State of Vermont
Agency of Human Services

Global Commitment to Health
Section 1115 Medicaid Demonstration
11-W-00194/1

Demonstration Evaluation Design
Extension Period January 1, 2017 – December 31, 2021

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I. GLOBAL COMMITMENT TO HEALTH OVERVIEW

The Vermont Global Commitment to Health Medicaid Section 1115(a) Demonstration was originally approved on September 27, 2005, and implemented on October 1, 2005. The Global Commitment to Health Section 1115(a) Demonstration is designed to use a multi-disciplinary approach to comprehensive Medicaid reform, including the basic principles of public health, the fundamentals of effective administration of a Medicaid managed care delivery system, public-private partnership, and program flexibility.

As of January 1, 2017, Vermont and CMS extended the Global Commitment to Health Demonstration to further promote delivery system and payment reform to meet the goals of the State working with the Center for Medicaid and CHIP Services, and the Center for Medicare and Medicaid Innovation (CMMI). Consistent with Medicare's payment reform efforts the Demonstrations allow for alignment across public payers. Specifically, Vermont expects to demonstrate its ability to achieve universal access to health care, cost containment, and improved quality of care.

Since 2005, the Global Commitment to Health Demonstration has reduced Vermont's uninsured rate from 11.4 percent in 2005 to approximately 2.7 percent in 2015 through expansion of eligibility and other Accountable Care Act reforms. The Demonstration has also enabled Vermont to address and eliminate bias toward institutional care and offer cost-effective, community-based services. For example, the proportion of Choices for Care participants served in the community has passed fifty percent and continues to increase. In addition, Vermont no longer has a waiting list for individuals in the Highest and High Need Groups under the Choices for Care component of the Demonstration.

Due to the expansion of eligibility under the Vermont State Plan, pursuant to the Affordable Care Act, expansion of eligibility is no longer the primary focus of the Demonstration. However, the Demonstration continues to promote delivery system reform and cost-effective community-based services as an alternative to institutional care. The State's goal in implementing the Demonstration is to improve the health status of all Vermonters by:

- Promoting delivery system reform through value based payment models and alignment across public payers;
- Increasing access to affordable and high-quality health care by assisting lower-income individuals who can qualify for private insurance through the Marketplace;
- Improving access to primary care;
- Improving the health care delivery for individuals with chronic care needs; and
- Allowing beneficiaries a choice in long-term services and supports and providing an array of home and community-based (HCBS) alternatives recognized to be more cost-effective than institutional based supports.

The State employs four major elements in achieving the above goals:

1. ***Program Flexibility***: Vermont has the flexibility to invest in certain specified alternative services and programs designed to achieve the Demonstration's objectives (including the Marketplace subsidy program).

2. ***Managed Care Delivery System***: Under the Demonstration the Agency for Human Services (AHS) executes an annual agreement with the Department of Vermont Health Access (DVHA), which delivers services through a managed care-like model, subject to the requirements that would be applicable to a non-risk pre-paid inpatient health plan (PIHP) as defined by the Special Terms and Conditions (STCs).

3. ***Removal of Institutional Bias***: Under the Demonstration, Vermont provides a choice of settings for delivery of services and supports to older adults, people with serious and persistent mental illness, people with physical disabilities, people with developmental disabilities, and people with traumatic brain injuries who meet program eligibility and level of care requirements.

4. ***Delivery System Reform***: Under the Demonstration, Vermont supports systemic delivery reform efforts using the payment flexibility provided through the Demonstration to create alignment across public and private payers.

The initial Global Commitment to Health and Choices for Care Demonstrations were approved in September of 2005 and became effective October 1, 2005. The Global Commitment to Health Demonstration was extended for three years, effective January 1, 2011, and again for three (3) years, effective October 2, 2013. The Choices for Care Demonstration was extended for five (5) years effective October 1, 2010, and became part of the Global Commitment to Health Demonstration in January 2015. The following amendments have been made to the Global Commitment to Health Demonstration:

- 2007: A component of the Catamount Health program was added, enabling the State to provide a premium subsidy to Vermonters who had been without health insurance coverage for a year or more, have income at or below 200 percent of the FPL, and who do not have access to cost-effective employer-sponsored insurance, as determined by the state.

- 2009: The State extended Catamount Health coverage to Vermonters at or below 300 percent of the FPL.

- 2011: The State included a palliative care program for children who are at or below 300 percent of the FPL and have been diagnosed with life limiting illness that would preclude them from reaching adulthood. This program allows children to receive curative and palliative care services such as expressive therapy, care coordination, family training and respite for caregivers.

- 2012: CMS provided authority for the State to eliminate the $75 inpatient admission co-pay and to implement nominal co-payments for the Vermont Health Access Plan (VHAP) as articulated in the Medicaid state plan.

- 2013: CMS approved the extension of the Global Commitment to Health Demonstration which included sun-setting the authorities for most of the Expansion Populations, including Catamount Health coverage, because these populations would be eligible for Marketplace coverage beginning January 1, 2014. The extension also added the New Adult Group under

the State Plan to the population affected by the Demonstration effective January 1, 2014. Finally, the extension also included premium subsidies for individuals enrolled in a qualified health plan whose income is at or below 300 percent of the FPL.

- 2015: In January 2015, the Global Commitment to Health Demonstration was amended to include authority for the former Choices for Care Demonstration. In addition, the State received Section 1115 authority to provide full Medicaid State Plan benefits to pregnant women who are determined presumptively eligible.

A. Demonstration Goals

The State's high-level goal for all health reforms is to create an integrated health system able to achieve the Institute of Medicine's "Triple Aim" goals of improving patient experience of care, improving the health of populations, and reducing per-capita cost.[1] This is supported in the Global Commitment to Health Demonstration through supporting innovative delivery system reforms, including Medicaid Accountable Care Organizations (ACO) and the development of progressive in-home and community based services and supports that are cost-effective and support persons who have long-term care service and support needs, complex medical, mental health and/or substance use disorder treatment needs. Overarching Demonstration goals are described below:

- ***To increase access to care***: All enrollees must have access to comprehensive care, including financial, geographic, physical, and communicative access. This means having health insurance, appropriate providers, timely access to services, culturally sensitive services, and the opportunity for second opinions as needed.

- ***To contain health care cost***: Cost-effectiveness takes into consideration all costs associated with providing programs, services, and interventions. It is measurable at the category-of-service, individual enrollee, aid category, and aggregate program levels.

- ***To improve the quality of care***: Quality refers to the degree to which programs/services and activities increase the likelihood of desired outcomes. The six domains necessary for assuring quality health care identified by the Institute of Medicine (IOM, 2001) are:
    - *Effectiveness*: Effective health care provides evidence-based services to all who can benefit, refraining from providing services that are not of benefit.
    - *Efficiency*: Efficient health care focuses on avoiding waste, including waste of equipment, supplies, ideas, and energy.
    - *Equity*: Equal health care provides care without variation in quality due to gender, ethnicity, geographic location, or socioeconomic status.
    - *Patient Centeredness*: Patient-centered care emphasizes a partnership between provider and consumer.
    - *Safety*: Safe health care avoids injuries to consumers from care that is intended to help.
    - *Timeliness*: Timely health care involves obtaining needed care and minimizing

[1] Crossing the Quality Chasm: A New Health System for the 21st Century. Washington DC: National Academy Press, Institute of Medicine; 2001.

unnecessary delays in receiving care.

- ***To eliminate institutional bias:*** By allowing specialized program participants choices in where they receive long-term services and supports and by offering a cost-effective array of in-home and community services for older adults, people with serious and persistent mental illness, people with developmental disabilities and people with traumatic brain injuries who meet program eligibility and level of care requirements.

B. Public Managed Care Delivery System, Investments and All-Payer Model

Vermont operates the Demonstration using a managed care-like model that complies with federal regulations at 42 CFR part 438 that would be applicable to a non-risk PIHP, including beneficiary rights and protections such as independent beneficiary support systems and formal grievance and appeal procedures.

In addition to the Demonstration, the State has also begun its first year of implementation planning for the Vermont All-Payer Accountable Care Organization Model Agreement (All-Payer Model), Section 1115A Medicare Demonstration through the Center for Medicare and Medicaid Innovation (CMMI). The All-Payer Model Medicare Demonstration and the Global Commitment to Health Medicaid Demonstration are expected to complement each other to support systemic delivery reform efforts. Using the payment flexibility provided through both Demonstrations, alignment across public and private payers is expected. A brief description of the Medicaid public managed care-like model and current reform efforts is provided below.

Public Managed Care-Like Model

The Agency of Human Services (AHS), as Vermont's Single State Medicaid Agency, is responsible for oversight of the managed care-like Medicaid delivery system. The Department of Vermont Health Access (DVHA) operates the Medicaid program as if it were a Managed Care Organization in accordance with federal managed care regulations. Program requirements and responsibilities are delineated in an inter-governmental agreement (IGA) between AHS and DVHA. DVHA also has sub-agreements with the other State entities that provide specialty care for Global Commitment (GC) enrollees (e.g., mental health services, developmental disability services, and specialized child and family services). As such, since the inception of the GC Demonstration, DVHA and its IGA partners have modified operations to meet Medicaid managed care requirements, including requirements related to network adequacy, access to care, beneficiary information, grievances, quality assurance, and quality improvement. Per the External Quality Review Organization's annual findings, DVHA and its IGA partners have achieved exemplary compliance rates in meeting Medicaid managed care requirements. Departments of Vermont State government that participate in the provision of covered services to enrollees under the Demonstration are outlined, in brief, below.

Department of Vermont Health Access (DVHA): DVHA, which operates the Medicaid program as if it were a public MCO under Global Commitment Demonstration, has a three-fold mission:

- To assist beneficiaries in accessing clinically appropriate health services;
- To administer Vermont's public health insurance system efficiently and effectively; and
- To collaborate with other health care system entities in bringing evidence-based practices to

Vermont Medicaid beneficiaries.

Department of Mental Health (DMH): The mission of DMH is to promote and improve the mental health of Vermonters and to provide Vermonters with access to effective prevention, early intervention, and mental health treatment and supports as needed to live, work, learn, and participate fully in their communities. DMH consists of two programmatic divisions: Adult Mental Health Services Division and the Child, Adolescent, and Family Mental Health Services Division. DMH has primary responsibility for overseeing the quality of psychiatric and mental health care provided for two of Vermont's Special Health Needs populations defined under the Global Commitment Demonstration, including persons with a severe and persistent mental illness and children who are experiencing a severe emotional disturbance.

Department of Disabilities, Aging, and Independent Living (DAIL): DAIL assists older Vermonters and people with disabilities to live as independently as possible. It provides support to families of children with disabilities to help maintain them in their home. It helps adults with disabilities find and maintain meaningful employment, and it ensures quality of care and life for individuals receiving health care and/or long-term care services from licensed or certified health care providers. DAIL also protects vulnerable adults from abuse, neglect, and exploitation and provides public guardianship to elders and people with developmental disabilities. DAIL operates the several specialized Medicaid programs under the Demonstration including, Choices for Care, Developmental Disability Services and Traumatic Brain Injury Services.

Vermont Department of Health (VDH): VDH's goal is to have the nation's premier system of public health, enabling Vermonters to lead healthy lives in healthy communities. VDH leads the state and communities in the development of systematic approaches to health promotion, safety, and disease prevention. VDH continuously assesses, vigorously pursues, and documents measurable improvements to the health and safety of Vermont's population. VDH will succeed through excellence in individual achievement, organizational competence, and teamwork within and outside of VDH. VDH's division of Alcohol and Drug Abuse Programs supports the innovated Medicaid Health Home program for Medication Assisted Opioid Treatment in partnerships with DVHA, as well as extensive outpatient and residential treatment and recovery support for alcohol and other drugs use disorders.

Department for Children and Families (DCF): DCF promotes the social, emotional, physical, and economic well-being of Vermont's children and families. It achieves this mission by providing Vermonters with protective, developmental, therapeutic, probation, economic, and other support services. To this end, DCF works in statewide partnership with families, schools, businesses, community leaders, and service providers. DCF offers specialized Medicaid services to children and families at risk of or experiencing trauma and early childhood intervention for families with children birth to age six with developmental needs.

Agency of Education (AOE): The AOE is responsible for overseeing coverage and reimbursement under the School-Based Health program. The Special Education Medicaid School-Based Health Services Program is used by the State to support health-related services provided to special education students who are enrolled in Medicaid and receive eligible services in accordance with their individualized education plans (IEPs). The AOE is established as an "Organized Delivery System" under Medicaid and is responsible for the program adherence to all State and Federal Medicaid and Education laws and regulations.

Delivery System Investments

Under the public managed care-like model, the Demonstration provides the State with flexibility to invest in health care innovations that:

a. Reduce the rate of uninsured and/or underinsured in Vermont;
b. Increase the access to quality health care by uninsured, underinsured, and Medicaid beneficiaries;
c. Provide public health approaches and other innovative programs to improve the health outcomes, health status and quality of life for uninsured, underinsured and Medicaid-eligible individuals in Vermont; and
d. Encourage the formation and maintenance of public-private partnerships in health care, including initiatives to support and improve the health care delivery system and promote transformation to value-based and integrated models of care.

In addition, CMS has provided the State with one-time spending authority to support Accountable Care Organizations and Medicaid community providers in delivery system reform through activities such as, but not limited to:

- Infrastructure improvement;
- Quality and heath improvement information development and dissemination;
- Community related population health projects;
- Socio-economic risk assessment and mitigation; and
- Provider integration to build integration across physical health, mental health substance use disorder treatment and long-term services and supports.

Investment awards are expected to give preference to activities that promote collaboration, build capacity across the care continuum, consider social determinates of health, and promote an integrated health care system consistent with the framework set forth in the Vermont All-Payer Model Agreement and the Global Commitment Demonstration. Specifically, the State would like to encourage ACO-based provider led reform that features (a) collaboration between providers, (b) reimbursement models that move away from Fee-For-Service payment, and (c) rigorous quality measurement that aligns with the All-Payer Model quality framework.

All-Payer Model Alignment

The All-Payer Model agreement between the State and the Federal government was approved by the Green Mountain Care Board on October 26, 2016 and signed by the Governor and the Secretary of Human Services on October 27, 2016. The agreement includes a target for a sustainable rate of growth for health care spending in Vermont across Medicaid, Medicare, and commercial payers, and would build on past programs like Vermont's Medicaid and commercial Shared Savings Programs. When implemented, this model will focus on a set of health care services roughly equivalent to Medicare Parts A and B (hospital and physician services). The agreement includes quality and performance measurement and Next Generation's value-based payment models, such as capitation or global budgets. The State must provide a plan in 2019 for integrating any institutional long-term services and supports in the total cost of care in the next Demonstration period.

The All-Payer Model Agreement and Global Commitment Medicaid Demonstration are complementary frameworks that support Vermont's health care reform efforts. Each agreement provides federal

support to further Vermont's strategic goal of creating an integrated health care system, including increased alignment across payers and providers.

C. Eligibility, Benefits and Cost Sharing

Eligibility under the Demonstration includes the following Medicaid and Demonstration groups:

Population 1: Mandatory State Plan populations (except for the new adult group). This group receives benefits as described in the Medicaid State Plan and may receive HCBS benefits described in the STCs if they meet additional program eligibility standards.

Population 2: Optional State Plan populations. This group receives benefits as described in the Medicaid State Plan and may receive HCBS benefits described in the STCs if they meet additional program eligibility standards.

Population 3: Affordable Care Act new adult group. This group receives benefits as described in the Medicaid State Plan and may receive HCBS benefits described in the STCs if they meet additional program eligibility standards.

Population 4: Individuals receiving home and community based waiver (HCBW)-like services who meet the clinical standard in the Choices for Care program for the Highest Need Group. This group receives benefits as described in the Medicaid State Plan and Choices for Care program benefits as described in the STCs.

Population 5: Individuals receiving HCBW-like services who met the clinical standard in the Choices for Care program for the High Need Group. This group receives benefits as described in the Medicaid State Plan and Choices for Care program benefits as described in the STCs.

Population 6: Individuals who are not otherwise eligible under the Medicaid State Plan and who would not have been eligible had the state elected eligibility under 42 CFR 435.217, but are at risk for institutionalization and need home and community-based services. This group receives a limited HCBW-like service benefit including Adult Day Services, Case Management, and Homemaker services in the Choices for Care program as outlined in the (STCs).

Population 7: Medicare beneficiaries who are 65 years or older or have a disability with income at or below 150 percent of the FPL, who may be enrolled in the Medicare Savings Program (MSP) but are not otherwise eligible for full benefits. This group receives a limited pharmacy benefit including Medicaid Prescriptions, eyeglasses and related eye exams; MSP beneficiaries also receive benefits as described in the Title XIX state plan.

Population 8: Medicare beneficiaries who are 65 years or older or have a disability with income above 150 percent and up to and including 225 percent of the FPL, who may be enrolled in the MSP, but are not otherwise eligible for full benefits. This group receives a limited pharmacy benefit including maintenance Drugs; MSP beneficiaries also receive benefits as described in the Title XIX state plan.

All covered services may be subject to review and prior approval by DVHA and/or its partner departments in the Agency of Human Services, based on medical appropriateness. A complete listing of covered services and limitations are contained in the Vermont approved Title XIX State Plan, Vermont statutes, regulations, and policies and procedures. Premiums and cost-sharing for populations 1, 2, and 3, must follow Medicaid requirements that are set forth in statute, regulation and policy. Standard Medicaid exemptions from cost-sharing set forth in 42 CFR 447(b) applies to the Demonstration. The state must not apply co-payment requirements to excluded populations (children under age 21, pregnant women or individuals in long-term care facilities) or for excluded services/supplies (e.g., family planning). Vermont charges premiums for children through age 18 with income above 195 percent of the FPL through 312 percent of the FPL. Premium populations are outlined in Exhibit 1 below.

Exhibit 1: Vermont Premium Populations

Population	Premiums	Co-Payments	State Program Name
Children with income > 195% percent through 237% of the FPL	$15/month/family	N/A	Dr. Dynasaur
Underinsured Children with income > 237% through 312% FPL	$20/month/family	N/A	Dr. Dynasaur
Uninsured Children with income > 237% through 312% of the FPL	$60/month/family	N/A	Dr. Dynasaur
Medicare beneficiaries with income at or below 150 percent of the FPL, who may be enrolled in the Medicare Savings Program but are not otherwise categorically eligible for full benefits (Demonstration Population 7).	0-150% FPL: $15/month/person	Not to exceed the nominal co-payments specified in the Medicaid State plan.	VHAP Pharmacy; VPharm1
Medicare beneficiaries with income above 150 percent and up to and including 225 percent of the FPL, who may be enrolled in the Medicare Savings Program, but are not otherwise categorically eligible (Demonstration Population 8).	151-175% FPL: $20/month/person 176-225% FPL: $50/month/person	Not to exceed the nominal co-payments specified in the Medicaid State plan.	VScript; VPharm2; VScript Expanded; VPharm3

D. Specialized Programs

Under the GC Demonstration, Vermont is authorized to provide an array of cost-effective in-home and community services. Providers of these services must meet designation, certification and/or additional licensing requirements to be approved by the State to serve the most vulnerable of Vermont's citizens. These specialized programs are designed to support a unique group of beneficiaries, each is outlined below.

- *Choices for Care*: long-term services and supports for persons with disabilities and older Vermonters. The Demonstration authorizes HCBS waiver-like and institutional services such as: nursing facility; enhanced residential care; personal care; homemaker services; companion care; case management; adult day services; and adult family care.

- *Developmental Disability Services*: provides long-term services and supports for persons with intellectual disabilities. The Demonstration authorizes HCBS waiver-like services, including service coordination, residential habilitation, day habilitation, supported employment, crisis services, clinical intervention, respite and self-directed care.

- *Traumatic Brain Injury Services*: provides recovery oriented and long-term services and supports for persons with a traumatic brain injury. The Demonstration authorizes HCBS waiver-like services including crisis/support services, psychological and counseling supports, case management, community supports, habilitation, respite care, supported employment, environmental and assistive technology and self-directed care.

- *Enhanced Family Treatment*: provides intensive in-home and community treatment services for children who are experiencing a severe emotional disturbance and their families. The Demonstration authorizes HCBS waiver-like services including service coordination, flexible support, skilled therapy services, environmental safety devices, counseling, residential treatment, respite, supported employment, crisis and community supports.

- *Community Rehabilitation and Treatment Program*: provides recovery oriented, in-home and community treatment services for adults who have a severe and persistent mental illness. The Demonstration authorizes HCBS waiver-like services including service coordination, flexible support, skilled therapy services, environmental safety devices, counseling, residential treatment, respite, supported employment, crisis and community supports.

  Through a special provision as a Designated State Health Program, Community Rehabilitation and Treatment benefits can be extended to individuals with severe and persistent mental illness with incomes between 133 and 150 percent of the federal poverty level, under the Demonstration.

In addition, the Demonstration authorizes the:

- *Children's Palliative Care Program*: provides care coordination, respite care, expressive therapies, family training, and bereavement counseling, for children under the age of 21 years in populations 1, 2, and 3 who have been diagnosed with a life- limiting illness that is expected to be terminal before adulthood.

- *Adult Hospice Program*: allows for hospice services to be delivered concurrently with curative therapy to adults in populations 1, 2, and 3.

Lastly, as a Designated State Health Program, the Demonstration allows:

- *Marketplace Subsidies*: The State offer subsidies for premiums for individuals with incomes at or below 300 percent of the federal poverty level who are purchasing health care coverage from a Qualified Health plan in Marketplace. The program is known as Vermont Premium Assistance (VPA) as part of the state-based health benefits exchange.

E. Special Considerations for Mental Health and Substance Use Disorder Treatment

Since its inception, Vermont's Demonstration has included payment flexibilities to support cost-effective alternatives to traditional Medicaid State Plan benefits. The State has used this authority to provide a continuum of treatment programs for persons who need inpatient psychiatric treatment, detoxification and/or residential treatment for substance use disorder. In several cases services are rendered by providers whose bed capacity is over 16 beds. Thus, these programs are considered Institutions for Mental Disease (IMD) facilities. CMS is continuing time-limited expenditure authority for services in several facilities that meet the definition of an IMD pursuant to an evaluation of their role and effectiveness in Vermont's Medicaid Demonstration.

CMS is asking the State to perform an evaluation of its IMD expenditure authority in the context of system-wide service, payment, and delivery system reforms and the State's extensive investments in cost effective community-based alternatives to institutional care. The evaluation will help inform broader policy discussions about Medicaid funding for IMD and community based services.

In addition to the study of IMD related services, the State is exploring opportunities and options for delivery system reforms that will promote a continuum of Substance Use Disorder Treatment Services and the State's alignment with CMS's Substance Use Disorder opportunities outlined in its July 2015 guidance, entitled "New Service Delivery Opportunities for Individuals with a Substance Use Disorder." The State will include measures in the Demonstration evaluation design that will serve as baseline metrics for monitoring the full continuum of Substance Use Disorder Treatment services in the future.

II. EVALUATION AND PROCUREMENT STRATEGY

The evaluation strategy for the Global Commitment Demonstration is designed to measure the degree to which its purposes, aims, goals, and objectives have been achieved. The evaluation is designed to not only address the long-term impact, but also to provide intermediate and short-term data on its performance through rapid cycle assessments.

In addition to assessing its overall impact, the evaluation examines the specific effects of the innovative changes made possible because of the Demonstration. Thus, the plan utilizes both performance measurement results (providing more real-time data focused on whether a program is achieving measurable objectives) and more rigorous program evaluation findings that analyzes findings against national benchmarks, changes over time and attempts to isolate key variables influencing outcomes.

To ensure that the new aspects of the Demonstration extension are implemented as intended and achieve the related goals/objectives and desired outcomes, this evaluation plan includes full alignment with the State's Comprehensive Quality Strategy, Rapid Cycle Assessment and Summative evaluation designs. It will employ qualitative and quantitative methods to collect and analyze data. This evaluation will not focus on outcomes exclusively, but is interested in capturing any evidence that the Demonstration supports: increased access to care; improved quality of care; cost containment; and stable in-home and community alternatives to institutional care.

A. Comprehensive Quality Strategy and Rapid Cycle Assessment

Vermont has a Comprehensive Quality Strategy (CQS) that integrates all aspects of quality improvement programs, processes, and requirements across the State's Medicaid program. The CQS is intended to serve as a blueprint or road map for Vermont and its Medicaid managed care-like operations in assessing the quality of care that beneficiaries receive, as well as for setting forth measurable goals and targets for improvement. As approved by CMS, the CQS is the vehicle for demonstrating Vermont's compliance with the new HCBS regulations (comparable to 'transition plans' in other states). The CQS meets all requirements of 42 CFR 438 and includes LTSS and HCBS quality components. Key elements addressed in the CQS include: goals; responsibilities; performance improvement projects; performance measures; populations; timelines; monitoring and evaluation; and performance improvement accountability.

The Demonstration's evaluation will align with the goals, measures and monitoring activities outlined in the AHS CQS. AHS will regularly monitor the Demonstration on the key outcome measures and performance targets and make changes as appropriate (obtaining CMS or legislative approval where needed). The CQS is reviewed and updated as needed, but no less than once every three years.

The State must also routinely evaluate policy changes and new initiatives to rapidly assess effectiveness, promote continuous improvement and to identify success and barriers without delay. The State will retain responsibility for conducting rapid cycle assessments for any new payment and service delivery and/or payment reform implemented or supported by the Demonstration (e.g., Next Generation Medicaid ACO) as well as any new Delivery System Reform Investments. Results from the rapid cycle assessments will directly influence decision-making by giving AHS insights into any potential shortcomings, oversights and successes. Documenting the development of new initiatives and their

operational impact provides an understanding of the reasons for successful or unsuccessful performance, provides direction in shaping program modifications and improvement, and provides information about whether evaluation findings can be generalized.

This rapid analysis will be based on grantee reporting, key informant information from the AHS, as well as community leaders, administrators, physician leaders, and others directly responsible for, or knowledgeable about, the new initiative or investment. As appropriate, fiscal analysis will be conducted to analyze expenditure information. Reports will be used to provide program staff with specific details for the month, quarter, or year, and/or provide direction in shaping modifications that may be required to support more effective investments.

This type of rapid cycle approach blurs some of the classic differentiation between formative and summative evaluation approaches. The selection of similar evaluation methods for different purposes will allow the State and providers to focus on adjusting the process aspects of an innovation – while at the same time improving the impact of the innovation overall. It is important to note that the rigor of the evaluation should not be sacrificed for the sake of speed. To do so, advanced statistical methods to measure effectiveness should be used, including the appropriate selection of comparison groups whenever possible.

In practice, this commitment to alignment of performance oversight will create a feedback loop across evaluation activities, rapid cycle assessment reports and summative evaluation findings. This process of regularly measuring, monitoring, and making changes should result in continuous performance improvement in terms of achieving its performance targets and intended outcomes.

B. Summative Evaluation

In addition to the activities described above, summative evaluation techniques will be used to measure how the Demonstration has changed or improved the health and well-being of the GC population. The summative evaluation will address each of the hypotheses identified in Section III A.

Additionally, DVHA and its IGA partners are required to submit annual performance measurement data to AHS. These metrics will be used to help define and measure progress towards the Demonstration's ability to increase access to care; improve quality of care (including outcomes and consumer satisfaction); contain the cost of care and support stable in-home and community alternatives to institutional care for enrollees.

The required performance measures include HEDIS® (see Section III D). DVHA will also be required to report enrollee experience based on the Consumer Assessment of Healthcare Providers and Systems (CAHPS) or CAHPS-like model, with the potential for findings to be supplemented by targeted surveys for special needs populations. Specifically, the State is exploring the use of CAHPS-Home and Community Based Services (HCBS) module for participants in several of its specialized programs. Items under consideration for use are outlined in Exhibit 2 on the following page.

Exhibit 2: Potential CAHPS-HCBS Performance Measures

Potential CAHPS-HCBS Measures	
Performance Area	**Metric**
Quality of Care	Percent of enrollees who rate the help they get from staff as very good or excellent
Health	Percent of enrollees who rate their overall health as good, very good or excellent
Courtesy and Respect	Percent of enrollees who report that in the last 3 months, staff usually or always treat them with courtesy and respect
Case Manager	Percent of enrollees who rate the help they get from their case manager as very good or excellent
Choice and Control	Percentage of people who report that in the last 3 months, their service plan included most or all of things that were important to them
Employment	Percent of enrollees who report that in the last 3 months, they usually or always could do things in the community that they liked, when they wanted

In addition, inpatient and outpatient utilization, cost, and quality indicators for GC enrollees before and after their enrollment in specialized programs and Demonstration initiatives will be analyzed and compared to benchmarks and/or targets to assess the attainment of these goals. This analysis will determine whether statistically significant differences exist year to year in access to care; improved quality of care; cost containment; and stable in-home and community alternatives to institutional care. Annual data will be tracked and trended over time (when available).

Summative evaluation techniques will also be applied to study the impact and effectiveness of IMD services in the Vermont system of care for persons who are experiencing a psychiatric emergency and/or who have substance use disorder treatment needs.

C. Procurement Strategy and Evaluator Qualifications

Procurement for an evaluation contractor to assist the State in executing its Demonstration evaluation plan was pursuant to the State of Vermont Agency of Administration Bulletin 3.5 processes found here. The State retains responsibility for rapid cycle assessment reports, monitoring delivery system and other investments and overall Demonstration performance monitoring. Global Commitment to Health HEDIS® measures are independently validated by the State's External Quality Review Organization (EQRO). To mitigate any potential conflict of interest, the evaluation contractor is responsible for secondary analysis of the State's findings, benchmarking performance to national standards, evaluating changes over time, isolating key variables and interpreting results. As part of the focused IMD evaluation, the evaluator is responsible for final measure selection, identifying, if viable other State systems that may serve as comparisons, conducting all data analysis, measuring change overtime and developing sensitivity models as necessary to address study questions.

The State anticipates issued one procurement for all summative evaluation activities and the production of required CMS reports. Bidders were given the option of working with a subcontractor on the IMD and/or other components of the design. The successful bidder demonstrated, at a minimum, the following qualifications:

- The extent to which the evaluator can meet State RFP minimum requirements;
- The extent to which the evaluator has sufficient capacity to conduct the proposed evaluation, in terms of technical experience and the size/scale of the evaluation;

- The evaluator's prior experience with similar evaluations;
- Past references; and
- Value, e.g., the assessment of an evaluator's capacity to conduct the proposed evaluation with their cost proposal, with consideration given to those that offer higher quality at a lower cost.

D. Evaluation Budget and Timeline

The State's evaluation budget and timelines are tentative pending data sharing schedules established with the evaluation contractor. The budget may be modified if terms of the current Demonstration agreement are amended during the project period. AHS will report on progress and any known challenges to the evaluation budget, timelines and implementation in its quarterly and annual Demonstration reports to CMS. Appendix 1 provides an overview of the AHS proposed evaluation budget. Outlined below and on the following pages are the expected timelines and major evaluation related milestones.

Demo Year 12: (1/1/2017-12/31/2017)

	Extension Year 1 (2017)											
	Month											
Activity/Milestone	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Draft Evaluation Design	X	X										X
CMS Review			X									
Incorporate CMS Revisions				X								
Final Evaluation Design				X								
Publish Evaluation Design				X								
Procure Independent Evaluator				X	X	X	X	X				
Finalize Research Methods									X			
Finalize Performance Measures									X			
Collect, Analyze, Interrupt Data									X	X	X	X
Disseminate AHS Rapid Cycle Assessment Findings for Feedback				X			X			X		

Demo Year 13: (1/1/2018-12/31/2018)

	Extension Year 2 (2018)											
	Month											
Activity/Milestone	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Collect, Analyze, Interpret Data	X	X	X	X	X	X	X	X	X	X	X	X
Create Draft Interim Evaluation Report #1	X	X										
Disseminate Preliminary Findings for Feedback		X										
Submit Draft Interim Evaluation Report #1 to CMS (IMD focus)				X								
Submit Final Interim Evaluation Report #1 to CMS						X						
Disseminate AHS Rapid Cycle Assessment Findings for Feedback				X			X			X		

Demo Year 14: (1/1/2019-12/31/2019)

	Extension Year 3 (2019)											
	Month											
Activity/Milestone	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Revise design as needed	X											
Collect, Analyze, Interpret Data	X	X	X	X	X	X	X	X	X	X	X	X
Disseminate AHS Rapid Cycle Assessment Findings for Feedback				X			X			X		

Demo Year 15: (1/1/2020 – 12/31/2020)

	Extension- Year 4 (2020)											
	Month											
Activity/Milestone	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Collect, Analyze, Interpret Data	X	X	X	X	X	X	X	X	X	X	X	X
Create Draft Interim Evaluation Report #2								X				
Disseminate Interim Evaluation Report #2 Findings for Feedback								X	X			
Finalize Draft Interim Evaluation Report #2										X	X	
Submit Interim Evaluation Report #2 to CMS												X
Disseminate AHS Rapid Cycle Assessment Findings for Feedback				X			X			X		

Demo Year 16: (1/1/2021-12/31/2021)

	Extension Year 5 (2021)											
	Month											
Activity/Milestone	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Create Draft Summative Evaluation Report #1	X	X	X									
Submit Draft Summative Evaluation Report #1 to CMS				X								
Incorporate CMS Comments					X							
Submit Final IMD Summative Evaluation Report #1						X						
Publish Final Summative Evaluation Report #1							X					
Disseminate AHS Rapid Cycle Assessment Findings for Feedback				X			X			X		

Post Demo: (1/1/2022-9/30/2022)

	Post Extension (2022)											
	Month											
Activity/Milestone	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Create Draft Summative Evaluation Report #2	X	X			X							
Disseminate Draft Summative Evaluation Report #2 Findings for Feedback			X	X								
Submit Draft Summative Evaluation Report #2 to CMS						X						
Incorporate CMS Comment								X				
Submit Final Summative Evaluation Report #2 to CMS								X				
Publish Final Summative Evaluation Report #2									X			

III. EVALUATION DESIGN AND METHODS

In updating its existing Medicaid Demonstration evaluation strategy as reflected in this document, the State has refined overarching Demonstration hypotheses and identified study populations and levels of stratification for specialized programs and projects. The design identifies additional data sources related to IMD study, reviews general methods, data analytics and defines on-going reporting requirements for the term of the Demonstration. However, final techniques, technical specifications and study groups will be determined following engagement of the independent evaluator.

A. Hypothesis

The State has identified the following overarching hypotheses for the Demonstration.

- The Demonstration will result in improved access to care;
- The Demonstration will result in improved quality of care;
- Value-based payment models will improve access to care;
- Improved access to preventive care will result in lower overall costs for the healthcare delivery system;
- Improved access to primary care will result in improved health outcomes;
- Enhanced care coordination will improve timely access to needed care;
- The Demonstration will result in increased community integration;
- The Demonstration will maintain or reduce spending in comparison to what would have been spent absent the Demonstration;

B. Study Populations

The evaluation will study the impact of the Demonstration on all enrollees e.g., total Medicaid population (enrollees participating in specialized programs (e.g., ID/DD, CFC, CRT, TBI, ACO Attributed), enrollees participating in non-specialized programs) as well as provide stratification for various hypothesis and key measures by specialized program participants. In addition, focused analysis will address:

- The impact of marketplace subsidies for Qualified Health Plans on continuity of coverage; if feasible based on sample size, staff and budget considerations, the State will stratify impact by income level;
- Access to care for children in families who are required to make premium payments; if feasible based on sample size, staff and budget considerations the State will stratify impact by income level;
- Access, cost and quality for substance use disorder and psychiatric IMD services (See Section IV for more detailed description).

An overview of each hypothesis, the research questions and the expected study populations is provided in Exhibit 3 on the following page.

Exhibit 3: Hypotheses and Study Populations

Summary of Study Populations by Hypotheses		
Research Question	**Hypothesis**	**Study Populations & Levels of Stratification**
Will the Demonstration result in improved access to care?	• The demonstration will result in improved access to community based medical, mental health, substance use disorder and dental care. • The demonstration will reduce the rate of potentially avoidable ED visits and unplanned hospital admissions. • Premium requirements for eligible families above 195% FPL will not impede access to enrollment. • The VPA Qualified Health Plan subsidy program will result in improved access to health care.	• Total Medicaid • Specialized Program Enrollees (CFC, CRT, DDS, SUD, TBI) • Children's Premium Population • VT Premium Assistance (VPA-marketplace subsidies) population • IMD Service Recipients

Will the Demonstration result in improved quality of care?	• The demonstration will improve:
	  ○ asthma care;
	  ○ preventative health screenings for female enrollees;
	  ○ mental health follow-up after psychiatric hospitalization; and
	  ○ Initiation and engagement in SUD treatment.
	• The demonstration will improve enrollee experience of care and satisfaction with the health plan.
		• Total Medicaid
		• Specialized Program Enrollees (CFC, CRT, DDS, SUD, TBI)
		• Blueprint Advanced Primary Care Practice Enrollees
		• IMD Service Recipients

Will value-based payment models increase access to care?	• The Medicaid ACO will show a lower overall cost of care. • The Medicaid ACO will improve access to mental health care and substance use disorder treatment. • ACO enrollees will receive: ○ timely prenatal care;	• ACO Attributed Enrollees

Exhibit 3: Hypotheses and Study Populations

Summary of Study Populations by Hypotheses		
Research Question	**Hypothesis**	**Study Populations & Levels of Stratification**
	and ○ developmental screenings in the first 3 years of life • ACO enrollees will show improved diabetes and hypertension outcomes.	
Will improved access to preventive care result in lower overall costs for the healthcare delivery system?	• The Blueprint for Health initiative will reduce per capita expenditures for enrollees whose diabetes is in control. • The Blueprint for Health initiative will contain or reduce total per capita expenditures for enrollees ages 1-64 years.	• Total Medicaid • Specialized Program Enrollees (CFC, CRT, DDS, SUD, TBI) • Blueprint Advanced Primary Care Practice Enrollees
Will improved access to primary care result in improved health outcomes?	• The Blueprint for Health will improve diabetes control for members age 18-75.	• • • Blueprint Advanced Primary Care Practice Enrollees
Will enhanced care coordination increase timely access to needed care?	• Blueprint for Health enrollees will report timely access and satisfaction with their experience of care,	• Blueprint Advanced Primary Care Practice Enrollees •
Will the Demonstration increase community integration?	• The demonstration will increase community living and integration for persons needing LTSS. • The demonstration will increase choice and autonomy for persons needing LTSS. • The demonstration will increase integrated employment options for persons needing LTSS.	• Specialized Program Enrollees (CFC, CRT, DDS, SUD, TBI) • IMD Service Recipients
Will Demonstration maintain or reduce spending in comparison to what would have been spent absent the Demonstration?	• The demonstration will contain or reduce spending.	• Total Medicaid

C. Data Collection and Assurances

Vermont's public managed care-like model is managed by AHS through delegation to DVHA. Encounter, claims and cost data is available through the MMIS and will be made available to evaluators as needed for purpose of evaluation. Existing agreements with departments require that all IGA partners under the Demonstration make data available to support evaluations and performance monitoring efforts. AHS does not anticipate problems with data collection and reporting.

AHS will use a variety of sources and methods to test the above hypotheses, including beneficiary surveys and provider claims data. AHS staff and independent evaluators will also analyze data from third-party sources, such as the U.S. Census Bureau and, if available through the All-Payer Model, Medicare claims data. Vermont data sources used to evaluate performance against Demonstration goals will include:

- Medicaid Management Information System (MMIS) encounter and utilization data from claims
- State Medicaid information system files that include eligibility and enrollment data
- VT Health Connect Premium Assistance (VPA) data files
- Consumer Assessment of Healthcare Providers and Systems (CAHPS)
- DAIL Social Assistance Management System (SAMS)
- ADAP Substance Abuse Treatment Information System (SATIS)
- DMH Monthly Service Reports (MSR)
- VT Health Care Quality Reports prepared by the state's External Quality Review Organization
- Quarterly Ombudsman Reports
- VT Department of Financial Regulation Household Health Insurance Surveys
- VT Department of Labor Employment (DOL)
- VT Department of Health, Healthy Vermonters 2020 Population Health Outcomes
- VT Department of Health, Substance Abuse Treatment Information System (SATIS)
- Vermont Health Care Uniform Reporting and Evaluation System (VHCURES)

To limit administrative burden on providers, consumers and staff and to eliminate duplicate evaluation efforts, this evaluation will coordinate and compile measures from existing evaluation and performance monitoring efforts aimed at studying the impact of various health care initiatives under the Demonstration. A preliminary inventory of existing and planned evaluation and performance monitoring projects are provided in Exhibit 4 below.

Exhibit 4: Existing and Planned Evaluation and Monitoring Projects

Existing or Planned VT Evaluation Projects
All-Payer Model
Vermont Health Care Innovation Project
Medicaid Health Home - Medication Assisted Opioid Treatment
AHS Performance Monitoring Projects
Global Commitment to Health Comprehensive Quality Measures, including HEDIS®
AHS Results Based Accountability Scorecards
Healthy Vermonters 2020
National Core Indicators Project, Developmental Disability, Aging and Other Disability Programs
Medicaid ACO Quality Measures
Blueprint for Health Multi-Payer Delivery Reform Initiative

D. Performance Measures, Data Source, Frequency and Sampling Methods

This Evaluation Plan incorporates the use of performance measures based on the following criteria: 1) evidenced based; 2) potential for improvement; 3) prevalence or incidence; 4) substantial impact on health status and/or health outcomes; 5) Alignment with national measures; and 6) to the extent possible, adaptable measures across various practice settings. The Demonstration uses HEDIS® and AHS Results Based Accountability Scorecards for most of the targeted performance measures. Additionally, the evaluation will align measures and priorities with those collected as part of the All-Payer Model Medicare Demonstration Agreement Appendix 1 Found Here on page 36, which includes alignment with the development of the Global Commitment to Health Medicaid ACO.

Using these measures, AHS will determine whether efforts to improve access (e.g., primary care visits, ED visits, and providers accepting Medicaid), enhance quality (e.g., follow-up after hospitalization, medication management for those with asthma, and patient experience of care), contain costs (e.g., budget neutrality, inpatient, and ED) and improve community integration were achieved. Performance measures specific to specialized programs and in-home and community services will also be included, such as ability of participants to live longer in their communities and experience an improved quality of life, choice and control.

The performance measures give trend information, which provides guidance in designing focused interventions for quality improvement. Reported HEDIS rates also can be benchmarked to NCQA Medicaid HEDIS means and percentiles, and compared to results from other states. Current performance targets and national benchmarks are identified in the States Comprehensive Quality Strategy Found Here.

One other important source of information to initiate and guide improvement efforts is the beneficiary. The most widely used instrument for collecting reports and ratings of health care services from the beneficiary's perspective is the CAHPS. CAHPS survey data allows entities to: 1) analyze performance compared to benchmarks; 2) identify changes or trends in performance; and/or 3) consider other indicators of performance. Vermont will combine CAHPS data with information collected through periodic surveys of targeted groups of Demonstration enrollees.

Demonstration objectives and performance measures for each hypothesis are presented in Exhibits 5 through 10 starting on page 22. All Exhibits also address data collection methods for each measure, alignment with other State or National measures, sampling methodology, source of data, and frequency of measurement.

Three hypotheses (listed below) will be measured through evaluation efforts associated with the Blueprint for Health Multi-Payer Advance Primary Care Practice initiative:

- Improved access to primary care will result in positive health outcomes;
- Enhanced care coordination will promote timely access to needed care; and
- Improved access to primary care will result in overall lower cost for the healthcare delivery system.

The Blueprint for Health is a state-led, multi-payer program dedicated to achieving well-coordinated and seamless health services, with an emphasis on prevention and wellness. As such, the Blueprint employs

several different approaches to incentivizing delivery system reform and increased quality and performance through payment reform. The foundation of the Blueprint model is a Multi-Payer Advanced Primary Care Practice (MAPCP) program. Participation is optional for providers, but mandatory for Vermont's commercial payers (with the exception of self-insured plans) and Medicaid.

Current participating payers in the Blueprint for Health include Medicaid, Medicare, Blue Cross Blue Shield of Vermont, MPV and CIGNA. As such, some measures reflect population health outcomes across payers and are not specifically stratified for Medicaid enrollees. As feasible within available resources, Blueprint performance and evaluation findings may include sub-analysis relative to Medicaid only participants.

Acronyms used in Exhibits 5 through 10 are outlined below:

ACO: Accountable Care Organization
CC: Chronic Condition
CFC: Choices for Care
CRT: Community Rehabilitation and Treatment
DDS: Developmental Disabilities Services
ED: Emergency Department
EPSDT: Early Periodic Screening Diagnosis & Treatment
HCBS: Home & Community Based Services
LTSS: Long Term Services and Supports
MAT: Medication Assisted Treatment
MMIS: Medicaid Management Information System
NCI-AD: National Core Indicators Aging & Disabilities
NCI-DD: National Core Indicators Developmental Disabilities
QHP: Qualified Health Plan
SUD: Substance Use Disorder
TBI: Traumatic Brain Injury
VCCI: VT Chronic Care Initiative
VPA: Vermont Premium Assistance

Exhibit 5: Access to Care Measures

Research Question: Will the Demonstration Result in Improved Access to Care?					
Performance Measure	**Metric**	**Sampling Methodology**	**Source of Data**	**Frequency of Measurement[2]**	**Alignment**
Ambulatory Care	Percent of adult enrollees who had an ambulatory or preventive care visit	Total Medicaid; Stratification for SUD, DDS, CFC, TBI & CRT	MMIS	Annual	N/A
Well-Child Visits	Percent of children under age 12 who received well-child care from a PCP in accordance with EPSDT periodicity schedule	Total Medicaid	MMIS	Annual	CMS Child Core Set
Adolescent Well- Care Visits	Percent of adolescents ages 12 to 21 who receive one or more well-care visits with a PCP during the measurement year	Total Medicaid; Stratification for ACO Attributed Members	MMIS	Annual	CMS Child Core Set All-Payer Model
Access to Dental Care	Percent of Medicaid enrollees with at least one dental visit	Total Medicaid	MMIS	Annual	N/A
Emergency Department Visits	Rate of ED visits per 1,000-member months	Total Medicaid; Stratification for SUD, DDS, CFC, TBI & CRT	MMIS	Annual	N/A
	Rate of Potentially Avoidable ED Utilization	Total Medicaid; Stratification for SUD, DDS, CFC, TBI & CRT	MMIS	Annual	N/A
Inpatient Admissions	Rate of inpatient admissions per 1,000-member months	Total Medicaid	MMIS	Annual	N/A
	All cause unplanned admissions for patients with multiple chronic conditions	Medicaid ACO Attributed Members	MMIS	Annual	All-Payer Model
Effect of Children's Premiums	Percent of families that activate enrollment by paying the first month's premium	Total Premium	Eligibility Records	Annual	N/A
Impact of VPA Program	Percent of enrollees receiving VPA subsidy who maintain QHPs with no breaks in coverage	Total VPA	VPA Data	Annual	N/A
Getting Needed Care	Percent of survey respondents indicating they received necessary care	Random Medicaid	CAHPS (Adult, Child, Child w/CC)	Annual	CMS Adult & Child Core Measure Set

[2] NCI-AD Surveys are expected to start in State Fiscal Year 2018 and be conducted annually thereafter.

Exhibit 5: Access to Care Measures

Research Question: Will the Demonstration Result in Improved Access to Care?					
Performance Measure	**Metric**	**Sampling Methodology**	**Source of Data**	**Frequency of Measurement[2]**	**Alignment**
Physician Participation in Medicaid	Percent of active physicians participating in Medicaid – primary care and specialists	Total Vermont	Vermont Medical Association and MMIS	Annual	N/A
Health Coverage	Percent of uninsured Vermonters	Total Vermont	Vermont Household Insurance Survey	Every 3 years (2018, 2021)	N/A
Mental Health Utilization	Percent of enrollees receiving mental health services	Total Medicaid	MMIS	Annual	N/A
Substance Use Disorder Treatment Utilization	Percent of enrollees receiving substance use disorder treatment services	Total Medicaid; Stratification for CFC, CRT, DDS	MMIS	Annual	N/A
Medication Assisted Treatment (MAT) for Opioid Addiction	Number of people receiving MAT per 10,000 Vermonters age 18-64	Total Vermont	VDH	Quarterly	All-Payer Model
Drug Over Dose Deaths	Deaths related to drug overdose	Total Vermont	VDH	Annual	All-Payer Model

Exhibit 6: Quality of Care Measures

Research Question: **Will the Demonstration Result in Improved Quality of Care?**					
Performance Measure	**Metric**	**Sampling Methodology**	**Source of Data**	**Frequency of Measurement[3]**	**Alignment**
Medication Management for People with Asthma	Percent of enrollees receiving appropriate asthma medication management	Total Medicaid	MMIS	Annual	All-Payer Model
Breast Cancer Screening	Percent of female enrollees age 50 to 74 who receive screening at appropriate intervals	Total Medicaid	MMIS	Annual	CMS Adult Core Set
Chlamydia Screening	Percent of female enrollees screened	Total Medicaid	MMIS	Annual	CMS Adult Core Set
Follow up after Hospitalization for Mental Illness	Percent of enrollees discharged who had follow-up at 7 & 30 days	Total Medicaid; ACO Attributed Members	MMIS; MSR	Annual	CMS Adult & Child Core Measure Set
Substance Use Disorder Treatment	Percent of enrollees using substances who initiate and engage in treatment	Total Medicaid; ACO Attributed Members	MMIS	Annual	CMS Adult Core Set; All-Payer Model
Health Wellness	The proportion of people who describe their overall health as poor	Random CFC & TBI	NCI-AD	Annual	NCI
Health Wellness	The proportion of people described as having poor health	Random DDS	NCI-DD	Annual	NCI
Health Plan	Enrollee rating of satisfaction with health plan	Random Medicaid	CAHPS (Adult, Child, Child w/CC)	Annual	CMS Adult & Child Core Measure Set
Quick Care	Enrollee rating of ability to get care quickly	Random Medicaid	CAHPS (Adult, Child, Child w/CC)	Annual	CMS Adult & Child Core Measure Set
Overall Rating of Care	Enrollee rating of care received	Random Medicaid	CAHPS (Adult, Child, Child w/CC)	Annual	CMS Adult & Child Core Measure Set
Customer Service	Enrollee rating of customer service	Random Medicaid	CAHPS (Adult, Child, Child w/CC)	Annual	CMS Adult & Child Core Measure Set
Communication	Enrollee rating of how well their physician explains things, listens to their concerns, shows respect and spends enough time with them	Random Medicaid	CAHPS (Adult, Child, Child w/CC)	Annual	CMS Adult & Child Core Measure Set
Chronic Care Management	Percent of enrollees with targeted chronic conditions enrolled in chronic care management program	Total VCCI	VCCI Ad hoc reports	Annual	N/A

[3] CAHPS-HCBS Module and NCI-AD Surveys are expected to start in State Fiscal Year 2018 and be conducted annually thereafter.

Exhibit 6: Quality of Care Measures

Research Question: **Will the Demonstration Result in Improved Quality of Care?**					
Performance Measure	**Metric**	**Sampling Methodology**	**Source of Data**	**Frequency of Measurement[3]**	**Alignment**
Getting Needed LTSS	Proportion of participants needing assistance who always get enough assistance with everyday activities when needed	Random CFC & TBI	NCI- AD	Annual	NCI
Getting Needed LTSS	The rate at which people report that they do not get the services they need	Random DDS	NCI- AD	Annual	NCI

Exhibit 7: Value Based Payment Measures

Research Question: Will Value Based Payment Models Improve Access to Care					
Performance Measure	**Metric**	**Sampling Methodology**	**Source of Data**	**Frequency of Measurement**	**Alignment**
ACO Attributed Members	Percent of Medicaid enrollees aligned with ACO	Total Medicaid	Enrollment Files (PCP selection) and MMIS	Annual	All-Payer Model
ACO Cost Per Enrollee	Cost of Care for Medicaid enrollees aligned with ACO	ACO Attributed Members	MMIS	Annual	N/A
ACO Access to Mental Health Treatment	30-day follow-up after discharge from ED for mental health	ACO Attributed Members	MMIS	Annual	All-Payer Model
ACO Access to Substance Use Disorder Treatment	7 and 30-day follow-up after discharge from ED for alcohol or other drug dependence mental health	Total Medicaid; ACO Attributed Members	MMIS	Annual	All-Payer Model
ACO Depression Screening and Follow-up	Screening for clinical depression and follow-up plan	ACO Attributed Members	MMIS; ACO Medical Records	Annual	All-Payer Model
Prenatal Care	Timeliness of Prenatal Care	ACO Attributed Members	MMIS	Annual	N/A
Prevention	Developmental Screening in the first 3 years of life	ACO Attributed Members	MMIS; ACO Medical Records	Annual	N/A
Health Outcomes	Diabetes Mellitus: Hemoglobin A1c poor control (>9%)	ACO Attributed Members	MMIS	Annual	All-Payer Model
Health Outcomes	Hypertension: Controlling High Blood Pressure	ACO Attributed Members	MMIS	Annual	All-Payer Model

Exhibit 8: Primary Care and Enhanced Care Coordination

Research Questions: Will Improved Access to Primary Care Result in improved health outcomes?; Will Enhanced Care Coordination improve Timely Access to Needed Care?; and Will Improved access to primary care result in lower cost for the healthcare delivery system					
Performance Measure	**Metric**	**Sampling Methodology**	**Source of Data**	**Frequency of Measurement**	**Alignment**
Cost	Total expenditures per capita, excluding specialized program services, for enrollees ages 1-64 years	Blueprint Medicaid Enrollees	MMIS	Annual	N/A
Cost	Specialized Medicaid expenditures per capita, for enrollees ages 1-64 years	Blueprint Medicaid Enrollees	MMIS	Annual	N/A
Access to Care	Enrollee rating of ability to get desired appointment or information	Random Blueprint[4]	CAHPS -PCMH	Annual	Nat'l CAHPS-PCMH
Communication	Enrollee rating of how well their physician explains thigs, listens to their concerns, shows respect and spends enough time with them	Random Blueprint[5]	CAHPS -PCMH	Annual	Nat'l CAHPS-PCMH
Health Outcomes & Cost	Number of continuously enrolled members, ages 18-75 whose Diabetes HbA1c was in control compared to those with poor control	Blueprint[6]	VCHURES; Medical Records	Annual	All-Payer Model
	Expenditures per capita for continuously enrolled members, ages 18-75 whose Diabetes HbA1c was in control compared to those with poor control	Blueprint[7]	VCHURES; Medical Records	Annual	N/A
	Inpatient hospitalizations per 1,000 members for continuously enrolled members, ages 18-75 whose Diabetes HbA1c was in control compared to those with poor control	Blueprint[8]	VCHURES; Medical Records	Annual	N/A

[4] If feasible based on staff and budget constraints the State will conduct a sub-analysis of Blueprint Medicaid Enrollees

[5] ibid

[6] ibid

[7] ibid

[8] ibid

Exhibit 9: Enhanced Community Integration

Research Question: Will the Demonstration Result in Increased Community Integration?					
Performance Measure	**Metric**	**Sampling Methodology**	**Source of Data**	**Frequency of Measurement[9]**	**Alignment**
Eliminating Institutional Bias	Average number of people served per month by setting: nursing facility, home, licensed residential facility	Total CFC population	MMIS	Annual	LTSS Re-balancing
Community Access	Proportion of people who do things they enjoy outside of their home when and with whom they want to	Random CFC & TBI population	NCI-AD	Annual	NCI
Community Access	The proportion of people who regularly participate in everyday integrated activities in their communities	Random DDS population	NCI-DD	Annual	NCI
Choice and Control	Proportion of people who can choose or change what kind of services they get and determine how often and when they get them	Random CFC & TBI	NCI-AD	Annual	NCI
Choice and Control	The proportion of people who make choices about their everyday lives, including: housing, roommates, daily routines, jobs, support staff or providers, what to spend money on, and social activities	Random DDS	NCI-DD	Annual	NCI
Employment	Proportion of people who have a paying job in the community, either full-time or part-time	Random CFC & TBI	NCI-AD	Annual	NCI
Employment	Proportion of people who would like a job (if not currently employed)	Random CFC & TBI	NCI-AD	Annual	NCI
Employment	The proportion of people who have a job in the community	Random DDS	NCI-DD	Annual	NCI
Employment	The proportion of people who do not have a job in the community but would like to have one	Random DDS	NCI-DD	Annual	NCI
Employment	Employment rate of people of working age	DDS, TBI, CRT	Vermont Department of Labor; VT Division of Vocational Rehabilitation	Annual	N/A

[9] CAHPS-HCBS Module is expected to start in State Fiscal Year 2018 and be conducted annually thereafter.

Exhibit 10: Cost and Budget Neutrality

Research Question: Will Demonstration Maintain or Reduce Spending in Comparison to What Would Have Been Spent Absent the Demonstration?					
Performance Measure	**Metric**	**Sampling Methodology**	**Source of Data**	**Frequency of Measurement**	**Alignment**
Emergency Department Cost	Average annual per enrollee cost of ED visits	Total Medicaid	MMIS	Annual	N/A
Inpatient Hospital Cost	Average annual per enrollee cost of inpatient hospital	Total Medicaid	MMIS	Annual	N/A
Pharmacy Cost	Average annual per enrollee cost of prescription drugs	Total Medicaid	MMIS	Annual	N/A
Total Cost per Enrollee	Average annual total cost per enrollee	Total Medicaid	MMIS	Annual	N/A
Total Cost per Major Aid Category	Average annual total cost per major aid category group	Total Medicaid	MMIS	Annual	N/A
Chronic Care Management Costs	Average annual per enrollee costs for chronic care management program participants	Total Medicaid	MMIS	Annual	N/A
Budget Neutrality	Actual aggregate expenditures versus budget neutrality limit	Total Medicaid	MMIS	Annual	STC

E. Methods

Both qualitative and quantitative methods will be used to address the research questions. Qualitative designs will be used to better understand the process of Demonstration implementation, and will include the use of purposeful sampling, interviews, and inductive analysis to discover patterns, themes, and interrelationships. Qualitative methods will be employed for new delivery system reforms supported with Demonstration investment funds as a part of a formative study where applicable.

Quantitative methods will be used to better understand the impact of Demonstration implementation (i.e., the relationship that Demonstration participation has on: access to care; quality of care; cost containment; and stable in-home and community alternatives to institutional care) and will include the use of probability sampling, descriptive/inferential statistics, and deductive analysis to generate relationships between variables that can be generalized to the broader Medicaid population. Methodological considerations are provided below.

Isolation from Other Initiatives

In general, external factors are not expected to significantly affect the assessment of hypotheses presented in this evaluation plan. Over the past several years the State sought to align its health care reforms across all populations and payers. The final Medicaid Demonstration extension and Medicare All-Payer Model were designed to create a seamless system. However, where market conditions and other contextual factors (e.g., provider or geographical differences) could have an impact, AHS and its evaluators will develop approaches to quantify and/or isolate the impact of such factors. The Demonstration supports a comprehensive approach across settings. Based on staff, budget and data considerations, the State will explore the feasibility of comparing outcomes for members who may be attributed to a specific initiative with those who are not involved in the initiative.

Generalizability of Results

Vermont's small size, statewide model and AHS single state agency 'umbrella' structure supports rapid adoption of programs. This provides an ideal environment for testing innovations that can be brought to scale in other states on a county or state-wide level. In several instances, Vermont's health care and long-term service and support programs have become models for other states (e.g., Blueprint for Health, Choices for Care, Self/Surrogate-directed care). It is expected that specific aspects of the Demonstration and its evaluation design will continue to support generalizability.

Data Limitations & Mitigation

Many participants in Vermont's specialized programs are dually eligible for Medicare and Medicaid. The absence of Medicare claims data presents challenges for certain metrics such as total cost of care, rates of preventive screens, follow-up after hospitalization. If feasible, the AHS will seek access to Medicare data as part of its involvement in the All-Payer Model Medicare Demonstration.

Vermont has been engaged in health care and payment reform since the inception of the Demonstration in 2005. In many cases, specialized programs no longer employ fee-for-service claiming and encounter data may be stored in multiple legacy systems across AHS. In cases where programs have moved away

from fee-for-service payment models, modified HEDIS® protocols will be used to assure data is complete and accurately adjusted when stratified for specialized populations.

Two data sets available for benchmarking performance are the VDH Hospital Discharge data and VHCURES. These data warehouses provide valuable information on claims over time, however information is de-identified. The Blueprint for Health and the Department of Mental Health have employed various techniques to match data and examine population trends overtime and by payer. The DMH technique involves the use of probabilistic estimation. Probabilistic Population Estimation (PPE) is a statistical technique used by DMH that measures the number of people represented in data sets that do not share unique person identifiers. PPE reports how many people are represented in and across data sets without the need for identifiable protected health information.[10] These estimates are based on a comparison of the observed distribution of dates of birth in HIPAA-compliant "limited data sets" with the expected distribution of dates of birth. The validity and reliability of this procedure have been demonstrated by Banks and Pandiani (2001).[11] This approach is unobtrusive and it protects the personal privacy of individuals and the confidentiality of medical records because it does not depend on personally identifying information[12].

Through its analytics vendor Onpoint Health Data Blueprint to Health links clinical data to de-identified VHCURES claims data. Onpoint de-identifies the clinical data using the same algorithms to hash the identifiers as was used by insurers for the VHCURES data, using this method the vendor is able to link records between the two de-identified datasets using the hashed, or encrypted, identifiers.

F. Data Analysis

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

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

Whenever possible the evaluation will use longitudinal methods to measure change over time. As available, from other evaluation efforts related to the Demonstration (See Section III C), evaluators may

[10] NASMHPD Research Institute, Inc. (2006) https://pdfs.semanticscholar.org/839b/1b6326b0142356fe6da4c43d241b41b2432b.pdf.

[11] Banks SM & Pandiani JA .(2001) Probabilistic population estimation of the size and overlap of data sets based on date of birth. Statistics in Medicine; 20: 1421-1430.

[12] Pandiani JA, Banks SM & Schacht LM. (1998) Personal privacy vs. public accountability: A technological solution to an ethical dilemma. Journal of Behavioral Health Services and Research; 25 (4): 456-463.

employ secondary analysis to reexamine existing data to address Demonstration hypothesis or isolate Medicaid enrollees from the general population. Difference in Differences and Interrupted Time Series designs are proposed for various aspects of the design. Difference in differences methods will be used to characterize differences between groups when data exists before and after intervention for a group of individuals similar to participants (treatment group) that will not be receiving services/benefits (comparison group). It is anticipated that Accountable Care Organization (ACO) and Blueprint (BP) practice attribution will allow measurement in at least one time period before ACO/BP practice intervention and at least one time period after ACO/BP practice intervention. Appropriate measures associated with value based payments, primary care, and enhanced care coordination outlined in this document will be assessed relative to internal comparison groups when available. Anticipated data sources are also identified in aforementioned tables. When using these methods, the evaluator is expected to consider and address various issues that might compromise the results. If necessary, alternative methods might be required. Time-series methods will be used to characterize differences over time for waiver participants or subpopulations when data for a measure of interest exists sequentially in time at successive equally spaced intervals. The length of the pre/post study periods is expected to be a minimum of 12 months. When employed, this method will look for trends and patterns in the data. Appropriate measures of access, cost, and quality outlined in this document will be compared to suitable benchmarks and assessed relative to a baseline to test the associated hypotheses. Anticipated data sources are also identified in the aforementioned tables. It is anticipated that time series methods will be used for measures associated with aggregate demonstration and specialty program populations (including IMD and those impacted by premium payments and subsidies). When using these methods, the evaluator is expected to consider and address various issues that might compromise the results. If necessary, alternative methods might be required. Final determination of methods and analytics will be made following the review of sample size and available data points over the life of the Demonstration.

Inferential statistics will be used to try to reach conclusions that extend beyond the immediate data alone. Fundamentals statistics will be used to describe inferences about the populations from which they were drawn. Sensitivity analysis to address IMD study questions will be considered.

Comparison Groups

In Vermont's Demonstration, Medicaid eligibility is synonymous with enrollment in the public managed care-like model making general comparison and/or control groups difficult. Whenever possible matched samples for participants in specialized programs or reform initiatives (e.g., ACO, Blueprint, and Chronic Care Initiative) and those not receiving programs services will be used to explore differences. Synthetic control techniques[13] will be considered if suitable comparison states and/or data exists. When feasible given sample size, sub-sets of program participants may be compared to statewide or national benchmarks. Additionally, the State will work with its evaluation contractor to determine if neighboring New England or other states may be comparable in size, provider network and reform initiatives.

Population Stratification and Levels of Analysis

Levels of analysis will include the total Medicaid population, specialized program recipients and when appropriate to the study question major Medicaid aid category group (e.g., Aged Blind Disabled, Adults,

[13] Abadie Alberto, Alexis Diamond and Jens Hainmueller" Synthetic Control Methods for Comparative Case Studies: Estimating the Effect of California's Tobacco Control Program" Journal of American Statistical Association Vol. 105, No. 490, 2010 pp. 493-505.

Children, and MAGI). Please see Exhibits 5 through 10 for proposed stratification and levels of analysis by specialized program and measure.

G. Data Reporting

In addition to the four evaluation report deliverables listed below, the State will compile data and summarize Demonstration performance to-date for CMS in quarterly and annual reports. An independent evaluator will support all Demonstration evaluation reporting requirements.

- Interim Evaluation Report #1 (April 1, 2018)
- Interim Evaluation Report #2 (December 31, 2020)
- Summative Evaluation Report #1 (April 1, 2021)
- Summative Evaluation Report #2 (June 30, 2022)

The independent evaluator will support the State of Vermont efforts to complete rapid cycle assessments for new payment and service delivery reform models including but not limited to ACO model enhancements, efforts to support integration across providers and new delivery system investments.

H. Baseline

Vermont's Section 1115 Demonstration has been in operation for 11 years, Vermont's baseline data refers to historical data points available for review, trend analysis and longitudinal examination. Data from the following performance monitoring and existing evaluation efforts can be found online as outlined below.

Blueprint for Health Found Here
Medicaid HEDIS Measures Found Here
Medicaid CAHPS Survey Results Found Here
Medicaid ACO Shared Savings Found Here
Developmental Disability Services National Core Indicators Results Found Here
AHS Results Based Scorecards Found Here

IV. MENTAL HEALTH AND SUBSTANCE USE DISORDER IMD EVALUATION

CMS is continuing time-limited expenditure authority during the extension period (January 1, 2017 – December 31, 2021) for services in several facilities that are IMDs. This authority is pursuant to an evaluation of the IMD role and effectiveness in Vermont's Medicaid Demonstration. Vermont has agreed to a planning related to IMD phasedown and/or inclusion in a Substance Use Disorder (SUD) treatment amendment, as appropriate, based on the findings of this evaluation and related system of care discussions. This Section of the evaluation plan provides and overview of IMD programs and allowances in Vermont, study questions and tentative design components for both psychiatric and substance use disorder treatment programs.

A. History and Background

As part of its original 1115 Demonstration for the Vermont Health Access Plan (VHAP) Medicaid Expansion, Vermont received a waiver of the IMD exclusion. This waiver, effective January 1, 1996, permitted Vermont to reimburse IMDs for individuals enrolled under the 1115 Demonstration. The rationale behind this waiver was to permit the use of IMDs as alternatives to potentially more costly, general acute hospital services.

The 1115 Demonstration was amended in April 1999 to include the Community Rehabilitation and Treatment (CRT) program for adults who had a severe and persistent mental illness. The CRT model recognized the Department of Mental Health as a managed care entity, responsible for the provision of all behavioral health services in exchange for a capitated payment. Capitation payments included funding for all inpatient hospital services, including the Vermont State Hospital and the Brattleboro Retreat. Prior to approval of the CRT managed care model, Vermont (like several other states) relied on Disproportionate Share Hospital (DSH) funding as the mechanism to bring federal Medicaid dollars to support its State Hospital.

In 2004, CMS elected to no longer grant IMD waivers under its 1115 Demonstration authority; states with existing IMD waivers (including Vermont) were given a schedule to phase out available Medicaid reimbursement. Under the phase-out terms Vermont was permitted to continue Medicaid reimbursement of IMD services through Calendar Year 2004; reimbursement was limited to 50% of allowable expenditures in Calendar Year 2005. When the former Vermont State Hospital (VT) lost its Medicare certification in 2005, CMS sought assurances that Medicaid funds would not be used to support VT. Vermont removed funding for VT from the CRT capitation rates in 2005. The IMD waiver was completely phased out January 1, 2006.

The Global Commitment to Health Demonstration, approved in 2005, historically enabled Vermont to operate under a statewide, public managed care model. The Global Commitment Demonstration provides the State with additional flexibility regarding health care service financing, including the purchase of healthcare services that are not traditionally covered by Medicaid. In the past Vermont used this authority to purchase alternative services, provided that:

- Services are determined to be medically appropriate;
- Care is delivered by a licensed (and not Medicare de-certified) healthcare provider; and
- Coverage of the service achieves program objectives related to cost, quality and/or access to care in the least restrictive, clinically appropriate setting possible.

Since 2005 Vermont has used its "in lieu of" authority under Global Commitment to purchase in-state residential substance use disorder and inpatient psychiatric treatment in lieu of more costly hospital-based care from several private facilities; Brattleboro Retreat, The Lund Home, Valley Vista and Serenity House.

In 2011, the former State psychiatric hospital was shut down by Tropical Storm Irene. As part of the planning process for building a new 25-bed State psychiatric hospital, post- Tropical Storm Irene, Vermont sought clarification from CMS in 2012 regarding its authority to access Medicaid funding, once certified, to support the new facility. In response to this request, CMS indicated that costs of psychiatric inpatient services for individuals between the ages of 21 and 65 residing in an IMD could not be included in the calculating the annual Medicaid managed care PMPM limits. However, Vermont was assured that it had authority under the Demonstration to fund IMD services by using its "managed care savings." Facilities that will be involved in the focused study of mental health and substance use disorder IMD treatment services are described in Exhibit 11 below.

Exhibit 11: Type and Size of IMD Facilities

Facility	Type and Target Group(s)	Treatment Focus	# of beds
Lund Home	Residential treatment for pregnant and parenting women w/children under 5 years old. Both mothers and children live on-site. Pregnant women may enroll in the program for the length of their pregnancy and through a post-partum period based on their individual needs	Substance Use Disorder; Mental Health	26
Valley Vista	Residential treatment for women, men, and adolescents	Substance Use Disorder	80
Serenity House	Residential treatment adults	Substance Use Disorder	24
Brattleboro Retreat: Substance Use Disorder	Inpatient detoxification and treatment for adults	Substance Use Disorder	30
Brattleboro Retreat: Inpatient Psychiatric Hospital	Inpatient stabilization for adults	Psychiatric	89
Vermont Psychiatric Care Hospital	Inpatient stabilization for adults under the care and custody of DMH	Psychiatric	25

B. Study Questions, Populations and Design

The State is seeking to examine variables related to psychiatric and substance abuse treatment in two separate analysis. Analysis from this study will help inform the State's decisions related to next steps for substance use disorder and psychiatric treatment capacity, coverage and limitations in Vermont's system of care. Variables identified for study include, but are not limited to:

- Emergency room utilization;
- Lengths of stay in emergency rooms;
- Access to acute inpatient treatment for mental health and substance use disorders;
- Lengths of stay in acute inpatient settings for treatment for those conditions;
- Quality of acute mental health or substance use disorder treatment;

- Quality of discharge planning in making effective linkages to community-based care;
- Readmissions for inpatient treatment;
- Cost of treatment for acute mental health or substance use disorder conditions;
- Access to care for co-morbid physical health conditions;
- Quality of care for co-morbid physical health conditions; and
- Overall cost of care for mental health and substance use disorders and co-morbid physical conditions combined.

C. IMD Report

The State recognizes that data from the IMD sub-evaluation is required at the same time as Interim Evaluation Report #1, April 1, 2018. The State and its evaluation contractor will:

1. Implement data collection for any identified IMD data gaps (psychiatric and SUD);
2. Conduct analysis of psychiatric related IMD related data, including the four-year period preceding the start of the current demonstration (CY2013-2016).
3. Review preliminary psychiatric IMD findings;
4. Conduct analysis of ADAP and DCF data and refine DMH psychiatric analysis as needed to finalize;
5. Collect, analyze and interpret performance measure data;
6. Prepare IMD sub-evaluation findings as part of Interim Evaluation Report #1 for April 1, 2018;
7. Revise Interim Evaluation Report #1 within 30 days of receipt of CMS feedback post April 1, 2018;
8. Continue to collect and analyze IMD related data for the period 2018 – 2020;
9. Prepare final IMD sub-evaluation findings as part of Interim Evaluation Report #2 for December 31, 2020 CMS submission; and
10. Revise Interim Evaluation Report #2 within 30 days of receipt of CMS feedback post December 31, 2020.

Outlined in the following sub-sections are the hypotheses, study questions and design elements for each of the two IMD target areas, psychiatric and substance use disorder treatment.

i. Psychiatric IMD Treatment

The State's two inpatient IMDs provided services for persons who are experiencing psychiatric crisis. Persons receiving inpatient treatment may be enrolled in the DMH Community Rehabilitation and Treatment program or be considered for involuntary admission. In both these cases, individuals must undergo a pre-placement screening by designated DMH crisis screeners. Enhanced care coordination and community service planning is also supported by DMH through utilization management staff in the central office and a network of designated and specialized program providers through-out the state. Persons who are receiving services from independent physicians, psychologists and/or other counselors, not overseen by DMH, are prior approved and reviewed for continued stay and discharge planning support by DVHA staff. The following hypotheses and study questions have been identified:

- Research Question: Will expanded IMD authority support enrollees to receive care in the least restrictive most clinically appropriate setting possible?
    - The projected elimination psychiatric IMD capacity will negatively impact: emergency

room utilization and lengths of stay; access to acute inpatient treatment and length of stay; and cost of community hospital care.
    - IMD services result in improved quality of care and community integration as evidenced by: lower re-admission rates; stability of housing and/or access to primary care.

- Research Question: Is expanded IMD authority necessary to support Vermont's small size and community hospital system?
    - There is no capacity in the current community hospital system in Vermont to absorb the downsizing necessary to eliminate IMD claiming.

- Research Question: Will elimination of federal participation result in reductions in community -based treatment capacity due to increased pressure on that State budget?
    - The projected impact of removing Federal Financial Participation (FFP) for psychiatric IMD on other services and providers in the community will be negative.

Psychiatric Design, Measures and Data Sources

Vermont's IMD facilities are statewide providers. Their state-wideness coupled with the historic nature of the State's funding and utilization of these programs, make evaluation design options such as pre/post Demonstration extension, regional or other in-state comparison groups difficult. However, due to damage to the state psychiatric hospital, associated with Tropical Storm Irene in August of 2011, the State may be in a unique situation to employ interrupted time series and/or sensitivity analysis related to the provision of psychiatric treatment services and impact in the community-based system of care pre/post Tropical Storm Irene.

Specifically, the former 54-bed Vermont State psychiatric hospital, funded primarily through the State general fund, was shut down due to damage sustained during Tropical Storm Irene. Patients and staff were moved into general hospital settings and retrofitted facilities across the State until a replacement facility could be built. During the ensuing 3-year period, the State invested significant resources into mobile outreach, crisis stabilization and psychiatric treatment services in the community. At that time, DMH also initiated a contract for the use of 14-beds at the Brattleboro Retreat.

DMH collects data that includes information on increased community hospital payments, emergency room utilization and wait times, and psychiatric inpatient services for persons who would have otherwise been served at the former State hospital and who require additional resources during their hospitalization (known as patients with a "Level 1" designation). Additionally, DMH has historic data on hospital and temporary facility staffing needed during Tropical Storm Irene. This data and the information available pre/post Tropical Storm Irene and following the opening of the new 25-bed Vermont Psychiatric Care Hospital in July of 2014, may provide valuable insights into the impact of IMD services on the overall service system. Data may allow for the construction of a mathematical model to support sensitivity analysis related to how future changes in psychiatric bed-capacity may impact cost and utilization of other community mental health services. Data sources available for this analysis are detailed below.

- **DMH Core Data Elements** – Identifiable information on all significant dates and times for adults and children waiting for inpatient care under the custody of the commissioner. Data are

generally available mid-month after the month of interest.

- **DMH Adult Involuntary Tracking** – Identifiable information on all inpatient admissions under the custody of the commissioner. Data are generally available one month after the quarter of interest.
- **DMH Financials** – Financial tracking and accounting for all payments, including Medicaid that are not processed through the MMIS. Data are generally available one month after the month of interest.
- **DVHA Adult Inpatient Tracking** – Identifiable information on all Medicaid-paid inpatient admissions for adults, including Level 1 inpatient stays. Data are generally available mid-month after the month of interest.
- **VPCH Electronic Health Record** – Identifiable information on all inpatient stays at VPCH, the state-run IMD. VPCH stays are paid by MCO investment and therefore there are no claims presented to Medicaid for those stays. Data are close to real-time and would require HIPPA compliant procedures for access.
- **Brattleboro Retreat (BR) Electronic Health Record** – Identifiable information on all inpatient stays. Data are close to real-time and would require HIPPA compliant procedures for access.
- **VHCURES Data Warehouse** – Unidentifiable information on all paid claims for medical care in Vermont for insurers covering 200+ lives. Matches possible using probabilistic estimation. VPCH is not captured in VHCURES, but BR is captured. Data are generally available one year after quarter of interest.
- **DMH Monthly Service Report** – Identifiable information from community service providers (Designated Agencies) for all services provided via DMH-funded programs. Data are generally available two months after the month of interest.
- **MMIS** – Identifiable information on all Medicaid-paid claims for care in Vermont. Data are generally available three months after the quarter of interest.
- **VDH General Hospital Discharge Dataset** – Unidentifiable information on all discharges from Vermont hospitals regardless of payer or ability to pay. Data are generally available two to three years after the year of interest.

A list of potential measures is outlined in Exhibit 12 on the following page. This Exhibit provides options for psychiatric IMD measurement. It is not expected that all measures will be included in the final design. Measures will be selected and finalized once evaluators have had an opportunity to review and discuss available data, assess data integrity and determine sample sizes with AHS, DVHA and DMH staff. Measure selection will consider continuity of care metrics such as follow-up after hospitalization, records transfer and others. Once data integrity review is final, the hypotheses, research questions and measures will be clarified and presented in the interim findings report. If feasible based on staff and budget considerations data will be stratified to assess Access, Cost and Quality.

Exhibit 12: Potential Measures for Psychiatric IMD Evaluation

Potential Psychiatric IMD Treatment Evaluation Measures, Sampling Method & Data Source				
Performance Measure	**Metric**	**Alignment**	**Sampling Method**	**Data Source**
Emergency Department (ED) Psychiatric Boarding[14]	Average number of people per day in ER waiting for inpatient psychiatric care	N/A	Persons in care and custody of DMH	DMH Core Data Elements
	Time from need for hospitalization to disposition, less time for medical clearance			
ED Room utilization[15]	% population with avoidable ED utilization	HEDIS®	IMD admissions	MMIS
	% population ED utilization	HEDIS®	IMD admissions	MMIS
Access to acute inpatient treatment for mental health	State Hospital Utilization per 1,000 population	SAMHSA URS	Total Vermont	MMIS
	Other Psychiatric Utilization per 1,000 population	SAMHSA URS	Total Vermont	MMIS
Lengths of stay (LOS) in acute inpatient psychiatric IMD	Median and Mean LOS for discharged patients	SAMHSA URS	IMD admissions	MMIS
	Median and Mean LOS for resident patients in facility ≤ 1 year	SAMHSA URS	IMD admissions	MMIS
	Median and Mean LOS for resident patients in facility > 1 year	SAMHSA URS	IMD admissions	MMIS
Quality of acute mental health IMD treatment	Hours of physical restraint use	HBIPS-2	IMD admissions	DMH
	Hours of seclusion use	HBIPS-3	IMD admissions	DMH
	Patients discharged on multiple antipsychotic medications with appropriate justification	HBIPS-5	IMD admissions	Medical Records
	Alcohol use screening	SUB-1	IMD admissions	Medical Records
	Alcohol use brief intervention provided or offered and the subset alcohol use brief intervention	SUB-2/-2A	IMD admissions	Medical Records
	Tobacco use screening	TOB-1	IMD admissions	Medical Records
	Tobacco use treatment provided or offered and the subset tobacco use treatment	TOB-2/-2A	IMD admissions	Medical Records
	Screening for metabolic disorders	IPFQR[16] FY2018	IMD admissions	Medical Records
Experience of Care	Assessment of patient experience of care	IPFQR FY2018	IMD admissions	CAHPS
Quality of discharge planning in making effective linkages to community - based care	Transition record with specified elements received by discharge patients	IPFQR FY2018	IMD admissions	Medical Records
	Timely transition of transition record	IPFQR FY2018	IMD admissions	Medical Records
	Follow-up after hospitalization for mental illness	HEDIS	IMD admissions	MMIS
	Transition record with specified elements received by discharge patients	IPFQR FY2018	IMD admissions	Medical Records

[14] Vermont Statutes require people to go to the emergency dept. if inpatient care is needed and a placement cannot be made. Utilization is high because it is SOP for people to arrive at the ED prior to inpatient admission.

[15] Ibid.

[16] FY2018 Inpatient Psychiatric Facility Quality Review (IPFQR) requirements, Joint Commission on Hospital Accreditation: https://manual.jointcommission.org/Manual/WebHome.

Exhibit 12: Potential Measures for Psychiatric IMD Evaluation

Potential Psychiatric IMD Treatment Evaluation Measures, Sampling Method & Data Source				
Performance Measure	**Metric**	**Alignment**	**Sampling Method**	**Data Source**
Readmissions for IMD inpatient treatment	State Hospital Readmissions: 30 days	SAMHSA URS	IMD admissions	DMH
	State Hospital Readmissions: 180 days	SAMHSA URS	IMD admissions	DMH
Overall Cost of Care	Average cost per enrollee for IMD services	N/A	IMD admissions	MMIS; DMH Financial Data
	Average cost per enrollee for all mental health services	N/A	IMD admissions	MMIS; DMH Financial Data
	Average cost per enrollee for all Medicaid services	N/A	IMD admissions	MMIS; DMH Financial Data
Quality of care for co-morbid physical health conditions	Preventative care and screening: Adult BMI screening and follow up	CMS NQF 0419	IMD admissions	MMIS
	Controlling high blood pressure (CBP-BH)	NCQA NQF 0018	IMD admissions	MMIS
	Preventative care and screening: unhealthy alcohol use: screening and brief counseling (ASC)	AMA-PCP1 NQF 2152	IMD admissions	MMIS
	Diabetes screening for people with schizophrenia or bipolar disorder who are using antipsychotic medications (SSD)	NCQA NQF 1932	IMD admissions	MMIS
	Diabetes care for people with SMI: Hemoglobin A1c (HbA1c) poor control (>9.0%)(SMI-PC)	NCQA NQF 2607	IMD admissions	MMIS
	Cardiovascular monitoring for people with cardiovascular disease and schizophrenia (SMC)	NCQA NQF 1933	IMD admissions	MMIS

II. Substance Use Disorder IMD Treatment

Substance Use Disorder placement is supported by multiple Medicaid programs across AHS. VDH-ADAP staff review programs and designate program as "preferred providers" certified to receive additional funding from ADAP for underinsured and uninsured Vermonters; while DVHA provides prior approval and level of care screening for residential treatment, detoxification and inpatient care at the Brattleboro Retreat, Valley Vista and Serenity House. Services at the Lund Home for pregnant and parenting women with young children under the age of 5 are authorized by DCF. The following hypotheses and study questions have been identified:

- Research Question: Will expanded IMD authority support enrollees to receive care in the least restrictive most clinically appropriate setting possible?
    - Initiation and engagement rates will be higher when the index event occurs at a residential IMD program when compared to a IMD hospital detoxification program or non-IMD facility.
    - IMD capacity has a positive impact on: emergency room utilization and lengths of stay
    - IMD services result in improved quality of care and community integration as evidenced by: lower re-admission rates; stability of housing and/or access to primary care.
    - The projected amount and scope of current IMD services is adequate to meet the need.

Substance Use Disorder Design, Measures and Data Sources

Vermont's substance use disorder IMD treatment facilities are statewide providers. Their state-wideness coupled with the historic nature of the State's funding and utilization of these programs, make evaluation design options such as pre/post Demonstration extension, regional or other in-state comparison groups difficult. The IMD evaluation is designed to measure outcomes for persons who receive residential services in an IMD. Wherever possible IMD enrollees will be compared to non-enrollees on standard measures of cost, quality and access.

Measures supporting the review of quality of care, community integration and the projected impact of including substance use disorder IMD services in the Demonstration are provided on Exhibit 13 on the following page. Final measures will be selected once evaluators have had an opportunity to review and discuss available data, assess data integrity and determine sample sizes with AHS, DVHA and ADAP staff. Measure selection will consider continuity of care metrics such as follow-up after hospitalization, records transfer and medication assisted treatment while receiving IMD services. Once data integrity review is final, the hypotheses, research questions and measures will be clarified and presented in the interim findings report. If feasible based on staff and budget considerations data will be stratified to assess Access, Cost and Quality.

Exhibit 13: Potential Measures for SUD IMD Evaluation

Potential SUD IMD Treatment Evaluation Measures, Sampling Method & Data Source			
Performance Measure	**Metric**	**Sampling Method**	**Data Source**
ED Room utilization	% population ED utilization	Total SUD; IMD Admissions	MMIS
Inpatient Utilization	Inpatient Utilization per 1,000 population	Total SUD; IMD Admissions	MMIS
Access to Residential SUD Treatment	Residential Utilization per 1,000 population	Total Medicaid	MMIS
Lengths of stay (LOS) in Residential SUD Treatment	Median and Mean LOS for discharged patients	Total SUD	MMIS
Quality of Care	Assessment of patient experience of care	IMD Admissions	Survey
Quality of discharge planning in making effective linkages to community -based care	Percent of IMD enrollees using substances who initiate and engage in treatment	IMD Admission	MMIS
	Percent of persons discharged who have PCP visit (well or sick) within 30 days of discharge from IMD	IMD Admission	MMIS
Readmissions for Same Level of Care	SUD IMD Readmissions: 30 days	Total Medicaid	MMIS
	SUD IMD Readmissions: 180 days	Total Medicaid	MMIS
	Readmission rates by length of stay (<16 days, 30+ days)	Total Medicaid	MMIS
Overall Cost of Care	Average cost per enrollee for IMD services	IMD Admissions	MMIS
	Average cost per enrollee for all SUD services	Total Medicaid; IMD Admissions	MMIS
	Average cost per enrollee for all Medicaid services	Total Medicaid; IMD Admissions	MMIS

APPENDIX 1. AHS Proposed Evaluation Budget

Below is the tentative budget for the Vermont Global Commitment to Health 1115 Demonstration Evaluation. The budget includes total estimated costs for each year of the demonstration, as well as an annual breakdown of estimated staff, contractual, administrative, and other costs for all aspects of the evaluation such as any survey and measurement development, quantitative and qualitative data collection and cleaning, analyses, and reports generation.

COST ESTIMATE FOR GLOBAL COMMITMENT TO HEALTH WAIVER EVALUATION for YEAR 12: July 1, 2017 – December 31, 2017

ITEM	TITLE	RATE per HOUR	Hours	Evaluation Management	Evaluation Design and Planning (Framework, Research Questions, Hypothesis, Survey/Measure development, etc.)	Evaluation Implementation (develop tools, train staff, collect data, etc.)	Data Analysis (data cleaning, etc.)	Communication (prepare reports, communicate, etc.)	Estimated Salary and Contractual Cost	Estimated Fringe Benefits (Internal Staff)	Total Estimated Cost
Personnel/Contractual											
1115 Waiver											
AHS	AHS Quality Improvement Manager	45.23	52	x	x			x	2,351.96	823.19	3,175.15
AHS	Financial Director II	38.99	26		x			x	1,013.74	354.81	1,368.55
DMH	Quality Mgnt Director	35.39	26		x	x	x	x	920.14	322.05	1,242.19
VDH	Director of Perf Mgt & Evaluation	39.00	26		x	x	x	x	1,014.00	354.90	1,368.90
DAIL	Director Policy, Planning & Analysis	46.89	26		x	x	x	x	1,219.14	426.70	1,645.84
DVHA	Health Care Project Director	43.04	26		x	x	x	x	1,119.04	391.66	1,510.70

Contractor	Project Director	200.00	52	x	x	x		x	10,400.00	-	10,400.00
Contractor	Evaluation Lead	150.00	26		x	x		x	3,900.00	-	3,900.00
Contractor	Data Analyst	100.00	26			x	x	x	2,600.00	-	2,600.00
Contractor	Evaluation Support	75.00	26			x		x	1,950.00	-	1,950.00
IMD										-	-
AHS	AHS Quality Improvement Manager	45.23	52	x	x	x		x	2,351.96	823.19	3,175.15
AHS	Financial Director II	38.99	26		x	x		x	1,013.74	354.81	1,368.55
DMH	Quality Mgnt Director	35.39	26		x	x	x	x	920.14	322.05	1,242.19
DMH	Financial Director III	40.23	26		x	x	x	x	1,045.98	366.09	1,412.07
VDH	Director of Perf Mgt & Evaluation	39.00	26		x	x	x	x	1,014.00	354.90	1,368.90
VDH	Financial Manager III	44.93	26		x	x	x	x	1,168.18	408.86	1,577.04
Contractor	Project Director	200.00	52	x	x	x		x	10,400.00		10,400.00
Contractor	Evaluation Lead	150.00	52		x	x	x		7,800.00		7,800.00
Contractor	Data Analyst	100.00	26				x		2,600.00		2,600.00
Contractor	Evaluation Support	75.00	26				x	x	1,950.00		1,950.00
INVESTMENTS										-	-
AHS	AHS Quality Improvement Manager	45.23	52	x	x	x	x	x	2,351.96	823.19	3,175.15

AHS	Financial Director II	38.99	52	x	x	x	x	x	2,027.48	709.62	2,737.10
DCF	Director of Operations	55.59	26		x	x	x	x	1,445.34	505.87	1,951.21
DCF	Senior Policy & Operations	42.94	26		x	x	x	x	1,116.44	390.75	1,507.19
DMH	Quality Mgnt Director	35.39	26		x	x	x	x	920.14	322.05	1,242.19
DMH	Financial Director III	40.23	26		x	x	x	x	1,045.98	366.09	1,412.07
DAIL	Director Policy, Planning & Analysis	46.89	26		x	x	x	x	1,219.14	426.70	1,645.84
DAIL	Financial Director II	40.31	26		x	x	x	x	1,048.06	366.82	1,414.88
DVHA	Quality Improvement Admin	36.53	26		x	x	x	x	949.78	332.42	1,282.20
DVHA	Financial Director IV	50.52	26		x	x	x	x	1,313.52	459.73	1,773.25
VDH	Performance Improvement Programs	32.27	26		x	x	x	x	839.02	293.66	1,132.68
VDH	Financial Manager III	44.93	26		x	x	x	x	1,168.18	408.86	1,577.04
Contractor	Project Director	200.00	26	x				x	5,200.00		5,200.00
Contractor	Evaluation Lead	150.00	12			x			1,800.00		1,800.00
Contractor	Data Analyst	100.00	0						-		-
Contractor	Evaluation Support	75.00	12					x	900.00		900.00

Salary & Contractual:											
Total Estimated Internal Salary & Fringe Cost									30,597.06	10,708.97	41,306.03
Total Estimated Contractual Cost									49,500.00	-	49,500.00
	Subtotal								**80,097.06**	**10,708.97**	**90,806.03**
Administrative Cost:											
Travel											1,500.00
Supplies											0.00
Equipment											0.00
Meetings											500.00
	Subtotal										**2,000.00**
Other Direct Admin Cost											500.00
	Subtotal										**2,500.00**
Indirect Cost:											
Indirect Cost	10% of Internal Staff Salary Cost								3,059.71		3,059.71
	Subtotal								**3,059.71**		**3,059.71**
Total Cost:											
State of Vermont YR12 Estimated Total Cost:	**Grand Total**								**SOV YR12 Total**		**96,365.74**

COST ESTIMATE FOR GLOBAL COMMITMENT TO HEALTH WAIVER EVALUATION for YEAR 13: January 1, 2018 – December 31, 2018

ITEM	TITLE	RATE per HOUR	Hours	Evaluation Management	Evaluation Design and Planning (Framework, Research Questions, Hypothesis, Survey/Measure development, etc.)	Evaluation Implementation (develop tools, train staff, collect data, etc.)	Data Analysis (data cleaning, etc.)	Communication (prepare reports, communicate, etc.)	Estimated Salary and Contractual Cost	Estimated Fringe Benefits (Internal Staff)	Total Estimated Cost
Personnel/Contractual											
1115 Waiver											
AHS	AHS Quality Improvement Manager	45.23	104	x		x		x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	52			x		x	2,027.48	709.62	2,737.10
DMH	Quality Mgnt Director	35.39	52			x	x	x	1,840.28	644.10	2,484.38
VDH	Director of Perf Mgt & Evaluation	39.00	52			x	x	x	2,028.00	709.80	2,737.80
DAIL	Director Policy, Planning & Analysis	46.89	52			x	x	x	2,438.28	853.40	3,291.68
DVHA	Health Care Project Director	43.04	52			x	x	x	2,238.08	783.33	3,021.41
Contractor	Project Director	200.00	104	x		x		x	20,800.00	-	20,800.00
Contractor	Evaluation Lead	150.00	52			x		x	7,800.00	-	7,800.00
Contractor	Data Analyst	100.00	52			x	x	x	5,200.00	-	5,200.00

Contractor	Evaluation Support	75.00	52			x	x	x	3,900.00	-	3,900.00
IMD										-	-
AHS	AHS Quality Improvement Manager	45.23	104	x	x	x		x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	52		x	x		x	2,027.48	709.62	2,737.10
DMH	Quality Mgnt Director	35.39	52		x	x	x	x	1,840.28	644.10	2,484.38
DMH	Financial Director III	40.23	52		x	x	x	x	2,091.96	732.19	2,824.15
VDH	Director of Perf Mgt & Evaluation	39.00	52		x	x	x	x	2,028.00	709.80	2,737.80
VDH	Financial Manager III	44.93	52		x	x	x	x	2,336.36	817.73	3,154.09
Contractor	Project Director	200.00	104	x	x	x		x	20,800.00		20,800.00
Contractor	Evaluation Lead	150.00	104		x	x	x		15,600.00		15,600.00
Contractor	Data Analyst	100.00	52				x		5,200.00		5,200.00
Contractor	Evaluation Support	75.00	52				x	x	3,900.00		3,900.00
INVESTMENTS										-	-
AHS	AHS Quality Improvement Manager	45.23	104	x	x	x	x	x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	104	x	x	x		x	4,054.96	1,419.24	5,474.20
DCF	Director of Operations	55.59	52		x	x	x	x	2,890.68	1,011.74	3,902.42

DCF	Senior Policy & Operations	42.94	52		x	x	x	x	2,232.88	781.51	3,014.39
DMH	Quality Mgnt Director	35.39	52		x	x	x	x	1,840.28	644.10	2,484.38
DMH	Financial Director III	40.23	52		x	x	x	x	2,091.96	732.19	2,824.15
DAIL	Director Policy, Planning & Analysis	46.89	52		x	x	x	x	2,438.28	853.40	3,291.68
DAIL	Financial Director II	40.31	52		x	x	x	x	2,096.12	733.64	2,829.76
DVHA	Quality Improvement Admin	36.53	52		x	x	x	x	1,899.56	664.85	2,564.41
DVHA	Financial Director IV	50.52	52		x	x	x	x	2,627.04	919.46	3,546.50
VDH	Performance Improvement Programs	32.27	52		x	x	x	x	1,678.04	587.31	2,265.35
VDH	Financial Manager III	44.93	52		x	x	x	x	2,336.36	817.73	3,154.09
Contractor	Project Director	200.00	52	x				x	10,400.00		10,400.00
Contractor	Evaluation Lead	150.00	24			x			3,600.00		3,600.00
Contractor	Data Analyst	100.00	0						-		-
Contractor	Evaluation Support	75.00	24					x	1,800.00		1,800.00
Salary & Contractual:											
Total Estimated Internal Salary & Fringe Cost									61,194.12	21,417.94	82,612.06
Total Estimated Contractual Cost									99,000.00	-	99,000.00

	Subtotal								**160,194.12**	**21,417.94**	**181,612.06**
Administrative Cost:											
Travel											1,500.00
Supplies											0.00
Equipment											0.00
Meetings											500.00
	Subtotal										**2,000.00**
Other Direct Admin Cost											500.00
	Subtotal										**2,500.00**
Indirect Cost:											
Indirect Cost	10% of Internal Staff Salary Cost								6,119.41		6,119.41
	Subtotal								**6,119.41**		**6,119.41**
Total Cost:											
State of Vermont YR13 Estimated Total Cost:	**Grand Total**								**SOV YR13 Total**		**190,231.47**

COST ESTIMATE FOR GLOBAL COMMITMENT TO HEALTH WAIVER EVALUATION for YEAR 14: January 1, 2019 – December 31, 2019

ITEM	TITLE	RATE per HOUR	Hours	Evaluation Management	Evaluation Design and Planning (Framework, Research Questions, Hypothesis, Survey/Measure development, etc.)	Evaluation Implementation (develop tools, train staff, collect data, etc.)	Data Analysis (data cleaning, etc.)	Communication (prepare reports, communicate, etc.)	Estimated Salary and Contractual Cost	Estimated Fringe Benefits (Internal Staff)	Total Estimated Cost
Personnel/Contractual											
1115 Waiver											
AHS	AHS Quality Improvement Manager	45.23	104	x				x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	52					x	2,027.48	709.62	2,737.10
DMH	Quality Mgnt Director	35.39	52			x	x	x	1,840.28	644.10	2,484.38
VDH	Director of Perf Mgt & Evaluation	39.00	52			x	x	x	2,028.00	709.80	2,737.80
DAIL	Director Policy, Planning & Analysis	46.89	52			x	x	x	2,438.28	853.40	3,291.68
DVHA	Health Care Project Director	43.04	52			x	x	x	2,238.08	783.33	3,021.41
Contractor	Project Director	200.00	104	x		x		x	20,800.00	-	20,800.00
Contractor	Evaluation Lead	150.00	52			x		x	7,800.00	-	7,800.00
Contractor	Data Analyst	100.00	52			x	x	x	5,200.00	-	5,200.00
Contractor	Evaluation Support	75.00	52			x		x	3,900.00	-	3,900.00

IMD										-	-
AHS	AHS Quality Improvement Manager	45.23	104	x		x		x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	52			x		x	2,027.48	709.62	2,737.10
DMH	Quality Mgnt Director	35.39	52			x	x	x	1,840.28	644.10	2,484.38
DMH	Financial Director III	40.23	52			x	x	x	2,091.96	732.19	2,824.15
VDH	Director of Perf Mgt & Evaluation	39.00	52			x	x	x	2,028.00	709.80	2,737.80
VDH	Financial Manager III	44.93	52			x	x	x	2,336.36	817.73	3,154.09
Contractor	Project Director	200.00	104	x		x		x	20,800.00		20,800.00
Contractor	Evaluation Lead	150.00	104			x	x		15,600.00		15,600.00
Contractor	Data Analyst	100.00	52				x		5,200.00		5,200.00
Contractor	Evaluation Support	75.00	52				x	x	3,900.00		3,900.00
INVESTMENTS										-	-
AHS	AHS Quality Improvement Manager	45.23	104	x	x	x	x	x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	104	x	x	x	x	x	4,054.96	1,419.24	5,474.20
DCF	Director of Operations	55.59	52		x	x	x	x	2,890.68	1,011.74	3,902.42
DCF	Senior Policy & Operations	42.94	52		x	x	x	x	2,232.88	781.51	3,014.39

DMH	Quality Mgnt Director	35.39	52		x	x	x	x	1,840.28	644.10	2,484.38
DMH	Financial Director III	40.23	52		x	x	x	x	2,091.96	732.19	2,824.15
DAIL	Director Policy, Planning & Analysis	46.89	52		x	x	x	x	2,438.28	853.40	3,291.68
DAIL	Financial Director II	40.31	52		x	x	x	x	2,096.12	733.64	2,829.76
DVHA	Quality Improvement Admin	36.53	52		x	x	x	x	1,899.56	664.85	2,564.41
DVHA	Financial Director IV	50.52	52		x	x	x	x	2,627.04	919.46	3,546.50
VDH	Performance Improvement Programs	32.27	52		x	x	x	x	1,678.04	587.31	2,265.35
VDH	Financial Manager III	44.93	52		x	x	x	x	2,336.36	817.73	3,154.09
Contractor	Project Director	200.00	52	x				x	10,400.00		10,400.00
Contractor	Evaluation Lead	150.00	24			x			3,600.00		3,600.00
Contractor	Data Analyst	100.00	0						-		-
Contractor	Evaluation Support	75.00	24					x	1,800.00		1,800.00
Salary & Contractual:											
Total Estimated Internal Salary & Fringe Cost									61,194.12	21,417.94	82,612.06
Total Estimated Contractual Cost									99,000.00	-	99,000.00
	Subtotal								**160,194.12**	**21,417.94**	**181,612.06**

Administrative Cost:											
Travel											1,500.00
Supplies											0.00
Equipment											0.00
Meetings											500.00
	Subtotal										**2,000.00**
Other Direct Admin Cost											500.00
	Subtotal										**2,500.00**
Indirect Cost:											
Indirect Cost	10% of Internal Staff Salary Cost								6,119.41		6,119.41
	Subtotal								**6,119.41**		**6,119.41**
Total Cost:											
State of Vermont YR14 Estimated Total Cost:	**Grand Total**								**SOV YR14 Total**		**190,231.47**

COST ESTIMATE FOR GLOBAL COMMITMENT TO HEALTH WAIVER EVALUATION for YEAR 15: January 1, 2020 – December 31, 2020

ITEM	TITLE	RATE per HOUR	Hours	Evaluation Management	Evaluation Design and Planning (Framework, Research Questions, Hypothesis, Survey/Measure development, etc.)	Evaluation Implementation (develop tools, train staff, collect data, etc.)	Data Analysis (data cleaning, etc.)	Communication (prepare reports, communicate, etc.)	Estimated Salary and Contractual Cost	Estimated Fringe Benefits (Internal Staff)	Total Estimated Cost
Personnel/Contractual											
1115 Waiver											
AHS	AHS Quality Improvement Manager	45.23	104	x	x			x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	52		x			x	2,027.48	709.62	2,737.10
DMH	Quality Mgnt Director	35.39	52		x	x	x	x	1,840.28	644.10	2,484.38
VDH	Director of Perf Mgt & Evaluation	39.00	52		x	x	x	x	2,028.00	709.80	2,737.80
DAIL	Director Policy, Planning & Analysis	46.89	52		x	x	x	x	2,438.28	853.40	3,291.68
DVHA	Health Care Project Director	43.04	52		x	x	x	x	2,238.08	783.33	3,021.41
Contractor	Project Director	200.00	104	x	x	x		x	20,800.00	-	20,800.00
Contractor	Evaluation Lead	150.00	52			x		x	7,800.00	-	7,800.00
Contractor	Data Analyst	100.00	52			x	x	x	5,200.00	-	5,200.00
Contractor	Evaluation Support	75.00	52			x		x	3,900.00	-	3,900.00

IMD										-	-
AHS	AHS Quality Improvement Manager	45.23	104	x		x		x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	52			x		x	2,027.48	709.62	2,737.10
DMH	Quality Mgnt Director	35.39	52			x	x	x	1,840.28	644.10	2,484.38
DMH	Financial Director III	40.23	52			x	x	x	2,091.96	732.19	2,824.15
VDH	Director of Perf Mgt & Evaluation	39.00	52			x	x	x	2,028.00	709.80	2,737.80
VDH	Financial Manager III	44.93	52			x	x	x	2,336.36	817.73	3,154.09
Contractor	Project Director	200.00	104	x		x		x	20,800.00		20,800.00
Contractor	Evaluation Lead	150.00	104			x	x		15,600.00		15,600.00
Contractor	Data Analyst	100.00	52				x		5,200.00		5,200.00
Contractor	Evaluation Support	75.00	52				x	x	3,900.00		3,900.00
INVESTMENTS										-	-
AHS	AHS Quality Improvement Manager	45.23	104	x	x	x	x	x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	104	x	x	x	x	x	4,054.96	1,419.24	5,474.20
DCF	Director of Operations	55.59	52		x	x	x	x	2,890.68	1,011.74	3,902.42
DCF	Senior Policy & Operations	42.94	52		x	x	x	x	2,232.88	781.51	3,014.39

DMH	Quality Mgnt Director	35.39	52		x	x	x	x	1,840.28	644.10	2,484.38
DMH	Financial Director III	40.23	52		x	x	x	x	2,091.96	732.19	2,824.15
DAIL	Director Policy, Planning & Analysis	46.89	52		x	x	x	x	2,438.28	853.40	3,291.68
DAIL	Financial Director II	40.31	52		x	x	x	x	2,096.12	733.64	2,829.76
DVHA	Quality Improvement Admin	36.53	52		x	x	x	x	1,899.56	664.85	2,564.41
DVHA	Financial Director IV	50.52	52		x	x	x	x	2,627.04	919.46	3,546.50
VDH	Performance Improvement Programs	32.27	52		x	x	x	x	1,678.04	587.31	2,265.35
VDH	Financial Manager III	44.93	52		x	x	x	x	2,336.36	817.73	3,154.09
Contractor	Project Director	200.00	52	x				x	10,400.00		10,400.00
Contractor	Evaluation Lead	150.00	24			x			3,600.00		3,600.00
Contractor	Data Analyst	100.00	0						-		-
Contractor	Evaluation Support	75.00	24					x	1,800.00		1,800.00
Salary & Contractual:											
Total Estimated Internal Salary & Fringe Cost									61,194.12	21,417.94	82,612.06
Total Estimated Contractual Cost									99,000.00	-	99,000.00
	Subtotal								**160,194.12**	**21,417.94**	**181,612.06**

Administrative Cost:											
Travel											1,500.00
Supplies											0.00
Equipment											0.00
Meetings											500.00
	Subtotal										**2,000.00**
Other Direct Admin Cost											500.00
	Subtotal										**2,500.00**
Indirect Cost:											
Indirect Cost	10% of Internal Staff Salary Cost								6,119.41		6,119.41
	Subtotal								**6,119.41**		**6,119.41**
Total Cost:											
State of Vermont YR15 Estimated Total Cost:	**Grand Total**								**SOV YR15 Total**		**190,231.47**

COST ESTIMATE FOR GLOBAL COMMITMENT TO HEALTH WAIVER EVALUATION for YEAR 16: January 1, 2021 – December 31, 2021

ITEM	TITLE	RATE per HOUR	Hours	Evaluation Management	Evaluation Design and Planning (Framework, Research Questions, Hypothesis, Survey/Measure development, etc.)	Evaluation Implementation (develop tools, train staff, collect data, etc.)	Data Analysis (data cleaning, etc.)	Communication (prepare reports, communicate, etc.)	Estimated Salary and Contractual Cost	Estimated Fringe Benefits (Internal Staff)	Total Estimated Cost
Personnel/Contractual											
1115 Waiver											
AHS	AHS Quality Improvement Manager	45.23	104	x				x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	52					x	2,027.48	709.62	2,737.10
DMH	Quality Mgnt Director	35.39	52			x	x	x	1,840.28	644.10	2,484.38
VDH	Director of Perf Mgt & Evaluation	39.00	52			x	x	x	2,028.00	709.80	2,737.80
DAIL	Director Policy, Planning & Analysis	46.89	52			x	x	x	2,438.28	853.40	3,291.68
DVHA	Health Care Project Director	43.04	52			x	x	x	2,238.08	783.33	3,021.41
Contractor	Project Director	200.00	104	x		x		x	20,800.00	-	20,800.00
Contractor	Evaluation Lead	150.00	52			x		x	7,800.00	-	7,800.00
Contractor	Data Analyst	100.00	52			x	x	x	5,200.00	-	5,200.00
Contractor	Evaluation Support	75.00	52			x		x	3,900.00	-	3,900.00

IMD										-	-
AHS	AHS Quality Improvement Manager	45.23	104	x		x		x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	52			x		x	2,027.48	709.62	2,737.10
DMH	Quality Mgnt Director	35.39	52			x	x	x	1,840.28	644.10	2,484.38
DMH	Financial Director III	40.23	52			x	x	x	2,091.96	732.19	2,824.15
VDH	Director of Perf Mgt & Evaluation	39.00	52			x	x	x	2,028.00	709.80	2,737.80
VDH	Financial Manager III	44.93	52			x	x	x	2,336.36	817.73	3,154.09
Contractor	Project Director	200.00	104	x		x		x	20,800.00		20,800.00
Contractor	Evaluation Lead	150.00	104			x	x		15,600.00		15,600.00
Contractor	Data Analyst	100.00	52				x		5,200.00		5,200.00
Contractor	Evaluation Support	75.00	52				x	x	3,900.00		3,900.00
INVESTMENTS										-	-
AHS	AHS Quality Improvement Manager	45.23	104	x	x	x	x	x	4,703.92	1,646.37	6,350.29
AHS	Financial Director II	38.99	104	x	x	x		x	4,054.96	1,419.24	5,474.20
DCF	Director of Operations	55.59	52		x	x	x	x	2,890.68	1,011.74	3,902.42
DCF	Senior Policy & Operations	42.94	52		x	x	x	x	2,232.88	781.51	3,014.39

DMH	Quality Mgnt Director	35.39	52		x	x	x	x	1,840.28	644.10	2,484.38
DMH	Financial Director III	40.23	52		x	x	x	x	2,091.96	732.19	2,824.15
DAIL	Director Policy, Planning & Analysis	46.89	52		x	x	x	x	2,438.28	853.40	3,291.68
DAIL	Financial Director II	40.31	52		x	x	x	x	2,096.12	733.64	2,829.76
DVHA	Quality Improvement Admin	36.53	52		x	x	x	x	1,899.56	664.85	2,564.41
DVHA	Financial Director IV	50.52	52		x	x	x	x	2,627.04	919.46	3,546.50
VDH	Performance Improvement Programs	32.27	52		x	x	x	x	1,678.04	587.31	2,265.35
VDH	Financial Manager III	44.93	52		x	x	x	x	2,336.36	817.73	3,154.09
Contractor	Project Director	200.00	52	x				x	10,400.00		10,400.00
Contractor	Evaluation Lead	150.00	24			x			3,600.00		3,600.00
Contractor	Data Analyst	100.00	0						-		-
Contractor	Evaluation Support	75.00	24					x	1,800.00		1,800.00
Salary & Contractual:											
Total Estimated Internal Salary & Fringe Cost									61,194.12	21,417.94	82,612.06
Total Estimated Contractual Cost									99,000.00	-	99,000.00
	Subtotal								**160,194.12**	**21,417.94**	**181,612.06**

Administrative Cost:											
Travel											1,500.00
Supplies											0.00
Equipment											0.00
Meetings											500.00
	Subtotal										**2,000.00**
Other Direct Admin Cost											500.00
	Subtotal										**2,500.00**
Indirect Cost:											
Indirect Cost	10% of Internal Staff Salary Cost								6,119.41		6,119.41
	Subtotal								**6,119.41**		**6,119.41**
Total Cost:											
State of Vermont YR16 Estimated Total Cost:	**Grand Total**								**SOV YR16 Total**		**190,231.47**

COST ESTIMATE FOR GLOBAL COMMITMENT TO HEALTH WAIVER EVALUATION for Post Demo: January 1, 2022 – September 30, 2022

ITEM	TITLE	RATE per HOUR	Hours	Evaluation Management	Evaluation Design and Planning (Framework, Research Questions, Hypothesis, Survey/Measure development, etc.)	Evaluation Implementation (develop tools, train staff, collect data, etc.)	Data Analysis (data cleaning, etc.)	Communication (prepare reports, communicate, etc.)	Estimated Salary and Contractual Cost	Estimated Fringe Benefits (Internal Staff)	Total Estimated Cost
Personnel/Contractual											
1115 Waiver											
AHS	AHS Quality Improvement Manager	45.23	78	x				x	3,527.94	1,234.78	4,762.72
AHS	Financial Director II	38.99	39					x	1,520.61	532.21	2,052.82
DMH	Quality Mgnt Director	35.39	39				x	x	1,380.21	483.07	1,863.28
VDH	Director of Perf Mgt & Evaluation	39.00	39				x	x	1,521.00	532.35	2,053.35
DAIL	Director Policy, Planning & Analysis	46.89	39				x	x	1,828.71	640.05	2,468.76
DVHA	Health Care Project Director	43.04	39				x	x	1,678.56	587.50	2,266.06
Contractor	Project Director	200.00	78	x				x	15,600.00	-	15,600.00
Contractor	Evaluation Lead	150.00	39					x	5,850.00	-	5,850.00
Contractor	Data Analyst	100.00	39				x	x	3,900.00	-	3,900.00
Contractor	Evaluation Support	75.00	39					x	2,925.00	-	2,925.00

IMD										-	-
AHS	AHS Quality Improvement Manager	45.23	78	x				x	3,527.94	1,234.78	4,762.72
AHS	Financial Director II	38.99	39					x	1,520.61	532.21	2,052.82
DMH	Quality Mgnt Director	35.39	39				x	x	1,380.21	483.07	1,863.28
DMH	Financial Director III	40.23	39				x	x	1,568.97	549.14	2,118.11
VDH	Director of Perf Mgt & Evaluation	39.00	39				x	x	1,521.00	532.35	2,053.35
VDH	Financial Manager III	44.93	39				x	x	1,752.27	613.29	2,365.56
Contractor	Project Director	200.00	78	x				x	15,600.00		15,600.00
Contractor	Evaluation Lead	150.00	78				x		11,700.00		11,700.00
Contractor	Data Analyst	100.00	39				x		3,900.00		3,900.00
Contractor	Evaluation Support	75.00	39				x	x	2,925.00		2,925.00
INVESTMENTS										-	-
AHS	AHS Quality Improvement Manager	45.23	78	x			x	x	3,527.94	1,234.78	4,762.72
AHS	Financial Director II	38.99	78	x				x	3,041.22	1,064.43	4,105.65
DCF	Director of Operations	55.59	39				x	x	2,168.01	758.80	2,926.81
DCF	Senior Policy & Operations	42.94	39				x	x	1,674.66	586.13	2,260.79

DMH	Quality Mgnt Director	35.39	39				x	x	1,380.21	483.07	1,863.28
DMH	Financial Director III	40.23	39				x	x	1,568.97	549.14	2,118.11
DAIL	Director Policy, Planning & Analysis	46.89	39				x	x	1,828.71	640.05	2,468.76
DAIL	Financial Director II	40.31	39				x	x	1,572.09	550.23	2,122.32
DVHA	Quality Improvement Admin	36.53	39				x	x	1,424.67	498.63	1,923.30
DVHA	Financial Director IV	50.52	39				x	x	1,970.28	689.60	2,659.88
VDH	Performance Improvement Programs	32.27	39				x	x	1,258.53	440.49	1,699.02
VDH	Financial Manager III	44.93	39				x	x	1,752.27	613.29	2,365.56
Contractor	Project Director	200.00	39	x				x	7,800.00		7,800.00
Contractor	Evaluation Lead	150.00	18				x		2,700.00		2,700.00
Contractor	Data Analyst	100.00	0						-		-
Contractor	Evaluation Support	75.00	18					x	1,350.00		1,350.00
Salary & Contractual:											
Total Estimated Internal Salary & Fringe Cost									45,895.59	16,063.46	61,959.05
Total Estimated Contractual Cost									74,250.00	-	74,250.00
	Subtotal								**120,145.59**	**16,063.46**	**136,209.05**

Administrative Cost:											
Travel											1,500.00
Supplies											0.00
Equipment											0.00
Meetings											500.00
	Subtotal										**2,000.00**
Other Direct Admin Cost											500.00
	Subtotal										**2,500.00**
Indirect Cost:											
Indirect Cost	10% of Internal Staff Salary Cost								4,589.56		4,589.56
	Subtotal								**4,589.56**		**4,589.56**
Total Cost:											
State of Vermont Post Demo Estimated Total Cost:	**Grand Total**								**SOV Post Demo Total**		**143,298.61**