DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
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State Demonstrations Group

SEP 0 5 2017

Deborah Fournier
Director
Office of Medicaid Business and Policy
New Hampshire Department of Health and Human Services
129 Pleasant Street
Concord, NH 03301-6521

Dear Ms. Fournier:

The Centers for Medicare & Medicaid Services (CMS) has completed its review of the evaluation design for New Hampshire's section 1115(a) demonstration (Project No. 11-W-00301/1), entitled "Building Capacity for Transformation" (BCT). We have determined that the submission dated August 25, 2017 meets the requirements set forth in the Special Terms and Conditions and hereby approve the BCT evaluation design.

If you have any questions, please do not hesitate to contact your project officer, Mr. Adam Goldman Mr. Goldman can be reached at (410) 786-2242, or at Adam.Goldman@cms.hhs.gov. We look forward to continuing to partner with you and your staff on the New Hampshire BCT demonstration.

Sincerely,

[redacted]

Angela D. Garner
Director
Division of System Reform Demonstrations

Enclosure

cc: Richard McGreal, Associate Regional Administrator, CMS Boston Regional Office

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

EVALUATION DESIGN

August 2017

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

A. Synopsis of the New Hampshire Delivery System Reform Incentive Payment Demonstration Program

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 disorders, and/or substance use disorders (SUDs) and/or substance misuse (hereinafter "behavioral health disorders"). 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: (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 is 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 disorders. 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 metrics as well as progress toward transition to APMs is detailed in NH DSRIP Project and Metrics Specification Guide.[1]

The IDN projects include:

1. **Statewide Projects**

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 Project** - to develop a workforce equipped to provide high-quality, integrated care throughout the state; and
- **Health Information Technology Planning and Development Project** - 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 disorders.

2. Integrated Behavioral Health and Primary Care Competency Project Core Competency Project

Each IDN will be required to implement an Integrated Behavioral Health and Primary Care Competency Project to ensure that behavioral health disorders are routinely and systematically addressed in the primary care setting and that primary care issues are routinely addressed in behavioral health setting. Through this project, primary care providers and behavioral health providers will partner to implement an integrated care model that reflects the highest possible levels of collaboration and integration as defined within the Substance Abuse and Mental Health Services Administration (SAMHSA) Levels of Integrated health care. Implementing this model will better enable providers to prevent and quickly detect, diagnose, treat and manage behavioral and medical disorders using standards of care that include:

- Core standardized assessment framework that includes evidence-based universal screening for depression and substance use disorders,
- Health promotion,
- 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

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 divided 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 disorders 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 Guide, previously submitted to CMS.

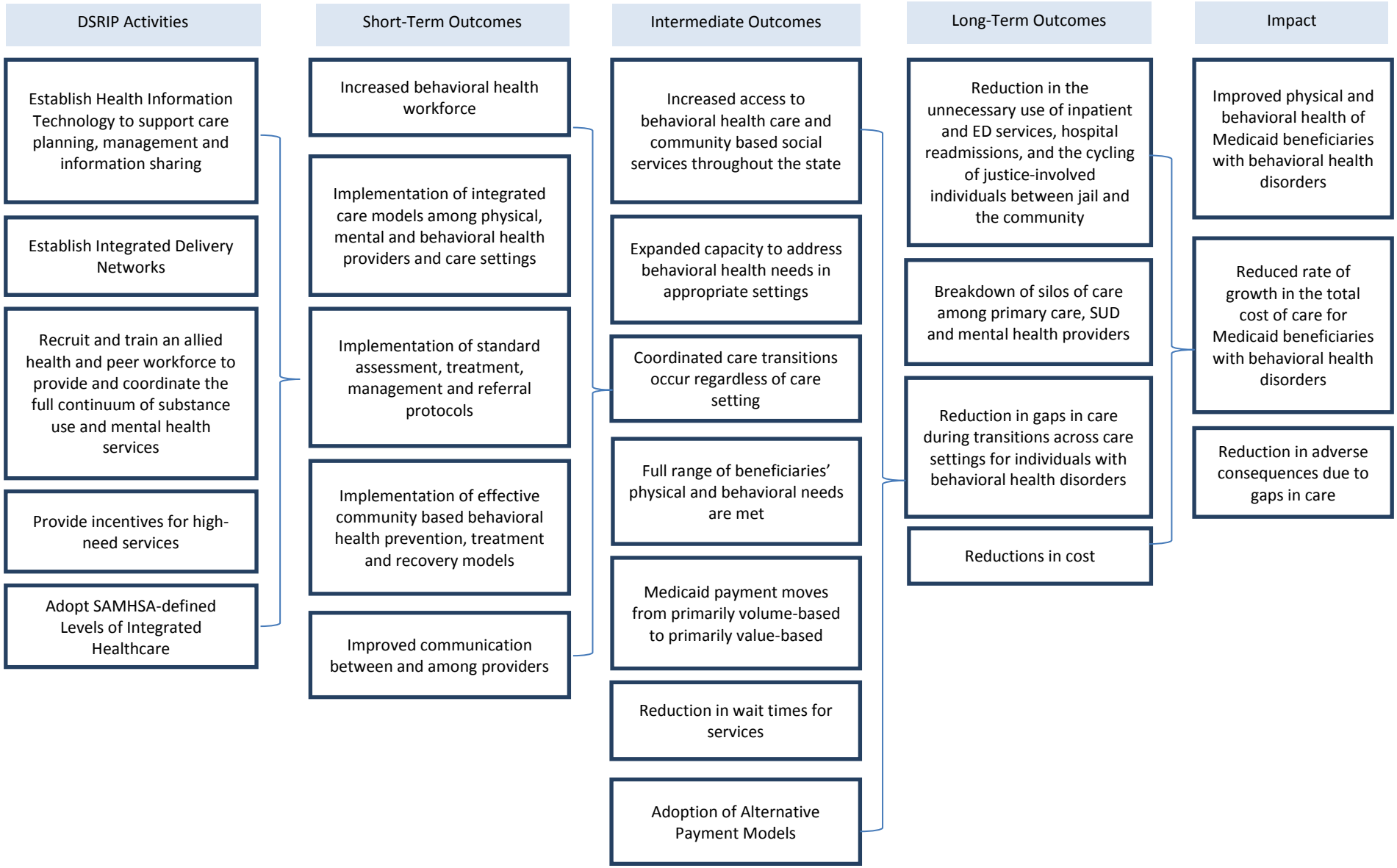
B. Goals, Objectives, and Key Components

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 deploy a number of strategies. 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 disorders, 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 and behavioral health providers, following existing standards (i.e., State Innovation Model (SIM) planning process; SAMHSA-defined standards for Levels of Integrated health care).
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

A. Purpose

The NH DSRIP Demonstration Evaluation Design, prepared as required by the CMS Special Terms and Conditions (STCs)[2] and subject to CMS approval, describes the methods that will be used by the NH Department of Health and Human Services (NH DHHS) to evaluate the extent to which the NH DSRIP Demonstration achieved its intended goals and objectives. The specific aims of the NH DSRIP Demonstration evaluation are to:

- Assess the implementation of the IDN statewide and site specific projects;
- Examine how DSRIP activities have enhanced the state's infrastructure including: increasing behavioral health workforce capacity, enhancing health IT solutions, and transitioning APMs;
- Evaluate the impact of the Demonstration on the cost efficiency and quality of care provided to Medicaid beneficiaries with behavioral health disorders;
- Examine how Demonstration activities and the IDNs influence access to care for Medicaid beneficiaries with behavioral health disorders; and
- Assess how IDNs impact the physical and behavioral health outcomes of Medicaid beneficiaries with behavioral health disorders.

As described above, 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 capacity for the treatment of behavioral health disorders, 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 improve health information technology.

B. Overview of Study Methodology

Implementation of a multilevel, multi-sector project to build capacity to transform health care delivery systems and payment models is challenging and requires significant engagement from a diverse group of stakeholders, as well as coordination among numerous activities across multiple settings. To ensure a robust and multi-dimensional understanding of the IDNs' implementation strategies and corresponding impact on delivery systems and patient outcomes, the proposed evaluation plan is designed to systematically examine the resources, activities, and processes affecting access to behavioral health care and social supports, treatment integration, and care coordination.

The evaluation of the DSRIP Demonstration will employ a rigorous mixed-methods design that incorporates both quantitative and qualitative measurement, including secondary administrative and electronic health data, stakeholder interviews and surveys, and document review. The evaluation includes a quasi-experimental, one-group pretest-posttest design, as well as qualitative thematic analysis, to:

- Provide feedback to IDNs for improvement in access and delivery of physical and

behavioral health care in their region; and

- Provide a summative assessment of the implementation experience and success of the intervention strategies implemented by the IDNs.

The evaluation design focuses on examining the impact of IDNs on the health outcomes of Medicaid beneficiaries with behavioral health disorders and the factors external and internal to the IDNs that may have influenced implementation. The latter will include documenting and comparing implementation tactics within and across IDN sites and evaluating strategies used to overcome barriers to delivering integrated care, enhancing capacity to address behavioral health, and enhancing care coordination across care settings. Evaluation activities will also focus on documenting and tracking the impact of strategies aimed at improving state infrastructure, including increasing behavioral health workforce capacity; enhancing information technology solutions to support care ongoing care planning, management, and coordination; and the transition to and implementation of APMs.

C. Research Questions, Hypotheses, and Measures

The DSRIP Demonstration evaluation design focuses on five research questions and corresponding hypotheses that explore and describe the effectiveness and impact of the demonstration through a set of short-term and intermediary performance measures collected at appropriate times throughout the demonstration period. Each research question and corresponding hypothesis, described below, includes one or more evaluation measures. The methods used to test the hypotheses and answer the research questions are described in Section F. The source of data and technical specifications for the measures are described in Appendix A.

Research Question 1: 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? Was there any variation between IDNs/geographic regions/market areas? To what degree can improvements be attributed to the activities undertaken under DSRIP?

Hypothesis 1.1*: *Individuals with behavioral health disorders or co-occurring physical and behavioral health disorders will receive higher quality of care after IDNs are operating regardless of IDN, geographic location, or market area.

Process measures: Experiences of Health Care with DSRIP: Beneficiaries Perceptions of Quality of Care; Providers Opinions of How IDN Activities have Improved Care Delivery; IDN Administrators Perceptions of the Implementation Experience and Views on How the IDNs and Project Activities have Impacted the Quality of Care, Plans, Payment Structures and Delivery Expenditures

Outcome measures: Experiences of Health Care with DSRIP, Antidepressant Medication Management, Follow-Up After Hospitalization for Mental Illness, Alcohol/Drug Dependence Treatment, Initiation and Engagement of Alcohol and Other Drug Dependence Treatment, Adherence to Antipsychotic Medications for Individuals with Schizophrenia, Diabetes Screening for People with Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications,

Diabetes Screening for People with Diabetes and Schizophrenia, Cardiovascular Monitoring for People with Cardiovascular Disease and Schizophrenia, Follow-up Care for Children Prescribed ADHD Medication, Metabolic Monitoring for Children and Adolescents on Antipsychotics, Use of First-Line Psychosocial Care for Children and Adolescents on Antipsychotics, Intimate Partner Violence Screening, Hypertension Screening, Obesity Screening and Referral (Adult and Children), Tobacco Use Screening and Intervention, Cholesterol Screening, Adolescent Well Care Visit, Smoking/Tobacco Cessation Counseling, Emergency Department (ED) Visits, Potentially Preventable Emergency Department (ED) Visits, Opioid Dosage for People Without Cancer

Hypothesis 1.2**:** *Individuals with behavioral health disorders or co-occurring physical and behavioral health disorders will have greater access to care at the end of the demonstration regardless of IDN, geographic location, or market area.*

Process measures: Member Experiences of Accessing Care: Beneficiaries Perceptions and Experiences Accessing Care

Outcome measures: Timely Access to Care, Number of Primary Care Visits, Number of Behavioral Health Care Visits, Percent Beneficiaries with One or More Annual Primary Care Visit, Percent with Annual Behavioral Health Care Visits, Percent Beneficiaries who received SUD Treatment Services, Percent of Adolescent Beneficiaries with Well-Care Visits.

Hypothesis 1.3: *Population health will improve as a result of the implementation of the DSRIP Demonstration regardless of IDN, geographic location, or market area.*

Process measures: Strategies to Improve Population Health: Necessary Resources, Infrastructure Development, Outreach Efforts, Factors Contributing to Successful Intervention Strategies, Challenges Encountered

Outcome measures: Changes in Self-Reported Health Status, Health Related Quality of Life, Tobacco Use, Alcohol Consumption.

Hypothesis 1.4**:** *The total cost of care will be lower for Medicaid beneficiaries with behavioral health disorders or co-occurring physical and behavioral health disorders after IDNs are operating regardless of IDN, geographic location, or market area.*

Outcome measures: The primary outcome will be average costs for attributed individuals; total costs will be further broken apart to examine specific costs expected to be impacted by the demonstration. The following costs will be calculated for analysis: Total Cost of All Care, Total Cost of All Inpatient Care, Total Cost of All Outpatient Care, Total Cost of Emergency Department (ED) Care, Total Cost of Behavioral Health Care, Total Cost of Outpatient Behavioral Health Care, Total Cost of Inpatient Behavioral Health Care, Total Cost of Emergency Department (ED) Behavioral Health Care

Hypothesis 1.5**:** *The rate of avoidable hospital re-admissions for individuals within IDNs with behavioral health disorders or co-occurring physical and behavioral health disorders will be lower at the end of the demonstration than prior to the regardless of IDN, geographic location, or market area.*

Outcome measures: Hospital Re-Admission for Any Cause for Individuals with Behavioral Health Disorders, Hospital Re-Admission for Behavioral Health Disorder

Hypothesis 1.6**:** *The statewide rate of avoidable hospital admissions for individuals with behavioral health disorders or co-occurring physical and behavioral health disorders will be lower at the end of the demonstration than prior to the regardless of IDN, geographic location, or market area.*

Outcome measures: Hospital Admission for Ambulatory Care Sensitive Admissions for Individuals with Behavioral Health Disorders.

Hypothesis 1.7**:** *The rate of Medicaid beneficiaries waiting for inpatient psychiatric care will decrease over the course of the Demonstration regardless of IDN, geographic location, or market area.*

Outcome measures: Rate of Individuals Waiting for Inpatient Psychiatric Care

Hypothesis 1.8: *The average length of stay for inpatient psychiatric care at New Hampshire Hospital (NHH, NH's state run psychiatric facility) will be lower at the end of the Demonstration than prior to the Demonstration, as options for community-based care increase regardless of IDN, geographic location, or market area.*

Outcome measures: Length of Stay for NHH Inpatient Psychiatric Care

Hypothesis 1.9: *The average wait times for outpatient appointments at a community mental health center will be lower at the end of the demonstration than prior to the regardless of IDN, geographic location, or market area.*

Outcome measures*:* Community Mental Health Center Referral or New Patient Appointment (Timeliness)

Hypothesis 1.10: *The number of referrals and follow-up plans from primary care and other non-psychiatric providers to appropriate services will increase during the regardless of IDN, geographic location, or market area.*

Outcome measures: Number of primary care/other provider referrals, number of follow-up plans.

Research Question 2: To what extent has the DSRIP Demonstration improved integration and coordination between providers? To what extent has the DSRIP Demonstration fostered the bi-directional and integrated delivery of physical health services, behavioral health services, SUD services, transitional care, and alignment of care coordination to serve the whole person? Was there any variation between IDNs/geographic regions/market areas?

Hypothesis 2.1**:** *Integration and coordination between providers within the IDNs will improve as a result of implementation of the DSRIP regardless of IDN, geographic location, or market area.*

Outcome measures: Fragmented Care, Transmission of Records, Alcohol/Drug Abuse Screening, Substance Use and Depression Screening, Receipt of Necessary Care Composite Score, Timely Receipt of Health Care Composite Score, Care Coordination Composite Score, Behavioral Health Composite Score, Mental Illness Hospitalization Visit Follow-up, Mental Illness ED Visit Follow-Up, Alcohol/Drug Dependence ED Visit Follow-Up, Ratings of Improvement in Care Coordination and Integration

Process measures: Patient Experiences of Care Integration and Coordination: Successes Resulting from Integration and Coordination Strategies, Barriers to Integration and Care Coordination, Information Sharing, Policies Supporting Coordination, Provider and Patient Experiences of Improved Care; Practice and Provider Experiences of Care Integration and Coordination: Integration and Coordination Strategies, Barriers to Integration, Information Sharing, Policies Supporting Coordination, Provider Experiences with Integration

Research Question 3: To what extent has the DSRIP Demonstration improved the capacity of the state's behavioral health workforce to provide quality, evidence-based, integrated care?

Hypothesis 3.1**:** *Capacity to deliver evidenced-based behavioral health and/or SUD treatment will increase as a result of the DSRIP Demonstration statewide and IDN specific project activities.*

Outcome measures: Size and Training of the Provider Network: Number of MSWs, APRNs, and psychologists in the workforce to do integrated care and addiction care; Number of SUD peers trained in Intentional Peer Support and Mental Health First Aid; Number of Trainings Provided; Number of New Provider Certification or Licensure; Number of New Hires

Research Question 4: To what extent has the DSRIP Demonstration 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?

Hypothesis 4.1*: *Health IT infrastructure among the IDNs will improve as a result of the DSRIP Demonstration statewide and IDN specific project activities.

Outcome measures: Enhancements to the IT System, Perceptions of the Enhanced IT System, Perceptions of the Usability and Utility of the Enhanced IT System

Process measures: Stakeholder Perceptions of Governance Challenges and Successes, Financing Structures, Business Operations Implementation, Policy and Legal Issues

Hypothesis 4.2*: *Health IT strategies implemented during the DSRIP Demonstration will result in improved information exchange across settings and enhanced care management for beneficiaries with behavioral health disorders.

Outcome measures: Care Coordination Composite Score, Ratings of Improvement in Care Coordination and Integration, Perceptions of Improved Information Exchange, CAHPS Information Technology Item Set

Process measures: Information Sharing, How IT Infrastructure has Helped Coordinate Care, Barriers to Using Health IT for Care Coordination, Leveraging Health IT for Care Management

Research Question 5: To what extent has the DSRIP Demonstration improved IDNs' readiness to transition to or implement Alternative Payment Models (APMs)? Are IDNs making adequate preparations in data infrastructure, financial infrastructure, and other required changes needed to achieve the goal of 50% of Medicaid provider payments to providers using APMs by the end of the demonstration period? Have the IDNs engaged with the state and managed care plans in support of that goal?

Hypothesis 5.1*: *DSRIP Demonstration activities have improved the IDNs' ability to make the necessary changes to their systems to transition to or implement APMs and achieve the DSRIP goal.

Outcome measures: Number of IDNs transitioned to/implementing APMs, Projected percentage of payments made to providers under APM

Process measures: IDN Perceived Challenges Associated with Implementing APMs, IDN Perceived Benefits of Implementing APMs

D. Study Population

The population under study for this evaluation includes all Medicaid beneficiaries of all ages with behavioral health disorders or co-occurring physical and behavioral health disorders with full Medicaid benefits. Behavioral health disorders range from moderate depression and anxiety to substance use and severe mental illness.

Study Group

The study group for this evaluation will include all New Hampshire Medicaid fee-for-service and Medicaid Care Management Program beneficiaries, both children and adults, and adults receiving care through New Hampshire's Premium Assistance section 1115 demonstration, who have a behavioral health disorder and are served by an IDN during the Demonstration period (all beneficiaries residing in-state are served by IDNs). Because of the differences in financing and cost-sharing for Premium Assistance Program enrollees, the evaluation will also include a series of analyses that examine the Premium Assistance Program separately from traditional Medicaid. Individuals who do not have an eligible behavioral health disorder will be excluded from the study population. This other group will be used as a control for any overarching policy and clinical practice environmental changes occurring within the state and its Medicaid program over the course of the evaluation period.

Behavioral health disorders will be defined based on three criteria: beneficiaries receiving care at community mental health centers, or who have a primary diagnosis code for a behavioral health disorder, or who have therapeutic medication for a behavioral health disorder. Members who meet one or more of the eligibility criteria are considered to have a behavioral health disorder. Members who meet one or more of these criteria at any time during the Demonstration, from the date of first qualification to the end of the Demonstration, will be considered part of the study group.

The eligibility criteria include:

1. Members who are indicated as eligible recipients of behavioral health care received at Community Mental Health Centers (CMHC). 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 Managed Care Organizations or paid fee-for-service claims.
    - U1 - Severe/Persistent Mental Illness (SPMI)
    - U2 - Severe Mental Illness (SMI)
    - U5 - Low Utilizer of Mental Health Services
    - U6 - Serious Emotionally Disturbed Child
    - U7 - Emotion Disturb Child/Interagency
2. Members who have a Medicaid claim on which the primary diagnosis code is for a behavioral health disorder.

    The following ICD-10 codes will be used to identify members with mental health disorders:

- 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
- F84.0 Autistic disorder
- F84.9 Pervasive developmental disorders, unspecified
- 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 ICD-10 codes identify members with SUDs.

- F10 Alcohol related disorders (excluded: F10.21 Alcohol dependence, in remission)
- F11 Opioid related disorders (excluded: F11.21 Opioid dependence, in remission)
- F12 Cannabis related disorders (excluded F12.21 Cannabis dependence, in remission)
- F13 Sedative, hypnotic, or anxiolytic related disorders (excluded: F13.21 Sedative, hypnotic, or anxiolytic dependence, in remission)
- F14 Cocaine related disorders (excluded: F14.21 Cocaine dependence, in remission)
- F15 Other stimulant related disorders (excluded: F15.21 Other stimulant dependence, in remission)
- F16 Hallucinogen related disorders (excluded: F16.21 Hallucinogen dependence, in remission)
- F18 Inhalant related disorders (excluded: F18.21 Inhalant dependence, in remission)
- F19 Other psychoactive substance related disorders (excluded: F19.21 Other psychoactive substance dependence, in remission)
- F55 Abuse of non-psychoactive substances
- K29.2 Alcoholic gastritis
- K70.1 Alcoholic hepatitis

3. Members who have a Medicaid pharmacy claim for a behavioral health disorder. 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-Hyperkinesis
- 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 Antipsychotic-Atypical, D3
- J5B Adrenergic, Aromatic, Non-Catecholamine
- C0D Anti-alcoholic Preparations
- H3T Narcotic Antagonists
- H3W Narcotic Withdrawal Therapy Agents

Subpopulation Group

Outcomes for a subpopulation of beneficiaries with co-occurring physical and behavioral health disorders will also be analyzed as part of this evaluation. The subpopulation will include beneficiaries in the study group who also have a primary or secondary diagnosis for one of the following physical health conditions that commonly co-occur in individuals with behavioral health disorders: diabetes, asthma, chronic obstructive pulmonary disease, and cardiovascular disease. Subpopulation group members will be identified through claims using HEDIS 2017 value sets inclusion and exclusion criteria. Beneficiaries who do not have a qualifying behavioral health disorder and eligible co-occurring physical health condition will be excluded from the subpopulation group.

Comparison Groups

The entire population of the state falls within the catchment areas of the IDNs. Since Medicaid beneficiaries with behavioral health disorders are required to seek care within their IDN, there is no direct comparison group available for this evaluation. In designing the evaluation plan a variety of potential comparison groups were considered including the creation of a point in time comparison group of individuals with new behavioral health or substance use disorders. The creation of a comparison group of new diagnosis is not feasible for a number of reasons including:

- Using claims data to determine a new diagnosis is problematic as identifying individuals with a truly new diagnosis requires complete medical histories on individuals; and
- The sample size of members with new diagnoses will likely be substantially smaller than the study group, making it difficult to examine statistical differences between the two groups.

Therefore, the state is proposing a one-group quasi-experimental pretest-posttest design with multiple observation points. Given the lack of a feasible control group, a pre-posttest design is the

most appropriate and robust study design. However, the state will work with the independent evaluator to further explore the possibility of identifying the most appropriate comparison group.

The pre-intervention comparison group will be selected based on the same eligibility requirements as the study group. Each eligible pre-intervention comparison group member will be attributed to an IDN using the same method used for attribution during the study period based on claims/encounters and member residence geography. Below is a description of the attribution steps, in hierarchical order:

1. Member has a recent relationship with a Nursing Facility in an IDN based on claims.
2. Member has a recent relationship with a Community Mental Health Center in an IDN, based on MCO reported CMHC association and claims for non-MCO members.
3. Member has a recent relationship with a primary care provider in an IDN, based on claims/encounters.
4. Member has a recent relationship with a behavioral health provider in an IDN, based on claims/encounters.
5. Member is attributed to an IDN based on the relationship between the member's current residence and the IDN defined geographic region/market area.

The analysis will also include a comparison group for falsification tests that will be comprised of beneficiaries who have no behavioral health disorders, as this population is not expected to be impacted by the Demonstration. The individuals within this group will be identified using eligibility and claims data. The study group and the comparison groups will be examined for differences in outcomes, effectiveness of care, utilization, and cost of care. For a more detailed description of the proposed falsification tests refer to the Research Methods and Data Analysis Section.

E. Data Sources and Collection Plan

The evaluation will include multiple sources and forms of qualitative and quantitative research methods and data to comprehensively evaluate the DSRIP Demonstration research hypotheses. These data include administrative data (e.g., Medicaid claims and encounter data), survey and in-depth interview data collected specifically for this evaluation, and documentation provided by the IDNs and in quarterly operational reports.

A summary of the data sources, samples, and analytic methods for this evaluation is contained in the table below, followed by a detailed description of the proposed data sources and data collection activities.

Table 1. Summary of Data Strategy and Analysis Plan, by Data Source		
Data Source for Measurement	**Sample**	**Analysis Method**
Behavioral Risk Factor Surveillance System (BRFSS)	Medicaid beneficiaries ≥18	Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and regression annually
Data from Non-Claim Discharges from New Hampshire Hospital	Medicaid beneficiaries of all ages who have a behavioral health disorders	Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and regression annually
HEDIS Measures	Medicaid beneficiaries of all ages who have a behavioral health disorders	Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and regression annually
Medical Management Information System (MMIS) – Medicaid Claims and Encounter data	Medicaid beneficiaries of all ages who have a behavioral health disorders	Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and regression annually
Premium Assistance Program Encounter data	Medicaid beneficiaries of all ages who have behavioral health disorders	Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and regression annually
IDN Documents	All Documents related to the IDN workforce size and training	Document review
IDN Electronic Health Records	Medicaid beneficiaries of all ages who have a behavioral health disorders	Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and regression annually
Stakeholder Interviews	1. Medicaid beneficiaries ≥18 who have a behavioral health disorder 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 disorders	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
Stakeholder Surveys	1. Medicaid beneficiaries ≥18 who have a behavioral health disorder 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 disorder	2. Mann-Whitney U-test, pre-DSRIP vs. post-DSRIP and annually
	3. IDN and Medicaid stakeholders who are knowledgeable about the health information technology system	3. Pre-DSRIP vs. post-DSRIP comparison

Administrative Data

The DSRIP Demonstration evaluation will synthesize information from several sources of administrative data to assess the impact of the demonstration on health and health care outcomes and address evaluation hypotheses 1.1-1.5. These data sources are: Medicaid claims and encounter data, IDN electronic health record (EHR) data, non-claim discharges from New Hampshire Hospital, and HEDIS data. Appendix A lists each of the research hypotheses, data sources, and associated outcome and process measures. The Independent Evaluator will have access to a unique identification number for each person that is linked across the administrative data sets.

Use of fee-for-service claims and managed care encounters will be limited to final, paid status claims/encounters. Interim transaction and voided records will be excluded as these types of records introduce a level of uncertainty that can impact reported rates.

Medicaid Management Information System

Claims and Encounter Data - The Medicaid Management Information System (MMIS) is the repository for all state-based Medicaid claims and encounters data, in accordance with CMS standards and protocols. Claims and encounter data contain service utilization data, such as health care visits, the types of care received, and payments for each service provided. Access to Medicaid claims and encounters will be required to optimize the information available to calculate 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.

Member Demographics - In addition to service utilization data, the DSRIP Demonstration evaluation will require access to supplemental Medicaid data contained in the state's MMIS, such as member demographics, eligibility/enrollment, and provider information. Demographic and financial data will be used for the calculation of specific measures. For example, members' age is used 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 to create the study and comparison groups, as well as to assess health insurance type (i.e., fee-for-service, Medicaid Managed Care Program or Premium Assistance), 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.

Premium Assistance Program Encounter Data

Encounter Data – New Hampshire has established a Memorandum of Understanding (MOU) with the NHHPP's Premium Assistance Program (PAP) qualified health plans (QHPs) to provide encounter data to the state. The QHPs 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. Existing CHIS data quality assurance processes will be employed to ensure the data are complete and of high quality. Since the CHIS data normally contain encrypted identifiers, the QHPs will submit to NH DHHS a separate duplicate feed of PAP members that contains identifiers, including member Medicaid ID, to allow linkage of the data to Medicaid membership and claims.

Qualified Health Plans on a monthly basis submit encounter data to DHHS in a detailed format that provides the same information as managed care encounter data. This data is currently being stored in the DHHS Enterprise Data Warehouse. The data will eventually be migrated to use the MMIS as the repository.

IDN Electronic Health Records

Although the majority of measures for this study will be generated from claims using HEDIS specifications, in some cases electronic health records (EHR) may also be required or be the appropriate source of data. One of the primary goals of the statewide HIT workgroup is to work with IDNs to establish minimum standards of quality and consistency around a defined set of EHR metrics. 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.

Data from the Electronic Health Record would be ideal to measure wait time for metrics such as inpatient psychiatric care (hypothesis 1.7), however, that data is not yet available in a manner appropriate for evaluation. The Independent Evaluator and the state will need to select and employ one of the following options:

1) The preferred option is to establish a system of data collection for wait time that would track the number of Medicaid beneficiaries, both adults and youth, waiting for inpatient psychiatric care in any hospital in the state, (including voluntary and involuntary admissions, and ED boarding), each day during the quarter/year, and how long each member has waited. 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 another entity not yet identified.

2) Should the first option not be feasible, a second option would be to use the best available data which is the daily bed availability data reported by New Hampshire Hospital. This system tracks the time from when adults and youth are referred specifically to their inpatient units to the time they are admitted. However, this data is limited to individuals specifically referred to New Hampshire Hospital units and it does not fully represent all Medicaid beneficiaries waiting for inpatient psychiatric admission to other facilities.

Data from Non-Claim Discharges from New Hampshire Hospital

Discharge data from New Hampshire Hospital for stays that do not generate a Medicaid claim due to the IMD exclusion for payment will be used to generate annual estimates of the number and length of inpatient psychiatric stays and re-admissions during the pre-Demonstration and Demonstration period. The Independent Evaluator will access special extracts from this data source in order to examine all outcomes.

Health Care Effectiveness Data and Information Set and the DSRIP Outcome Measure Set

HEDIS is a tool used by more than 90% of America's health plans to measure performance on important dimensions of care and service. HEDIS consists of 81 measures across five domains of care. Nine of the Demonstration outcome measures are drawn from HEDIS measures to address Hypothesis 1.1 (see Appendix A). For this evaluation, HEDIS measures calculated by NH DHHS for IDN outcome measurement will be used to analyze outcomes in the sample population both at the state level and the IDN level in cases when the sample population is the same.

NH Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS) is the nation's premier system of health-related telephone surveys that collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. The NH BRFSS is an annual random-digit-dialed telephone survey of NH adults (18+) conducted by NH DHHS and supported by a grant from the Centers for Disease Control and Prevention. The primary focus of the survey is on behaviors that are linked with population morbidity and mortality (e.g. diabetes, heart disease, stroke, and injury) and on topics including diet, exercise, weight, tobacco and alcohol use, injuries and preventative medical care. The survey estimates the health status and the prevalence of various risk factors among respondents, including Medicaid beneficiaries. NH BRFSS data will be used to assess trends in population health measures. NH BRFSS data from 2014 will serve as baseline for select population health measures. Data from NH BRFSS surveys to be conducted in 2017 and 2020 will be used to examine changes in population health over the course of the intervention. The NH BRFSS includes a question to distinguish source of health care coverage.

Stakeholder Surveys

Stakeholder 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, health care and community-based providers, IDN administrators, and health information technology (HIT) stakeholders. Survey topics include: Improvements in Care Coordination and Integration, Perceptions of the IDNs, Health Information Technology, Enhancements to the Information Technology System, and Demographic Characteristics.

Beneficiaries will be surveyed on improvements in their care coordination and integration, experiences with health care access, quality of care, and perceptions of the IDNs and HIT. Sample questions for this survey have been drawn from the Consumer Assessment of health care Providers and Systems (CAHPS) Clinician and Group survey and its supplements. The CAHPS is a set of surveys maintained by the US Agency for health care Research and Quality (AHRQ) and used widely by health care providers and agencies to assesses and improve current practice.

Sample questions for this survey have been drawn from the US Agency for Healthcare Research and Quality (AHRQ)'s Consumer Assessment of health care Providers and Systems (CAHPS) Clinician and Group survey and CMS's Adult Qualified Health Plan Enrollee Experience Survey.

IDN administrators and providers will be surveyed on improvements in care coordination and integration. IDN HIT stakeholders will be surveyed on enhancements to the information technology system. The Independent Evaluator will develop surveys and work with the IDNs to identify administrators and HIT stakeholders based on the statewide HIT assessment completed by the IDNs, and synergize the surveys with the resulting statewide HIT plan, as appropriate.

Beneficiaries and providers will be stratified and then randomly selected to participate in the survey. Beneficiaries will be stratified by IDN, evidence of a behavioral health disorder, gender, and age. Providers will be stratified based on IDN and type of provider (e.g., medical doctor, case manager, psychologist, community service provider, etc.). IDN administrators and HIT stakeholders will be identified by the Independent Evaluator; after identifying the number of key administrators and HIT stakeholders, the Independent Evaluator will determine whether a sampling frame is necessary and if so, how the sample should be stratified. Stratified random sampling of this type ensures that members of all key groups of interest are selected to participate in the survey.

Survey data will be anonymous and confidential. To ensure privacy, data from the surveys will not be linkable to the administrative or other forms of data used in this evaluation. The surveys will include closed-answer (e.g., yes/no, Likert scale) and open-ended questions. Draft surveys, except for the CAHPs/QHP surveys will be developed specifically for this evaluation and designed for each stakeholder group. The Independent Evaluator will review the drafts and finalize the surveys upon approval by NH DHHS. NH DHHS will submit the survey questions to CMS for review prior to administration. Surveys will be conducted 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 Independent Evaluator's office.

Key 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 administrative health and health care record data or stakeholder surveys. Four groups will be interviewed: Medicaid beneficiaries, health care and community-based providers, IDN administrators, and HIT stakeholders. Primary domains of interest include: experiences with health care, experiences with care coordination and integration, perceptions of the health information technology systems during the DSRIP Demonstration, transitioning to APMs, and information on demographics and practice characteristics. The same stratified random sampling selection process used for the stakeholder surveys will be used for the stakeholder interviews.

Semi-structured interviews will be conducted by phone or face-to-face, last approximately 45 to 60 minutes, and be audio-taped. All audio-tapes will be transcribed verbatim; pseudonyms will be assigned in order to protect the confidentiality of respondents. The state and its employees will not conduct any of the interviews, transcribe interviews, or have access to the audio-tapes or transcripts. The tapes will be destroyed after transcription.

Below is an overview of the topics included in the interviews. Interview questions will be finalized by the Independent Evaluator and approved by NH DHHS. NH DHHS will submit the interview questions to CMS for review prior to administration.

Beneficiary Interviews: Interviews will be conducted with approximately 10 beneficiaries per IDN (stratified by IDN), for a total of approximately 70 beneficiary interviews, and will focus on documenting member experiences with health care access and the quality of their care during the Demonstration. Topics will include: experience with IDNs, usual source of care, barriers to access, and perceptions of care coordination and integration. The interview will include questions such as:

1. How were you referred to treatment for your behavioral health or substance use disorder?
2. Are the services you received convenient in terms of location and hours?
3. Is your primary care provider aware of your behavioral health and/or substance use disorder? Do they correspond with your other providers?
4. How do you perceive the quality of the care you receive for your behavioral health and/or substance use disorder?
5. Does your provider have an online web portal or other technology based solutions? If so, do you utilize these resources and how have they impacted your communications with your provider and the management of your health?

Provider Interviews: Provider interviews will be conducted with approximately 35 providers stratified by IDN, and focus on documenting providers' experiences with care coordination and integration during the DSRIP Demonstration, as well as perceptions of the impact of HIT systems in assisting with ongoing management of patient care. The interview will include questions such as:

1. What strategies were successful at promoting integration and care coordination?
2. What are some of the barriers to care coordination and integration for behavioral health and substance use disorders?
3. What were some of the barriers to information-sharing between providers?
4. What resources do providers need to implement evidenced-based care for behavioral health and substance use disorders?

IDN Administrator and Other Stakeholder Interviews: Semi-structured interviews will be conducted with two administrators per IDN and focus on documenting the IDN implementation experience. The interview will include questions such as:

1. What were the successes and challenges regarding IDN planning, implementation and operation?
2. What is the plan for program sustainability? What are the challenges associated with ongoing program maintenance and expansion and required policy changes?
3. What strategies were successful at helping to transition to APMs?
4. What are the benefits and challenges associated with implementing APMs within and across geographic region/market area?

5. How has HIT improved care coordination, integration, and ongoing patient monitoring?

Health Information Technology (HIT) Stakeholder Interviews: Interviews with HIT stakeholders will focus on gathering in-depth information on perceptions of the DSRIP HIT enhancement strategies, including whether HIT has enhanced governance, finance, policy/legal issues, and business operations. Approximately 20 interviews will be conducted with stakeholders, including Medicaid data administrator(s), DHHS staff, and MCO administrators. The interview will include questions such as:

1. What were some notable successes and challenges to expanding the state's HIT infrastructure?
2. What organizational characteristics had the most influence, positive or negative, on the ability to implement HIT strategies in the IDNs?
3. What HIT strategies where the most challenging to implement? Why?
4. What difficulties were encountered in developing HIT data sharing strategies?
5. What strategies were used to address policy, legal, and business operations issues?

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 Independent Evaluator must maintain the security of the data at all times in accordance with NH DHHS requirements.

In addition to the measure 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 HIT system and the size and training of the IDNs' provider networks.

F. Research Methods and Data Analysis

The variety of outcomes and potential implications of the DSRIP Demonstration requires the use of both quantitative and qualitative data analysis techniques. The implementation and reporting of both of these methods for the evaluation will meet traditional standards of scientific and academic rigor, as appropriate and feasible for each aspect of the evaluation: 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.

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 Analysis

To measure DSRIP Demonstration outcomes, the Demonstration evaluation includes a pre-post design to assess the statewide impact of the Demonstration on outcome measures by examining trends in cost, utilization, and quality of care for Medicaid beneficiaries with behavioral health disorders enrolled in IDNs before and after the implementation of the Demonstration. Although an interrupted time series design is often considered to be a more robust quasi-experimental design, that methodology is not feasible for this evaluation because the majority of study outcomes are based on annualized HEDIS measures. Collecting the recommended minimum measurement time points for a time-series design (i.e., eight pre- and eight post-intervention measurement points) is not possible because only a small number of the proposed outcome measures can be produced quarterly. In order to reduce the plausibility of maturation and regression threats, we are incorporating multiple pre and post measurement points.

The DSRIP Demonstration evaluation will use quantitative methods to assess the receipt of services, estimates of health care visits and costs of visits, and analyze closed-ended survey questions. Quantitative analytic methods will also be used to compare outcomes and the extent of existing health and health care differences between sub-populations as well as between IDNs. Below is a description of the analytic strategies that will be used to examine the research hypotheses.

Descriptive Statistics: Descriptive analyses will examine results for selected measures for each year in the pre and post periods. For example, bivariate analyses will be used to explore trends in beneficiaries' access to care, utilization of services and cost of care. Three descriptive quantitative analysis methods will be used to examine 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 Independent Evaluator 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. The non-parametric tests will be used to assess whether any differences found between the pre- and post-test periods are statistically significant (i.e., unlikely to have occurred in the data through random chance alone). The traditionally accepted risk of error ($p \leq 0.05$) will be used for all comparisons.

Multivariate Analysis: A pre-post design will be used to examine the statewide impact of the Demonstration on outcome measures Key outcomes will be calculated annually for a three year pre-intervention period (calendar years 2013, 2014, and 2015) and annually for the five year demonstration period (calendar years 2016, 2017, 2018, 2019, and 2020). Regression models accounting for members in more than one year (clustering) will be used to assess the rate of change over time in study outcomes for the study group. To assess change over time, the evaluation will use Poisson or negative binomial regression models for the utilization measures, generalized linear models for the cost measures, and logistic regression for the quality measures. Age, gender, risk level, and IDN will be controlled for in the models examining cost and utilization measures. Statistically significant results will be reported based on $p \leq 0.05$.

Total cost of care will include all costs (administration and medical) that were paid by NH Medicaid. Cost of care for specific services will be estimated for managed care encounters based on a list of standard costs for each service type (CPT codes and revenue codes). Standard costs for various types of service can either be purchased or generated from analysis of fee-for-service claims. The specific method used will be determined by the evaluator after reviewing the claims/encounter data. Costs will compare those incurred in the pre-DSRIP Demonstration period to those incurred during the DSRIP Demonstration period, as well as between beneficiaries with and without a behavioral health disorder, where specified and appropriate. All health care costs will be inflated or deflated to a base year set by the Independent Evaluator. The Independent Evaluator will seek recommendations from subject matter experts on which specific measures to use to inflate or deflate the Demonstration's Medicaid data.

Additional regression analyses will be used to explore the impact at the individual IDN level as well as across IDNs. 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 Independent Evaluator will utilize clinical subject matter experts when building multivariate models and identifying relevant control variables.

Validation: Because all eligible individuals are automatically enrolled in the Demonstration, the Independent Evaluator will be limited to a non-experimental study design, with limited opportunity to designate a control group. Because of this, it will be difficult to isolate whether changes observed over time are attributable to the Demonstration, or to pre-existing trend or co-occurring environmental factors. We propose two strategies for addressing this challenge and enhancing the validity of the study.

First, to control for external context and examine whether any changes in beneficiary outcomes can be attributed to DSRIP, the evaluator will assess changes in outcomes of interest over time for a group of individuals without behavioral or substance use disorders. This analysis will compare the study group to beneficiaries without behavioral health conditions on outcomes that we would not expect to be impacted by the demonstration using a difference-in-difference (DID) approach.

DID is an econometric technique used to control for time trends in the outcomes of interest by comparing two groups over a study period. The difference-in-difference design will help to control for factors external to the Demonstration by examining whether a group not affected by the DSRIP experiences comparable changes in health care use and quality. For this evaluation, the model will rely on measures of outcome variables before and after implementation of the Demonstration for beneficiaries with (study group) and without (comparison group) behavioral health disorder diagnoses. Because behavioral health metrics will not be particularly relevant to the non-Demonstration Medicaid population, the state will limit the DID analysis to a select number of physical care metrics including preventative screenings, cholesterol screening, emergency department visits, avoidable hospital admissions and costs of care for non-behavioral health services.

A second approach under consideration is the use of falsification tests in which the Independent Evaluator will analyze the change in metrics that would not be anticipated and would be related to the Demonstration. However, the comprehensive and integrative nature of the DSRIP is such that the state expects to see improvements in a wide range of health care process and outcome measures. For example, improved management of behavioral health issues should ultimately lead

to increased use of preventive care screenings and lower costs. Thus, it is hard to identify variables that would be appropriate for falsification testing; however, this will be discussed further with the Independent Evaluator to determine if there are variables that could be used.

Additional Analysis: When appropriate, supplemental analyses will be conducted to further investigate and understand the impact of the DSRIP Demonstration. These analyses may include the stratification of results by beneficiary type, key demographic, or IDN characteristics. For example, as part of the pre-posttest and exploratory analysis, when applicable, the state will stratify measures that include multiple diagnoses to examine the impact of the intervention on key outcomes by disorder type for analysis. Moreover, because of the differences in financing and cost-sharing for NHHPP enrollees in QHPs, the evaluation will include a series of analyses examining the NHHPP population separately from traditional Medicaid beneficiaries. 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.

Qualitative Analysis

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 and not on a 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, including changes in the workforce and its training on behavioral health disorders during the course of the demonstration as well as APM implementation across IDNs.

Thematic analysis will be conducted separately on each semi-structured interview transcript, for each group of interviewees using an inductive approach. Patterns in the transcripts will be identified and grouped into themes. Themes will be checked against the original transcripts for validity. 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. Review of quarterly operational reports will also be conducted on an ongoing basis, and will focus on any recommended changes to state policy and procedures.

To ensure inter-coder reliability and the reliability of the analyses, both methods will utilize at least two coders. Neither method is intended to support comparison between groups of interviewees or follow principles of statistical significance.

G. Limitations

The DSRIP Demonstration 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 HIT and IDNs across the state. As a result, comparisons can only be made among beneficiaries subject to the demonstration. Furthermore, outcomes may improve for all beneficiaries regardless of the presence of a behavioral health disorder. Therefore, the DSRIP Demonstration evaluation may show improvements in outcomes when compared to baseline but no improvements in comparison to people without behavioral health disorders.

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 disorders. These codes may not capture all behavioral health disorders, 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 disorders, resulting in misleading findings on the impact of the demonstration.

Additionally, not all the data available for this evaluation is ideal. In some cases, the 'best available' data was selected that addresses the hypothesis as closely as possible. In other cases, the state will work with the Independent Evaluator to explore options for identifying best available data and for developing the ideal data, and select the best option.

The DSRIP Demonstration proposes to effect a dynamic change in the health care delivery system for people with behavioral health disorders. 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 potential beyond the Demonstration period.

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

A. 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. Upon CMS approval of this evaluation design, the state will undertake a competitive procurement for the Independent Evaluator. 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 contract. It is expected that a contract will be finalized and work will begin by late fall of 2017.

B. Evaluation Cost Estimates

As required by the CMS STC 72, NH DHHS will procure an Independent Evaluator to conduct the evaluation. The cost of conducting the evaluation will be a key variable in the competitive bid process. DHHS estimates a cost of two million dollars, based on actual costs of operating current NH 1115 waiver evaluations while considering the complexity and rigor of the DSRIP Evaluation Design. The table below displays the proposed budget shell that will be used during the procurement of an Independent Evaluator for submitting total costs for the Demonstration. Costs will be broken out by staff, estimated hours, costs, and anticipated subcontractors.

Proposed Budget Template for NH DSRIP			
Staff Title	***Year***		
	Loaded Rate	***Hours***	***Total***
Executive Director, Research & Analysis			
Project Director, Research & Analysis			
Project Director			
Project Manager			
Project Support			
Analyst			
Database Developer			
Reports Team			
Subtotal Direct and Indirect Costs			
Subcontractor - Statistician			
Subcontractor –Survey Vendor			
Subcontractor – Actuarial Vendor			
Annual Total			

C. Reporting

Following the annual evaluation of the NH DSRIP Demonstration and subsequent synthesis of the results, NH DHHS and the Independent Evaluator 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 the 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 final evaluation 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 Demonstration 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 outcomes, measures and 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 for each research question and hypothesis. 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, and any other major efforts affecting service delivery, health outcomes, and the cost of care under Medicaid.

All reports, including the DSRIP Demonstration 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.

D. Projected Evaluation Design Timeline

Table 2. NH DSRIP Demonstration Evaluation Design Projected 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 11/1/2017
NH DHHS submits draft Interim Evaluation Report to CMS for comment (90 calendar days following 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 9/30/2021
NH DHHS receives comments from CMS (within 60 business days)	By 12/23/2021
NH DHHS submits Final Evaluation Report to CMS (within 60 calendar days after receipt of comments)	By 2/23/2022

E. 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 Independent Evaluator procured to conduct the evaluation.

Table 3. New Hampshire DSRIP Demonstration Evaluation Timeline

Task	2017				2018				2019				2020				2021				2022	
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2
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									■								■					
8.Satisfaction surveys					■				■				■				■					
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 reports							■				■				■				■			
2. Interim evaluation report											■	■										
3. Final evaluation report																			■	■	■	

REFERENCES

1. NH DSRIP Project and Metrics Specification Guide, http://www.dhhs.nh.gov/section-1115-waiver/documents/nh-dsrip-proj-metric-spec.pdf
2. 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)
3. Somers, M., Zhu, P., Jacob, R. & Bloom, H. (2013). The validity and precision of the comparative interrupted time series design and the difference-in-difference design in educational evaluation. Retrieved April 21, 2017 from: http://www.mdrc.org/sites/default/files/validity_precision_comparative_interrupted_time_series_design.pdf

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

Note: Throughout the Appendix, Medicaid Claims and Encounters includes encounters from Premium Assistance Program members in Qualified Health Plans.

Research Question #1: *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? Was there any variation between IDNs/geographic regions/market areas? To what degree can improvements be attributed to the activities undertaken under DSRIP?*

Hypothesis 1.1: Individuals with behavioral health disorders or co-occurring physical and behavioral health disorders will receive higher quality of care after IDNs are operating regardless of IDN, geographic location, or market area.

Measure 1.1.1	**Experiences of Health Care with DSRIP**
Definition:	Semi-structured interviews will explore beneficiaries' perceptions about the impact of DSRIP on health care quality and outcomes.
Technical Specifications:	Approximately 20-25 interviews will be conducted with beneficiaries who have a behavioral health disorder and who have had at least one health care visit in the previous year, respectively. Interviews will be audiotaped and transcribed for thematic analysis.
Exclusion Criteria:	Members <18 years old; members who do not have a behavioral health disorder; members with behavioral health disorders 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
Measure 1.1.2	**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
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	1. 2014 Medicaid HMO = 52.3%; 2. 2014 Medicaid HMO = 37.1%

Measure 1.1.3	HEDIS: Follow-Up After Hospitalization for Mental Illness
Definition:	Members 6+ years of age 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:	1. Percent of members 6+ years of age 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+ years of age 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, New Hampshire Hospital discharges for non-claim Medicaid patients
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	1. 2014 Medicaid HMO=43.9%; 2. 2014 Medicaid HMO=63.0%
Measure 1.1.4	**HEDIS: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment**
Definition:	The percentage of adolescent and adult patients with a new episode of alcohol or other drug (AOD) dependence who received the following: - Initiation of AOD Treatment. The percentage of members who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis. - Engagement of AOD Treatment. The percentage of members who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.
Technical Specifications:	1. Percent of adolescents (13-17 years old, consistent with HEDIS specifications) and adults (≥18 years old) with a new episode of alcohol or other drug dependence who initiate treatment within 14 days of the diagnosis, in the calendar year. 2. Percent of adolescents (13-17 years old) and adults (≥18 years old) 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 <13 years old; members not diagnosed with SUD
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually, by age group 2. Regression, annually
National Benchmark:	1. 2014 Medicaid HMO = 38.3%; 2. 2014 Medicaid HMO = 11.3%

(a) Evaluation contractor should follow specifications provided in HEDIS 2017 Volume 2: Technical Specifications for Health Plans	
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
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	2014 Medicaid HMO = 60.1%
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf, (p. 122). Whichever method is selected should be used consistently across years.	
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
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually; total group and by mental illness type 2. Regression, 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/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
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, 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
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, 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 disorders) 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
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	1. 2014 Medicaid HMO = 40.1%; 2. 2014 Medicaid HMO = 47.5%
Measure 1.1.10	**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
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	None (but there will be one in 2017)
This measure is not specified in the 2016 NCQA.	
Measure 1.1.11	**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
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	None (currently, but a benchmark will be available in 2017)
This measure is not specified in the 2016 NCQA.	
Measure 1.1.12	**USPSTF: Cervical Cancer Screening**
Definition:	Women with a behavioral health disorder who received timely cervical cancer screening
Technical Specifications:	1. Percent of women with a behavioral health ages 21-65 that received cervical cancer screening within the past 3 years 2. Percent of women with a behavioral health disorder ages 30-65 that received cervical cancer screening within the past 5 years
Exclusion Criteria:	Women without a behavioral health disorder; 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
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	None
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf, (p. 33). Whichever method is selected should be used consistently across years. Please note that this measure is not specific to people with behavioral health disorders.	
Measure 1.1.13	**USPSTF: Breast Cancer Screening**

Definition:	Women with a behavioral health disorder that received timely breast cancer screening
Technical Specifications:	Percent of women with a behavioral health disorder ages 40 and older that received a mammogram within the past 2 years
Exclusion Criteria:	Women without a behavioral health disorder; women <40; men
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	None
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid/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 disorders.	
Measure 1.1.14	**USPSTF: Colorectal Cancer Screening**
Definition:	Members with behavioral health disorder that received timely colorectal cancer screening
Technical Specifications:	Percent of members with behavioral health disorder ages 50-75 that received colorectal cancer screening within the past 3 years
Exclusion Criteria:	Members without behavioral health disorders; 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
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	None
Measure 1.1.15	**USPSTF: Cholesterol Screening**
Definition:	Members with a behavioral health disorder that received timely cholesterol screening
Technical Specifications:	1. Percent of men with a behavioral health disorder ages 35+ that received cholesterol screening within the past 3 years 2. Percent of women with a behavioral health disorder ages 45+ that received cholesterol screening within the past 3 years
Exclusion Criteria:	Members without a behavioral health disorder; 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
Comparison Method(s):	1. Mann-Whitney U-test, annually by gender 2. Regression, annually
National Benchmark:	None
Measure 1.1.16	**Adolescent Well Care Visit**
Definition:	Recommended adolescent (age 12-21) Well Care visits
Technical Specifications:	The percentage of adolescent Medicaid enrollees with behavioral health disorders 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 disorder
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Difference of differences between groups 3. Regression, annually
National Benchmark:	None
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid/quality-of-care/downloads/medicaid-and-chip-child-core-set-manual.pdf, (p. 31). Whichever method is selected should be used consistently across years.	
Measure 1.1.17	**Smoking/Tobacco Cessation Counseling**
Definition:	Members with a behavioral health disorder who received smoking/tobacco cessation counseling
Technical Specifications:	The number of Medicaid beneficiaries with a behavioral health disorder, age 18 years and older, who were screened for tobacco use one or more times within 24 months and who received cessation counseling intervention if identified as a tobacco user as documented in an IDN provider EHR. Cessation counseling intervention includes brief counseling and/or pharmacotherapy.
Exclusion Criteria:	Non-smoking Medicaid beneficiaries; beneficiaries without a behavioral health disorder
Data Source(s):	IDN EHR
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	None
Measure 1.1.18	**Emergency Department (ED) Visits**
Definition:	Frequent (4+ annually) ED visits for people with a behavioral health disorder
Technical Specifications:	The percentage of Medicaid beneficiaries with behavioral health disorders who had 4+ visit(s) to an ED, in the calendar year.
Exclusion Criteria:	Medicaid beneficiaries with no a behavioral health disorder
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None
Measure 1.1.19	**Potentially Preventable Emergency Department (ED) Visits**
Definition:	Potentially preventable ED visits for a behavioral health disorder
Technical Specifications:	The percentage of Medicaid beneficiaries with a behavioral health disorder including SUD who had 1+ ED visits for a selected physical health diagnosis that meets DHHS criteria of potentially being preventable or servable in primary care. 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 disorder
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP; stratified by age (adolescent (10-17), adult

Comparison Method(s):	1. Mann-Whitney U- test, quarterly and annually by age group 2. Regression, quarterly and annually by age group
National Benchmark:	None
Measure 1.1.20	**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 *without* 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
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	None

Hypothesis 1.2: *Individuals with behavioral health disorders or co-occurring physical and behavioral health disorders will have greater access to care at the end of the Demonstration regardless of IDN, geographic location, or market area.*

Measure 1.2.1	**Member Experiences of Accessing Care**
Definition:	Explore members perceptions and experiences accessing care including: barriers to access, unmet need, experience of accessing care using IDNs
Technical Specifications:	Approximately 20-25 interviews will be conducted with beneficiaries. Interviews will be audiotaped and transcribed for thematic analysis.
Exclusion Criteria:	Beneficiaries <18 years old who do not have a behavioral health disorder 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 disorder.
Data Source(s):	Semi-structured interviews
Comparison Group(s):	None
Comparison Method(s):	None (thematic analysis)
National Benchmark:	None
Measure 1.2.2	**Access to Care**
Definition:	Getting Timely Appointments, Care and Information
Technical Specifications:	The number of Medicaid beneficiaries with a behavioral health disorder who used 1+ counseling visits for smoking and tobacco cessation, in the calendar year.
Exclusion Criteria:	None
Data Source(s):	CAHPS
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, 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 1.2.3	**Annual Primary Care Visit**
Definition:	Percent of beneficiaries with one or more primary care visits in the past 12 months
Technical Specifications:	Number of people (ages 12+) with a behavioral health disorder who had one or more primary care visits , in the calendar divided by the number of people with a behavioral health disorder
Exclusion Criteria:	Beneficiaries without a behavioral health disorder; beneficiaries under 12 year old
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	None
Measure 1.2.4	**Behavioral Health Care Visits**
Definition:	Percent of beneficiaries with one or more visits with a behavioral health provider in the past 12 months
Technical Specifications:	Number of people (ages 12+) with a behavioral health disorder who had one or more visits with a behavioral health provider, in the calendar divided by the number of people with a behavioral health disorder
Exclusion Criteria:	Beneficiaries without a behavioral health disorder; beneficiaries under 12 year old
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	None
Measure 1.2.5	**Substance Use Treatment Services**
Definition:	Percent of beneficiaries who received SUD Treatment Services in the past 12 months
Technical Specifications:	Number of people (ages 12+) with a behavioral health disorder who received SUD treatment services in the calendar year, divided by the number of people with a behavioral health disorder
Exclusion Criteria:	Beneficiaries without a behavioral health disorder; beneficiaries under 12 year old
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	None
Measure 1.2.6	**Adolescent Well Care Visit**
Definition:	Recommended adolescent (age 12-21) Well Care visits

Technical Specifications:	The percentage of adolescent Medicaid enrollees with behavioral health disorders 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
Comparison Group(s):	1. Pre-DSRIP to post-DSRIP 2. Adolescents with to adolescents without 1+ behavioral health disorder
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Difference of differences between groups 3. Regression, annually
National Benchmark:	None
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid/quality-of-care/downloads/medicaid-and-chip-child-core-set-manual.pdf, (p. 31). Whichever method is selected should be used consistently across years.	

Hypothesis 1.3: *Population health will improve as a result of the implementation of the DSRIP Demonstration regardless of IDN, geographic location, or market area.*

Measure 1.3.1	**Strategies to Improve Population Health**
Definition:	Semi-structured interviews will explore how IDN administrators and provider perceived the impact of DSRIP on population health and the strategies they implemented to improve the overall health of NH residence. Key measurement domains include: resources, infrastructure, outreach activities, intervention strategies and challenges.
Technical Specifications:	Interviews will be conducted with IDN administrators (2-3 per IDN) and approximately 35 providers (stratified by IDN location). Interviews will be audiotaped and transcribed for thematic analysis.
Exclusion Criteria:	None
Data Source(s):	Semi-structured interviews
Comparison Group(s):	None
Comparison Method(s):	None (thematic analysis)
National Benchmark:	None
Measure 1.3.2	**Improvements in Population Health**
Definition:	Assessment of improvements in population health based on self-reported health status, behavioral risk factors and preventative health.
Technical Specifications:	Confidential and anonymous annual random-digit-dialed telephone survey of NH adults. Key measurement domains include: diet, exercise, weight, tobacco and alcohol use, injuries and preventative screenings.
Exclusion Criteria:	Individual less than 18 years
Data Source(s):	1. BRFFS Survey data: Baseline (2014) Follow up in 2017 and 2020
Comparison Group(s):	None
Comparison Method(s):	1. Pre-DSRIP vs. post-DSRIP
National Benchmark:	None

Hypothesis 1.4: *The total cost of care will be lower for Medicaid beneficiaries with behavioral health disorders or co-occurring physical and behavioral health disorders after IDNs are regardless of IDN, geographic location, or market area.*

Measure 1.4.1	**Total Cost of All Care**
Definition:	Total per member per month (PMPM) cost for Medicaid beneficiaries with a behavioral health disorder and a co-occurring physical health disorder
Technical Specifications:	Quarterly and annual total costs divided by the number of member months among beneficiaries with a behavioral health disorder and a co-occurring physical health disorder, in the calendar year.
Exclusion Criteria:	Costs for beneficiaries without a behavioral health disorder, in the past 12 months
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None
Measure 1.4.2	**Total Cost of All Inpatient Care**
Definition:	Total per member per month (PMPM) inpatient costs for Medicaid beneficiaries with a behavioral health disorder and a co-occurring physical health disorder
Technical Specifications:	Quarterly and annual total inpatient costs divided by the number of member months among beneficiaries with a behavioral health disorder and a co-occurring physical health disorder, in the calendar year
Exclusion Criteria:	Costs for beneficiaries without a behavioral health disorder; costs for services other than inpatient care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None
Measure 1.4.3	**Total Cost of All Outpatient Care**
Definition:	Total per member per month (PMPM) outpatient costs for Medicaid beneficiaries with a behavioral health disorder and a co-occurring physical health disorder
Technical Specifications:	Quarterly and annual total outpatient costs divided by the number of member months among beneficiaries with a behavioral health disorder and a co-occurring physical health disorder, in the calendar year.
Exclusion Criteria:	Costs for beneficiaries a behavioral health disorder; 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
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None

Measure 1.4.4	Total Cost of Emergency Department (ED) Care
Definition:	Total per member per month (PMPM) ED costs for Medicaid beneficiaries with a behavioral health disorder and a co-occurring physical health disorder
Technical Specifications:	Quarterly and annual total ED costs divided by the number of member months among beneficiaries with a behavioral health disorder and a co-occurring physical health disorder, in the calendar year.
Exclusion Criteria:	Costs for ED visits that become inpatient hospital stays; Costs for beneficiaries without a behavioral health disorder; 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
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None
Measure 1.4.5	**Total Cost of Behavioral Health Care**
Definition:	Total per member per month (PMPM) behavioral health costs for Medicaid beneficiaries with a behavioral health disorder and a co-occurring physical health disorder
Technical Specifications:	Quarterly and annual total behavioral health costs (inpatient, outpatient, and ED) divided by the number of member months among beneficiaries with a behavioral health disorder and a co-occurring physical health disorder, in the calendar year.
Exclusion Criteria:	Costs for beneficiaries without a behavioral health disorder; costs for services other than behavioral health care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None
Measure 1.4.6	**Total Cost of Outpatient Behavioral Health Care**
Definition:	Total per member per month (PMPM) outpatient behavioral costs for Medicaid beneficiaries with a behavioral health disorder and a co-occurring physical health disorder
Technical Specifications:	Quarterly and annual total outpatient behavioral health costs divided by the number of member months among beneficiaries with a and a co-occurring physical health disorder, in the calendar year.
Exclusion Criteria:	Costs for beneficiaries without a behavioral health disorder; costs for services other than outpatient behavioral care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None
Measure 1.4.7	**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 disorder and a co-occurring physical health disorder
Technical Specifications:	Quarterly and annual total psychiatric inpatient behavioral health costs divided by the number of member months among beneficiaries with a behavioral health disorder and a co-occurring physical health disorder in the calendar year.
Exclusion Criteria:	Costs for beneficiaries without a behavioral health disorder; costs for services other than inpatient behavioral health care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None
Measure 1.4.8	**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 disorder and a co-occurring physical health disorder
Technical Specifications:	Quarterly and annual total psychiatric ED behavioral health costs divided by the number of member months among beneficiaries with a behavioral health disorder and a co-occurring physical health disorder, in the calendar year.
Exclusion Criteria:	Costs for ED visits that result in hospitalization; costs for beneficiaries without a behavioral health disorder; costs for services other than ED behavioral health care
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None

Hypothesis 1.5: *The rate of avoidable hospital re-admissions for individuals with behavioral health disorders or co-occurring physical and behavioral health disorders will be lower at the end of the Demonstration than prior to the Demonstration regardless of IDN, geographic location, or market area.*

Measure 1.5.1	**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 disorder and a co-occurring physical health disorder
Technical Specifications:	Count of the number of hospital readmissions within 30 days of discharge, among adult (≥=18 years old) members with a behavioral health disorder and a co-occurring physical health disorder, in the calendar year.
Exclusion Criteria:	Readmission related to maternity, cancer, and rehabilitation; readmissions for people without a behavioral health disorder; readmissions for members <18 years old
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually

	2. Regression, quarterly and annually
National Benchmark:	None
Evaluation contractor may obtain these data from NH DHHS or follow additional specifications available at https://www.medicaid.gov/medicaid/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf, (p. 133). Whichever method is selected should be used consistently across years.	
Measure 1.5.2	**Hospital Re-Admission for Behavioral Health Disorder**
Definition:	Readmission to hospital for a behavioral health disorder within 30 days for adults (18+) with a behavioral health disorder and a co-occurring physical health disorder
Technical Specifications:	Count of the number of hospital readmissions within 30 days of discharge, among adult (>=18 years old) members with a behavioral health disorder and a co-occurring physical health disorder, in the calendar year.
Exclusion Criteria:	Readmission where behavioral health disorder was not the primary cause of admissions for people without a behavioral health disorder; readmissions for members <18 years old
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None

Hypothesis 1.6: *The statewide rate of avoidable hospital admissions for individuals with behavioral health disorders or co-occurring physical and behavioral health disorders will be lower at the end of the Demonstration than prior to the Demonstration regardless of IDN, geographic location, or market area.*

Measure 1.6.1	**Hospital Admission for Ambulatory Care Sensitive Admissions for Individuals with Behavioral Health Disorders.**
Definition:	Hospital Admission for Ambulatory Care Sensitive Admissions for Individuals with Behavioral Health Disorders.
Technical Specifications:	TBD, but modeled from AHRQ Ambulatory Care Sensitive Admissions specifications
Exclusion Criteria:	TBD
Data Source(s):	Medicaid Claims and Encounters
Comparison Group(s):	TBD
Comparison Method(s):	TBD
National Benchmark:	None

Hypothesis 1.7: *Rate of Medicaid beneficiaries waiting for inpatient psychiatric care will decrease over the course of the Demonstration regardless of IDN, geographic location, or market area.*

Measure 1.7.1	**Rate of Individuals Waiting for Inpatient Psychiatric Care**
Definition:	Rate of individuals waiting for inpatient psychiatric care among people for more than 1 day.
Technical Specifications:	TBD, but the sample should include all people who initiate care each year, not just those determined to have a behavioral health disorder 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

Hypothesis 1.8: *Average length of stay for inpatient psychiatric care at New Hampshire Hospital (NHH, NH's state run psychiatric facility) will be lower at the end of the Demonstration than prior to the Demonstration, as options for community-based care increase regardless of IDN, geographic location, or market area.*

Measure 1.8.1	**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 disorder who had inpatient psychiatric stays, in the calendar year.
Exclusion Criteria:	Members with a behavioral health disorder 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
Comparison Method(s):	1. Wilcoxon's matched pairs test, annually 2. Regression, annually
National Benchmark:	None

Hypothesis 1.9: *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 regardless of IDN, geographic location, or market area.*

Measure 1.9.1	**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:	1. Number of beneficiaries who had an intake appointment with a psychiatrist or psychiatric nurse practitioner 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 or psychiatric nurse practitioner, in the calendar year. 2. Number of beneficiaries who had an intake appointment with a psychiatrist or psychiatric nurse practitioner and also another appointment with a mental health provider within 30 days of the intake appointment, divided by the total number of people who had an intake appointment with a psychiatrist or psychiatric nurse practitioner, 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
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. McNemar's Chi-square test, annually 3. Regression, annually

National Benchmark:	None

Hypothesis 1.10: *The number of referrals and follow-up plans from primary care and other non-psychiatric providers to appropriate services will increase during the Demonstration regardless of IDN, geographic location, or market area.*

Measure 1.10.1	**Referrals and follow-up plans from primary care and other non-psychiatric providers to appropriate services**
Definition:	Appropriate Follow-Up for Positive Screenings for Potential Substance Use Disorder and/or Depression by IDN Primary Care and BH Providers
Technical Specifications:	Percent of positive screenings for potential substance use disorder and/or depression using the Comprehensive Core Assessment screening tools for patients 12 years old and older seen at the IDN's primary care or behavioral health Medicaid billing providers for an office or community-based visit with appropriate follow-up plan documented in the EHR on the date of the positive screening.
Exclusion Criteria:	Psychiatrist providers
Data Source(s):	Medicaid Claims and Encounters, IDN EHR Report
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. McNemar's Chi-square test, quarterly and annually 3. Regression, quarterly and annually
National Benchmark:	None

Research Question #2: To what extent has the DSRIP Demonstration improved integration and coordination between providers, including community service providers? To what extent has the DSRIP Demonstration fostered the bi-directional and integrated delivery of physical health services, behavioral health services, SUD services, transitional care, and alignment of care coordination to serve the whole person? Was there any variation between IDNs, geographic regions, or market areas?

Hypothesis 2.1: *Integration and coordination between providers within the IDNs (including community service providers) will improve as a result of implementation of the DSRIP Demonstration regardless of IDN, geographic location, or market area.*

Measure 2.1.1	**Fragmented Care**
Definition:	Fragmentation of patient care is based on the fragmentation of care index (FCI) which examines the number of different providers visited, the proportion of attended visits to each of those providers, and the total number of visits.
Technical Specifications:	The number of PCP visit(s) from multiple PCP practices (calculated using Liu formulary) divided by the total eligible population.
Exclusion Criteria:	None
Data Source(s):	Claims
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually

Measure 2.1.2	Transmission of Records
Definition:	Timely 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 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+, with transmission documented in the EHR.
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, for each age group
Comparison Method(s):	1. Mann-Whitney U-test, annually, for each age group 2. Regression, annually, for each age group
≤Measure 2.1.3	**Alcohol/Drug Abuse Screening and Follow-up**
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 disorder who received an age-appropriate alcohol or drug abuse screening in the calendar year divided by the number of people with a behavioral health disorder 2. Number of people (ages 12+) with a behavioral health disorder 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 disorder who received an age-appropriate alcohol or drug abuse screening, in the calendar year AND had a positive screen
Exclusion Criteria:	Beneficiaries without a behavioral health disorder; beneficiaries under 12 year old
Data Source(s):	IDN EHR Output
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually 2. Regression, annually
Measure 2.1.4	**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 disorder they saw in the calendar year, annually, divided by the number of IDN providers
Exclusion Criteria:	Beneficiaries without a behavioral health disorder and those under 12 years
Data Source(s):	IDN EHR Output
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually

	2. Regression, annually
Measure 2.1.5	**Receipt of Necessary Care Composite Score**
Definition:	Composite score indicating whether members with a behavioral health disorder 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:	The numerator will include the number of beneficiaries with a behavioral health disorder who responded that they "always" receive care from a specialist as soon as they needed. The denominator will include all beneficiaries with a behavioral health disorder who responded to the question.
Exclusion Criteria:	Beneficiaries <18 years old; beneficiaries who do not have a behavioral health disorder
Data Source(s):	CAHPS/QHP Experience of Care Survey
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually; stratified by age group 2. Regression, annually; stratified by age group
Measure 2.1.6	**Timely Receipt of Health Care Composite Score**
Definition:	Composite score indicating whether members with a behavioral health disorder 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 disorder 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 disorder who responded to both of the questions.
Exclusion Criteria:	Beneficiaries <18 years old; beneficiaries who do not have a behavioral health disorder
Data Source(s):	CAHPS/QHP Experience of Care Survey
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually; stratified by age group 2. Regression, annually; stratified by age group
National Benchmark:	None
Measure 2.1.7	**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 disorder who responded "always" to each of the five questions

	regarding care coordination. The denominator will include all beneficiaries with a behavioral health disorder who responded to all of the questions.
Exclusion Criteria:	Beneficiaries <18 years old; beneficiaries who do not have a behavioral health disorder
Data Source(s):	CAHPS/QHP Experience of Care Survey
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually; stratified by age group 2. Regression, annually; stratified by age group
National Benchmark:	None
Measure 2.1.8	**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 disorder who responded affirmatively to the questions described above. The denominator will include all beneficiaries with a behavioral health disorder who responded to all three of the questions.
Exclusion Criteria:	Beneficiaries <18 years old; beneficiaries who do not have a behavioral health disorder
Data Source(s):	CAHPS/QHP Experience of Care Survey
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually; stratified by age group 2. Regression, annually; stratified by age group
National Benchmark:	None
Measure 2.1.9	**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
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None
Measure 2.1.10	**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
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None
Measure 2.1.11	**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
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None
Measure 2.1.12	**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
Comparison Method(s):	1. Mann-Whitney U-test, quarterly and annually 2. Regression, quarterly and annually
National Benchmark:	None
Measure 2.1.13	**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:	None
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):	1. Mann-Whitney U-test, annually

	2. Regression, annually
National Benchmark:	None
Measure 2.1.14	**Patient Experiences of 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 disorder 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 disorder.
Data Source(s):	Semi-structured interviews
Comparison Group(s):	None
Comparison Method(s):	None (thematic analysis)
National Benchmark:	None
Measure 2.1.15	**Practice and Provider Experiences of Care Integration and Coordination**
Definition:	Explore the influence that integration and coordination has had on health care experiences and health. Key interview domains will include: integration and coordination strategies, barriers to integration, information sharing, policies supporting coordination, provider experiences with integration.
Technical Specifications:	Interviews will be conducted with IDN administrators (2-3 per IDN) and approximately 35 providers (stratified by IDN location). Interviews will be audiotaped and transcribed for thematic analysis.
Exclusion Criteria:	None
Data Source(s):	Semi-structured interviews
Comparison Group(s):	None
Comparison Method(s):	None (thematic analysis)
National Benchmark:	None

Research Question #3: To what extent has the DSRIP improved the capacity of the state's behavioral health workforce to provide quality, integrated care?

***Hypothesis 3.1*:** *Capacity to deliver evidenced-based behavioral health and/or SUD treatment will increase as a result of the DSRIP Demonstration statewide and IDN specific project activities.*

Measure 3.1.1	**Size and 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 disorder.
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

Evaluation Question #4: To what extent has the DSRIP Demonstration 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?

Hypothesis 4.1: *Health IT infrastructure among the IDNs will improve as a result of the DSRIP Demonstration statewide and IDN specific project activities.*

Measure 4.1.1	**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 4.1.2	**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 4.1.3	**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 behavioral health disorder 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

Hypothesis 4.2**:** *Health IT strategies implemented during the DSRIP Demonstration will result in improved information exchange across settings and enhanced care management for beneficiaries with behavioral health disorders.*

Measure 4.2.1	**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 disorder who responded "always" to each of the five questions regarding care coordination. The denominator will include all beneficiaries with a behavioral health disorder who responded to all of the questions.
Exclusion Criteria:	Beneficiaries <18 years old; beneficiaries who do not have a behavioral health disorder
Data Source(s):	CAHPS/QHP Experience of Care Survey
Comparison Group(s):	Pre-DSRIP to post-DSRIP
Comparison Method(s):	1. Mann-Whitney U-test, annually; stratified by age group 2. Regression, annually; stratified by age group
National Benchmark:	None
Measure 4.2.2	**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 disorder
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):	1. Mann-Whitney U-test, annually 2. Regression, annually
National Benchmark:	None
Measure 4.2.3	**Perceptions of Improved Information Exchange**
Definition:	Semi-structured interviews will explore how various stakeholder groups perceive the enhanced health IT ecosystem to support information sharing across settings and the use of information to enhance case management.
Technical Specifications:	Approximately 20-25 interviews will be conducted with stakeholders, including Medicaid administrator(s), IDN administrators and providers. 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

Research Question #5: To what extent has the DSRIP Demonstration improved IDNs' readiness to transition to or implement Alternative Payment Models (APMs)? Are IDNs making adequate preparations in data infrastructure, financial infrastructure, and other required changes needed to achieve the goal of 50% of Medicaid provider payments to providers using APMs by the end of the demonstration period? Have the IDNs engaged with the state and managed care plans in support of that goal?

Hypothesis 5.1: *DSRIP Demonstration activities have improved the IDNs' ability to make the necessary changes to their systems to transition to or implement APMs and achieve the DSRIP goal.*

Measure 5.1.1	**Transitioning to Alternative Payment Models**
Definition:	Assessment of transition to alternative payment models (e.g. transition plans, policies, number of new payment models implemented, payments made to providers).
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
Measure 5.1.2	**Experiences Transitioning and Implementing APMs**

Definition:	Semi-structured interviews will explore how IDN administrators perceive the transition to and implementation of APMs.
Technical Specifications:	Interviews will be conducted with IDN administrators (2-3 per IDN) and providers (35 stratified by site). Interviews will be audiotaped and transcribed for thematic analysis.
Exclusion Criteria:	None
Data Source(s):	Semi-structured interviews
Comparison Group(s):	None
Comparison Method(s):	None (thematic analysis)
National Benchmark:	None