

NEW HAMPSHIRE
BUILDING CAPACITY FOR
TRANSFORMATION -
*DELIVERY SYSTEM REFORM
INCENTIVE PAYMENT
(DSRIP) DEMONSTRATION
WAIVER*

EVALUATION DESIGN

October 2016

NH Department of Health and Human Services
Office of Quality Assurance and Improvement

This program is operated under an 1115 Research and
Demonstration Waiver initially approved by the Centers for
Medicare & Medicaid Services (CMS) on January 5, 2016.

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1. OVERVIEW

Synopsis of New Hampshire DSRIP

On January 5, 2016, the Centers for Medicare and Medicaid Services (CMS) approved New Hampshire's request for expenditure authority to operate its section 1115(a) Medicaid demonstration entitled Building Capacity for Transformation, a Delivery System Reform Incentive Payment (DSRIP) program (hereinafter "DSRIP Demonstration"). The NH DSRIP Demonstration aims to transform the way physical and behavioral health care are delivered to Medicaid beneficiaries with behavioral health conditions, substance use disorders (SUD), and/or substance misuse (hereinafter "behavioral health conditions or SUD") – some of the most medically complex and costly beneficiaries in the state. Specifically, the DSRIP Demonstration will work to improve health care quality, population health, and reduce avoidable hospital use, while lowering health care costs.

Under the DSRIP demonstration, the state will make performance-based funding available to seven regionally-based Integrated Delivery Networks (IDNs) that serve Medicaid beneficiaries with behavioral health needs. The IDNs will strive to (1) deliver integrated physical and behavioral health care that better addresses the full range of individuals' needs, (2) expand capacity to address emerging and ongoing behavioral health needs in an appropriate setting, and (3) reduce gaps in care during transitions across care settings by improving coordination across providers and linking Medicaid beneficiaries with community supports. The demonstration has been approved through December 31, 2020.

Through the course of the demonstration period, each IDN is required to implement six projects to address the needs of Medicaid beneficiaries with behavioral health conditions, SUDs, or substance misuse. For each project, the IDN will develop detailed plans and focused milestones. Project performance will be measured by IDNs based on milestones and metrics that track project planning, implementation progress, clinical quality and utilization indicators, and progress toward transition to Alternative Payment Models (APMs). Details on the development and measurement of these milestones and metric as well as progress toward transition to APMs is detailed in NH DSRIP Project and Metrics Specification Guide.²

The IDN projects will include:

1. **Statewide Projects** (two projects mandatory for each IDN)

Each IDN will be required to implement two Statewide Projects designed to address the following critical elements of New Hampshire's vision for transformation:

- **Behavioral Health Work Force Capacity Development** - to develop a workforce equipped to provide high-quality, integrated care throughout the state; and
- **Health Information Technology Planning and Development** - to establish an HIT infrastructure that allows for the exchange of information among providers and supports a robust care management approach for beneficiaries with behavioral health conditions.

2. **Core Competency Project** (Mandatory for all IDNs)

Each IDN will be required to implement an Integrated Behavioral Health and Primary Care Competency Project to ensure that behavioral health conditions, SUDs, and

substance misuse are routinely and systematically addressed in the primary care setting and vice versa. Through this project, primary care providers, behavioral health providers, and social services organizations will partner to implement an integrated care model that reflects the highest possible levels of collaboration/integration as defined within the Substance Abuse and Mental Health Services Administration (SAMHSA) Levels of Integrated Healthcare. Implementing this model will better enable providers to collaborate to prevent and quickly detect, diagnose, treat and manage behavioral and medical conditions using standards of care that include:

- Core standardized assessment framework that includes evidence-based universal screening for depression and Screening, Brief Intervention, and Referral to Treatment (SBIRT)
- Health promotion and self-management support
- Integrated electronic medical records
- Multi-disciplinary care teams that provide care management, care coordination and care transition support
- Electronic assessment, care planning and management tool that enables information sharing among providers

3. Community Driven Projects (IDNs required to select three)

Each IDN is required to select three community-driven projects from a Project Menu established by the State. The IDN Community Driven Menu of projects gives IDNs the flexibility to undertake work reflective of community-specific priorities identified through a behavioral health needs assessment and community engagement; to change the way that care is provided in a variety of care delivery settings and at various stages of treatment and recovery for sub-populations; and to use a variety of approaches to change the way care is delivered. IDNs will be required to conduct a behavioral needs assessment as part of development of the IDN Project Plans. The IDN Project Menu is broken down into three categories; IDNs will select one project within each of the following categories:

- **Care Transitions Projects:** Support beneficiaries with transitions from institutional setting to community.
- **Capacity Building Projects:** Expand availability and accessibility of evidence supported programs across the state and supplement existing workforce with additional staff and training.
- **Integration Projects:** Promote collaboration between primary care and behavioral health care.

These projects are designed to facilitate the attainment of NH DSRIP Demonstration goals and objectives. The goal is to employ these services across the state to ensure a full spectrum of care is accessible for individuals with active behavioral health conditions, SUDs or substance misuse, and those who are undiagnosed or at risk. Details regarding the project specifications and metrics can be found in the NH DSRIP Project and Metrics Specification Guide², previously submitted to CMS.

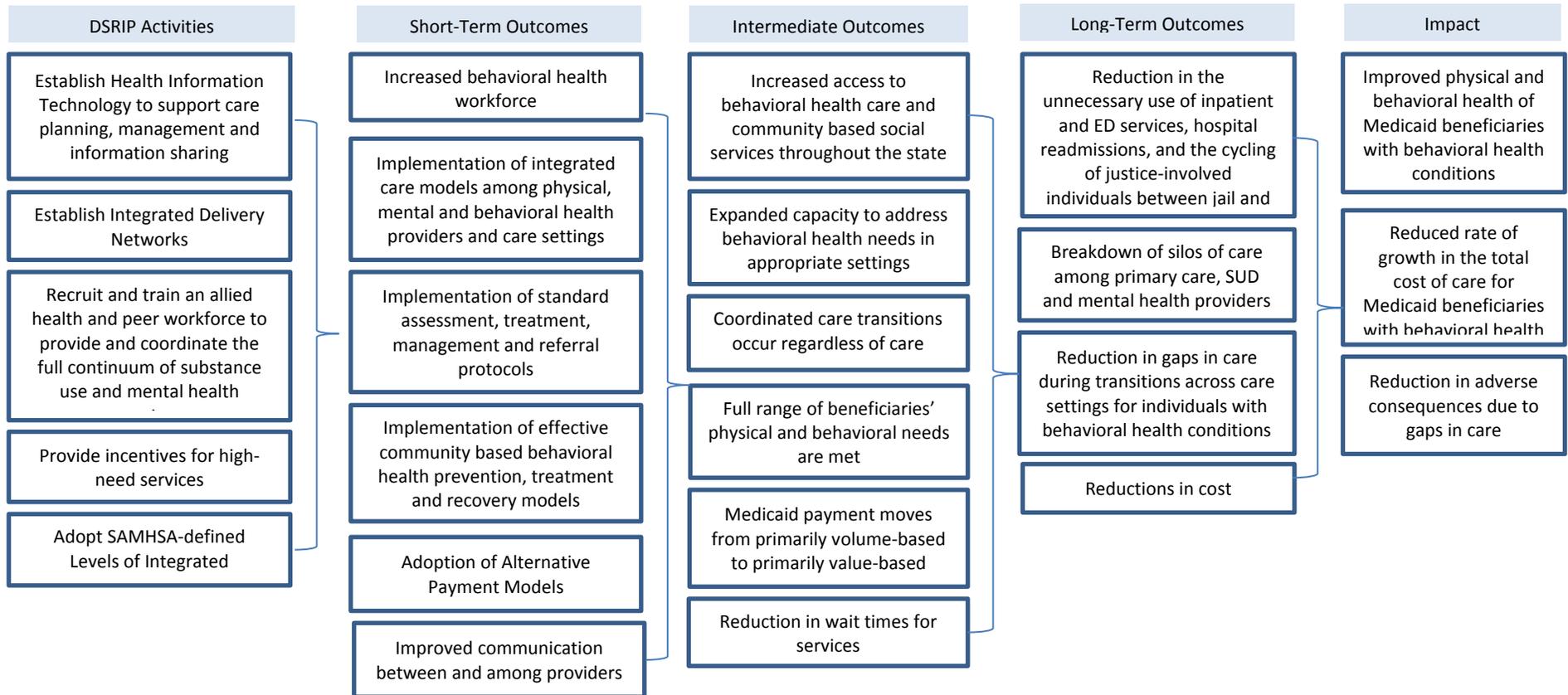
Goals, Objectives, and Key Components

The goal of the NH DSRIP demonstration is to support the development and maintenance of an integrated care delivery system (IDNs) to improve the physical and behavioral health of Medicaid beneficiaries with behavioral health needs and reduce the total cost of care of that population. To achieve that goal, the NH DSRIP Demonstration will involve accomplishing a number of strategic objectives. These include:

1. **Workforce Building:** Increase community-based behavioral health service workforce capacity through the education, recruitment, and training of a professional, allied health, and peer workforce with knowledge and skills to provide and coordinate the full continuum of substance use and mental health services
2. **Access:** Increase access to behavioral health care and appropriate community-based social support services throughout all of NH's regions by establishing IDNs
3. **Technology:** Establish robust technology solutions to support care planning and management and information sharing among providers and community-based social support service agencies
4. **Incentives:** Incentivize the provision of high-need services, such as medication-assisted treatment for SUD, substance misuse, peer support, and recovery services
5. **Recovery Models:** Increase the State's use of SAMHSA-recommended recovery models that will reduce unnecessary use of inpatient and emergency department (ED) services, hospital readmissions, the cycling of justice-involved individuals between jail and the community due to untreated behavioral health conditions, and wait times for services
6. **Integration:** Promote the integration of physical and behavioral health provider services in a manner that breaks down silos of care among primary care, SUDs/substance misuse and mental health providers, following existing standards (i.e., State Innovation Model (SIM) planning process; SAMHSA-defined standards for Levels of Integrated Healthcare).
7. **Care Transitions:** Enable coordinated care transitions for all members of the target population regardless of care setting (e.g. Community Mental Health Centers (CMHC), primary care, inpatient hospital, corrections facility, SUDs clinic, crisis stabilization unit) to ensure that the intensity level and duration of transition services are fully aligned with an individual's documented care plan
8. **Alternative Payment Models (APMs):** Ensure that IDNs participate in APMs that move Medicaid payment from primarily volume-based to primarily value-based payment over the course of the demonstration period

Figure 1: NH DSRIP Logic Model below illustrates the relationship between the NH DSRIP Demonstration goals and the strategic objectives, identifies the expected outcomes of the demonstration, and provides a framework for the development of the evaluation.

FIGURE 1: NH DSRIP LOGIC MODEL



2. EVALUATION DESIGN

Purpose

The NH DSRIP Demonstration Evaluation Design, prepared as required by the CMS Special Terms and Conditions (STC)¹ and subject to CMS approval, describes the methods that will be used by the NH Department of Health and Human Services (NH DHHS) to assess the extent to which the NH DSRIP Demonstration achieved its intended goals and objectives.

The purpose of the evaluation is to determine whether the NH DSRIP Demonstration was effective in achieving the goals of improved physical and behavioral health of Medicaid beneficiaries with behavioral health conditions, substance misuse, and SUDs, and reducing the cost of care of that population. The NH DSRIP Demonstration strategy involves the creation of IDNs across the state and the implementation of specific evidence-supported projects and statewide planning efforts completed by the IDNs that will lead toward an increase in behavioral health condition and SUDS treatment capacity, improved integration of physical and behavioral care, and improved transitions of care across settings. In addition, the IDNs will engage in a phased transition to APMs to transform the Medicaid system by building relationships between all types of health care providers and improving health information technology.

Study Population

The Demonstration will address the needs of Medicaid beneficiaries with a behavioral health condition, SUD or substance misuse of all ages, who are enrolled in Medicaid fee-for-service or Medicaid Care Management plans. Behavioral health conditions range from moderate depression and anxiety to substance use and severe mental illness. While some of these conditions respond well to prevention strategies, early intervention, and a short-term course of treatment, others are serious chronic illnesses that require a long-term recovery process often requiring ongoing treatment and management.

Study Group

The study group for this evaluation will include all New Hampshire Medicaid fee-for-service and Medicaid Care Management beneficiaries of all ages who have a behavioral health condition, SUD, or substance misuse and are served by an IDN during the Demonstration period. Medicaid beneficiaries receiving care through the NH Health Protection Program (NHHPP) Premium Assistance section 1115 demonstration will be included in the population as part of this study group.

Behavioral health conditions, substance misuse, and SUDs will be defined based on four separate criteria. Members who meet any one (or more) of the criteria are considered to have a behavioral health condition, substance misuse, or SUD. Members who meet one of these criteria at any time during the Demonstration will be considered part of the study group from the time they first qualify to the end of the Demonstration.

(1) Members who are indicated as eligible recipients of behavioral health care received at Community Mental Health Centers. Members meeting this criterion can be identified based

on the assignment of one of the following codes in the Medicaid Management Information System (MMIS; Medicaid claims and encounter data). Codes are based on CMHC submission to MCOs or on paid fee-for-service claims.

- U1 - Severe/Persistent Mental Illness (SPMI)
- U2 - Severe Mental Illness (SMI)
- U5 - Low Utilizer
- U6 - Serious Emotionally Disturbed Child
- U7 - Emotion Disturb Child/Interagency

(2) Members who have Medicaid claim on which the primary diagnosis code is for a behavioral health condition, substance misuse, or SUD. The following codes identify members with behavioral health conditions.

- F20-F29 Schizophrenia, schizotypal, delusional, and other non-mood psychotic disorders
- F30-F34 Mood (affective) disorders
- F41-F44 Anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders
- F53 Puerperal psychosis
- F60 Specific personality disorders
- F63 Impulse disorders
- F68 Other disorders of adult personality and behavior
- F84 Pervasive developmental disorders
- F90 Attention-deficit hyperactivity disorders
- F91 Conduct disorders
- F93 Emotional disorders with onset specific to childhood
- F94 Disorders of social functioning with onset specific to childhood and adolescence

The following codes identify members with *substance misuse*.

- F10 Alcohol related disorders
- F11 Opioid related disorders
- F12 Cannabis related disorders
- F13 Sedative, hypnotic, or anxiolytic related disorders
- F14 Cocaine related disorders
- F15 Other stimulant related disorders
- F16 Hallucinogen related disorders
- F18 Inhalant related disorders
- F19 Other psychoactive substance related disorders
- F55 Abuse of non-psychoactive substances

The following ICD-10 codes identify members with *SUDs*.

- F10-F19 Mental and behavioral disorders due to psychoactive substance use

- K29.2 Alcoholic gastritis
- K70 Alcoholic hepatitis

(3) Members who have a Medicaid pharmacy claims for a behavioral health condition or SUD prescription. The following specific therapeutic class codes identify these members.

- H2D Barbiturates
- H2E Non-Barbiturates, Sedative-Hypnotic
- H2F Anti-Anxiety Drugs
- H2G Anti-Psychotics, Phenothiazines
- H2H Monoamine Oxidase (MAO) Inhibitors
- H2M Bipolar Disorder Drugs
- H2S Serotonin Specific Reuptake Inhibitor(SSRI)
- H2U Tricyclic Antidepressant & Related Non-Selective Reuptake Inhibitor
- H2V Anti-Narcolepsy/Anti-Hyperkinesia
- H2W Tricyclic Antidepressant/Phenothiazine Combination
- H2X Tricyclic Antidepressant/Benzodiazepine Combination
- H7B Alpha-2 Receptor Antagonists Antidepressant
- H7C Serotonin-Norepinephrine Reuptake-Inhibitor (SNRIs)
- H7D Norepinephrine & Dopamine Reuptake Inhibitors (NDRIs)
- H7E Serotonin-2 Antagonist/Reuptake Inhibitor (SARIs)
- H7J Monoamine Oxidase (Mao) Inhibitors -Non-Selective & Irreversible
- H7O Antipsychotic, Dopamine Antagonist, Butyrophenones
- H7P Antipsychotic, Dopamine Antagonist, Thioxanthenes
- H7R Antipsychotic, Dopamine Antagonist, Diphenylbutylpiperidines
- H7S Antipsychotic, Dopamine Antagonist, Dihydroindolones
- H7T Antipsychotic, Atypical, Dopamine, & Serotonin, Antagonists
- H7U Antipsychotic, Dopamine & Serotonin Antagonist
- H7X Antipsychotic, Atypical, D 2 Partial Agonist/Serotonin Mix
- H7Y Treatment For Attention Deficit Hyperactivity Disorder, Norepinephrine Reuptake Inhibitor Type
- H7Z Serotonin Specific Reuptake Inhibitor (SSRIs)/Antipsychotic, Atypical, Dopamine & Serotonin Antagonist Combination
- H8B Hypnotics, Melatonin Receptor Agonists
- H8D Hypnotics, Melatonin & Herb Combination
- H8F Hypnotics, Melatonin Combination Other
- H8G Sedative-Hypnotic, Non-Barbiturate/Dietary Supplement
- H8H Serotonin-2 Antagonist, Reuptake Inhibitor/Dietary Supplement Combinations
- H8I Selective Serotonin Reuptake Inhibitor (SSRIs)/Dietary Supplement Combinations
- H8M Treatment For Attention Deficit Hyperactivity Disorder -Selective Alpha-2 Adrenergic Receptor Agonist
- H8P Serotonin Specific Reuptake Inhibitor (SSRI) & 5HT1A Partial Agonist Antidepressant

- H8Q Narcolepsy/Sleep Disorder Agents
- H8T Serotonin Specific Reuptake Inhibitor (SSRI) & Serotonin Receptor Modifier Antidepressant
- H8W Unknown
- J5B Adrenergic, Aromatic, Non-Catecholamine
- C0D Anti-alcoholic Preparations
- H3T Narcotic Antagonists
- H3W Narcotic Withdrawal Therapy Agents

Comparison Groups

Two comparison groups will be used in the evaluation of the DSRIP Demonstration. First, comparisons will be made between the pre-Demonstration period (12 months prior to the beginning of the DSRIP Demonstration) and the Demonstration period, annually, for the study group. Second, for some outcome measures, all beneficiaries who are part of the study population but do not have any indicator of behavioral health conditions, SUDs, or substance misuse will be used as a comparison group for beneficiaries in the study group who have such diagnoses.

Research Hypotheses and Evaluation Questions

The NH DSRIP Demonstration evaluation will include an assessment of the following hypotheses:

1. Medicaid beneficiaries with behavioral health needs will receive higher quality of care after IDNs are operating.
2. The total cost of care will be lower for Medicaid beneficiaries with behavioral health needs after IDNs are operating.
3. The rate of avoidable re-hospitalizations for individuals with behavioral health needs will be lower at the end of the Demonstration than prior to the Demonstration.
4. The percentage of Medicaid beneficiaries waiting for inpatient psychiatric care will be lower at the end of the Demonstration than prior to the Demonstration.
5. The average wait times for outpatient appointments at community mental health centers will be lower at the end of the Demonstration than prior to the Demonstration.

The evaluation design takes into account the following research questions:

- a. Was the DSRIP Demonstration effective in achieving the goals of better care for individuals (including access to care, quality of care, health outcomes), better health for the population, or lower cost through improvement? To what degree can improvements be attributed to the activities undertaken under DSRIP?
- b. To what extent has the DSRIP enhanced the state's health IT ecosystem to support delivery system and payment reform? Have changes to the IT ecosystem brought about by the DSRIP demonstration specifically enhanced the IDNs in regard to the following four key areas: governance, financing, policy/legal issues and business operations?

c. To what extent has the DSRIP improved integration and coordination between providers (including community service providers), including bi-directional integrated delivery of physical, behavioral health services, SUD services, transitional care, and alignment of care coordination and to serve the whole person?

The evaluation design will explore and describe the effectiveness and impact of the NH DSRIP Demonstration for each research question through a set of short-term (process) and intermediary (outcomes) performance measures collected at appropriate times throughout the demonstration period. Each research hypothesis includes one or more evaluation measures. The methods used to test the hypotheses and answer the research questions are described below.

Data Strategy and Analysis Plan

The evaluation will include both qualitative and quantitative research methods and data to comprehensively evaluate the DSRIP demonstration. The next sections describe data sources, research methods, and limitations. A summary of the data sources, samples, and analytic methods is contained in Table 1.

Table 1. Summary of Data Strategy and Analysis Plan, by Data Source		
Data Source	Sample	Analysis Method
Medical Management Information System (MMIS) – Medicaid Claims and Encounter data	Medicaid beneficiaries of all ages who have a behavioral health condition, SUD or substance misuse	Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and annually
IDN Electronic Health Records	Medicaid beneficiaries of all ages who have a behavioral health condition, SUD or substance misuse	Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and annually
Data from Non-Claim Discharges from New Hampshire Hospital	Medicaid beneficiaries of all ages who have a behavioral health condition, SUD or substance misuse	Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and annually
HEDIS	Medicaid beneficiaries of all ages who have a behavioral health condition, SUD or substance misuse	Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and annually
Stakeholder Surveys	1. Medicaid beneficiaries ≥ 18 who have a behavioral health conditions, SUD or substance misuse and had at least 1 visit in the previous 12 months	1. Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and annually
	2. Medical and community providers in IDNs who treat beneficiaries with a behavioral health condition, SUD or substance misuse	2. Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and annually
	3. IDN and Medicaid stakeholders who are	3. Pre-DSRIP vs. post-DSRIP comparison

	knowledgeable about the health information technology system	
Stakeholder Interviews	1. Medicaid beneficiaries ≥ 18 who have a behavioral health condition, SUD or substance misuse and had at least 1 visit in the previous 12 months	1. Thematic analysis
	2. Medical and community providers in IDNs who treat beneficiaries with a behavioral health condition, SUD or substance misuse	2. Thematic analysis
	3. Medicaid administrator(s), NH DHHS administrator(s), Medicaid and NH DHHS legal staff, managed care organization administrators, IDN administrators	3. Thematic analysis
IDN Documents	All Documents related to the IDN workforce size and training	Document review

Data Sources

The DSRIP evaluation necessitates that the contractor utilize multiple sources and forms of quantitative and qualitative data to address the research hypotheses. These data include administrative data (e.g., Medicaid claims and encounter data), survey and in-depth interview data collected specifically for the purposes of this evaluation, and IDN documentation detailing changes in the size and training of the workforce. The available data are not ideal to address all of the research hypotheses (e.g., length of waitlist for inpatient psychiatric care). In these instances, the “best available” data have been selected to address the hypotheses as closely as possible.

Administrative Data

The NH DSRIP evaluation will synthesize information from several sources of administrative data to assess the impact of the DSRIP waiver on health and health care outcomes and address evaluation hypotheses 1-5. Those data sources are: Medicaid claims and encounter data, IDN electronic health record (EHR) data, and the NH hospital discharge and HEDIS data. Appendix A lists each of the research hypotheses, data sources, and associated outcome measures. The Independent Evaluator will have access to a unique identification number for each person that is linkable across administrative data sets.

Use of FFS claims and managed care encounters will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded from all

evaluations, because these types of records introduce a level of uncertainty (from matching adjustments and third party liabilities to the index claims) that can impact reported rates.

Medicaid Management Information System (MMIS) (claims and encounter data)

The Medicaid Management Information System (MMIS) is the depository for all state-based Medicaid claims and encounter data, in accordance with CMS standards and protocols. Claims and encounter data contain information on health care visits (e.g. outpatient, inpatient, emergency department), the types of care received, and payments for each service rendered. Access to Medicaid claims and encounters will be required to optimize the information available to calculate the various measures. In general, Medicaid encounters are received and processed by the State's fiscal agent on a weekly basis with a historical 'run-out' of three months. In addition to service utilization data, the NH DSRIP evaluation will require access to supplemental Medicaid data contained in the State's MMIS—e.g., member demographics, eligibility/enrollment, and provider information.

New Hampshire Medicaid began processing managed care encounter data in July of 2015. New Hampshire is employing a three-fold strategy to ensure completeness and accuracy of the encounter data: 1) New Hampshire's Medicaid managed care contracts contain robust requirements for timeliness, completeness and accuracy with the possibility of liquidated damages if the standards are not met; 2) New Hampshire's encounter data processing solution pseudo adjudicates encounters through the State's MMIS applying many of the same quality edits employed for FFS claims; and 3) New Hampshire has availed itself of the optional EQRO activity of Encounter Data Validation (current EQRO contract includes activity and EQRO is currently implementing an EDI-based solution for loading the data as part of validation).

Member Demographics—Member data will be used to assess member age, gender, and other demographic and economic information required for the calculation of specific measures. For example, member demographics are used to determine member's age in order to define the comparison group relative to the distribution of the population in the study group. Additionally, fields such as gender will be used for the prenatal and postpartum measures. Finally, key financial data will be used when assessing gaps in coverage.

Eligibility/Enrollment—The eligibility/enrollment file will also be used create the study and comparison groups, as well as the assessment of health insurance and enrollment gaps.

Provider—Provider data, such as IDN, office location, and specialty, will be used to assess the availability of services for both study and comparison groups.

IDN Electronic Health Records (EHR)

To the extent possible, EHRs will be used to generate data on the standardization and implementation of screening assessments and counseling, provision of services, and health outcomes. They will also be used to assess the sharing of records across providers.

While EHRs would be the ideal source for measuring waiting times for inpatient psychiatric care to one of the State's 13 psychiatric facilities, this data does not currently exist. Thus, the Independent Evaluator will need to work with the State to explore data that is already collected and that which could be developed. Ultimately, the Independent Evaluator and the State will need to select and employ one of the two following options.

The preferred option is to establish a system of data collection for these data that would track the number of Medicaid beneficiaries waiting for inpatient psychiatric care in any hospital in NH (not just EDs and not just NH Hospital) each day during the quarter/year, and how long each person has waited. This would include voluntary and involuntary hospitalizations among both adults and youth. Given that this tracking system would have to be developed, the need to collect baseline data would create a delay in measurement of change in the metric. The entity(ies) that implements the tracking system may include managed care organizations (MCOs), hospitals, and/or some other entity not yet identified. This decision would need to be made as it becomes more clear what data may already be collected and how any existing data collection might be improved or expanded to meet the needs for this measure.

Should the first option not be feasible at this time, a second option would be to use the best available data. For example, the data known to be available for use may include the tracking used by New Hampshire Hospital. This hospital tracks the time between when adults and youth are referred specifically to their inpatient units and when they are admitted. They have a bed management system that results in the daily publication of their bed availability. The limitation is that this only includes individuals who have been referred specifically to the New Hampshire Hospital units and would not be wholly representative of all Medicaid recipients waiting for inpatient psychiatric admission to other facilities.

Data from Non-Claim Discharges from New Hampshire Hospital.

Hospital discharge data will be used to generate pre-Demonstration and, during the Demonstration, annual estimates of number and length of inpatient psychiatric stays and re-admissions. The evaluation contractor will be required to access special extracts from this data source in order to examine all outcomes.

Healthcare Effectiveness Data and Information Set (HEDIS) and Other Information

HEDIS is a tool used by more than 90 percent of America's health plans to measure performance on important dimensions of care and service. Altogether, HEDIS consists of 81 measures across five domains of care. NH DHHS is required by the Affordable Care Act (Public Law 111-148) to identify and publish core health care quality measures, and other summary data, for Medicaid beneficiaries, including certain HEDIS measures and other information. Many of the DSRIP outcome measures are drawn from HEDIS measures. Whenever the DSRIP evaluation sample is the same as that which is used in the NH HEDIS measure, the evaluation contractor will have access to and can use HEDIS outcomes computed by the State.

Comprehensive Health Care Information System (CHIS)

New Hampshire has established a Memorandum of Understanding (MOU) with the NHHPP's Premium Assistance Program (PAP) qualified health plans (QHPs) for their participation in the PAP to provide encounter data to the state. The QHPs will submit data to NH DHHS using the format and quality requirements of the State's Comprehensive Health Care Information System (CHIS), New Hampshire's All Payer Claims Database. Because the submission of data to the CHIS is a legal requirement to be a carrier in New Hampshire, the QHPs are already obligated to process and format the data according to the CHIS requirements. Existing CHIS data quality assurance processes will be employed to ensure the data are complete and of high quality. The QHPs will need to submit a separate duplicate feed for PAP members, because the CHIS data normally contain encrypted identifiers. The separate CHIS-like file the QHPs will provide to NH DHHS will contain identifiers including member Medicaid ID which will allow linking the data to Medicaid membership and claims.

Stakeholder Surveys

Surveys will be used to assess aspects of the DSRIP Demonstration that cannot be gathered from administrative health and health care record data. Four groups will be surveyed: Medicaid beneficiaries, IDN administrators, health care and community-based providers, and health information technology stakeholders. NH DHHS has sample drafts of the each of the surveys. The final surveys will be created/edited by the Independent Evaluator and approved by NH DHHS.

Beneficiaries will be surveyed on improvements in care coordination and integration as well as perceptions of the IDNs. Sample questions for this survey have been drawn from the Consumer Assessment of Healthcare Providers and Systems (CAHPS) Clinician and Group survey and its supplements. The CAHPS is a set of surveys maintained by the US Agency for Healthcare Research and Quality (AHRQ) and used widely by health care providers and agencies to assesses and improve current practice. More information and guidance about using the surveys are available at: <http://www.ahrq.gov/cahps/surveys-guidance/index.html>.

IDN administrator and provider (i.e., medical, social, and community-based service providers) surveys will query about improvements in care coordination and integration. IDN health information technology (HIT) stakeholders will be asked via survey about enhancements to the information technology system.

Beneficiaries and provider stakeholders will be stratified and then randomly selected to participate in the survey. Beneficiaries who have a behavioral health condition, SUD or substance misuse or substance misuse and who have had at least one visit during the calendar year will be stratified by IDN, gender, and age; beneficiaries who have had no visits will be excluded from selection. Providers will be stratified based on type (e.g., medical doctor, case manager, psychologist, community service provider, etc.) and IDN. Stratified random sampling of this type ensures that members of all key groups of interest are selected to participate. The Independent Evaluator will work with the IDNs to identify administrators and HIT stakeholders based on the statewide HIT assessment being conducted by IDNs. The Independent Evaluator will also synergize the surveys with the

resulting HIT plan, as appropriate. The Independent Evaluator will review the drafts and finalize the surveys upon approval by NH DHHS.

Surveys will be available through an online survey platform (e.g., Qualtrics) and through the mail as paper-and-pencil surveys. Mailed surveys will include a stamped and addressed return envelope to facilitate participation. Pre-survey letters will be sent to selected participants. Three follow-up letters will be sent to remind respondents to participate. All mailings will be created and sent from the evaluation contractor's office, not the State of NH.

Survey data will be anonymous and confidential. It will not be possible for surveys to be linked to any of the administrative or other forms of data used in this evaluation, to ensure privacy. The surveys will include closed-answer (e.g., yes/no, Likert scale) and open-ended questions. Draft surveys, except for the mini-CAHPS, have been developed specifically for this evaluation. The surveys were designed for each stakeholder group: Medicaid Beneficiaries, Providers, and Health Information Technology (HIT) Stakeholders. Survey topics include: Improvements in Care Coordination and Integration, Perceptions of the IDNs (Mini-CAHPS), Health Information Technology (CAHPS), Enhancements to the Information Technology System, and Demographic Characteristics.

Stakeholder Interviews

Semi-structured interviews will be utilized to gather in-depth data from stakeholders on aspects of the DSRIP Demonstration that cannot be gathered from health and health care records or stakeholder surveys. Four groups will be interviewed: members, providers, IDN administrators, and health information technology stakeholders. NH DHHS has sample drafts of each of the interview guides. The evaluation contractor will build off of these drafts based on their expertise. The final interview guides will be approved by NH DHHS.

Beneficiary and provider stakeholder interviews will query experiences with care coordination and integration during the DSRIP Demonstration as well as perceptions of the information technology systems; beneficiaries will also be asked about their experiences with health care during the Demonstration. Information technology stakeholder interviews will address perceptions of the information technology system. Draft interview guides were designed for each stakeholder group: Medicaid Beneficiaries, Providers, and Health Information Technology (HIT) Stakeholders. Interview topics include: Experiences with Health Care During the DSRIP Demonstration, Experiences with Care Coordination and Integration During the DSRIP Demonstration, Perceptions of the Information Technology Systems, and Demographic and Practice Characteristics.

Semi-structured interviews will be conducted by phone or face-to-face and audio-taped. All audio-tapes will be transcribed; pseudonyms will be assigned in order to protect the confidentiality of respondents. The State of NH and its employees will not conduct any of the interviews, conduct transcription, or have access to the audio-tapes or transcripts. The tapes will be destroyed after transcription. The same stratified random sampling selection process used for the stakeholder surveys will be used for the stakeholder interviews.

IDN Data

The NH DHHS has a contracted relationship with the Administrative Lead organizations of each IDN to ensure that data capturing, compiling, analyzing and submission to NH DHHS is part of the IDNs' compliance with the DSRIP demonstration. These contracts allow for the secure and managed exchange of client, clinical and performance data between NH DHHS and the IDN Administrative Leads. The Independent Evaluator will work with NH DHHS and the IDN Administrative Leads to access the data needed to complete the evaluation. The evaluation contractor must maintain the security of the data at all times, in accordance with NH DHHS standards.

In addition to the clinical and client data submitted to NH DHHS by the IDNs, data on performance, HIT improvements, and the hiring and training of personnel will be used to examine enhancements to the information technology system and the size and training of the IDNs' provider networks.

Research Methods

The variety of outcomes and potential implications of the DSRIP waiver requires the use of both quantitative and qualitative research methods. The implementation and reporting of both of these methods for the DSRIP evaluation will meet traditional standards of scientific and academic rigor, as appropriate and feasible for each aspect of the evaluation (e.g., for the evaluation design, data collection and analysis, and the interpretation and reporting of findings). The Demonstration evaluation will use the best available data, use controls and adjustments where appropriate and available, and report the limitations of data and the limitations' effects on interpreting the results. All research hypotheses and methods will incorporate results from sensitivity, specificity, and power analyses to ensure the validity of the evaluation findings. Lastly, the evaluation will discuss the generalizability of results in the context of the limitations. All research protocols will be approved by CMS.

The specific choice of methods is dependent upon the measure under discussion and the theoretical and empirical implications for policy-relevant and defensible results. For this reason, the specific methods are detailed within each of the measures used in the evaluation (See Appendix A). If the Demonstration continues beyond its originally allotted timeframe, the measures will be analyzed according to the aforementioned techniques.

Quantitative Methods

Quantitative methods are preferred for analyses examining data that is represented by discrete numbers or categories. The DSRIP evaluation relies on quantitative methods to assess the receipt of services, estimates of health care visits and costs of visits, and closed-ended survey questions. Quantitative methods also allow for the comparison of outcomes and extent of existing health and health care differences between groups.

As described previously, the DSRIP waiver encompasses all Medicaid beneficiaries. Comparisons of the impact of DSRIP on the outcomes measures are made within the pre-

Demonstration time-frame, as well as with Medicaid beneficiaries included in the demonstration who do not have a behavioral health or SUDs diagnosis. Quantitative evaluation analyses will use the following methods:

1. **Cross-sectional Analysis:** These analyses examine results for selected measures for two different groups at the same point in time. For example, cross-sectional analyses will be used to evaluate the impact of DSRIP on beneficiaries' access to care between those with and without behavioral health and SUD or substance misuse diagnoses.
2. **Sequential, Cross-sectional Analysis:** These analyses will include both *single group* and *multiple group* evaluations of multiple measures over time. Single group evaluations involve pre- and post-testing of a population that is conceptually longitudinal but changes some percentage of its membership each year, such as the Medicaid population. Multiple group evaluations involve pre- and post-testing for all evaluation groups to create difference scores that are then compared across groups.

Three primary quantitative analysis methods will be used to determine the impact of DSRIP on health and health care outcomes: 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 evaluation contractor will test whether continuous measures (e.g., number of 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.

Secondary analyses will include multiple regression analysis (e.g., least squares, logistic, zero inflated, etc.) and will be used to examine differences in the impact of the DSRIP Demonstration controlling for member characteristics and IDN. Multilevel modeling may also be conducted to examine the impact of the DSRIP Demonstration, accounting for member and IDN characteristics (e.g., provider density). Regression methods have a long history of generating empirically robust results when the evaluation model is correctly specified. The evaluation contractor will utilize clinical subject matter experts (SMEs) when building multivariate models and identifying relevant control variables.

Total Medicaid paid costs of all health care and total Medicaid paid costs of behavioral health care, by type of care, will also be examined in the evaluation. Total costs of care will include all costs (administration and medical) that were paid by Medicaid. Costs will compare those incurred in the pre-DSRIP period to those incurred during the DSRIP Demonstration period and annually thereafter, as well as between beneficiaries with and without a behavioral health condition, SUD or substance misuse (where specified and appropriate). All health care costs will be inflated (or deflated) to a base year set by the evaluation contractor. The evaluation contractor will seek recommendations from SMEs on which specific measures to use to inflate (or deflate) the demonstration's Medicaid data.

Finally, where appropriate, supplemental analyses will be conducted to further investigate and understand the impact of the DSRIP demonstration program. These analyses may

include the stratification of results by key demographic or IDN characteristics. When possible, evaluation results will incorporate national or state-defined standards and/or benchmarks for comparison purposes. In addition, the Independent Evaluator will collect data and perform an actuarial analysis to monitor compliance with NH DHHS' budget neutrality agreement with CMS. Together, the findings from these sub-group analyses will further inform the State regarding the impact of the DSRIP Demonstration.

Comparative Statistics

The non-parametric tests will be used to assess whether any differences found between the study and comparison groups are statistically significant (i.e., unlikely to have occurred in the data through random chance alone). The traditionally accepted risk of error ($p \leq .05$) will be used for all comparisons. If risk adjustment is used, p-values will be generated through multiple regression analysis and assessed against the same critical p-value.

Qualitative Methods

Qualitative methods are the preferred method for capturing in-depth data on topics that cannot be easily reduced to closed-ended questions or numeric estimates. The evaluation relies on qualitative methods to investigate stakeholder experiences of the DSRIP Demonstration as well as to describe changes in the size and training of the IDNs' workforces. Two qualitative methods will be used:

1. **Thematic Analysis:** These analyses examine semi-structured interview data for patterns across interviews. Themes will be defined based on their appearance in the data, not on some pre-defined structure. For example, beneficiaries may describe the Demonstration as improving the coordination of care in six unique ways and impeding their care in four ways.
2. **Document Review:** This method is useful for gaining in-depth data on information, including changes in the workforce and its training on behavioral health conditions and SUD during the course of the demonstration.

Thematic analysis will be conducted separately on each semi-structured interview transcript, for each group of interviewees (e.g., beneficiaries, providers, other stakeholders) 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.

Document review will be conducted on an ongoing basis, separately for each IDN. Items addressing improvements to the workforce size or training will be noted and additional information on those changes will be sought, as necessary.

Both methods will utilize no less than two coders. The principles and practice of inter-coder reliability will ensure the reliability of analyses. The qualitative methods used here are not intended to support comparison between groups of interviewees, nor do they follow principles of statistical significance.

Limitations

The DSRIP evaluation is limited by the lack of a true comparison group. All Medicaid beneficiaries are subject to participation in the demonstration and will receive care impacted by the development and implementation of health information technology and IDNs across the State. As a result, comparisons can only be made among beneficiaries subject to the demonstration, (e.g. between beneficiaries with and without behavioral health conditions, SUDs, or substance misuse). Furthermore, outcomes may improve for all beneficiaries regardless of the presence of a behavioral health condition, SUD, or substance misuse. Therefore, the DSRIP may show improvements in outcomes when compared to baseline but no improvements in comparison to people without behavioral health conditions, SUDs or substance misuse.

The evaluation is also limited by its reliance on diagnostic codes, eligibility codes for CMHCs, and prescription drug codes to identify the beneficiary population with behavioral health conditions, SUDs, or substance misuse. These codes may not capture all behavioral health conditions, SUDs, or substance misuse, especially if they are not ascertained by clinicians. Reliance on these codes may reduce outcome differences between the beneficiary populations with and without behavioral health conditions, SUDs, or substance misuse, resulting in misleading findings on the impact of the demonstration.

An additional limitation of the evaluation is that the ideal data are not available for all outcomes, such as waiting times for inpatient psychiatric care. In cases such as these, the evaluation is designed with the best data available. In the future, a system should be designed to accurately collect this information for analysis.

In addition, the DSRIP Demonstration proposes to effect a dynamic change in the health care delivery system for people with behavioral health conditions, SUDs, or substance misuse. Systemic change does not occur quickly and, in this case, will likely take longer than the five years for which the Demonstration has been approved. Therefore, all findings must be interpreted with sensitivity toward the scope of the attempted change in the system and its long-term (more than five years) potential.

Finally, given the high levels of need for expansion and improvement in behavioral health in New Hampshire, especially among Medicaid beneficiaries, multiple state efforts are currently being implemented to address these shortfalls.

3. EVALUATION IMPLEMENTATION

Selection of the Independent Evaluator

Based on State protocols, NH DHHS will follow established policies and procedures to procure an independent entity or entities to conduct the NH DSRIP Demonstration evaluation. The State will either undertake a competitive procurement for the Independent Evaluator.

The procurement process to contract with an independent entity to conduct the evaluation is anticipated to begin immediately after approval of the Evaluation Design by CMS. In a competitive bidding process, a Request for Proposals (RFP) will be developed and issued by NH DHHS. This RFP will describe the scope of work, the major tasks, and contract deliverables, with a bidder's conference or Q&A session to be held to address questions from potential bidders. Proposals received will undergo review by a panel of NH DHHS staff, using a scoring system developed for this RFP. Applicants will be evaluated on the basis of related work experience, staffing level and expertise, data analytic capacity, knowledge of State programs and populations, environment and resources, , and resource requirements. The independent entity selected for the evaluation will be screened to assure independence and freedom from conflict of interest. The assurance of such independence will be a required condition by the state in awarding the evaluation effort. It is expected that a contract will be finalized and work will begin by late winter 2017.

Evaluation Cost Estimates

As required by the CMS STC 72, NH DHHS will need to procure an Independent Evaluator to conduct the evaluation. As such, cost estimates for each of the proposed design options is currently unavailable and will be determined through the competitive bid process. Upon selection of the evaluation contractor, costs estimates will be finalized.

Reporting

Following its annual evaluation of the NH DSRIP Demonstration and subsequent synthesis of the results, NH DHHS and its evaluation contractor will prepare a report of the findings and describe how the results compare to the research hypotheses. Both the Interim Evaluation Report and the Final Evaluation Report will be produced in alignment with STCs and the schedule of deliverables listed in the timeline below.

Each evaluation report will present findings in a clear, accurate, concise, and timely manner. At a minimum, the interim and annual reports will include the following sections:

- 1) The **Executive Summary** concisely states the goals for the Demonstration, the evaluation questions and hypotheses tested in the report, and updates on questions and hypotheses scheduled for future reports. In presenting the key findings, budget neutrality and cost-effectiveness will be placed in the context of policy-relevant implications and recommendations.

- 2) The **Demonstration Description** section focuses on programmatic goals and strategies, and expected outcomes. This section succinctly traces the development of the program from the recognition of need to the present degree of implementation. This section will also include a discussion of the State's roll-out of the NH DSRIP along with its successes and challenges.
- 3) The **Study Design** section contains much of the new information in the report. Its five sections include: evaluation design with the research hypotheses and associated measures, along with the type of study design; impacted populations and stakeholders; data sources that include data collection fields, documents, and collection agreements; analysis techniques with controls for differences in groups or with other State interventions, including sensitivity analyses when conducted; and limitations for the study.
- 4) The **Findings and Conclusions** section is a summary of the key findings and outcomes. This section focuses on the successes, challenges, and lessons learned from the implementation of the Demonstration.
- 5) The **Interactions with Other State Initiatives** section contains a discussion of this Demonstration within an overall Medicaid context and consideration for the long-range planning efforts by the State. This discussion includes the interrelations between the Demonstration and other aspects of the State's Medicaid program, including interactions with other Medicaid waivers, the State Innovation Models (SIM) award, and other federal awards affecting service delivery, health outcomes, and the cost of care under Medicaid.

All reports, including the Evaluation Design, will be posted on the State Medicaid Website within 30 days of the approval of each document to ensure public access to evaluation documentation and to foster transparency. The State will work with CMS to ensure the transmission of all required reports and documentation occurs within approved communication protocols.

Evaluation Design Timeline

NH DSRIP Demonstration Evaluation Design Timeline	
Deliverable	Date
NH DHHS submits draft NH DSRIP Evaluation Design to CMS for comments and posts to the State's website for public comment	10/18/2016
NH DHHS receives comments from CMS (no later than 60 business days of receipt of draft Evaluation Design)	By 1/10/2017
NH DHHS submits final Evaluation Design (no later than 60 calendar days of receipt of CMS comments) and posts to the State's website	By 2/1/2017
NH DHHS procures an independent evaluator	By 7/1/2017
NH DHHS submits draft Interim Evaluation Report to CMS for comment (90 calendar days from completion of DY 4)	By 3/31/2019
NH DHHS receives comments from CMS (within 60 business days)	By 6/21/2019
NH DHHS submits final Interim Evaluation Report to CMS (within 60 calendar days of receipt of comments)	By 8/21/2019
NH DHHS submits draft Final Evaluation Report to CMS for comment	by 1/30/2021
NH DHHS receives comments from CMS (within 60 business days)	By 4/23/2021
NH DHHS submits Final Evaluation Report to CMS (within 60 calendar days after receipt of comments)	By 6/23/2021

Evaluation Implementation Timeline

The following timeline has been prepared for the NH DSRIP demonstration evaluation outlined in the preceding sections. This timeline should be considered preliminary and subject to change based upon approval of the Evaluation Design and implementation of the Demonstration. A final detailed timeline will be developed upon selection of the evaluation contractor procured to conduct the evaluation.

New Hampshire DSRIP Demonstration Evaluation Timeline

Task	2017				2018				2019				2020				2021				2022
	Q1 Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1													
Prepare and Implement Study Design																					
1. Prepare methodology and analysis plan																					
2. Arrange for how to receive data (i.e., Medicaid claims and encounters, IDN Health Records, HEDIS, etc.)																					
3. Work with DHHS to design data collection system for wait times to inpatient psychiatric stays																					
Data Collection																					
1. Obtain NH Medicaid member, provider, and eligibility/enrollment data																					
2. Obtain NH Medicaid claims and encounters																					
3. Obtain HEDIS Data																					
4. Obtain NH Hospital Discharge Data																					
5. Obtain IDN Documentation																					
6. Conduct stakeholder surveys																					
7. Conduct stakeholder interviews																					
Data Analysis																					
1. Analyze Medicaid claims and encounters, HEDIS and hospital discharge data																					
2. Analyze IDN Documentation																					
3. Analyze surveys																					
4. Analyze interviews																					
Dissemination																					
1. Progress report																					
2. Final report																					

REFERENCES

1. Centers for Medicare and Medicaid Services Special Terms and Conditions, 11-W-00301/1, New Hampshire Building Capacity for Transformation, (<http://www.dhhs.nh.gov/section-1115-waiver/documents/pr-2016-01-05-transformation-waiver-terms.pdf>)
2. NH DSRIP Project and Metrics Specification Guide, <http://www.dhhs.nh.gov/section-1115-waiver/documents/nh-dsrip-proj-metric-spec.pdf>

DRAFT

APPENDIX A. EVALUATION RESEARCH QUESTIONS, HYPOTHESES, MEASURES, AND ANALYSES

Evaluation Question #1: Was the DSRIP program effective in achieving the goals of better care for individuals (including access to care, quality of care, health outcomes), better health for the population, or lower cost through improvement? To what degree can improvements be attributed to the activities undertaken under DSRIP?

Measure 1	Experiences of Health Care with DSRIP
Definition:	Semi-structured interviews will explore how beneficiaries and provider groups perceived the impact of DSRIP on health and health care outcomes.
Technical Specifications:	Approximately 20-25 interviews will be conducted with beneficiaries who have a behavioral health condition, SUD or substance misuse and who have had at least one health care visit in the previous year and providers, respectively. Interviews will be audiotaped and transcribed for thematic analysis.
Exclusion Criteria:	Members <18 years old; members who do not have a behavioral health condition, SUD or substance misuse; members with behavioral health conditions who did not have one visit in the past year.
Data Source(s):	Semi-structured interviews
Comparison Group(s):	None
Comparison Method(s):	None (thematic analysis)
National Benchmark:	None

RQ1, HYPOTHESIS #1: Individuals with co-occurring physical and behavioral health issues will receive higher quality of care after IDNs are operating.

Measure 1.1.1	HEDIS: Antidepressant Medication Management
Definition:	Members 18+ treated with antidepressant medication, had a diagnosis of major depression and who remained on antidepressant medication treatment for at least 84 days and for at least 180 days
Technical Specifications:	1. Percent of members 18+ treated with antidepressant medication, had a diagnosis of major depression and who remained on antidepressant medication treatment for at least 84 days, in the calendar year. 2. Percent of members 18+ treated with antidepressant medication, had a diagnosis of major depression and who remained on antidepressant medication treatment for at least 180 days, in the calendar year.
Exclusion Criteria:	Members < 18; members who (a) are not treated with antidepressant medication and/or (b) don't have a diagnosis of major depression.
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	1. 2014 Medicaid HMO = 52.3%; 2. 2014 Medicaid HMO = 37.1%
Evaluation contractor should follow specification provided in adult core set but apply them to the adolescent (10-17 year	

old) population. Adult core set specifications available at <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf>, (p. 15). Whichever method is selected should be used consistently across years.

Measure 1.1.2	HEDIS: Follow-Up After Hospitalization for Mental Illness
Definition:	Members 6 + who were hospitalized for treatment of selected mental illness diagnoses and who had an outpatient visits, an intensive outpatient encounter or partial hospitalization with a mental health practitioner within 30 days and 7 days after discharge, in the last year.
Technical Specifications:	<ol style="list-style-type: none"> 1. Percent of members 6 + who were hospitalized for treatment of selected mental illness diagnoses and who had an outpatient visits, an intensive outpatient encounter or partial hospitalization with a mental health practitioner within 30 days, in the calendar year. 2. Percent of members 6 + who were hospitalized for treatment of selected mental illness diagnoses and who had an outpatient visits, an intensive outpatient encounter or partial hospitalization with a mental health practitioner within 7 days after discharge, in the calendar year.
Exclusion Criteria:	Members < 6 years old; members without select mental illness diagnoses
Data Source(s):	Medicaid Claims, Medicaid Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually; by age group
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	1. 2014 Medicaid HMO=43.9%; 2. 2014 Medicaid HMO=63.0%
Evaluation contractor should follow specification provided in adult core set but apply them to the adolescent (10-17 year old) population. Adult core set specifications available at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf , (p. 48). Whichever method is selected should be used consistently across years.	

Measure 1.1.3	Alcohol/Drug Dependence Treatment
Definition:	Engagement of alcohol and other drug dependence treatment (initiation and 2 visits within 44 days) among people diagnosed with SUD
Technical Specifications:	<ol style="list-style-type: none"> 1. Percent of people with SUDs who initiate drug dependence treatment, in the calendar year. 2. Percent of people with SUDs who have 1 other treatment visits within 14 days of initiating treatment, in the calendar year. 3. Percent of people with SUDs who have 2 other treatment visits within 44 days of initiating treatment, in the calendar year.
Exclusion Criteria:	Members not diagnoses with SUD
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	<ol style="list-style-type: none"> 1. Mann-Whitney U-test, annually 2. McNemar’s Chi-square test, annually 3. McNemar’s Chi-square test, annually
National Benchmark:	None

Measure 1.1.4		HEDIS: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	
Definition:	Adolescents and adults members with a new episode of alcohol or other drug dependence who initiate treatment with 14 days of the diagnosis and members who initiated treatment and who had two or more additional services within 30 days of the initiation visit, in the last year		
Technical Specifications:	1. Percent of adolescents ^a (10-17 years old) and adults ^b (>=18 years old) with a new episode of alcohol or other drug dependence who initiate treatment with 14 days of the diagnosis, in the calendar year. 2. Percent of adolescents and adults members with a new episode of alcohol or other drug dependence who initiated treatment and who had two or more additional services within 30 days of the initiation visit, in the calendar year.		
Exclusion Criteria:	Members who did not have a new episode of alcohol or other drug dependence; members <10 years old		
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report		
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually; by age group		
Comparison Method(s):	Mann-Whitney U-test, annually, by age group		
National Benchmark:	1. 2014 Medicaid HMO = 38.3%; 2. 2014 Medicaid HMO = 11.3%		
<p>(a) Evaluation contractor should follow specification provided in adult core set but apply them to the adolescent (10-17 year old) population. Adult core set specifications available at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf, (p. 67)</p> <p>(b) Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf, (p. 67). Whichever method is selected should be used consistently across years.</p>			

Measure 1.1.5		HEDIS: Adherence to Antipsychotic Medications for Individuals with Schizophrenia	
Definition:	Members 19-64 years of age with schizophrenia who were dispensed and remained on an antipsychotic medication for at least 80% of their treatment period, in the last year		
Technical Specifications:	Percent of members 19-64 years of age with schizophrenia who were dispensed and remained on an antipsychotic medication for at least 80% of their treatment period, in the , in the calendar year ^a		
Exclusion Criteria:	Members without schizophrenia (ICD-9: 295); members with schizophrenia who were not dispensed antipsychotic medication; members <19 or <64 years old		
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report		
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually		
Comparison Method(s):	Mann-Whitney U-test, annually		
National Benchmark:	2014 Medicaid HMO = 60.1%		
<p>Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf, (p. 150). Whichever method is selected should be used consistently across years.</p>			

Measure 1.1.6		HEDIS: Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	

Definition:	Members 18-64 years of age with schizophrenia or bipolar disorder, who were dispensed an antipsychotic medication and had a diabetes test
Technical Specifications:	Percent of members 18-64 years of age with schizophrenia or bipolar disorder, who were dispensed an antipsychotic medication and had either a glucose test or HbA1c test, in the calendar year.
Exclusion Criteria:	Members < 18 or >64 years old; members without schizophrenia or bipolar disorder; members with schizophrenia or bipolar disorder who were not dispensed an antipsychotic medication; members with schizophrenia or bipolar disorder who did not have a glucose test or HbA1c test during the measurement year
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually; total group and by mental illness type
Comparison Method(s):	Mann-Whitney U-test, annually; total group and by mental illness type
National Benchmark:	2014 Medicaid HMO = 79.8%
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf , (p. 155). Whichever method is selected should be used consistently across years.	

Measure 1.1.7	HEDIS: Diabetes Screening for People with Diabetes and Schizophrenia
Definition:	Members 18-64 years of age with schizophrenia and diabetes who had both an LDL-C and HbA1c
Technical Specifications:	Percent of members 18-64 years of age with schizophrenia and diabetes who had both an LDL-C and HbA1c, in the calendar year.
Exclusion Criteria:	Members < 18 or >64 years old; members without schizophrenia; members with schizophrenia who did not have diabetes
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	2014 Medicaid HMO = 69.3%
This measure is not required by the National Committee for Quality Assurance (NCQA).	

Measure 1.1.8	HEDIS: Cardiovascular Monitoring for People with Cardiovascular Disease and Schizophrenia
Definition:	Members 18-64 years of age with schizophrenia and cardiovascular disease, who had an LDL-C
Technical Specifications:	Percentage of members 18-64 years of age with schizophrenia and cardiovascular disease, who had an LDL-C, in the calendar year.
Exclusion Criteria:	Members < 18 or >64 years old; members without schizophrenia and cardiovascular disease
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	2014 Medicaid HMO = 76.2%
This measure is not required by the NCQA.	

Measure 1.1.9		Follow-up Care for Children Prescribed ADHD Medication	
Definition:	All children (ages 6-12) (with and without BH conditions) who were newly prescribed ADHD medication who had a least three follow-up visits within a 10 month period, one of which was in 30 days of when the first ADHD drug was dispensed		
Technical Specifications:	1. Members ages 6-12 newly prescribed ADHD medication who had a follow-up visit within 30 days of the prescription being dispensed (initiation phase) , in the calendar year. 2. Members ages 6-12 newly prescribed ADHD meds who remained on the med for 210 days and who in addition to the 30 day visit had at least 2 follow-up visits within 270 days after the initiation phase, in the calendar year.		
Exclusion Criteria:	Members <6 or >12 years old; children not newly prescribed ADHD meds		
Data Source(s):	Medicaid Claims, Medicaid Encounters, IDN EHR Report		
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually		
Comparison Method(s):	Mann-Whitney U-test, annually		
National Benchmark:	1. 2014 Medicaid HMO = 40.1%; 2. 2014 Medicaid HMO = 47.5%		
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/Medicaid-and-CHIP-Child-Core-Set-Manual.pdf , (p. 12). Whichever method is selected should be used consistently across years.			

Measure 1.1.10		HEDIS: Use of Multiple Concurrent Antipsychotics in Children and Adolescents	
Definition:	Children and adolescents 1-17 years of age who were on two or more concurrent antipsychotic medications		
Technical Specifications:	Percent of children and adolescents (1-17 years) who were on 2+ concurrent antipsychotic medications, in the calendar year.		
Exclusion Criteria:	Members <1 or >17 years old; members who are not on antipsychotics		
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report		
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually		
Comparison Method(s):	Mann-Whitney U-test, annually		
National Benchmark:	None (currently; but a benchmark will be available in 2017)		
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/Medicaid-and-CHIP-Child-Core-Set-Manual.pdf , (p. 20). Whichever method is selected should be used consistently across years.			

Measure 1.1.11		HEDIS: Metabolic Monitoring for Children and Adolescents on Antipsychotics	
Definition:	Children and adolescents 1-17 years of age who had 2+ antipsychotic prescriptions and had metabolic testing, both of the following: (a) at least one blood glucose test or HBA1c, (b) At least one LDL-C test		
Technical Specifications:	Percent of children and adolescents 1-17 years of age who had 2+ antipsychotic prescriptions and had metabolic testing, both of the following: (a) at least one blood glucose test or HBA1c, (b) At least one LDL-C test, in the calendar year.		

Exclusion Criteria:	Members <1 or >17 years old; children and adolescents not prescribed 2+ antipsychotics
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None (but there will be one in 2017)
This measure is not specified in the 2016 NCQA.	

Measure 1.1.12	
HEDIS: Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics	
Definition:	Children and adolescents 1-17 years of age who had a new prescription for an antipsychotic and had documentation of psychosocial care as first-line treatment
Technical Specifications:	Children and adolescents 1-17 years of age who had a new prescription for an antipsychotic and had documentation of at least a trial of outpatient behavioral health therapy prior to initiation of medication therapy, in the calendar year.
Exclusion Criteria:	Members <1 or >17 years old; children and adolescents not prescribed 2+ antipsychotics
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None (currently, but a benchmark will be available in 2017)
This measure is not specified in the 2016 NCQA.	

Measure 1.1.13	
USPSTF: Cervical Cancer Screening	
Definition:	Women with a behavioral health condition, SUD or substance misuse that received timely cervical cancer screening
Technical Specifications:	<ol style="list-style-type: none"> 1. Percent of women with a behavioral health condition, SUD or substance misuse ages 21-65 that received cervical cancer screening within the past 3 years 2. Percent of women with a behavioral health condition, SUD or substance misuse ages 30-65 that received cervical cancer screening within the past 5 years
Exclusion Criteria:	Women without a behavioral health condition, SUD and/or substance misuse; women outside the ages of 21-65; any men ; women without uterus/cervix
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf , (p. 29). Whichever method is selected should be used consistently across years. Please note that this measure is not specific to people with behavioral health conditions/SUDs.	

Measure 1.1.14		USPSTF: Breast Cancer Screening	
Definition:	Women with a behavioral health condition, SUD or substance misuse that received timely breast cancer screening		
Technical Specifications:	Percent of women with a behavioral health condition, SUD or substance misuse ages 40 and older that received a mammogram within the past 2 years		
Exclusion Criteria:	Women without a behavioral health condition, SUD or substance misuse; women <40; men		
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report		
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually		
Comparison Method(s):	Mann-Whitney U-test, annually		
National Benchmark:	None		
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf , (p. 19). Whichever method is selected should be used consistently across years. Please note that this measure is not specific to people with behavioral health conditions/SUDs.			

Measure 1.1.15		USPSTF: Colorectal Cancer Screening	
Definition:	Members with behavioral health condition, SUD or substance misuse that received timely colorectal cancer screening		
Technical Specifications:	Percent of members with behavioral health conditions and/or SUD ages 50-75 that received colorectal cancer screening within the past 3 years		
Exclusion Criteria:	Members without behavioral health conditions, SUD or substance misuse; members outside the ages of 50-75		
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report		
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually		
Comparison Method(s):	Mann-Whitney U-test, annually		
National Benchmark:	None		

Measure 1.1.16		USPSTF: Cholesterol Screening	
Definition:	Members with a behavioral health condition, SUD or substance misuse that received timely cholesterol screening		
Technical Specifications:	<ol style="list-style-type: none"> 1. Percent of men with a behavioral health condition, SUD or substance misuse ages 35+ that received cholesterol screening within the past 3 years 2. Percent of women with a behavioral health condition, SUD or substance misuse ages 45+ that received cholesterol screening within the past 3 years 		
Exclusion Criteria:	Members without a behavioral health condition, SUD or substance misuse; men under 35 and women under 45.		
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report		
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually by gender		
Comparison Method(s):	Mann-Whitney U-test, annually by gender		
National Benchmark:	None		

Measure 1.1.17	Adolescent Well Care Visit
Definition:	Recommended adolescent (age 12-21) Well Care visits
Technical Specifications:	The percentage of adolescent Medicaid enrollees with a behavioral health conditions, SUD or substance misuse who had a well care visit within the calendar year.
Exclusion Criteria:	Medicaid beneficiaries <12 or >21 years old
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	1. Pre-DSRIP to post-DSRIP 2. Adolescents with to adolescents without 1+ behavioral health condition, SUD or substance misuse
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Difference of differences between groups
National Benchmark:	None
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/Medicaid-and-CHIP-Child-Core-Set-Manual.pdf , (p. 27). Whichever method is selected should be used consistently across years. This measure is also a measure specified by the NCQA.	

Measure 1.1.18	Smoking/Tobacco Cessation Counseling
Definition:	Smoking and tobacco cessation counseling visit for tobacco users (CPT codes 99406-99407) with behavioral health condition, SUD or substance misuse
Technical Specifications:	The number of Medicaid beneficiaries with a behavioral health condition, SUD or substance misuse who used 1+ counseling visits for smoking and tobacco cessation, in the calendar year.
Exclusion Criteria:	Non-smoking Medicaid beneficiaries; beneficiaries without behavioral health condition, SUD or substance misuse
Data Source(s):	CAHPS
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf , (p. 77). Whichever method is selected should be used consistently across years. Please note that this metric should be measured using the CAHPS data available from the NH DHHS.	

Measure 1.1.19	Emergency Department (ED) Visits
Definition:	Frequent (4+ annually) ED visits for people with a behavioral health condition, SUD or substance misuse
Technical Specifications:	The percentage of Medicaid beneficiaries with behavioral health conditions and/or SUDs who had 4+ visit(s) to an ED, in the calendar year.
Exclusion Criteria:	Medicaid beneficiaries with no a behavioral health condition, SUD or substance misuse
Data Source(s):	Medicaid Claims and Encounters

Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 1.1.20	Preventable Emergency Department (ED) Visits
Definition:	Potentially preventable ED visits for a behavioral health condition, SUD or substance misuse
Technical Specifications:	a. The percentage of Medicaid beneficiaries with a behavioral health condition, SUD or substance misuse who had 1+ ED visits for an Ambulatory Care Sensitive Condition (as defined by AHRQ) , in the calendar year. See: https://www.qualitymeasures.ahrq.gov/summaries/summary/48964 b. The percentage of Medicaid beneficiaries who had 1+ ED visits for potentially preventable ED visits, in the calendar year.
Exclusion Criteria:	Beneficiaries without a behavioral health condition, SUD or substance misuse
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually; stratified by age (adolescent (10-17), adult)
Comparison Method(s):	Mann-Whitney U- test, annually by age group
National Benchmark:	None

Measure 1.1.21	Opioid Dosage for People Without Cancer
Definition:	Rate per 1,000 of people without cancer receiving a daily dosage of opioids greater than 120mg morphine equivalent dose (MED) for 90 consecutive days or longer
Technical Specifications:	Count of people <i>without</i> cancer receiving a daily dosage of opioids greater than 120mg morphine equivalent dose (MED) for 90 consecutive days or longer in the calendar year multiplied by 100 and divided by the total number of beneficiaries without cancer, in the calendar year.
Exclusion Criteria:	Medicaid beneficiaries with 1+ diagnosis codes for cancer and/or 2+ outpatient diagnoses for cancer
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

RQ1, HYPOTHESIS #2: The total cost of care will be lower for Medicaid beneficiaries with co-occurring physical and behavioral health issues after IDNs are operating.

Measure 1.2.1	Total Cost of All Care
Definition:	Total per member per month (PMPM) cost for Medicaid beneficiaries with a behavioral health condition, SUD or substance misuse

	issues
Technical Specifications:	Annual total costs divided by the number of member months among beneficiaries with a behavioral health condition, SUD or substance misuse, in the calendar year.
Exclusion Criteria:	Costs for beneficiaries without a behavioral health condition, SUD or substance misuse, in the past 12 months
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 1.2.2	Total Cost of All Inpatient Care
Definition:	Total per member per month (PMPM) inpatient costs for Medicaid beneficiaries with a behavioral health condition, SUD or substance misuse
Technical Specifications:	Annual total inpatient costs divided by the number of member months among beneficiaries with a behavioral health condition, SUD or substance misuse, in the calendar year
Exclusion Criteria:	Costs for beneficiaries without a behavioral health condition, SUD or substance misuse; costs for services other than inpatient care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 1.2.3	Total Cost of All Outpatient Care
Definition:	Total per member per month (PMPM) outpatient costs for Medicaid beneficiaries with a behavioral health condition, SUD or substance misuse
Technical Specifications:	Annual total outpatient costs divided by the number of member months among beneficiaries with a behavioral health condition, SUD or substance misuse, in the calendar year.
Exclusion Criteria:	Costs for beneficiaries a behavioral health condition, SUD or substance misuse; costs for services other than outpatient care; costs for outpatient psychiatric care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 1.2.4	Total Cost of Emergency Department (ED) Care
Definition:	Total per member per month (PMPM) ED costs for Medicaid beneficiaries with a behavioral health condition, SUD or substance misuse

Technical Specifications:	Annual total ED costs divided by the number of member months among beneficiaries with a behavioral health condition, SUD or substance misuse, in the calendar year.
Exclusion Criteria:	Costs for ED visits that become inpatient hospital stays; Costs for beneficiaries without a behavioral health condition, SUD or substance misuse; costs for services other than ED care; costs for psychiatric ED care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 1.2.5	
Total Cost of Behavioral Health Care	
Definition:	Total per member per month (PMPM) behavioral health costs for Medicaid beneficiaries with a behavioral health condition, SUD or substance misuse
Technical Specifications:	Annual total behavioral health costs (inpatient, outpatient, and ED) divided by the number of member months among beneficiaries with a behavioral health condition, SUD or substance misuse, in the calendar year.
Exclusion Criteria:	Costs for beneficiaries without a behavioral health condition, SUD or substance misuse; costs for services other than behavioral health care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 1.2.6	
Total Cost of Outpatient Behavioral Health Care	
Definition:	Total per member per month (PMPM) outpatient behavioral costs for Medicaid beneficiaries with a behavioral health condition, SUD or substance misuse
Technical Specifications:	Annual total outpatient behavioral health costs divided by the number of member months among beneficiaries with a behavioral health condition, SUD or substance misuse, in the calendar year.
Exclusion Criteria:	Costs for beneficiaries without a behavioral health condition, SUD or substance misuse; costs for services other than outpatient behavioral care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 1.2.7	
Total Cost of Inpatient Behavioral Health Care	
Definition:	Total per member per month (PMPM) inpatient behavioral health

	costs for Medicaid beneficiaries with a behavioral health condition, SUD or substance misuse
Technical Specifications:	Annual total psychiatric inpatient behavioral health costs divided by the number of member months among beneficiaries with a behavioral health condition, SUD or substance misuse, in the calendar year.
Exclusion Criteria:	Costs for beneficiaries without a behavioral health condition, SUD or substance misuse; costs for services other than inpatient behavioral health care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 1.2.8	Total Cost of Emergency Department (ED) Behavioral Health Care
Definition:	Total per member per month (PMPM) ED costs for Medicaid beneficiaries with a behavioral health condition, SUD or substance misuse
Technical Specifications:	Annual total psychiatric ED behavioral health costs divided by the number of member months among beneficiaries with a behavioral health condition, SUD or substance misuse, in the calendar year.
Exclusion Criteria:	Costs for ED visits that result in hospitalization; costs for beneficiaries without a behavioral health condition, SUD or substance misuse; costs for services other than ED behavioral health care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

RQ1, HYPOTHESIS #3: The rate of avoidable re-hospitalizations for individuals with co-occurring physical and behavioral health issues will be lower at the end of the demonstration than prior to the demonstration.

Measure 1.3	Hospital Re-Admission for Any Cause
Definition:	Readmission to hospital for any cause (excluding maternity, cancer, rehabilitation) within 30 days for adults (18+) with a behavioral health condition, SUD or substance misuse
Technical Specifications:	Count of the number of hospital readmissions within 30 days of discharge, among adult (≥ 18 years old) members with a behavioral health condition, SUD or substance misuse, in the calendar year.
Exclusion Criteria:	Readmission related to maternity, cancer, and rehabilitation; readmissions for people without a behavioral health condition, SUD or substance misuse; readmissions for members < 18 years old
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually

Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf , (p. 124). Whichever method is selected should be used consistently across years.	

RQ1, HYPOTHESIS #4: Percentage of Medicaid beneficiaries waiting for inpatient psychiatric care will be lower at the end of the demonstration than prior to the demonstration.

Measure 1.4	Wait Time for Inpatient Psychiatric Care
Definition:	Wait time for inpatient psychiatric care among people
Technical Specifications:	TBD, but the sample should include all people who initiate care each year, not just those determined to have a behavioral health condition, SUD or substance misuse at baseline, in the calendar year.
Exclusion Criteria:	TBD
Data Source(s):	TBD by evaluator and NH DHHS
Comparison Group(s):	TBD
Comparison Method(s):	TBD
National Benchmark:	None

RQ1, HYPOTHESIS #5: Average wait times for outpatient appointments at community mental health centers will be lower at the end of the demonstration than prior to the demonstration.

Measure 1.5	Community Mental Health Center (CMHC) Referral or New Patient Appointment
Definition:	Beneficiaries who newly initiate treatment after having a CMHC intake appointment (90801 HO)
Technical Specifications:	<ol style="list-style-type: none"> 1. Number of beneficiaries who had an intake appointment with a psychiatrist and also another appointment with a mental health provider within 7 days of the intake appointment, divided by the total number of people who had an intake appointment with a psychiatrist, in the calendar year. 2. Number of beneficiaries who had an intake appointment with a psychiatrist and also another appointment within 30 days of the intake appointment, divided by the total number of people who had an intake appointment with a psychiatrist, in the calendar year.
Exclusion Criteria:	Members who do not have a CMHC intake appointment
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	<ol style="list-style-type: none"> 1. Mann-Whitney U-test, annually 2. McNemar's Chi-square test, annually
National Benchmark:	None

RQ1, Hypothesis 6: Average length of stay for inpatient psychiatric care will be lower at the end of the Demonstration than prior to the Demonstration, as options for community-based care increase.

Measure 1.6	Length of Stay for Inpatient Psychiatric Care
Definition:	Mean length of stay for inpatient psychiatric care
Technical Specifications:	Sum of the length of inpatient psychiatric, measured in days, stays divided by the number of people with a behavioral health condition, SUD or substance misuse who had inpatient psychiatric stays, in the calendar year.
Exclusion Criteria:	Members with a behavioral health condition, SUD or substance misuse who did not have an inpatient psychiatric stay
Data Source(s):	Medicaid Claims and Encounters, Data from Non-Claim Discharges from New Hampshire Hospital
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Wilcoxon's matched pairs test, annually
National Benchmark:	None

Evaluation Question #2: To what extent has the DSRIP enhanced the state's health IT ecosystem to support delivery system and payment reform? Has it specifically enhanced these four key areas through the IDNs: governance, financing, policy/legal issues and business operations?

Measure 2.0	Enhancements to the IT System
Definition:	Assessment of the health information technology system on four dimensions: (a) governance, (b) financing, (c) policy/legal issues, and (d) business operations.
Technical Specifications:	1. Confidential and anonymous web-based survey with closed- and open-ended questions. Survey respondents will be multiple people in each IDN most knowledgeable about the four major topic areas of IT (e.g., governance, financing, policy/legal issues and business operations), including but not limited to IDN administrators, IDN information technologists, IDN legal staff, and IDN accountants. 2. Content analysis of IDN documents, including quarterly CMS reports and meeting minutes regarding changes to the IT System
Exclusion Criteria:	IDN and Medicaid stakeholders who are not knowledgeable about the health information technology system; members
Data Source(s):	1. Survey conducted twice during Waiver Demonstration (beginning of 2019 and end of 2020) 2. IDN Documents
Comparison Group(s):	None
Comparison Method(s):	1. Pre-DSRIP vs. post-DSRIP 2. None (document review)
National Benchmark:	None

Measure 2.1	Perceptions of the Enhanced IT System
Definition:	Semi-structured interviews will explore how various stakeholder groups perceive the enhanced health IT ecosystem to support delivery system and payment reform regarding governance, financing, policy/legal issues, and business operations.
Technical Specifications:	Approximately 20-25 interviews will be conducted with stakeholders, including Medicaid administrator(s), Medicaid data administrator(s), DHHS administrators, Medicaid and DHHS legal staff, MCO administrators, IDN administrators. Interviews will be audiotaped and transcribed for thematic analysis. Tapes will be destroyed after transcription.
Exclusion Criteria:	IDN and Medicaid stakeholders who are not knowledgeable about the health information technology system; members
Data Source(s):	Semi-structured interviews
Comparison Group(s):	None
Comparison Method(s):	None (thematic analysis)
National Benchmark:	None

Measure 2.2	Perceptions of the Usability and Utility of the Enhanced IT System
Definition:	Semi-structured interviews will explore how various stakeholder groups perceive the enhanced health IT ecosystem in supporting health care delivery, integration, and coordination
Technical Specifications:	Approximately 20-25 will be conducted with beneficiaries and community and medical service providers, respectively. Interviews will be audiotaped and transcribed for thematic analysis.
Exclusion Criteria:	Members ≥ 18 years old who do not have a BH/SUDs and who have not had at least one health care visit in the previous 12 months
Data Source(s):	Semi-structured interviews
Comparison Group(s):	None
Comparison Method(s):	None (thematic analysis)
National Benchmark:	None

Evaluation Question #3: To what extent has the DSRIP improved integration and coordination between providers, including bi-directional integrated delivery of physical, behavioral health services, SUDS services, transitional care, and alignment of care coordination and to serve the whole person?

Measure 3.0	Alcohol/Drug Abuse Screening
Definition:	Percent of beneficiaries screened for alcohol or drug abuse in the past 12 months using an age-appropriate standardized alcohol and drug use screening tool AND, if positive, a follow-up plan is documented on the date of the positive screen, age 12+
Technical Specifications:	1. Number of people (ages 12+) with a behavioral health condition, SUD or substance misuse who received an age-appropriate alcohol or drug abuse screening , in the calendar divided by the number of people with a behavioral health condition, SUD or substance misuse 2. Number of people (ages 12+) with a behavioral health condition, SUD or substance misuse who received an age-appropriate alcohol or drug abuse screening, in the calendar AND had a positive screen who also have a follow-up plan documented in the EHR, divided by the number of people (ages 12+) with a behavioral health condition, SUD or substance misuse who received an age-appropriate alcohol or drug abuse screening , in the calendar AND had a positive screen
Exclusion Criteria:	Beneficiaries without a behavioral health condition, SUD or substance misuse; beneficiaries under 12 year old
Data Source(s):	IDN EHR Output
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 3.1	Electronic Transmission of Records
Definition:	Timely electronic transmission of transition record (discharges from an inpatient facility in IDN (including rehab and skilled nursing facility) to home/self-care or any other site of care)
Technical Specifications:	Percent of transition records electronically transmitted to designated providers within 24 hours of the discharge from the inpatient facility, in the calendar year, for beneficiaries ages 18-64 and 65+
Exclusion Criteria:	Record transmissions not related to discharges from inpatient facilities; record transmissions related to beneficiaries age <18 years old.
Data Source(s):	IDN EHR Output
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually, for each age group
Comparison Method(s):	Mann-Whitney U-test, annually, for each age group
National Benchmark:	None

Measure 3.2	Substance Use and Depression Screening
Definition:	Comprehensive and consistent use of standardized core assessment framework including screening for substance use and depression for age 12+ by IDN providers
Technical Specifications:	Number of IDN providers who implemented screening for both substance use and depression for at least 85% of the beneficiaries 12+ with a behavioral health condition, SUD or substance misuse they saw in the calendar year, annually, divided by the number of IDN providers
Exclusion Criteria:	Beneficiaries without a behavioral health condition, SUD or substance misuse and those under 12 years
Data Source(s):	IDN EHR Output
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 3.3	Receipt of Necessary Care Composite Score
Definition:	Composite score indicating whether members with a behavioral health condition, SUD or substance misuse saw a specialist as soon as they needed to AND found it easy to get the care, tests, or treatment they needed, in the last 6 months.
Technical Specifications:	
Exclusion Criteria:	Beneficiaries <18 years old; beneficiaries who do not have a behavioral health condition, SUD or substance misuse
Data Source(s):	DHHS Mini-CAHPS Survey
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually; stratified by age group
National Benchmark:	None

Measure 3.4	Timely Receipt of Health Care Composite Score
Definition:	Composite score indicating whether members with a behavioral health condition, SUD or substance misuse received care right away when needed AND received an appointment for a check-up or routine care as soon as needed, in the last 6 months.
Technical Specifications:	The numerator will include the number of beneficiaries with a behavioral health condition, SUD or substance misuse who responded that they “always” receive care right away when necessary AND “always” receive a check-up or routine care when needed. The denominator will include all beneficiaries with a behavioral health condition, SUD or substance misuse who responded to both of the questions.
Exclusion Criteria:	Beneficiaries <18 years old; beneficiaries who do not have a behavioral health condition, SUD or substance misuse
Data Source(s):	DHHS Mini-CAHPS Survey
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually; stratified by age group

National Benchmark:	None
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Measure 3.5	Care Coordination Composite Score
Definition:	The care coordination composite score is based on five questions regarding the care provided by the member’s personal doctor and the doctor’s staff in the last 6 months. Three items relate specifically to the care provided by the personal doctor: how often the personal doctor (a) had the member’s medical records or other information about their care, (b) seemed informed and up-to-date about care from specialists, and (c) talked with the member about prescription medication. Two additional questions query the actions of the staff from the personal doctor’s office: how often someone from the doctor’s office (a) spoke with the member regarding test results and (b) assisted the member in managing care from different providers and services.
Technical Specifications:	The numerator will include the number of beneficiaries with a behavioral health condition, SUD or substance misuse who responded “always” to each of the five questions regarding care coordination. The denominator will include all beneficiaries with a behavioral health condition, SUD or substance misuse who responded to all of the questions.
Exclusion Criteria:	Beneficiaries <18 years old; beneficiaries who do not have a behavioral health condition, SUD or substance misuse
Data Source(s):	DHHS Mini-CAHPS Survey
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually; stratified by age group
National Benchmark:	None

Measure 3.6	Behavioral Health Composite Score
Definition:	Three questions will be used to measure behavioral health care received in the last 12 months provided by anyone in the personal provider’s office: whether or not members were (a) ask if there was a period of time when they felt sad, empty, or depressed, (b) talked to about whether there were things in the member’s life causing them worry or stress, and (c) talked to about a personal or family problem, alcohol or drug use, or an emotional or mental illness.
Technical Specifications:	The numerator will include the number of beneficiaries with a behavioral health condition, SUD or substance misuse who responded affirmatively to the questions described above. The denominator will include all beneficiaries with a behavioral health condition, SUD or substance misuse who responded to all three of the questions.
Exclusion Criteria:	Beneficiaries <18 years old; beneficiaries who do not have a behavioral health condition, SUD or substance misuse
Data Source(s):	DHHS Mini-CAHPS Survey
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually; stratified by age group

National Benchmark:	None
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Measure 3.7		Mental Illness Hospitalization Follow-Up (7 days)	
Definition:	Follow-up after hospitalization for mental illness within 7 days		
Technical Specifications:	Number of beneficiaries who had an inpatient psychiatric stay and also had a follow-up appointment within 7 days of the stay, divided by the total number of people who had an inpatient psychiatric stay, in the calendar year.		
Exclusion Criteria:	Non-psychiatric inpatient stays		
Data Source(s):	Medicaid Claims, Medicaid Encounters, Data from Non-Claim Discharges from New Hampshire Hospital		
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually		
Comparison Method(s):	Mann-Whitney U-test, annually		
National Benchmark:	None		

Measure 3.8		Mental Illness Hospitalization Follow-Up (30 days)	
Definition:	Follow-up after hospitalization for mental illnesses – within 30 days		
Technical Specifications:	Number of beneficiaries who had an inpatient psychiatric stay and also received a follow-up appointment within 30 days of the stay, divided by the total number of people who had an inpatient psychiatric stay, in the calendar year.		
Exclusion Criteria:	Non-psychiatric inpatient stays		
Data Source(s):	Medicaid Claims, Medicaid Encounters, Data from Non-Claim Discharges from New Hampshire Hospital		
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually		
Comparison Method(s):	Mann-Whitney U-test, annually		
National Benchmark:	None		

Measure 3.9		Mental Illness Emergency Department (ED) Visit Follow-Up (30 days)	
Definition:	Follow-up after ED visit for mental illness within 30 days		
Technical Specifications:	Number of beneficiaries who had a psychiatric ED visit (that did not result in an inpatient stay) and also had a follow-up with a mental health provider within 30 days of the visit, divided by the total number of people who had an inpatient psychiatric stay, in the calendar year.		
Exclusion Criteria:	Non-psychiatric ED visits		
Data Source(s):	Medicaid Claims, Medicaid Encounters		
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually		
Comparison Method(s):	Mann-Whitney U-test, annually		
National Benchmark:	None		

Measure 3.10		Alcohol/Drug Dependence Emergency Department (ED) Visit Follow-Up (30 days)	
Definition:	Follow-up after roomed visit for alcohol or other drug dependence within 30 days		

Technical Specifications:	Number of beneficiaries who had an Alcohol/Drug dependence ED visit and had a follow-up appointment within 30 days of the ED visit, divided by the total number of people who had an Alcohol/Drug dependence ED visit, in the calendar year.
Exclusion Criteria:	ED visits for reasons other than alcohol-drug dependence
Data Source(s):	Medicaid Claims, Medicaid Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP, annually
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 3.11	Ratings of Improvement in Care Coordination and Integration
Definition:	The surveys will address the extent to which DSRIP has achieved integration and coordination between providers including bi-directional integrated delivery of physical and behavioral health services, SUD services, transitional care, and the alignment of care coordination to serve the whole person. The provider survey will be focused on the organizational/operational perspective while the patient survey will be tailored to their experiences/perspectives.
Technical Specifications:	Questions and scoring will be drawn from established surveys (e.g., CAHPS, the Picker Institute).
Exclusion Criteria:	Beneficiaries without a behavioral health condition, SUD or substance misuse
Data Source(s):	Separate surveys conducted at the beginning of 2019 and end of 2020
Comparison Group(s):	2019 survey vs. 2020 survey
Comparison Method(s):	Mann-Whitney U-test, annually
National Benchmark:	None

Measure 3.12	Experiences of DSRIP Improving Care Integration and Coordination
Definition:	Explore the influence that integration and coordination has had on health care experiences and health.
Technical Specifications:	Approximately 20-25 interviews will be conducted with beneficiaries and community and medical service providers, respectively. Interviews will be audiotaped and transcribed for thematic analysis.
Exclusion Criteria:	Beneficiaries <18 years old who do not have a behavioral health condition, SUD or substance misuse and who have not had at least one visit in the previous 12 months. Providers who do not treat or care for beneficiaries who have a behavioral health condition, SUD or substance misuse.
Data Source(s):	Semi-structured interviews
Comparison Group(s):	None
Comparison Method(s):	None (thematic analysis)
National Benchmark:	None

Measure 3.13	Increasing the Size/Training of the Provider Network
Definition:	Assessment of the size and training of the IDN provider network to care for and treat members with a behavioral health condition, SUD or substance misuse.
Technical Specifications:	Analysis of IDN reports, including CMS quarterly reports and notices of training and hiring within the IDN.
Exclusion Criteria:	None
Data Source(s):	IDN documents
Comparison Group(s):	None
Comparison Method(s):	None (document review)
National Benchmark:	None

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