuals who received an IMD service in the measurement year	DHHS	Total Cost of Care, with SUD-related and Non-SUD-related cost by age group	Total member months during the measurement year	MMIS: paid claims	Descriptive Statistics
	SUD Costs		DHHS	Total SUD-related cost, with breakouts for SUD-IMD, SUD-other treatment by age group			
	Cost Drivers		DHHS	Total annual cost of pharmacy, ED, Inpatient and Long Term Care services by age group			

III. METHODOLOGY

The demonstration will employ both quantitative and qualitative design techniques. The quantitative analysis will rely on longitudinal evaluation methods to measure change over time. Wherever possible, existing measures will be used to limit administrative burden on providers and Managed Care Organizations. Evaluators may employ secondary analysis to reexamine existing data to address demonstration hypothesis or isolate IMD service recipients from the general Medicaid population. A detailed discussion of expected data analysis is provided in Section III C below.

A. EVALUATION DESIGN

Time-series methods will be used to characterize differences over time for participants and subpopulations using a pre/post demonstration design. The length of any pre/post study period is expected to be a minimum of 12 months. When employed, this method will look for trends and patterns in the data. Appropriate measures of access, cost, and quality will be compared to national benchmarks, when applicable and assessed relative to a baseline of calendar year 2017 for HEDIS measures.

Qualitative methods will be employed to measure access (network availability) and quality (impact of DHHS rule changes). Specifically, Telephone surveys will be used to assess network availability by replicating a 'secret shopper' approach used by DHHS, in 2018, to determine whether residential SUD IMD providers:

- Accept Medicaid enrollees
- Accept new patients
- Have timely appointment availability[1]

Structured interviews will be employed to assess Provider understanding of DHHS rule changes and their impact on quality of care. SUD IMD administrators and discharge planning staff will be interviewed to determine: awareness of rule changes; perceptions of impact and utility of changes; and specific practices that have been improved based on rule changes.

Structured interviews will be conducted by phone or face-to-face and will last approximately 30 to 45 minutes. The State and its employees will not conduct, transcribe or have access to interview notes or transcripts. Interview questions will be finalized by the Independent Evaluator and approved by NH DHHS. NH DHHS will share interview questions with CMS if requested prior to administration. The interview will examine topics such as:

[1] The 2018 baseline study provides a reliable baseline for providers accepting Medicaid enrollees and new patients. However, limitations including but not limited to small numbers prevent DHHS from using data around timely appointments.

- Provider awareness and understanding of DHHS expectations and rule changes
- The impact of rule revisions on discharge planning in residential care settings and service delivery post-discharge
- The impact of rule changes on perceived administrative burden
- Existing or planned growth in capacity due to rule changes or SUD IMD demonstration authority.

TARGET AND COMPARISON POPULATIONS

Medicaid beneficiaries with a SUD requiring residential treatment, based on ASAM placement criteria, are eligible for the demonstration. The estimated number of potentially eligible enrollees is 74,000 in 2018 and 115,000 in 2019, following the transition of premium assistance program enrollees to the State Medicaid Care Management program. Based on current programs under the Medicaid State plan and the New Hampshire Health Protection Program-Premium Assistance Program, approximately 320 Medicaid enrollees are expected to receive a residential treatment each quarter.

It is expected that enrollees who have 12 months of continuous enrollment with no more than a 45-day gap in eligibility will be included in the evaluation. However, final criteria will be determined based on sample size and impact. Additionally, measurement standards for specific measures will align with the approved NH SUD monitoring plan specifications, as noted.

Enrollees with an SUD will be identified using the population definition found in the Mathematica Policy Research Manual developed specifically for CMS: *1115 Substance Use Disorder Demonstrations: Technical Specifications for Monitoring Metrics October 20, 2018*.

Enrollees will be stratified into the subgroups outlined in Table 3, when applicable for measures and hypotheses.

Table 3. SUD Evaluation Enrollee Sub-Groups

Enrollee Sub-Group	Definitions
Adults	Individuals who are ages 18 through age 64 at any time in the measurement period
Adolescents	Individuals who are between the ages of 12 through 17 on the first and last day of measurement period
IMD Recipients	Individuals who have at least one IMD discharge during the measurement period

Medicaid SUD IMD providers also will be included as key informants on the implementation and impact of DHHS rule changes to update and align: He-A 300 and He-P 826, in coordination with BDAS and the DHHS Health Facility Licensing Unit; and He-W 513, through the Office of Medicaid. Additionally, all residential facilities, serving Medicaid enrollees, will be included in a telephone survey to assess network availability. Specifically, appointment availability, acceptance of Medicaid and wait times will be assessed.

SAMPLING METHODOLOGY

All demonstration population enrollees who meet study criteria will be included. The evaluation will not employ random sample, representative sample or other sampling methods. Evaluation

measures will be developed based on State defined and HEDIS® specifications that include Medicaid enrollees with a SUD. Inclusion criteria will be specific to each measure. A statistically valid sample is expected based on the number of potentially eligible Medicaid enrollees (e.g., 115,000) and assumptions presented above.

COMPARISON GROUPS

Comparison groups are not expected. The state-wideness of program providers coupled with the nature of ASAM criteria for placement decisions make the development of regional cohorts, matched samples of enrollees not receiving IMD care and other in-state comparison groups difficult. New Hampshire residential SUD IMD treatment facilities are existing statewide providers. IMD placement decisions are made based on nationally recognized ASAM level of care guidelines, thus individuals admitted to a residential SUD program have a clinically different profile and level of care need than those who are not admitted. Along these lines, comparisons to individuals with private coverage are not expected due to social and other barriers to health faced in Medicaid cohorts that are not typically present in a commercially insured cohort.

The State is proposing a one-group quasi-experimental pretest-posttest design with annual observation points. Given the lack of a feasible control group, a pre-posttest design is the most appropriate and robust study design.

EVALUATION PERIOD

The evaluation will span the demonstration approval period (July 10, 2018-June 30, 2023), with a baseline period beginning 7/1/2017. Measures developed using HEDIS® specifications will include a baseline period of calendar year 2017. An interim evaluation report will be produced one year prior to the end of the demonstration, no later than June 2022. A final summative report will be produced within 18 months of June 30, 2023. Table 4 illustrates the overall evaluation and measurement periods.

Table 4. Evaluation Period

Measure Type	SUD Demonstration Evaluation Years*						
	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Post Demo Report
Utilization	7/1/17-6/30/18	7/01/18-6/30/19	7/01/19-6/30/20	7/01/20-6/30/21	7/01/21-6/30/22	7/01/22-6/30/23	7/01/23-12/31/24
HEDIS®	CY2017	CY2018	CY2019	CY2020	CY2021	CY2022	N/A

**IMD authority granted effective July 10, 2018 – June 30, 2023*

EVALUATION MEASURES

Evaluation measures associated with each goal and hypothesis are outlined in Tables 2a-c, Section II. In addition to hypothesis testing, the evaluation will monitor the impact of IMD stays on total Medicaid expenditures for demonstration enrollees. Cost of care measures not associated with a hypothesis will be examined for year over year change and utilization trends by age (adults and adolescents). Cost will be examined relative to drivers such as ED utilization,

inpatient hospitalization and pharmacy services. For example, access to IMD services may result in improved engagement in MAT treatment, and subsequently increase expenditures; while a decline in SUD related ED use and hospitalizations may result in corresponding decreases in expenditures. The independent evaluator will examine utilization and cost patterns and trends, by categories of service and age. The evaluator may engage in further analysis and perform impact assessments depending on data availability, administrative burden and value to program managers and policy makers.

Appendix A provides a brief overview of each evaluation measure. However, final technical specifications, sub-groups and statistical methods will be determined following the engagement of the independent evaluator.

B. DATA SOURCES

The SUD demonstration evaluation will rely on data and performance measures developed in the SUD Monitoring Protocol, Medicaid Care Management MCO Model Contract Reporting Requirements and Fee-for Service claims. Use of fee-for-service and managed care encounters will be limited to final paid status claims and encounters. Managed care encounter, claims and cost data is available through the MMIS and will be made available to evaluators as needed to support the evaluation. Existing agreements with Managed Care Organizations require that all MCO's make data available to support evaluations and performance monitoring efforts. DHHS does not anticipate problems with data collection and reporting; however, DHHS will monitor closely for completeness and take corrective action if required.

Table 5. SUD Evaluation Data Sources

Lead	SUD Evaluation Data Sources	
	Source	Brief Description
DHHS	Medicaid Management Information System (MMIS)	Claims data submitted to the State by providers used to support HEDIS® and HEDIS®-like performance, utilization and cost metrics for all enrollees
	State Medicaid Eligibility and Enrollment System (EES) files	Eligibility and enrollment detail for Medicaid beneficiaries used to determine enrollee aid category and stratify data into sub-groups, when applicable.
	Premium Assistance Program Encounter data	QHP encounter data reported to the State and used to assess service utilization for NHHPP PAP members in 2017 and 2018 and who transition to Medicaid Managed Care in 2019

C. ANALYTIC METHODS

The evaluation data analysis will consist of both exploratory and descriptive strategies and incorporate univariate, bi-variate, and multi-variate techniques. Data analysis will systematically apply statistical and/or logical techniques to describe, summarize, and compare data within the State and across time, and to prepare data, wherever possible in a manner that permits comparison to results from other states applying the same methodology (e.g., HEDIS® reports).

Descriptive statistics will be used to describe the basic features of the data and what they depict, and to provide simple summaries about the sample and the measures. Together with simple graphics analysis, the descriptive statistics form the basis of quantitative analysis of data. They are also used to provide simple summaries about the participants and their outcomes. An exploratory data analysis is used to compare many variables in the search for organized patterns. Data will be analyzed as rates, proportions, frequencies, measures of central tendency (e.g., mean, median, mode).

Quantitative Analysis Descriptive quantitative analysis methods will be used to examine outcomes including the: McNemar's chi-square, Mann-Whitney U Test, and Wilcoxon Signed Rank Test. These nonparametric tests are appropriate when data are (1) categorical or (2) continuous but do not meet the assumptions (e.g., normality) used by parametric tests. Parametric analyses (e.g., t-tests, etc.) may be used as appropriate. The Independent Evaluator will test whether continuous measures (e.g., number of ED visits, etc.) meet the assumptions of parametric analyses. If these measures do not meet the assumptions of parametric tests, non-parametric methods (e.g., Mann-Whitney U) will be used to analyze the data. The non-parametric tests will be used to assess whether any differences found between the pre- and post-test periods are statistically significant (i.e., unlikely to have occurred in the data through random chance alone). The traditionally accepted risk of error ($p \leq 0.05$) will be used for all comparisons.

Multivariate Analysis: A pre-post design will be used to examine the statewide impact of the demonstration on evaluation measures. Outcomes will be calculated annually for each of the five demonstration years and a baseline period. Regression models accounting for members in more than one year (clustering) will be used to assess the rate of change over time in evaluation outcomes. To assess change over time, the evaluation will use Poisson or negative binomial regression models for the utilization measures, generalized linear models for the cost measures, and logistic regression for the quality measures. Age and gender will be controlled for in the models examining cost and utilization measures. Statistically significant results will be reported based on $p \leq 0.05$. The specific method used will be determined by the evaluator after reviewing the available claims and encounter data.

Qualitative Analysis: Qualitative methods will be used to examine the impact of DHHS administrative rule changes for SUD providers. DHHS changes are planned to align the BDAS and Office of Medicaid Policies. The goals of these changes are to limit administrative burden in compliance audits and to improve the quality of discharge planning across all provider types. A Thematic Analysis will be used to assess interview responses. These analyses examine semi-structured interview data for patterns across interviews. Themes will be defined based on their appearance in the data and not on a pre-defined structure. For example, enrollees may describe the demonstration as improving the coordination of care in six unique ways and impeding their care in four ways.

Thematic analysis will be conducted separately on each semi-structured interview transcript, for each group of interviewees using an inductive approach. Patterns in the transcripts will be identified and grouped into themes. Themes will be checked against the original transcripts for validity. To ensure inter-coder reliability and the reliability of the analyses, both methods will utilize at least two coders. Neither method is intended to support comparison between groups of interviewees or follow principles of statistical significance.

Isolation from Other Initiatives

The State of New Hampshire is engaged in multiple delivery system reform efforts related to the State's Opioid Response Plan and the creation of Integrated Delivery Networks (IDNs) for the promotion of better integration between behavioral and physical health providers. IDNs have been developed in seven regions and represent a partnership between hospitals, health systems, FQHC, rural health clinics, Community Mental Health programs, SUD providers and social safety net organizations to improve the quality of care for New Hampshire residents.

In addition, DHHS is in the process of terminating the State's Premium Assistance Program (PAP), for the Medicaid Expansion population and implementing the Granite Advantage Program. In January of 2019, the State will no longer provide subsidies for Medicaid Expansion enrollees to purchase a Qualified Health Plan on the marketplace. Instead Medicaid enrollees formerly served in a QHP will be transitioned to one of two existing Medicaid managed care organizations (MCOs) operating in New Hampshire. Along with the PAP transition, the State is in the re-procurement process for MCOs. Thus, it is possible MCO entities new to the state may begin operations in New Hampshire by July 1, 2019.

As such, it will be difficult to determine if trends in quality for SUD services are solely related to IMD capacity. Where market conditions and other contextual factors (e.g., health plan, provider or geographical differences) could have an impact, DHHS and its evaluators will develop approaches to quantify and/or isolate the impact of such factors. For example, when possible, the evaluators will include variables at the state and regional levels as indicators of when Opioid Response Strategies are implemented or new MCO entities begin operating in the state. These variables will serve as controls in the year over year regression analyses. In the absence of a true comparison group, this will allow for the isolation of other initiatives from the demonstration on key outcome measures. Based on staff, budget and data considerations, the State will explore the feasibility of comparing outcomes for enrollees who may be attributed to a specific opioid response initiative with those who are not involved in the initiative.

IV. METHODOLOGICAL LIMITATIONS

The SUD demonstration evaluation is limited by several factors including:

Lack of true experimental comparison groups: IMD facilities in New Hampshire serve residents from across the state. Thus, regional comparison groups are not available. In addition, residential placement decisions are made based on nationally recognized ASAM level of care guidelines; thus, individuals admitted to a residential SUD program have a clinically different profile and level of care need than those who are not admitted. These clinical differences eliminate the possibility of matched sample of enrollees who receive services versus those who did not. Lastly, all Medicaid enrollees who meet SUD criteria are eligible for the demonstration.

Continuity of Services: New Hampshire residential SUD IMD treatment facilities are existing statewide providers who have been delivering care to Medicaid enrollees prior to the implementation of the SUD demonstration.

Multiple Delivery Reform Efforts: New Hampshire is engaged in multiple efforts aimed at improving mental health and SUD services, including a separate Delivery System Reform and Incentive Payment (DSRIP) demonstration and a multi-faceted Opioid response strategy.

Reliance on Administrative Data: The evaluation may be limited by its reliance on claims and diagnostic codes to identify the beneficiary population with SUD. These codes may not capture all participants especially if the impact or severity of the SUD is not evident on initial assessment. For example, an ED visit for a broken arm due to inebriation may not be coded as SUD related, if the member does not present as inebriated, the ED provider has not ascertained causation, or the member fails to disclose the cause.

Sample Size: The evaluation may be limited by the small size of the New Hampshire SUD demonstration population and IMD capacity. This limitation is especially apparent as it relates to creating sub-populations for adolescents (e.g., 36-bed capacity phased-in over time) and IMD recipients. Final determination of methods and viability of analytics approach for sub-populations will be made by the evaluator following the review of sample size and available data points over the life of the demonstration.

ATTACHMENTS

A. EVALUATION MEASURES

Appendix A below, provides a brief description of each measure, the measure steward, source of data, measurement period, and national alignment and benchmarks, as applicable. However, final technical specifications, sub-groups and statistical methods will be determined following the engagement of the independent evaluator.

Evaluation Question #1: *What are the impacts of the demonstration on access to SUD residential treatment services for demonstration enrollees?*

Hypothesis

A. Adult enrollees will have better access to residential SUD treatment services.
B. Adolescent enrollees will have better access to in-state residential SUD treatment services.

To evaluate the demonstration's impact on access to care, the following measures will be examined by age group against baseline levels for Evaluation Question #1, Hypothesis A and B.

Measure 1.A	Medicaid Beneficiaries Treated in an IMD for SUD
NH Alignment	SUD MP #5
Definition	Percent of enrollees with an SUD claim for treatment in an IMD with a discharge date during the measurement period. Number of enrollees with a claim for treatment in an IMD during the reporting year divided by the total number of Medicaid enrollees with a SUD.
Exclusion Criteria	As defined in SUD MP #5
SUD Sub-groups	Adults; Adolescents
Measurement Period	Demonstration Year
Comparison Group	Pre/Post 7/1/18; year over year change
Comparison Method(s)	Mann-Whitney U-test Regression (for the initial pre/post comparison); Regression (for year over year change throughout the evaluation period)
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	N/A

Measure 1.B	Provider Availability – Residential Services
NH Alignment	Secret Shopper CY2018
Definition	Network availability for SUD residential services (appointments, wait times, acceptance of Medicaid) Telephone Survey: Specifications and telephone scripts will be identical to those used in the baseline study conducted by DHHS in fiscal year 2019.
Exclusion Criteria	Non-residential providers
SUD Sub-groups	All Residential SUD Service Providers
Measurement Period	Point-in-Time
Comparison Group	CY2018 results/CY2022 results
Comparison Method(s)	McNemar Chi-square test; Mann-Whitney U-test Regression
Data Source	Survey Results
Data Steward	DHHS (baseline)/Independent Evaluator
National Benchmark	N/A

Measure 1.C	SUD Capacity – Residential Services
NH Alignment	New
Definition	Bed Capacity for SUD residential services
	The number of SUD residential treatment beds available through providers who are licensed and enrolled as a NH Medicaid provider at the time of measurement
Exclusion Criteria	Non-residential providers
SUD Sub-groups	Residential SUD Providers (Adult and Adolescent)
Measurement Period	Point-in-Time Annually , July 1 of each demonstration year
Comparison Group	Pre/Post Approval
Comparison Method(s)	McNemar Chi-square test; Mann-Whitney U-test Regression
Data Source	Medicaid Provider Enrollment Files
Data Steward	DHHS
National Benchmark	N/A

Evaluation Question #2. What are the impacts of the demonstration on quality of care for Medicaid enrollees with a SUD diagnosis?

Hypothesis

A. Enrollees with SUD will have fewer ED visits for SUD.
B. Enrollees with SUD will have fewer total ED visits.
C. Enrollees with SUD will have fewer ED visits post discharge from an SUD IMD.
D. Enrollees with SUD will have improved rates of initiation and engagement in alcohol and other drug treatment (IET).
E. Enrollees with SUD will have lower IMD readmission rates.
F. Enrollees with SUD will have improved rates of treatment retention.

To evaluate the demonstration's impact on access to care, the following measures will be examined by age group against baseline levels for Evaluation Question #2, Hypothesis A - F. In addition, the evaluator will review trends in the general Medicaid population, for similar measures, where available.

Measure 2.A	Emergency Department Utilization for SUD per 1,000 SUD Demonstration Enrollees
NH Alignment	SUD MP #23
Definition	The total number of ED visits for SUD per 1,000 SUD demonstration enrollees during the measurement period
	ED visits type is defined using HEDIS® 2018 value sets as defined in SUD MP #23 for determining an ED visits was for SUD; Total ED visits for SUD/total number of SUD enrollees =x/1,000
Exclusion Criteria	As defined in SUD MP #23
SUD Sub-groups	Adults; Adolescents
Measurement Period	Demonstration Year
Comparison Group	Pre/Post 7/1/18; year over year change
Comparison Method	Mann-Whitney U-test Regression (for the initial pre/post comparison); Regression (for year over year change throughout the evaluation period)
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	N/A

Measure 2.B	Emergency Department Utilization, For Any Reason, per 1,000 SUD Enrollees
NH Alignment	New
Definition	The total number of ED visits for any reason per 1,000 SUD demonstration enrollees during the measurement period
	Total ED visits/total number of SUD demonstration enrollees =x/1,000
Exclusion Criteria	None
SUD Sub-groups	Adults; Adolescents
Measurement Period	Demonstration Year
Comparison Group	Pre/Post 7/1/18; year over year change
Comparison Method	Mann-Whitney U-test Regression (for the initial pre/post comparison); Regression (for year over year change throughout the evaluation period)
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	N/A

Measure 2.C	Emergency Department Utilization Pre IMD Admission and Post Discharge
NH Alignment	New
Definition	The frequency and rate of change in ED use, for enrollees receiving SUD IMD services, 90-days prior to their IMD admission and 90-days post their IMD discharge.
	Total number of ED visits in the 90-day period preceding an IMD admission as compared to the total number of ED visits in the 90-day period post day of discharge during the measurement period.
Exclusion Criteria	Enrollees who were not discharged from an IMD during the measurement period.
SUD Sub-groups	IMD service recipients; Adults and Adolescents
Measurement Period	Demonstration Year
Comparison Group	Pre/Post 7/1/18; year over year change
Comparison Method	Mann-Whitney U-test Regression (for the initial pre/post comparison); Regression (for year over year change throughout the evaluation period)
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	N/A

Measure 2.D	Initiation and Engagement of Alcohol and Other Substance Use Disorder Treatment (IET)
NH Alignment	SUD MP #15
Definition	(1) Initiation of Alcohol or Other Drug (AOD) Treatment—percentage of enrollees who initiated treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth, or MAT within 14 days of the diagnosis. (2) Engagement of AOD Treatment—percentage of enrollees who initiated treatment and who had two or more additional AOD services or MAT within 34 days of the initiation visit
	As defined by HEDIS®IET
Exclusion Criteria	As defined by HEDIS®IET
SUD Sub-groups	As defined by HEDIS®IET
Measurement Period	Calendar Year 2017 - 2022
Comparison Group	Pre/Post 1/1/18; year over year change
Comparison Method	Mann-Whitney U-test Regression (for the initial pre/post comparison); Regression (for year over year change throughout the evaluation period)
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	Annual HEDIS® Quality Compass at 50th Percentile

Measure 2.E	Readmissions for SUD - IMD
NH Alignment	New
Definition	The percent of SUD IMD stays during the measurement period followed by an SUD IMD readmission for SUD within 30 days.
	Count of readmission to any SUD IMD that occurred within 30-days of discharge from an SUD IMD facility, divided by the total number of SUD IMD admissions.
Exclusion Criteria	None
SUD Sub-groups	IMD service recipients; Adults and Adolescents
Measurement Period	Demonstration Year
Comparison Group	Pre/Post 7/1/18; year over year change
Comparison Method	Mann-Whitney U-test Regression (for the initial pre/post comparison); Regression (for year over year change throughout the evaluation period)
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	N/A

Measure 2.F	Member Retention in SUD Services
NH Alignment	New
Definition	Count and percent of members with a SUD who are retained in treatment.
	Using HEDIS® IET definition of initiation; Beneficiaries who received AOD treatment within 14 days of diagnosis (IET initiation) and received at least 6 additional services within 60 days of "initiation".
Exclusion Criteria	As defined by HEDIS®IET and SUD MP #15 specifications
SUD Sub-groups	Adults
Measurement Period	Demonstration Year
Comparison Group	Pre/Post 7/1/18; year over year change
Comparison Method	Mann-Whitney U-test Regression (for the initial pre/post comparison); McNemar Chi Square; Regression (for year over year change throughout the evaluation period)
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	N/A

Measure 2.G	DHHS Rule Enhancement and Alignment
NH Alignment	New
Definition	Structured interviews will explore SUD IMD Providers perceptions about the impact of DHHS rule changes on administrative burden and discharge planning.
	Approximately 15-20 interviews will be conducted with SUD IMD Providers who have provided care to Medicaid enrollees during the preceding six months. Interviews will be transcribed for thematic analysis.
Exclusion Criteria	Providers who have not served Medicaid enrollees in the preceding six months.
SUD Sub-groups	SUD IMD Providers
Measurement Period	Point-in-Time
Comparison Group	Post final rule changes HeW-513 final on Nov 15, 2018; He-A 300 and He-P 826 expected final by end of 2019
Comparison Method	Thematic Analytics
Data Source	Structured Interview
Data Steward	Independent Evaluator
National Benchmark	N/A

Evaluation Question #3. Will the demonstration maintain or reduce spending in comparison to what would have been spent absent the demonstration?

Hypothesis

A. The demonstration will be cost neutral.
B. The cost of adolescent residential SUD treatment services will be reduced.

To evaluate the demonstration's impact on cost of care, the following measures will be examined by age group against baseline levels for Evaluation Question #3, Hypothesis A -B.

Measure 3.A	Rate of Growth in PMPM
NH Alignment	STC #60
Definition	The PMPM trend rates and per capita cost estimates for each eligibility group defined in STC 60 for each year of the demonstration.
	Total demonstration payments made during the measurement period divided by the total member months in which a demonstration participant was in an IMD
Exclusion Criteria	None
SUD Sub-groups	Adults; Adolescents
Measurement Period	Demonstration Year
Comparison Group	Year over year change
Comparison Method	Mann-Whitney U-test Regression (for the initial pre/post comparison); Regression (for year over year change throughout the evaluation period)
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	N/A

Measure 3.B	Cost of Adolescent Residential SUD Treatment
NH Alignment	New SUD measure
Definition	Total Medicaid IMD expenditures for adolescents receiving residential treatment services (including in-state and out-of-state care sub-totals)
	Total IMD SUD payments made during the measurement period divided by the total number of adolescent enrollees receiving care in an in-state residential facility. Total IMD SUD payments made during the measurement period divided by the total number of adolescent enrollees receiving care in an out-of-state residential facility.
Exclusion Criteria	Enrollees over age 18
SUD Sub-groups	Adolescents
Measurement Period	Demonstration Year
Comparison Group	Pre/Post 7/1/18; year over year change
Comparison Method	Mann-Whitney U-test Regression (for the initial pre/post comparison); Regression (for year over year change throughout the evaluation period)
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	N/A

Exploratory cost measures not associated with a hypothesis

Measure 3.C	Total Cost of Care (PMPM)
NH Alignment	New SUD measure
Definition	Total Medicaid expenditures Total Medicaid payments made during the measurement period for SUD IMD enrollees with SUD-related and Non-SUD-related cost breakouts by age group. Total costs will be divided by total member months during the measurement period
Exclusion Criteria	None
SUD Sub-groups	Adults, Adolescents
Measurement Period	Demonstration Year
Comparison Group	N/A
Comparison Method	N/A
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	N/A

Measure 3.D	Cost of SUD Related Care (PMPM)
NH Alignment	New SUD measure
Definition	Total SUD-related cost, expressed as per member per month, with breakouts for SUD-IMD, SUD-other treatment by age group Total costs will be divided by total member months during the measurement period
Exclusion Criteria	None
SUD Sub-groups	Adults, Adolescents
Measurement Period	Demonstration Year
Comparison Group	N/A
Comparison Method	N/A
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	N/A

Measure 3.D	Cost Drivers (PMPM)
NH Alignment	New SUD measure
Definition	Total annual cost of pharmacy, ED, Inpatient and Long Term Care services by age group Total costs will be divided by total member months during the measurement period
Exclusion Criteria	None
SUD Sub-groups	Adults, Adolescents
Measurement Period	Demonstration Year
Comparison Group	N/A
Comparison Method	N/A
Data Source	Medicaid Paid Claims; MMIS
Data Steward	DHHS
National Benchmark	N/A

B. INDEPENDENT EVALUATOR

Procurement for an evaluation contractor to assist the State in executing its SUD demonstration evaluation plan will be pursuant to the State of New Hampshire procurement guidelines with resulting agreement contingent upon approval from New Hampshire's Governor and Executive Council. The State retains responsibility for monitoring the SUD delivery system, mid-point assessment of the program's effectiveness and overall demonstration performance. To mitigate any potential conflict of interest, the evaluation contractor is responsible for:

- Secondary analysis of the State's findings;
- Benchmarking performance to national standards;
- Evaluating changes over time;
- Isolating key variables;
- Interpreting results; and
- Producing evaluation reports.

As part of the focused IMD evaluation, the evaluator is responsible for final measure selection, identifying, if viable, other State systems that may serve as comparisons, conducting all data analysis, measuring change overtime and developing sensitivity models as necessary to address study questions.

The State anticipates one procurement for all evaluation activities and the production of required CMS reports. The successful bidder will demonstrate, at a minimum, the following qualifications:

- The extent to which the evaluator can meet State RFP minimum requirements;
- The extent to which the evaluator has sufficient capacity to conduct the proposed evaluation, in terms of technical experience and the size/scale of the evaluation;
- The evaluator's prior experience with similar evaluations;
- Past references; and
- Value, e.g., the assessment of an evaluator's capacity to conduct the proposed evaluation with their cost proposal, with consideration given to those that offer higher quality at a lower cost.

C. EVALUATION BUDGET

The final evaluation budget will be created following the procurement of an independent evaluator. The final total will be dependent on the state budget and available funds at the time of procurement. Outlined below is the expected independent evaluation budget.

Evaluation Activity	Total Estimated Cost						
	Year 1 (DY 2019)	Year 2 (DY 2020)	Year 3 (DY 2021)	Year 4 (DY 2022)	Year 5 (DY 2023)	Post Demo (DY 2024)	Total
Project Management (e.g., regular project meetings, status updates and ad hoc discussions)		$9,511	$9,511	$9,511	$9,511	$4,756	$42,800
Semi-Structured Interviews Data Collection and Analysis		$30,000					$30,000
Secret Shopper Data Collection and Analysis				$60,000			$60,000
Quantitative Data Collection, Cleaning and Analysis		$88,725	$88,725	$88,725	$88,725		$354,901
Interim Evaluation Report Generation				$33,000			$33,000
Summative Evaluation Report Generation						$33,000	$33,000
Total	-	$128,236	$98,263	$191,236	$98,263	$37,756	$553,701

D. TIMELINE AND MAJOR MILESTONES

Outlined below is a timeline, for each demonstration year, for conducting the various evaluation activities, including dates for procurement of an independent evaluator and evaluation-related milestones.

Demo Year 1: (7/1/2018-06/30/2019)

	2018						2019					
Activity/Milestone	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Procure Vendor for Independent Evaluation Design	X	X	X									
Draft Evaluation Design				X	X	X						
CMS Review (1/4-4/5 2019)							X	X	X	X		
Incorporate CMS Revisions									X	X		
Final Evaluation Design									X	X	X	
Publish Evaluation Design to Website (30-days after approval)									X	X	X	X
Implement Evaluation Design											X	X
Procure Independent Evaluator									X	X	X	X

Demo Year 2: (7/1/2019-06/30/2020)

	2019						2020					
Activity/Milestone	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
Procure Independent Evaluator	X	X	X	X	X	X						
Finalize Research Methods						X	X					
Finalize Performance Measures						X	X					
Collect, Analyze, Interpret Data	X	X	X	X	X	X	X	X	X	X	X	X
Design Structured Interview Tool								X	X			
CMS Review of Interview Tool									X	X		
Identify and Schedule Key Informants										X	X	
Conduct Structured Interviews												X

Demo Year 3: (7/1/2020-06/30/2021)

	2020						2021					
Activity/Milestone	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
Collect, Analyze, Interpret Data	X	X	X	X	X	X	X	X	X	X	X	X

Demo Year 4: (7/1/2021-06/30/2022)

	2021						2022					
Activity/Milestone	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
Collect, Analyze, Interpret Data	X	X	X	X	X	X	X	X	X	X	X	X
Create Draft Interim Evaluation Report									X			
Revise design, if needed, for renewal									X			
Disseminate Interim Evaluation Report Findings for Feedback									X			
Finalize Draft Interim Evaluation Report										X	X	
Submit Interim Evaluation Report to CMS (with renewal by 6/30/22)												X

Demo Year 5: (7/1/2022-06/30/2023)

	2022						2023					
Activity/Milestone	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
CMS Review (7/1-9/30/22)	X	X	X									
Incorporate CMS Comments			X									
Submit Final Interim Evaluation Report			X									
Publish Final Interim Evaluation Report (within 30-days after approval)			X									
Collect, Analyze, Interpret Data	X	X	X	X	X	X	X	X	X	X	X	X
Replicate Secret Shopper Tools	X	X	X	X	X	X						
Conduct Secret Shopper Assessment				X	X	X						

Post Demo: (7/1/2023-6/30/2024)

	2023						2024					
Activity/Milestone	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
Create Draft Summative Evaluation Report	X	X	X	X	X	X						
Disseminate Draft Summative Evaluation Report Findings for Feedback							X	X				
Submit Draft Summative Evaluation Report to CMS									X			

Post Demo: (7/1/2024-3/30/2025)

	2024						2025					
Activity/Milestone	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
Incorporate CMS Comment (60 days after CMS comments)					X	X						
Submit Final Summative Evaluation Report to CMS							X					
Publish Final Summative Evaluation Report (within 30-days after approval)								X				

[i] https://www.cdc.gov/drugoverdose/data/statedeaths.html
[ii] New Hampshire Drug Monitoring Initiative, 2017 Final Overview Report, October 5, 2018: https://www.dhhs.nh.gov/dcbcs/bdas/documents/dmi-2017-overview.pdf
[iii] ibid
[iv] ibid
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