

Vermont's Health Care Innovation Plan



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Executive Summary

Vermont has pursued a bold agenda for health reform over the administrations of several Governors, from both parties, with continued support from the General Assembly. These efforts have included:

- Expansion of insurance coverage through the Medicaid program to cover children, families and childless adults not insured in many states;
- Small group and individual health insurance market reforms (including guaranteed issue and community rating) aimed at greater fairness in and access to the market;
- A shift of long term services and supports toward choice and flexibility among an array of community-based services;
- Creation of public/private partnerships to develop a health information exchange (HIE) and a peer review organization for quality measurement and improvement;
- Development of an all-payer claims dataset; and,
- Development of advanced primary care medical homes with support from state policymakers and public and private payers.

Most recently, Governor Peter Shumlin and the Vermont Assembly have established health reform goals that include:

- Control of health care cost growth to more closely align with growth in the state's economy;

- Health care delivery system and payment reform that supports high-quality primary care and value-driven care delivery throughout the state's health care system;
- Simplifying the administrative processes associated with health care delivery and health insurance; and
- Separating health insurance from employment.

Consistent with the Commonwealth Fund's Framework for a High Performance Health System, Vermont's strategy for health system innovation emphasizes several key operational components of high-performing health systems: integration within and between provider organizations, movement away from fee-for-service payment methods toward population-based models, and payment based on quality performance.

Vermont is committed to comprehensive health reform that includes universal coverage, a novel primary care delivery system built on a foundation of advanced primary care practices and community health teams and strong networks of home and community-based long-term support services. It also includes a focus on prevention across the continuum of public health and health care delivery, a statewide health information exchange, a multi-payer claims data repository, and a robust evaluation infrastructure designed to evaluate the success of ongoing improvement efforts.

The purpose of this Innovation Plan is to describe a path toward the first two pieces of the reform agenda through a statewide, integrated, high-performing health system that improves

significantly the value we derive from our health system – yielding better health at a reduced rate of cost growth.

This Health Care Innovation Plan articulates strategies that depend upon stakeholders well beyond state government – most notably providers, payers and health care consumers. Our Innovation Plan describes a coherent state policy that aligns state government and is coordinated with federal policy and creates incentives for health care providers, communities and individuals to work with the state to accomplish our goals. Our model utilizes delivery system and payment reform strategies that are touted at the federal level, including broader development of advanced primary care practices through our Blueprint expansion, and implementation of payment reform models through that reward better health, better care and lower cost, including shared savings programs, pay for performance, bundled payments, hospital global budgets and innovative payment models for care of Vermonters who are dually-eligible for Medicare and Medicaid.

Advancing and sustaining this agenda will require intense and well-coordinated work among numerous parties. The entire health care community – across acute care and long-term care, and across physical and mental health services – must be involved in developing and implementing these changes. Engagement from the public is essential as well, to ensure that efforts to improve our health care system are understood, reflect the values of Vermonters, encourage Vermonters to be and stay healthy, and support strong relationships between Vermonters and their health care practitioners.

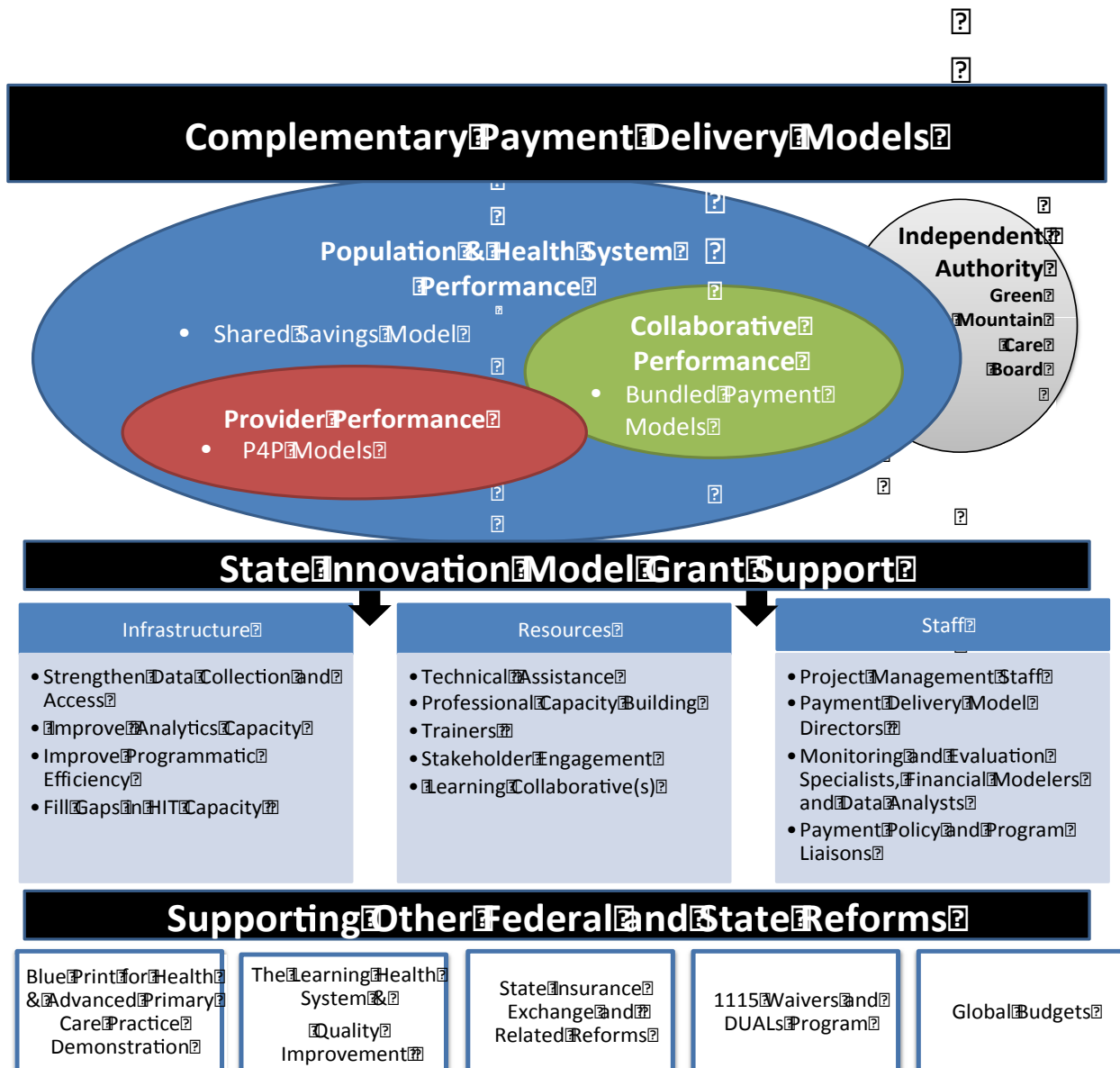
The four principle aims of our Innovation Plan are to:

1. **Increase both organizational coordination and financial alignment between Blueprint advanced primary care practices and specialty care**, including mental health and substance abuse services, long term services and supports, and care for Vermonters living with chronic conditions;
2. **Implement and evaluate the impact of value-based payment methodologies** that encourage delivery system changes, improvements in care coordination and quality, and better management of costs;
3. **Coordinate a financing and delivery model for enhanced care management and new service options for Vermonters dually-eligible for Medicare and Medicaid** with additional Medicare shared savings models, a Medicaid shared savings model and other models of population-based payment being tested in Vermont; and,
4. **Accelerate development of a Learning Health System infrastructure**, including: a reliable repository for clinical and claims data populated by a statewide digital infrastructure; statewide assessments of patient experience and team based services; ready access to comparative reporting and modeling; teams of skilled facilitators to support transformation; and an array of activities to support ongoing improvement. This infrastructure will be designed to meet the needs of providers engaged in delivery system reform and the state's needs for ongoing evaluation of the impact of reforms on health care quality, costs, patient experience and population health.

Consistent with these aims we are asking for federal support through the State Innovation Model Initiative to develop three payment reform models in Vermont, underpinned by related development of “health system “architecture. The relationship between these elements is depicted in Figure 1 below.

Figure 1. Vermont State Innovation Model

Framework



Vermont proposes testing how to balance incentives and drive delivery system change using a range of population-based, collaborative, and individual-based reforms. Under the SIM grant, Vermont’s payers (Medicaid and Commercial) will test three existing Medicare models: the Shared Savings Accountable Care Organization (SSP-ACO), Bundled Payments and Pay-for-Performance. By coordinating the testing and roll-out of these models across all payers and providers, including both health and long term care providers, Vermont will be able to address many limitations of previous reform pilots.

Table 1. Description of Payment Reform Models

Population-based Performance	Coordination-based Performance	Provider-based Performance
<p>VT Shared Savings ACO Models</p> <p>Under this model, payers contract with provider-led organizations who agree to take responsibility for the quality and costs of care for a defined population. The model is meant to increase accountability through sharing risk with providers and provide positive financial incentives, in the form of shared savings, for improving the organization and delivery of care.</p> <p>There currently are two provider-led Medicare shared savings accountable care organizations under development in Vermont.</p> <ul style="list-style-type: none"> • A Hospital-centric ACO: Fletcher Allen and Dartmouth-Hitchcock, 12 of Vermont's Community Hospitals,3 FQHCs and a number of independent physicians have collaborated to apply to become an ACO under the CMS SSP. If approved, this would be operational 1/1/2013. • An IPA-centric ACO consisting of @ 100 physicians statewide received designation as a CMS SSP-ACO beginning July 1, 2012. <p>In addition, six of the State’s eight Federally Qualified Health Centers (FQHCs) are organizing a Medicaid and Commercial SSP-ACO.</p> <p>These organizations will be invited to participate in state ACO programs for Medicaid and commercial payers that will be developed under the SIM grant.</p>	<p>Bundled Payment Models</p> <p>Under this model, volume-based incentives are replaced with episodic-based payments which encourage collaboration and efficiency across providers and systems. The model also better controls growth in spending by targeting the top drivers of spending.</p>	<p>P4P Models</p> <p>Under this model, volume-based incentives are replaced with individual payments based on quality and efficiency of care.</p>

These models will be coordinated with the following related state-level payment reform efforts, as well as federal initiatives (described under #7 below):

- The state's 1115 waiver renewals;
- A proposed initiative to improve care to individuals dually eligible for Medicare and Medicaid beginning January 2014; and
- GMCB's effort to implement global budgets for up to two of the state's 14 hospitals beginning in October 2013.

We expect that work under this grant will lead to:

- valid testing of the proposed payment and delivery models;
- capacity-building for providers who operate under a shared savings model to assume greater financial and performance risk in the future;
- capacity-building to scale the other payment models (other than shared savings) to a broader array of services, providers and areas within the state.

Through collaboration with stakeholders and policymakers, models that are successful and scalable will be incorporated into Vermont health care delivery and financing through changes in statewide policy through the authority of the GMCB and Medicaid payment policy. The next stage of health reform implementation also will take into account any mid-course corrections, additional policy actions necessary (such as provider rate-setting and risk adjustment across

providers) and early experience from the reformed insurance market under the Health Benefit Exchange.

In addition, we are seeking federal support for key investments in “health system infrastructure” within Vermont that cuts across all the models. We propose six types of targeted improvements in Vermont’s health system infrastructure. These are:

- Improved clinical and claims data transmission, integration, analytics and predictive modeling;
- Expanded measurement of patient experience;
- Improved capacity to measure and address health care workforce needs;
- Targeted efforts to enhance Vermonters’ understanding and active management of their own health;
- Learning health system activities; and
- Investments in enhanced telemedicine and home-monitoring capabilities.

This proposal represents an opportunity for the State of Vermont to strengthen its infrastructure and capacity to implement and evaluate health care payment and delivery system reforms. Vermont’s State Healthcare Innovation Plan includes a range of reforms that are diverse in both scope and breadth and are based on evidence-based approaches to achieving the three principle aims of the Affordable Care Act and Vermont’s Act 48: better care for individuals, better health for populations, and controlling growth in health spending.

I. Vermont's Vision for Health Care System Transformation

Vision: A High Performance Health System for Vermont

The Commonwealth Fund in 2006 completed a study of “high performance health systems” around the globe that are successful in supporting their citizens to achieve long, healthy and productive lives. According to the Fund’s 2006 report “A Framework for a High Performance Health System in the United States,” countries that achieve this mission have three core attributes:

- A commitment to a clear national strategy for achieving the mission and an established process to implement and refine their strategy for achieving it;
- Delivery of health care services through models that emphasize coordination and integration; and,
- Establishing and tracking metrics for health outcomes, quality of care, access to care, population-based disparities and efficiency.

The report’s authors concluded that the countries most successful at embedding these attributes in their health system “are governed by a coherent national strategy and from the patient’s perspective, achieve full coordination and integration across all aspects of care throughout a person’s lifespan.” While the United States has not yet successfully established

these elements in its national health system, Vermont could serve as a proving ground for development of a high performance health system at the state level.

Consistent with this framework, Vermont's strategy for health system innovation emphasizes several key operational components of high-performing health systems: integration within and between provider organizations, movement away from fee-for-service payment methods toward population-based models, and payment based on quality performance.

This concept is consistent with the Institute for Healthcare Improvement's "Triple Aim," which has been embraced by the federal Center for Medicare and Medicaid Innovation (CMMI) and emphasizes:

- Improving the patient experience of care (including quality and satisfaction);
- Improving the health of populations; and
- Reducing the per capita cost of health care.

The state has demonstrated a strong commitment to comprehensive health reform that includes universal coverage, a novel primary care delivery system built on a foundation of advanced primary care practices and community health teams and strong networks of home and community-based long-term support services. It also includes a focus on prevention across the continuum of public health and health care delivery, a statewide health information exchange, a multi-payer claims data repository, and a robust evaluation infrastructure designed to evaluate the success of ongoing improvement efforts. The purpose of this Innovation Plan is to describe a path toward a statewide, integrated, high-performing health system that guides

Vermont policymakers and stakeholders to significantly improve the value we derive from our health system – yielding better health at a reduced rate of cost growth.

Governor Peter Shumlin has established a health reform agenda for his administration that includes:

- Control of health care cost growth to more closely align with growth in the state’s economy;
- Health care delivery system and payment reform that supports high-quality primary care and value-driven care delivery throughout the state’s health care system;
- Simplifying the administrative processes associated with health care delivery and health insurance; and
- Separating health insurance from employment.

In 2011, the Shumlin administration, in collaboration with the Green Mountain Care Board, adopted a Strategic Plan for Vermont Health Reform. The plan identified the state’s primary health reform goals. Leaders across 10 agencies and departments of state government are working to implement the strategic plan and achieve the four core goals, which are illustrated in the figure below.

Figure 2. Vermont Health Reform Goals, from 2012 Health Reform Strategic Plan



II. History, Innovation Plan and Current Context for Health Reform in Vermont

A. History of Health Reform in Vermont

Vermont has a long history of public policy and private sector initiatives aimed at improving access to and quality of care within the state's health care system. This history spans the administrations of six governors and more than three decades of Vermont policymaking. The numerous initiatives also have been supported by a broad range of stakeholders, including health care providers, consumers and insurers. These efforts include:

- Expansion of insurance coverage through the Medicaid program to cover children, families and childless adults not insured in many states;
- Small group and individual health insurance market reforms (including guaranteed issue and community rating) aimed at greater fairness in and access to the market;
- A shift of long term services and supports toward choice and flexibility among an array of community-based services;
- Creation of public/private partnerships to develop a health information exchange (HIE) and a peer review organization for quality measurement and improvement; and
- Development of an all-payer claims dataset and advanced primary care medical homes with support from state policymakers and public and private payers.

Vermont has been working to improve its health care system for many years. While the approaches have varied over time, the basic goals have not. In his 1939 inaugural address, Gov. George Aiken said,

“A subject of nationwide discussion today is that of health insurance and hospital insurance. Hospital insurance began in Vermont,¹ and we the people of this state recognize full well that the health of our neighbors as well as of our own family is of vital importance to us.”

His comments were made in the context of a state with significant health problems. As early as 1929, the issues of cost and access to care were being discussed. During World War II, about 30 percent of Vermonters reporting to the Selective Service “were rejected and placed in the 4-F category because of poor health.”

Proposals to reform health care in the state were developed sporadically throughout the 1940s, 1950s, and 1960s, but the “first major effort to influence the modern health care structure came in 1973, when Gov. Thomas Salmon appointed a 19-member commission to explore the

¹ In 1911, when Great Britain passed a National Health Insurance Act, the concept of providing medical care expense benefits generated significant interest in the United States. Various plans were investigated, but even Samuel Gompers, then President of the American Federation of Labor, rejected compulsory health insurance as too paternalistic. In the early 1920’s, individual hospitals in Rockford, Illinois; Grinnell, Iowa; New Bedford, Massachusetts; and Brattleboro, Vermont offered hospital expense benefits on an individual prepaid basis. (cite: <http://www.mrm-mgu.com/sections.asp?sec=42>)

need for regulatory authority over the health care delivery system in the state.²” The commission’s findings sound remarkably current:

- There were too many specialists and not enough generalists in Vermont.
- The structure of health insurance was enormously complex, administrative costs of the system were very high, and lots of money flowed out of the state in the form of insurance company profits.
- Widespread variation existed in the utilization patterns of health care resources and costs.
- Malpractice costs were rising and leading to defensive medicine.
- There was a large and growing demand by the public for health care resources, without regard to costs.
- The health care system was fragile in rural areas.
- The state lacked the necessary data to plan and monitor the system.

In 1988, the Vermont Legislature created the Vermont Health Insurance Plan “with the goal of ensuring that all Vermonters had health insurance coverage.” This effort ultimately was derailed by state budget constraints. In 1989, under Gov. Madeline Kunin, the Dr. Dynasaur program was created to insure children under the age of 18 who were not covered by private health insurance. In 1991, Gov. Richard Snelling appointed the Gibb Commission to study health care costs. Some of the commission’s recommendations were incorporated by Gov.

² Sherman, M. and Snelling Center for Government, Vermont State Government Since 1965. 1999

Howard Dean in the state's next major health reform, which was initiated in 1992 with Act 160.

This law made the goal of health care reform explicit: "It is the policy of the state of Vermont to ensure that all residents have access to quality health services at costs which are affordable."

Act 160 went on to call for:

- An integrated health care system, under the direction of a single state agency;
- Comprehensive planning and budgeting;
- Quality improvement;
- Cost containment;
- Rational allocation of resources;
- Universal access to preventive and medically necessary care.

Some of these policies were implemented during the 1990s. In particular, the state consolidated previously disparate health care planning and regulatory functions in one agency – first called the Health Care Authority and later called the Division of Health Care Administration. However, the broader goals of coverage for all, universal access to high quality care and sustainable cost trends were not realized. Major inroads in expanding access to insurance were made – Vermont's uninsured rate was one of the lowest in the nation, at 8.4 percent in 2000. However, coverage was not universal, care was not optimally managed, and costs continued to rise. In the late 1990s and early 2000s, health care cost growth increased at approximately 10 percent per year, faster than the national rate of increase.

Implementation of Vermont's "Global Commitment to Health" waiver in 2005 made it the only state in the nation operating as if it were a publicly managed care entity, allowing for redistribution of Medicaid funds to support quality improvement, population health improvement, and other priorities. The state's creative implementation of Medicaid expansion programs also has had a major impact on the use of long term support services for the aging and for those with physical and intellectual disabilities. The state has a longstanding policy of supporting increased use of home and community-based services for long term service and support needs. In 1993, Vermont closed its institution for people with developmental disabilities, integrating all people into community settings. In 2005, through the "Choices for Care" 1115 Waiver, Vermont became the first state to eliminate the institutional bias in long term services and support delivery and financing by giving people who are older and with physical disabilities a choice between an array of settings.

The Blueprint for Health was established through legislation in 2006 as a chronic care model of primary care delivery. In 2007, it was expanded to a more generally applicable model of advanced primary care. Expansion of the model statewide was endorsed by the Legislature in 2010.

Act 128 was passed by the Vermont Legislature in May 2010 and was allowed to become law without the signature of then-Governor James Douglas. Act 128 established broad principles and goals for health reform, and directed the Legislature to commission a study of a single-payer health care financing system for Vermont. That study, conducted by Dr. William Hsiao of

Harvard University, outlined a plan for public financing of health insurance that was not linked to employment and, importantly, recognized the need for payment and delivery system reform as a counterpart to this financing reform.

Following on the Hsiao report, Governor Shumlin defined a bold agenda for future health reform in Vermont. His vision included implementing a single-payer system of health insurance coverage for all Vermonters and controlling the rate of growth in health care costs. In May 2011, Governor Shumlin signed Act 48.

Act 48 established 14 “principles for health reform” for Vermont:

1. The state of Vermont must ensure universal access to and coverage for high-quality, medically necessary health services for all Vermonters. Systemic barriers, such as cost, must not prevent people from accessing necessary health care. All Vermonters must receive affordable and appropriate health care at the appropriate time in the appropriate setting.
2. Overall health care costs must be contained and growth in health care spending in Vermont must balance the health care needs of the population with the ability to pay for such care.
3. The health care system must be transparent in design, efficient in operation, and accountable to the people it serves. The state must ensure public participation in the design, implementation, evaluation, and accountability mechanisms of the health care system.
4. Primary care must be preserved and enhanced so that Vermonters have care available to

5. Every Vermonter should be able to choose his or her health care providers.
6. Vermonters should be aware of the costs of the health services they receive. Costs should be transparent and easy to understand.
7. Individuals have a personal responsibility to maintain their own health and to use health resources wisely, and all individuals should have a financial stake in the health services they receive.
8. The health care system must recognize the primacy of the relationship between patients and their health care practitioners, respecting the professional judgment of health care practitioners and the informed decisions of patients.
9. Vermont's health delivery system must seek continuous improvement of health care quality and safety and of the health of the population and promote healthy lifestyles. The system therefore must be evaluated regularly for improvements in access, quality, and cost containment.
10. Vermont's health care system must include mechanisms for containing all system costs and eliminating unnecessary expenditures, including by reducing administrative costs and by reducing costs that do not contribute to efficient, high-quality health services or improve

11. The financing of health care in Vermont must be sufficient, fair, predictable, transparent, sustainable, and shared equitably.
12. The system must consider the effects of payment reform on individuals and on health care professionals and suppliers. It must enable health care professionals to provide, on a solvent basis, effective and efficient health services that are in the public interest.
13. Vermont's health care system must operate as a partnership between consumers, employers, health care professionals, hospitals, and the state and federal government.
14. State government must ensure that the health care system satisfies the principles expressed in this section.

Act 48 created the Green Mountain Care Board (GMCB), which has explicit responsibility for controlling the rate of growth in health care costs while expanding the scope of payment reform efforts within the state. The GMCB's scope of authority is very broad, and includes hospital budget setting, health insurer rate review, review of major capital expenditures by health care providers, and payment reform policy. The five-member GMCB, appointed in October 2011, sees its job as connecting these regulatory authorities through coherent policy that contains health care costs while improving the health of Vermonters.

Act 48 also established a Health Benefit Exchange in Vermont, consistent with the federal Affordable Care Act. Vermont's Exchange is unique in the country, in that it will be the sole

channel for health insurance purchasing for the individual and small group health insurance markets beginning in 2014. Act 48 also requires the executive branch to propose specific financing mechanisms for a single-payer system to the Legislature in January 2013, to be implemented upon approval by the Legislature and the federal government.

Act 171, passed by the Legislature in 2012, further built on this foundation by finalizing Vermont's plans for the Exchange and implementation of consolidated regulatory oversight through the GMCB.

Given Vermont's size, history and recent developments in our health care delivery system, we believe the state is poised for further major health system transformation. This transformation, if successful, will complete development of health service delivery systems and supporting payment models that are based on quality and outcomes, underpinned by a learning health system that allows us to measure, monitor and improve care delivery. Such expansive and rapid change would be difficult to achieve in a larger state, but the state's scale and prior health reform progress make Vermont an ideal laboratory for testing these proposals.

Vermont policymakers understand that payment and delivery system reform are essential to the financial sustainability and improvement of the Vermont health care system. Unless we change the underlying dynamics in our health care system, a change in health care financing, no matter how significant, will not achieve our goals. We therefore are pursuing fundamental changes to support enhanced integration of services across payers, across primary and specialty

care, and across acute care and long term services and supports, to improve quality, efficiency, population health and patient experience.

B. Vermont's Health Care Innovation Plan

This Health Care Innovation Plan is consistent with the state's strategic plan, but articulates strategies that depend upon stakeholders well beyond state government – most notably providers, payers and health care consumers. Our Innovation Plan describes a coherent state policy that aligns state government, is coordinated with federal policy and creates incentives for health care providers, communities and individuals to work with the state to accomplish our goals. Our model utilizes delivery system and payment reform strategies that are touted at the federal level, including broader development of advanced primary care practices through our Blueprint expansion, and implementation of payment reform models through Accountable Care Organizations that reward better health, better care and lower cost through quality improvement, including shared savings programs, pay for performance, and bundled payments.

Advancing and sustaining this agenda will require intense and well-coordinated work among numerous parties. The entire health care community must be involved in developing and implementing these changes. Engagement from the public is essential as well, to ensure that efforts to improve our health care system are understood, reflect the values of Vermonters, encourage Vermonters to be and stay healthy, and support strong relationships between Vermonters and their health care practitioners.

This proposal represents an opportunity for the State of Vermont to strengthen its infrastructure and capacity to implement and evaluate health care payment and delivery system reforms. Vermont's State Health Care Innovation Plan includes a range of reforms that are diverse in both scope and breadth and are based on evidence-based approaches to achieving the three principle aims of the Affordable Care Act and Vermont's Act 48: better care for individuals, better health for populations, and controlling growth in health spending.

Vermont proposes testing how to balance incentives and drive delivery system change using a range of population-based, collaborative, and individual-based reforms. Under the SIM grant, Vermont's payers (Medicaid and Commercial) will test three existing Medicare models: the Shared Savings Accountable Care Organization, Bundled Payments and Pay-for-Performance. By coordinating the testing and roll-out of these models across all payers and providers, including both health and long term care providers, Vermont will be able to address many limitations of previous reform pilots.

Vermont will leverage SIM funding to accelerate expansion and rigorous evaluation of these models, particularly within the Medicaid and CHIP program. The models will maintain beneficiary due process protections within Medicare, Medicaid and CHIP, and strive to improve both access and quality. Findings will help not only Vermont's long term strategy for reform

but also add to the body of evidence on effective and scalable health reform across broader payers and populations nationally.

Each of these models is described in more detail below.

Governor Shumlin has delegated submission of the State Innovation Model (SIM) grant application to the Agency of Human Services (AHS) and its Department of Vermont Health Access (DVHA). AHS is the Single State Agency for Medicaid and it designates DVHA as the unit responsible for the operation of the Vermont Medicaid Program. Medicaid programs for Vermont's most vulnerable citizens (former 1915(c)) and other optional state plan services are managed across the member departments of AHS.

In 2005, under an 1115 demonstration waiver and in state statute, DVHA was authorized to operate the bulk of the state's Medicaid program as if it were a managed care entity. DVHA maintains Medicaid partnerships across state government through interdepartmental agreements to operate the Medicaid program using the Medicaid managed care regulatory framework found in 42 CFR 438 et. seq. DVHA also houses the state's Division of Health Care Reform (including Health Information Technology planning) and the nationally recognized Blueprint for Health Multi-Payer Advanced Primary Care model (MAPCP). In addition, DVHA's state appropriation includes the spending authority for the state's second 1115 waiver, Choices for Care, operated by the Department of Aging and Independent Living. Choices for Care provides consumers in need of long term services and support with full choice between a home and community-based package of care or traditional nursing facility care. Both these 1115

waivers are nationally recognized for the breadth and scope of innovations aimed at improving access and quality of care while containing costs.

The Governor has directed DVHA to collaborate with the Green Mountain Care Board (GMCB) in overseeing and implementing grant-supported activities. The GMCB is the state's free-standing health care regulatory agency, with responsibility for approval of hospital budgets, small group and individual health insurance rates and certificates of need. The GMCB also has a statutory responsibility to develop and implement multi-payer payment reform policy, moving the state away from predominance of fee-for-service payments. It has the authority to implement all-payer and all-provider rate-setting, has final authority on the state's health information technology plan, its health care workforce plan and the benefits to be offered in the Health Benefit Exchange, and is charged with developing a "unified health care budget" for the state. AHS, DVHA and the GMCB will carry out the activities proposed in this application according to a mutually agreed-upon memorandum of understanding approved by the Governor's Office.

Vermont's Act 48, passed in 2011, established an explicit state policy "to contain costs and to provide, as a public good, comprehensive, affordable, high-quality, publicly financed health care coverage for all Vermont residents in a seamless manner regardless of income, assets, health status, or availability of other health coverage." Vermont's proposed testing models will advance this goal. The three models we propose have four aims:

1. **Increase both organizational coordination and financial alignment between Blueprint advanced primary care practices and specialty care**, including mental health and substance abuse services, long term services and supports, and care for Vermonters living with chronic conditions;
2. **Implement and evaluate the impact of value-based payment methodologies** that encourage delivery system changes, improvements in care coordination and quality, and better management of costs;
3. **Coordinate a financing and delivery model for enhanced care management and new service options for Vermonters dually-eligible for Medicare and Medicaid** with additional Medicare shared savings models, a Medicaid shared savings model and other models of population-based payment being tested in Vermont; and,
4. **Accelerate development of a Learning Health System infrastructure**, including: a reliable repository for clinical and claims data populated by a statewide digital infrastructure; statewide assessments of patient experience and team based services; ready access to comparative reporting and modeling; teams of skilled facilitators to support transformation; and an array of activities to support ongoing improvement. This infrastructure will be designed to meet the needs of providers engaged in delivery system reform and the state's needs for ongoing evaluation of the impact of reforms on health care quality, costs, patient experience and population health.

The table below summarizes the unique purpose of each model.

Table 2. Purpose of Testing Models

Population-based Performance	Coordination-based Performance	Provider-based Performance
VT Shared Savings ACO Models	Bundled Payment Models	P4P Models
To support an integrated delivery and financing system for Vermonters through an organized network of participating providers who have agreed to align their clinical and financial goals and incentives to improve patient and experience and quality of care and reduce cost.	To remove FFS incentives and replace with those which reward collaboration and evidence-based practices across specialties and primary care providers for targeted episodes or types of care which represent opportunities for high return on investment	To enable all payers, particularly Medicaid, to use second generation P4P purchasing strategies to improve performance and quality of its health systems

The scope of the models, in terms of both service breadth and geographic coverage, varies.

Our intent is to scale up all successful models, in a coordinated fashion, to serve Medicare and Medicaid beneficiaries and commercially-insured Vermonters across the spectrum of physical health, behavioral health (including mental health and substance abuse services) and long-term services after the testing period. A variety of providers have expressed a willingness to participate in the models, including regional physician-hospital collaboratives, statewide networks and a statewide coalition of community health centers and federally-qualified health clinics. The following table describes the expected scope of each of models to be tested:

Table 3. Scope of Models

Population-based Performance	Coordination-based Performance	Provider-based Performance
VT Shared Savings ACO Models	Bundled Payment Models	P4P Models
<p>1. Medicare –Covers A & B costs for Medicare beneficiaries attributed to ACOs participating in Medicare’s Shared Savings Program.</p> <p>2. Medicaid—Covers all Medicaid costs for Medicaid beneficiaries attributed to ACOs participating in Medicaid’s Shared Savings Program including children covered under the CHIP program who are often served in the Blueprint’s expanded pediatric medical homes. This population also could include the Medicare related costs of dual eligible population if integrated with the Financial Alignment initiative for dual eligible beneficiaries.</p> <p>3. Commercial—Covers all costs for commercial beneficiaries attributed to ACOs participating in commercial payer Shared Savings Programs.</p>	<p>Vermont has several bundled payment pilots under development, two of which include Medicaid and Commercial payers:</p> <p>1. Approximately 300 oncology patients in St. Johnsbury health service area (HSA). The scope of services to be included in the pilot are primary care, specialty care and hospital care for all patients who meet pilot criteria and agree to participate in the program.</p> <p>2. Approximately 100 patients in the southeastern areas of the state receiving detoxification and additional services and treatment in inpatient setting.</p>	<p>1. Medicare—Under its value-based purchasing program, Medicare is phasing in P4P programs to cover all providers (eg. the Hospital Value-based Purchasing Program and PQRS)</p> <p>2. Medicaid—Building on Medicare and commercial payer efforts to expand P4P to all providers serving all Medicaid beneficiaries. Commercial—Commercial P4P programs vary in scope and reach.</p>

The three models closely mirror those being tested by Medicare and are actively addressing limitations in previous pilots. In each case, the models will help build provider capacity to report and act on performance data and better manage population health and, in the case of shared savings and bundled payments, the models will help prepare providers for more advanced forms of payment models that involve performance accountability and financial risk.

Table 4. Description of Models

Population-based Performance	Coordination-based Performance	Provider-based Performance
VT Shared Savings ACO Models	Bundled Payment Models	P4P Models
<p>Under this model, payers contract with provider-led organizations who agree to take responsibility for the quality and costs of care for a defined population. The model is meant to increase accountability through sharing risk with providers and provide positive financial incentives, in the form of shared savings, for improving the organization and delivery of care.</p> <p>There currently are two provider-led Medicare shared savings accountable care organizations under development in Vermont.</p> <ul style="list-style-type: none"> • A Hospital-centric ACO: Fletcher Allen and Dartmouth-Hitchcock, 12 of Vermont's Community Hospitals, 3 FQHCs and a number of independent physicians have collaborated to apply to become an ACO under the CMS SSP. If approved, this would be operational 1/1/2013. • An IPA-centric ACO consisting of @ 100 physicians statewide received designation as a CMS SSP-ACO beginning July 1, 2012. <p>In addition, six of the State's eight Federally Qualified Health Centers (FQHCs) are organizing a Medicaid and Commercial SSP-ACO.</p> <p>These organizations will be invited to participate in state ACO programs for Medicaid and commercial payers that will be developed under the SIM grant.</p>	<p>Under this model, volume-based incentives are replaced with episodic-based payments which encourage collaboration and efficiency across providers and systems.</p> <p>The model also better controls growth in spending by targeting the top drivers of spending.</p>	<p>Under this model, volume-based incentives are replaced with individual payments based on quality and efficiency of care.</p>

We believe these models have the potential to improve health and health care while reducing costs by: supporting person-centered services and shared decision-making, allowing flexible use of resources to truly manage and coordinate the care of patients and incentivizing performance through value-based payment strategies that specifically tie payment to

performance and give providers the potential to share in savings based on the care they provide. The table below summarizes the unique value proposition and performance objectives of each model. The performance objectives and standards for each of the models will be defined further by the state in collaboration with providers, payers and other stakeholders as part of this project.

Table 5. Value Proposition of the Models

Population-based Performance	Coordination-based Performance	Individual-based Performance
VT Shared Savings ACO Models	Bundled Payment Models	P4P Models
<p>The SSP models provide a framework for providers to transition to two sided risk models by 2016. SSPs also offer a way to bridge the gap between medical service providers, behavioral health and substance abuse providers and providers of long term services and supports by incenting cooperation and accountability through the potential for shared savings resulting from improved care coordination, delivery of high quality and cost effective care, and an increased focus on prevention and wellness.</p> <p>Specific objectives include:</p> <ul style="list-style-type: none"> • Improve care coordination; • Reduce utilization of preventable and unnecessary services • Improve adherence to clinical standards • Integrate EHRs analytics • Reduce the growth of total cost of care • Improve consumer experience 	<p>The bundled payment models complement the other models by rewarding essential specialty care providers coordinating with the PCMHs.</p> <p>These models have the potential to have targeted impacts between providers whose coordination with primary care improves quality and reduce costs for targeted, high return on investment episodes of care.</p> <p>Specific objectives include:</p> <ul style="list-style-type: none"> • Improve system organization • Reduce duplication and maximize system resources • Improve care coordination among specialists and primary care providers • Improve quality and reduce long-term costs • Improve consumer experience 	<p>These programs will complement the Medicare shared savings program by allowing individual providers to be rewarded for their contribution to increased quality and outcomes for the people they serve.</p> <p>By ensuring population and individual rewards for quality, the alignment of financial incentives for each provider is better balanced.</p> <p>Specific objectives include:</p> <ul style="list-style-type: none"> • Payment increasingly based on value • Quality reporting, measurement and evaluation of outcomes improvements • Improve care delivery and coordination • Improve consumer experience

Our theory of action combines public policy levers, public and private leadership and financial incentives to create cultural and organizational change that measurably affect the three goals of reduced cost growth, improved population health and improved consumer experience. Combined these three models will better achieve our desired outcomes than any of them in isolation or deployed in an uncoordinated manner. Below is a summary of the theory of action underlying each model.

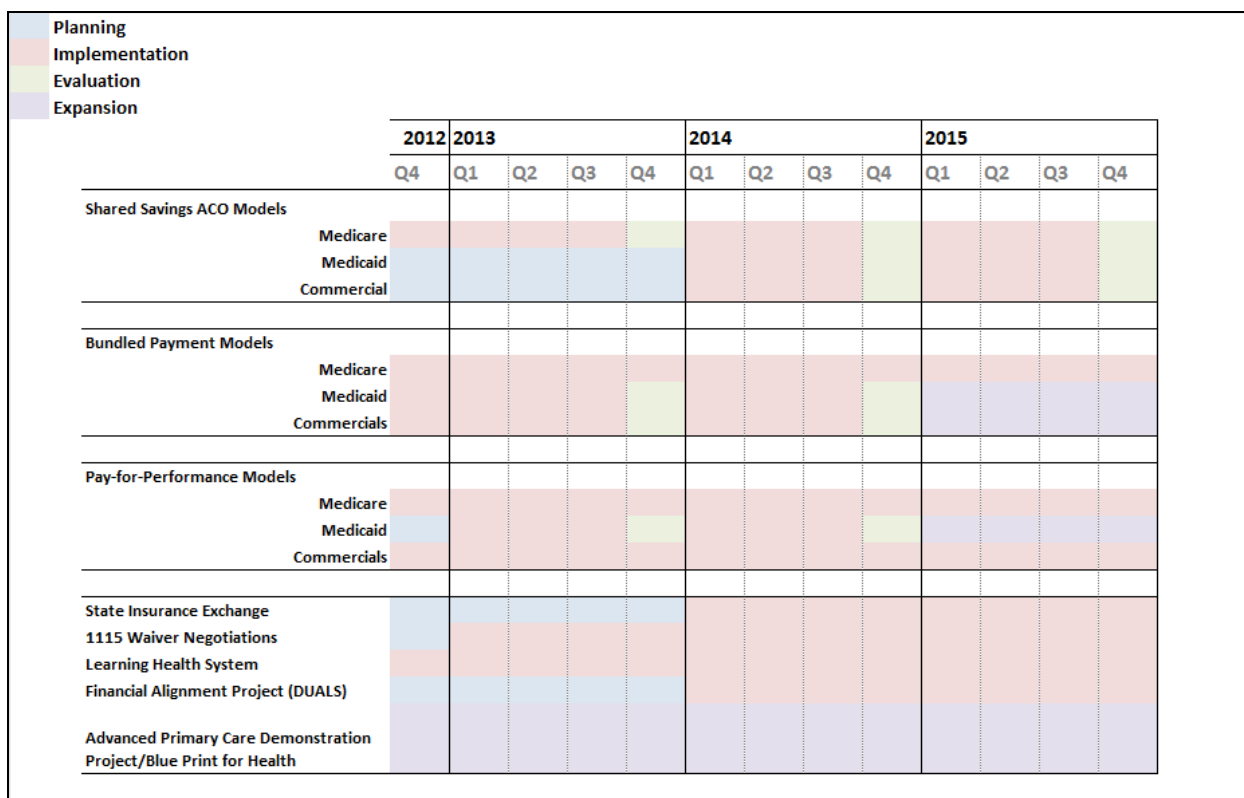
Table 6. Theory of Action

Population-based Performance	Coordination-based Performance	Individual-based Performance
VT Shared Savings ACO Models	Bundled Payment Models	P4P Models
<p>This program will incent the formation of accountable, integrated provider-led networks of care which will include qualified providers who collectively work towards improving quality and managing rising costs.</p> <p>The program also prepares these providers to move over time towards more predictable and controlled payment models where both payer and providers share the risk of escalating costs.</p> <p>This program also complements other financial models because it focuses on broad population health improvement across the full continuum of medical, mental health, substance abuse, and long term services and supports.</p> <p>In the long term, having multi-payer shared savings pools equitably distributed based on the achievement of both expenditure targets and quality performance measures will provide sufficient incentives that will lead to a more fully integrated person-centered delivery system. As these networks work to meet both expenditure</p>	<p>Bundled payment models incent coordination among primary and specialty care providers on targeted high-cost episodes of care.</p> <p>The payment models remove volume-based FFS incentives and replace them with rewards for efficiency and quality of care.</p> <p>In the long terms, moving a large proportion of high cost episodes under a bundled payment will help provide payers a mechanism to better control costs.</p>	<p>These programs increase the individual providers’ accountability for the quality and cost of care.</p> <p>It also ensures that dollars are maximized to reward those systems and providers that provide the best care and outcomes for the population served.</p> <p>The P4P model also ensures that even if an individual provider does not share greatly in savings, that their contribution to better outcomes is rewards and continually incented.</p> <p>The program will also help coordinate internal financing by using a quality pool to fund performance-based payments.</p>

targets and quality performance measures, the result will meet the needs of Vermonters in a comprehensive, cost effective, and coordinated way.

We anticipate the following timeline for implementation of these models:

Figure 3. Timeline for Vermont Testing Models and Related Activities



These models will be coordinated with the following related state-level payment reform efforts, as well as federal initiatives (described under #7 below):

- The state’s 1115 waiver renewals;
- A proposed initiative to improve care to individuals dually eligible for Medicare and Medicaid beginning January 2014; and

- GMCB's effort to implement global budgets for up to two of the state's 14 hospitals beginning in October 2013.

Vermont is one of eight states participating in the Centers for Medicare and Medicaid Innovation's **Multi-payer Advanced Primary Care Practice (MAPCP) demonstration project**. Through the MAPCP demonstration, called the Blueprint for Health in Vermont, Medicare participates along with Medicaid and commercial payers and provides Vermont's participating primary care practices recognized as patient-centered medical homes (PCMHs) with an enhanced per patient per month (PPPM) payment based on an independently derived NCQA quality score. In addition, MAPCP shares in the costs of the Blueprint's Community Health Teams (CHTs) and provides significant funding for Vermont's Support and Services at Home (SASH) program, which provides additional support for high-risk Medicare beneficiaries. The Blueprint is the foundation for high quality primary care and as such is the underpinning of proposed health care payment reforms and delivery system innovations in Vermont.

Vermont submitted a proposal to the federal government in May 2012 for a **demonstration waiver related to "dually eligible" individuals**. Vermont currently manages all Medicaid dollars associated with the nearly 22,000 dually eligible Vermonters as if it were a managed care organization under its two 1115 waivers. Under the proposal, the State of Vermont would also assume responsibility for Medicare dollars. As described in further detail in the Innovation Plan, the foundation of this duals demonstration relies on the establishment of an integrated

person-directed delivery system based on payment reforms and full integration of care and is in alignment with the goals of this SIM proposal.

As envisioned, payment reform in the duals project will be achieved through Vermont's existing managed Medicaid structure under the Global Commitment to Health Waiver. The state will receive a prospective blended capitated rate for the full continuum of Medicare and Medicaid benefits. The goal of the Dual Eligible project is to improve outcomes, enhance quality, and control costs by providing integrated and person-centered care through integrated care providers (ICPs). Vermont hopes to enter into a Memorandum of Understanding (MOU) with CMS during CY 2012, followed by a contract in 2013 and implementation in January 2014. An important element of the proposal outlined here is development of plans for integrating the duals project's payment and service delivery models with the Medicare Shared Savings ACO, to which some Vermont Medicare beneficiaries already have been attributed and more will be attributed beginning January 1, 2013. Key questions for Vermont include: will payment models for ACOs and duals ICPs be integrated or separate?; if separate, how will the state maximize continuity of care from the beneficiary perspective?; how will savings be achieved and, if

We expect that work under this grant will lead to:

- valid testing of the proposed payment and delivery models;

- capacity-building for providers who operate under a shared savings model to assume greater financial and performance risk in the future;
- capacity-building to scale the other payment models (other than shared savings) to a broader array of services, providers and areas within the state.

Through collaboration with stakeholders and policymakers, models that are successful and scalable will be incorporated into Vermont health care delivery and financing through changes in statewide policy through the authority of the GMCB and Medicaid payment policy. The next stage of health reform implementation also will take into account any mid-course corrections, additional policy actions necessary (such as provider rate-setting and risk adjustment across providers) and early experience from the reformed insurance market under the Health Benefit Exchange.

In addition to support for implementation of the models described above, we are seeking grant support for key investments in “health system infrastructure” within Vermont that cuts across all the models. We propose six types of targeted improvements in Vermont’s health system infrastructure. These are:

- Improved clinical and claims data transmission, integration, analytics and predictive modeling;
- Expanded measurement of patient experience;
- Improved capacity to measure and address health care workforce needs;

- Targeted efforts to enhance Vermonters’ understanding and active management of their own health;
- Learning health system activities; and
- Investments in enhanced telemedicine and home-monitoring capabilities.

Each of these initiatives is described in more detail below.

Improved clinical and claims data transmission, integration, analytics and predictive modeling

Vermont has in place four central elements of an integrated health data system:

1. A multi-payer claims dataset (VHCURES) that contains claims from public and private payers and has been mapped to key measures of utilization, expenditures and quality tracked by the Blueprint for Health;
2. A statewide health information exchange (VHIE) with capacity to produce care summaries and continuity of care documents (CCD), lab and other diagnostic reports, demographics related to admissions, discharges, and transfers and to query or pull clinical data from participating providers’ Electronic Health Record (EHR) systems;
3. A “central registry” that captures a defined set of clinical data from Vermont health care practices;
4. Trainers who work with individual provider sites to develop the data input capacity and quality controls necessary to produce reliable data sets for analysis and feedback.

These data resources provide a strong foundation to support the data needs of integrated provider networks as they expand throughout the state. The state is actively working with payers and providers to expand HIT adoption and HIE connectivity statewide, building on a seven year base of planning, consensus building, governance refinement, and early implementation of a standards-based technical architecture. The SIM grant provides the opportunity to further enhance and integrate these technologies for greater connectivity among providers, patients, and support services in the community. Specific enhancements under this project will include:

Expanded capacity for transmission of high quality clinical data from EHRs and other sources to the Vermont Health Information Exchange (VHIE) and the central clinical registry. Vermont recognizes the critical importance of immediately available and actionable clinical and claims data that allows providers the opportunity to evaluate their performance and identify opportunities for improvement using clinical and claims data that is structured, reliable, and sufficiently complete to support their efforts. Current data capture and quality work is guided by the Blueprint's core data dictionary and measure set. Facilitators work with lead clinicians at each site to optimize capture of guideline-based elements in EHR (and other) systems as part of routine care. The SIM grant will be used to enhance and speed up this end-to-end data capture and quality improvement process; to support mapping of tracking system templates against the core data dictionary, enhance clinical flow to optimize use of tracking systems; and to provide increased capacity within the VHIE and central registry. A high-priority focus for this effort will be assuring efficient and reliable data capture related to quality measures that are embedded in the testing models proposed in this application.

Accelerated development of an integrated data platform to support more advanced analytics, modeling, and simulations. Vermont's foundation includes a maturing set of data sources across an array of domains. These include VHCURES claims data and clinical data from the VHIE and the centralized registry. There are other data sources that are important to fully understand health. Vermont is dedicated to bringing data from an array of disparate sources into an integrated platform to support the most advanced assessments of health, wellness, quality of services, and costs. Data sources we intend to add include: the hospital discharge data set, nursing home Minimum Data Set, home health Outcome and Assessment Information Set, the Social Assistance Management System for long term support and services, the Developmental Disabilities and Mental Health Monthly Service Report, the Alcohol and Drug Abuse Programs reporting systems, and Public Health registries and reporting systems, as well as the expanded scope of clinical data that will be available through expansion of the registry's data dictionary and other clinical tracking systems.

Our plans include implementation of one or more integrated informatics platforms and establishment of routine methods for complex data management to populate these platforms. The SIM grant will support: health analytics and informatics platform software and interfaces necessary to merge clinical, administrative, and claims data; data mapping and normalization across those source systems for its use in the integrated data platform; secure transmission networks; and, data management and quality assurance within the platform(s). Currently, the Blueprint, GMCB, and other state users have limited capacity to evaluate outcomes with data from each discrete sources. Vermont would like to enhance data integration, analytic capacity, and modeling sophistication.

Development of predictive models and simulations to guide a learning health system. The SIM grant also offers the opportunity to contract with top experts in the country to support advanced analytics and predictive modeling, including health services researchers, health economists, and actuaries. Given the scope of Vermont’s data sources, and the plan for integrated data platforms (described above), the goal would be to employ a broad range of expertise to go beyond traditional boundaries including experts from the social sciences and other domains that are important to human health and wellness. The results of this work will include algorithms and models that can be programmed into the reporting platforms that overlay Vermont’s data sources. It also will include clear methods for generating comparative groups and adjusted outcomes, methods that will evolve as Vermont gains access to claims data from outside of the state.

Expansion of patient experience survey capacity including intensified sampling of targeted populations and additional content for specific health services interventions. Currently, the University of Vermont (UVM) evaluation team is an official surveyor for the NCQA PCMH CAHPS based Patient Experience Survey. They are conducting statewide sampling to evaluate patient experience in the Blueprint. The SIM grant will be used to intensify targeted sampling to determine the impact of specific payment and delivery reforms on a person’s experience. This may include expanded use of mail and internet sampling, and the addition of phone based sampling. In addition, we intend to add to our data-gathering tools a cutting-edge patient engagement measurement instrument developed by John Wasson at The Dartmouth Institute.

Improved capacity to measure and address health care workforce needs.

Vermont has been engaged in health care workforce development since the mid 90s when the first physician licensing survey was implemented. The first health care workforce development plan was completed in 2004 and took a broad look at over 35 health professions. Common themes in workforce planning have been assuring a safe, adequate, well distributed health care workforce, but lack of data – on both supply and demand – is a constant barrier to this work. We seek to address this critical need through this grant.

A major focus of the activities defined within this proposal concentrate on development of health care professional surveys for all health professions, as well as collection of demand-side data related to Vermonters' access to care. We will employ three specific strategies:

Strategy #1: Improve workforce planning and monitoring through the collection, analysis and benchmarking of health care workforce data. Vermont will work with each of the targeted health professional licensing boards (up to 40) to adapt the national minimum data set requirements of each specific profession to meet Vermont's health reform goals. We will program the minimum data set survey into licensing and registration processes. Each year of the grant, we will target a new cohort of professions. Also, we will engage consultants to extract data from the online licensing data set so that it is accurate and meaningful and to improve metrics and benchmarks of workforce need. The development of these metrics in conjunction with the analysis of health care workforce licensing data will provide the supply

and demand data necessary to target specific professions and the geographic areas of high need with strategic recruitment and retention activities.

Strategy #2: Improving workforce depth and strength through job retention services and

training of direct care staff workers. We propose to implement the Personal and Home Care Aide Training (PHCAST) Program, in collaboration with Department for Children and Families.

The training of personal and home care aides is an essential element in the provision of quality care to families coping with children and other family members who have mental illness, disabilities and/or life limiting conditions as well as people choosing to live as independently as possible who are older or may have a severe mental illness and/or other disabilities. The PHCAST program would ensure competent personal and home care aides with acquired skills that would be transportable to any job market in the nation, thus strengthening the direct care worker workforce.

Strategy #3: Add to Existing Consumer-Based Data Collection Measures of Access to Care,

Barriers to Care and Gaps in Provider Supply. Vermont conducts a household health insurance survey by phone on an annual basis. The survey gathers information about household demographics, health insurance coverage and health care costs. We propose adding to that survey a rigorous assessment of barriers to care, highlighting any gaps in provider supply from the demand side. We will design survey questions to allow for comparison with available benchmarks, such as the Massachusetts Health Insurance Survey, and will assure both an adequate sample size and appropriate questions to assess barriers to accessing specific types of

professionals, including primary care practitioners, specialists and mental health and substance abuse practitioners.

Taken together, these initiatives will provide Vermont with a rich source of information to assess health care workforce needs, improve the supply of LTSS workers and track the impact of reforms on workforce strength.

Targeted efforts to enhance Vermonters' understanding and active management of their own health.

Vermont's State Health Improvement Plan describes key priorities for reducing the prevalence of chronic disease among Vermonters including increased physical activity and improved nutrition, smoking cessation, improved mental health and decreased use of alcohol and drugs.

Through the SIM funding, Vermont proposes two engagement initiatives:

1. Vermont's Health Portal: Vermont proposes to design and implement a web portal (with links to the Health Benefit Exchange) that will guide consumers to resources that meet their unique health needs, using a Health Risk Assessment (HRA) as an entry tool. With the explosion of Internet accessibility, online delivery offers potential for significantly greater reach of evidence-based health promotion and chronic risk factor management programs for adults. There is evidence that community wide campaigns that include a combination of HRA, health education and social supports are effective in increasing physical activity, improving nutrition

and reducing smoking prevalence (CDC Community Guide). Using the results of the HRA to steer any individual immediately to educational materials and online or community level resources and social supports (such as Blueprint primary care practices and Community Health Teams) will promote healthy behaviors that respond to the unique risk factors identified in the HRA. Local resources would be highlighted including Healthier Living Workshops currently offered through the Blueprint Community Health Teams, and recreational programs supported by Department of Health district offices and local health and wellness coalitions.

2. Public engagement in appropriate use of health services: Increasing use of preventive services and other cost saving and effective clinical interventions depends both on the health care system's ability to deliver appropriate services as well as people's understanding of the benefits of preventive and other services and their motivation and ability to access services and make good healthcare decisions. Vermont proposes utilizing SIM funding to develop and implement a social marketing media campaign that encourages healthcare consumers to engage in their own health by being more proactive about making appropriate health decisions. By promoting preventive services, better information about other medical services and testing, and shared decision making between patients and their healthcare providers, we will support the state's goal of increasing the appropriate use of health care resources among Vermonters. Resources will include the *Choosing Wisely* campaign and Shared Decision Making tools that help physicians, patients and other healthcare stakeholders think and talk about the best use of health care resources. Vermont will launch two campaigns (television, radio, print and social

media) a year which will include the following: promotion of specific preventive services with a focus on those services most aligned toward decreasing the most expensive health conditions; promotion of tools for the public and patients on *Choosing Wisely*, and promotion of health care decision tools and other resources for patients and providers.

These efforts will be guided by a work group that involves representatives of provider groups, payers and consumers, as well as state leaders responsible for development of the Health Benefit Exchange. The charge of the workgroup will be to coordinate direct-to-consumer outreach, messaging and diffusion of self-management tools with clinical and insurance market interventions for consistency and maximum impact.

Learning Health System Activities

Expanded team of skilled facilitators to support transformation and ongoing cycles of continuous improvement. The Blueprint has established a team of Practice Facilitators to support primary care practices as they prepare to be scored against the NCQA PCMH standards. These facilitators also support practices and CHTs with ongoing data-guided improvement. The SIM grant will scale this asset as new payment strategies are tested. This will include an increase in the number of facilitators, as well as the resources and training necessary to assure a high functioning team. Vermont will work closely with CMMI to assure that the facilitators' work, training, and methods reinforce the goals of the payment reforms and health services

models that are being tested. Vermont will also continue to work with leaders in the US and Canada to assure that best practices are adapted as they are identified in AHRQs practice facilitation demonstration, and from the growing number of facilitator programs in both countries.

Enhanced shared learning forums at the local, regional, and state level. The Blueprint directly supports an array of shared learning forums in Vermont. Examples include: Integrated Health Services Workgroups in each Health Service Area (HSA); regular meetings of Blueprint Project Managers and Practice Facilitator Teams from each HSA for problem solving and identification of best practices; and the Blueprint Annual Conference which brings together local and national leaders. As new payment reforms and service models are tested, it will be necessary to expand the number and type of shared learning forums at the local, regional, and state level. For example, a near term plan to add in a structured network for Substance Use and Mental Health, with supportive payment reforms, will require new learning forums along with comparative performance reporting to guide ongoing improvement. The SIM grant will provide the opportunity to establish, test, and refine these forums along with other communication strategies.

Investments in enhanced telemedicine and home-monitoring capabilities.

Patient transfers among acute care hospitals can be among the most important transitions for delivering cost effective care. Transfers that occur and could have been safely avoided are costly in many ways. Conversely, a patient with complications or potential for deterioration that

is not appropriately transferred for advanced care often end up among the most costly outlier cases. As part of Vermont's efforts to develop a more integrated health care delivery system, we will provide support for piloting telemedicine technology, and propose to implement a telemedicine transfer consult program to determine medical necessity of inter-facility transfers among Vermont's hospitals. In addition, we will pilot implementation of emerging technology for home telemonitoring for patients with complex chronic disease, and/or high risk of hospital readmission. We intend to evaluate the impact of more aggressive and dedicated home monitoring on patient outcomes and cost.

C. Current Context for Health Reform in Vermont

The state of Vermont has demonstrated a strong commitment to comprehensive health reform that includes universal coverage, extensive adoption and use of primary care medical home practices and a community-extender model to support the provision of most health care through primary care, a statewide health information exchange and a robust evaluation infrastructure to support ongoing learning and improvement in health care quality and efficiency. Our proposed testing model builds on some unique pre-existing conditions and efforts in Vermont, including:

- Deep-rooted stakeholder collaboration in previous health reform efforts, including statewide public forums and listening sessions, advisory groups, and ongoing outreach to specific stakeholder groups, including consumers, employers, payers and providers;
- Vermont's delivery system for health, long term services and supports, social services and our health insurance market are dominated by not-for-profit, community-oriented providers and payers;
- Vermont has developed the multi-payer Blueprint for Health Advanced Primary Care Practices, a learning health system infrastructure, rigorous evaluation methods, and health information technology. The Blueprint is supported by all payers and will include all willing primary care providers and serve an estimated 500,000 individuals – 80 percent of all Vermonters - by the end of 2013;
- The Blueprint primary care practices are complemented by and collaborate with Community Health Teams (CHTs) that connect patients with existing and developing social and community supports and increase the effectiveness and span of primary care in managing population health;
- Vermont's long term services and supports network has embraced person-centered planning and shared decision making for many years and is currently acting as a resource for Blueprint practices and CHTs;
- Vermont conducts bi-annual licensing surveys for physicians and dentists. The survey results have great impact both in the availability of funds for loan repayments and scholarships as well as the creation of health care workforce development plans;

- Vermont invests in public health and is focused on improving the health of Vermonters in several key areas including improved maternal and child health, prevention of chronic disease, prevention and treatment of drug and alcohol abuse, and promotion and enhancement of environment health; The Vermont Legislature has authorized a Health Benefit Exchange to be administered by the Department of Vermont Health Access (DVHA). Beginning Jan. 1, 2014, the Exchange will be the sole health insurance purchasing channel for commercially-insured small groups and individuals in Vermont;
- Vermont has made significant investments in HIT, including systems to capture and transfer clinical data at the practice level through EHR systems, a statewide health information exchange the Vermont Information Technology Leaders (VITL) and an HIE network that will soon enable providers to view clinical information from multiple sources. Vermont also has developed an all payer claims database (VHCURES) and a longitudinal care record through the Blueprint's clinical data repository;

In addition, Vermont has significant health care payment reform efforts underway. These include:

- **Medicare shared savings ACO development:** Two academic medical centers that serve most Vermont residents, Fletcher Allen Health Care (FAHC) in Burlington, Vt., and Dartmouth Hitchcock (DH) in Lebanon, NH., have collaborated to form a Limited Liability Corporation (LLC) for the purpose of applying to CMS to create a statewide integrated delivery system through a CMS ACO under the Medicare Shared Savings Program (SSP). This ACO, called OneCare, also includes most 12 of 13 community hospitals in the state,

A second ACO, *Healthfirst* has been developed by self-employed primary care providers and collaborating specialists. Designated as a CMS ACO-SSP beginning July 2012, this includes approximately 100 physicians statewide. *Healthfirst* is striving to create a state wide support network of independent practices so they can continue to care for their patients in their existing form and in the current healthcare climate. Through the Shared Savings Program, Accountable Care Coalition of the Green Mountains, LLC will collaborate to provide approximately 6,000 Medicare fee-for-service beneficiaries with high quality service and care, while reducing the growth in Medicare expenditures through enhanced care coordination. As an Independent Practice Association (IPA), *Healthfirst* provides the State with an opportunity to test a more physician centric “ACO” approach to care delivery than the more traditional hospital centric “ACO”.

A group of FQHCs within Vermont who are not part of OneCare or *Healthfirst* also have developed a proposal for a “shared savings” model for service of Vermont Medicaid

enrollees who are served by FHQC practices. Discussions are underway between the FQHCs and the state regarding implementation of the model.

- **Primary/specialty care coordination for cancer patients:** Through the collaboration of the community hospital in St. Johnsbury, Vt., the regional FQHC, and the St. Johnsbury branch of the Dartmouth-Hitchcock Norris Cotton Cancer Center, Vermont implemented a pilot program supported by Medicaid and two commercial payers on July 1, 2012, to improve the care of cancer patients in the St. Johnsbury area. This pilot intends to improve the coordination of care for patients diagnosed with cancer by developing a multi-disciplinary approach to care, improving communications among providers, improving performance based on protocols and standards of care, and providing financial incentives to the PCPs and Oncologists to work more closely together.
- **Bundled payments:** In early 2012, the state of Vermont and the Vermont Association of Hospitals and Health Systems partnered to submit an application to CMS to serve as conveners on behalf of the state's hospitals that might be interested in participating in the CMS bundled payment initiative. In July 2012, Rutland Regional Medical Center formed a collaborative with their local FQHC, nursing homes, and Home Health Agency to develop a care redesign initiative for patients admitted to the hospital with congestive heart failure (CHF). This application was submitted on June 28 and is currently being reviewed by CMS. We have also received expressions of interest from two additional hospitals to consider Bundled Payment initiatives for Joint Replacements

- ***Additional payment reform pilot development:*** During the past year, Vermont has explored three payment models – bundled payments, hospital/physician global budgets, and population-based global payments in specific geographic areas, as building blocks toward global population-based payments covering a broad array of health care services throughout the state. We have tried to develop strategies that providers can implement based on where they are in terms of the scope of service and breadth of population they can manage, but to move deliberately toward payment methodologies and performance measures that ultimately will hold providers accountable for the clinical and financial management of as broad a range of services as possible.
- ***Development of bundled payments for care of dual eligibles:*** As part of planning for the dual eligible program pilot, innovative risk-adjusted bundled payment models are in development for implementation in 2014. This program pilot also offers the opportunity to eliminate misaligned payment incentives between Medicare and Medicaid for the dual eligible population. Successful outcomes experienced in these pilots could be expanded to the broader Medicaid and Vermont population.

- ***Learning collaborative with other states:*** The Green Mountain Care Board and the Department of Vermont Health Access are participating in a Center for Health Care Strategies learning collaborative focused on the development and evaluation of Medicaid Shared Savings Programs and ACO models. Initial plans are to launch a Medicaid shared savings program in 2014.

III. ***Vermont's Demographics and Health Status***

According to the 2010 U. S. census, Vermont is home to 625,741 people. A small state made up of only 14 counties, more than one-quarter of its citizens call Chittenden County home with 156,545 residents. The next most populous county, Rutland County, with 61,642 residents has less than one-tenth of the state's population and Washington County, home of the state capital, is a close third at 59,534. Vermont's least populated county is Essex County with 6,306. Only 9,216 square miles, on average there are approximately 68 people per square mile. The U.S. Census Bureau defines a rural area as any that is not "urban." To be considered urban, an area must have 2,500 people. In Vermont, 61 percent of the population lives in rural areas, which paints a good picture of rural nature of the state.

Vermont is among the oldest states. In 2010, the median age of all Vermonters was 41.5 years compared to a national median age of 37.7. The gap between Vermont and the U.S.; median age has increased from 2.4 years in 2000 to 4.3 years in 2010. The highest percentage of Vermonters is between the ages of 50 and 54 (8.4 percent). Likewise, that same age group has the greatest number of men at 4.3 percent and women at 4.1 percent. The median age of men in Vermont is just over 40 years old and the median age of women is 42.7 years.

Vermonters are slightly better educated than the national average with 90 percent of those 25 and older graduating from high school and 33.3 percent earning bachelor's degrees or higher. The national average for high school graduates is 85 percent and college graduates at almost 28 percent.

Vermont lacks diversity with more than 95 percent of its citizens Caucasian. African Americans make up 1 percent of the population while all Asian races comprise 1.3 percent. Among those are Chinese, Filipino, Japanese, Korean, Vietnamese and each representing less than one-half of 1 percent. Hispanics, including Mexicans, Puerto Ricans and Cubans, make up 1.5 percent of the population. Illegal aliens in Vermont number approximately 5,000, according to the Federation for American Immigration Reform.

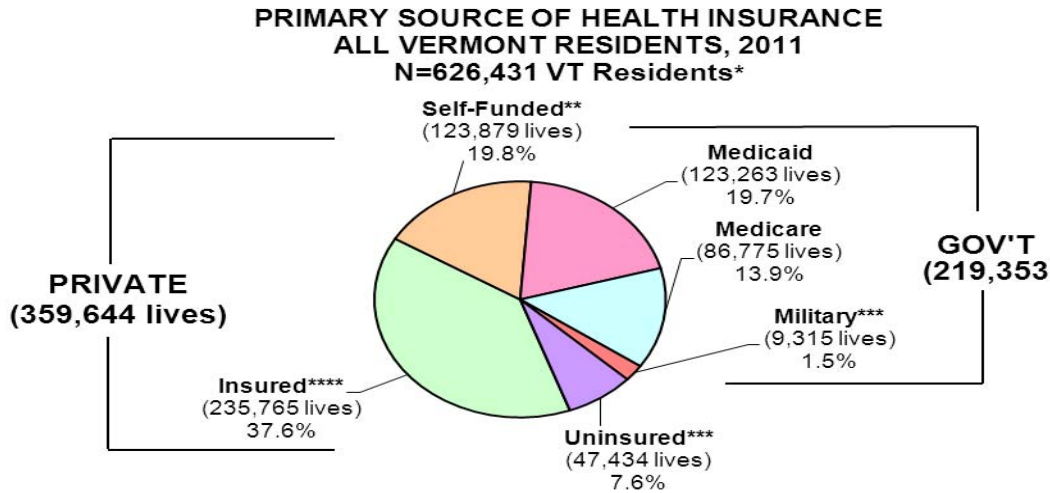
Of Vermont's workforce, which numbers just over 348,000, 16,892 people are unemployed as of June 2012, according to the U.S. Bureau of Labor Statistics. That 4.7 percent unemployment rate is lower than the national average of 8.2 percent. The average per capita income is \$27,478 and the median household income is \$51,841. Eleven percent of Vermonters earn incomes considered below the poverty level.

Vermont Health Insurance Coverage

Nearly 93 percent of Vermont's population has some type of health insurance coverage.³ As shown in Figure 3 below, over half the state's population, 57.4 percent (359,644 residents), had private insurance as their primary source of coverage. This includes insured group plans (217,399 lives, including those covered by out of state plans), insured non-group plans (18,360 lives, including Catamount Health), and self-funded employer plans (123,879 lives, which includes federal health benefit plans). Our three largest commercial insurers (Blue Cross Blue Shield of Vermont, MVP Health Care and Cigna Health Care) cover more than 98 percent of the commercially insured population.

³ 2009 Vermont Household Health Insurance Survey: Comprehensive Report, Prepared on behalf of the Banking, Insurance, Securities, and Health Care Administration (BISHCA) by Market Decisions,

Figure 4: Vermont Insurance by Coverage Type



* 2011 U.S. Census Bureau state-level annual population estimate and provided by VT Dept. of Health
 ** VT Department of Financial Regulation (DFR) does not regulate or collect data on Self-Funded. This is an estimate of the total Vermont lives covered by Self-Funded plans which includes Federal Employees Health Benefit Plan
 ***2009 Vermont Household Insurance Survey number trended forward and weighted based on the U.S Census Bureau uninsured estimates. The Household insurance survey is currently underway again and these numbers will be updated accordingly
 ****This number includes 51,358 Vermonters covered by health plans licensed in other states.

In 2011, approximately 86,775 of Vermonters (13.9 percent) were enrolled in the Medicare program. (This number does not include those who have private insurance as a primary and Medicare as a wrap-around). Also In 2011, 123,263 Vermonters (19.8 percent) were enrolled in the state Medicaid program. The count for Medicaid does not include individuals covered only under the prescription drug or long term services and supports waiver programs.

Approximately 22,000 Vermonters who are covered by the state Medicaid program were considered dually eligible for Medicaid and Medicare.

Vermont's commercial market is dominated by three insurers – Blue Cross Blue Shield of Vermont, MVP Healthcare and Cigna Health Care. Vermont routinely reviews the processes and outcomes of these commercial payers to ensure that Vermonters are well served. All of these insurers are willing participants and partners in Vermont's ongoing health reform efforts, including the Blueprint for Health. Vermont reviews the premium rates and proposed increases of insurers and the GMCB has authority to limit any proposed increases for the non-group and small-group insurance markets.

Only two percent of Vermont's children are uninsured⁴ and nearly eight percent of the total population. A significant number of uninsured adults fall within the ages of 18-34.⁵ While Vermont is a leader in providing access to health care for its citizens through government supported health care coverage programs, more than half of the estimated 45,000 who currently lack health insurance appear to meet the eligibility requirements for Green Mountain Care programs. Green Mountain Care is the umbrella term for Vermont's publicly-sponsored insurance coverage programs, including Medicaid and all related expansions. According to the state's Household Health Insurance Survey, nearly half of uninsured Vermonters identified cost barriers to care based on increased premiums, or cost-sharing that was unaffordable.⁶ Another 150,000 Vermonters are considered to be "underinsured," facing potentially significant and unaffordable health care costs despite having insurance coverage.

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

The state’s expansive public system covers approximately 150,000 individuals, nearly 25 percent of all Vermonters, through Medicaid, Dr. Dynasaur⁷, the Vermont Health Access Program (VHAP) and Catamount Health. Table 1 below demonstrates projected FY 2013 enrollment in Vermont’s Green Mountain Care health programs.⁸

Enrollment in Green Mountain Care

Program	FY 2013 Projected Enrollment
Medicaid	47,044
Dr. Dynasaur	64,138
VHAP	39,609
Catamount Health	11,568

With this level of enrollment, DVHA is Vermont’s largest insurer, both in terms of dollars spent and in covered lives. Medicare provides coverage to nearly 103,000 Vermonters, including about 22,000 who are dually eligible for Medicaid.⁹

In addition to administering the Medicaid and Dr. Dynasaur programs as a public managed care entity (MCE), the Department of Vermont Health Access (DVHA) is also responsible for many key elements of health care and health care policy in Vermont. These initiatives include

⁷ Dr. Dynasaur includes coverage through both Medicaid and the State’s Children Health Insurance Plan (CHIP).

⁸ DVHA Budget Document – State Fiscal Year 2013, Submitted January 30, 2012.

⁹ Immrs database, Agency of Human Services and Jen Associates.

Vermont's Blueprint for Health, as well as the development, coordination and implementation of a health information technology (HIT) strategic plan. In accordance with Act 48 of 2011, DVHA is also responsible for the development and implementation of the Health Benefit Exchange (Exchange) required by the Patient Protection and Affordable Care Act (ACA).

Health Status of Vermont's Population

The health status of Vermonters has been assessed regularly as among the best of any state. However, too many individuals residing in Vermont continue to suffer from conditions that are largely preventable, and the state continues to experience geographic and socioeconomic disparities in health and access to care. Vermont's state health assessment (Healthy Vermonters 2020) describes priority indicators that have been chosen by public health, health care and human services professionals as important areas of focus for improving the health of Vermonters over the next decade. Examples of objectives are:

- Increase the percentage of adults who meet physical activity guidelines from 59 to 65 Percent;
- Reduce coronary heart disease deaths from 112 to 99 per 100,000 people;
- Increase the percentage of adults who receive recommended colorectal cancer screening from 71 to 80 percent;
- Reduce hospitalization for asthma in children under 5 years of age from 18.8 to 14 per 100,000 people;

- Increase the percentage of children age 19-35 months who receive recommended vaccines from 41 to 80 Percent;
- Reduce the percentage of 12-17 year olds who binge drink from 11 to 10 percent.

Based on analysis of the Healthy Vermonters 2020 indicators, three overarching priority areas for health improvement were identified by public health and external stakeholders and will be part of Vermont's 2012-2015 State Health Improvement Plan:

- Reduction of the prevalence of chronic disease through improving physical activity, nutrition and decreasing the rates of tobacco use;
- Reduction in the prevalence of Vermonters with or at risk of substance abuse and/or mental illness; and
- Improvement of childhood immunization rates.

When it comes to differences in health status between different populations in Vermont, there is still much work to be done. Too many Vermonters, especially younger, less educated, minority and lower income citizens, experience real differences in years of healthy life when compared to the general population.

Lower income Vermonters are less likely to have a healthy diet, have regular physical activity and are more likely to smoke. These behaviors are determinants of higher rates of depression and other chronic conditions such as obesity, asthma, heart disease, stroke and diabetes.

Table 7. Health Disparities by Income, Vermont, 2010

Disease	% adults with income more than 2.5 times poverty level	% adults with income less than 2.5 times poverty level
Diabetes	4%	8%
Heart Disease & Stroke	5%	11%
Asthma	8%	13%
Obesity	21%	28%
Depression	16%	34%

While Vermont’s racial and ethnic minority populations are proportionally small (6 percent) compared to the rest of the U.S., this population is growing at a faster rate than the population overall. Although nationally disparities by race can be observed in cancer rates, injuries or deaths from any cause, it is not possible to observe such disparities in Vermont due to small numbers. However, there are disparities by race in prevalence of chronic disease and overall reported health status. According to the Vermont’s Health Disparities Report (2010):

- 12 percent of American Indians had diabetes from 2003-2008, as compared to 6 percent of White non-Hispanics.

- 63 percent of African Americans did not get the recommended amount of physical activity, compared to 43 percent of White non-Hispanics.
- 56 percent of Asians reported that they did not eat at least three servings of vegetables a day, compared to nearly three-quarters of African Americans and American Indians.

The Vermont Department of Health is actively developing strategies that can be used by all programs to reduce health disparities. Because eliminating health disparities requires action by more than just a single department, the health department is taking the lead in enhancing collaborations with state government and other partners to achieve health equity among the most vulnerable Vermonters.

IV. Vermont's Current Health System Model

Hospitals and Federally-Qualified Health Centers

Vermont's health care delivery system is dominated by not-for-profit, community-oriented providers. We have 14 not-for-profit community hospitals, all with fairly distinct service areas. We have eight federally-qualified health center (FQHC) organizations, representing approximately 47 sites and serving 121,000 Vermonters, nearly 20 percent of the state's population, with more than 480,000 visits. The hospitals and FQHCs together employ more than two-thirds of the physicians in the state.

Vermont's hospitals range in size from seven to 384 staffed beds, and operate under three distinct models of payment: One is an academic medical center receiving prospective payment system (PPS) and graduate medical education funding; five additional community hospitals receive PPS; and eight are critical access hospitals that receive cost-based reimbursement from Medicare. These hospitals are currently at varied levels of readiness to undertake major payment reform. Their experience with risk-based contracting and their relationships with both pre-acute and post-acute providers varies greatly. Vermont also is served by Dartmouth-Hitchcock Medical Center (DHMC), which is located in New Hampshire. About 41 percent of DHMC admissions are Vermonters.

Primary Care and the Blueprint for Health

Vermont has developed and implemented the nationally recognized multi-payer Blueprint for Health, which is supported in part by the Center for Medicare and Medicaid Innovation's Multi-payer Advanced Primary Care Practice (MPAPCP) demonstration project. The model consists of:

- Advanced primary care practices (APCPs) throughout the state that are recognized as patient centered medical homes by NCQA;
- A multi-disciplinary core community health team (CHT) within each health service area, to support the APCPs and their patients;
- Extended community health teams, including the Medicaid care coordinators that are part of the Vermont Chronic Care Initiative, Support and Services at Home (SASH)

- Comprehensive evidence-based self-management programs, including healthier living workshops for chronic disease, diabetes, and chronic pain; tobacco cessation programs; wellness recovery action planning programs for people living with mental illness; and, beginning in late 2012, diabetes prevention programs offered in conjunction with the YMCA;
- Targeted payment streams that are supported by Medicare, Medicaid and Vermont's three largest commercial payers. The payment reforms provide support to NCQA-recognized primary care practices, and fund the core and extended community health teams;
- Implementation of health information technology (HIT);
- A robust evaluation system, and;
- The creation of a Learning Health System infrastructure.

First implemented as a pilot in 2007, this model currently serves approximately 300,000 Vermonters through 98 NCQA recognized practices, including at least two in each health service area (HSA) and will include all willing providers and serve an estimated 500,000 Vermonters by the end of 2013.

Community-centered health systems are at the heart of the Blueprint model – within each health service area (HSA), participating practices and their patients are supported by multi-

disciplinary community health teams (CHT's) that include nurse care coordinators, social workers, mental health counselors, dieticians and health coaches who provide support and work closely with local clinicians and patients. CHTs are responsible for individual care coordination, population management and outreach counseling, and close integration with other social and economic support services. Future expanded roles for the CHT's may include identification of, and coordination of care for high-risk individuals with multiple chronic conditions and people living with mental health and substance use disorders.

Vermont as a Learning Health System

The Blueprint model includes an evaluation and quality improvement infrastructure designed to test the impact of novel payment reforms, the health services they drive, support ongoing improvement of these health services, and to assure that these reforms result in services focused on the needs of patients and families. The Blueprint's payment streams and community grants are designed so that typically segregated providers (medical and non-medical) will work together to provide more seamless person centered services, a process that evolves over time and is characterized by substantial cultural changes within communities. In order to evaluate the impact of these reforms, and to make this complex transformation effective and sustainable, investments have been made in the infrastructure, resources, and activities that can support continuous improvement. Key design elements for this infrastructure include:

- Establish the capacity for consistent statewide assessment across multiple dimensions including the quality of health services; the health status of individuals and populations, the experience of patients who receive care in this new environment, the characteristics of team-based person-centered services that emerge across communities, the utilization of health care resources, and, health care expenditures and the return on the investment that is driving transformation;
- Establish data repositories that support evaluation of these domains and where possible take advantage of data that is generated as part of routine daily operations (e.g. all-payer claims database, centralized clinical registry);
- When needed add in adjunctive evaluation to assure a balanced assessment that reflects true value in a health system (e.g. patient experience, person-centered team-based services).
- Establish the capacity to flag participants in key data systems, including the de-identified all-payer claims database, in order to evaluate the impact of particular interventions. This capacity is essential to evaluate outcomes for patients and populations that are participants in new payment reform environments;
- Establish the capacity to evaluate the impact of interventions with appropriate comparison groups and bench marks at local, state, regional, and national level;
- Establish integrated data platform(s) that bring together data from disparate sources and domains to create the best capacity for advanced analytics, predictive modeling, and simulations (e.g. integrated claims and clinical data);

- Establish dynamic reporting systems and optimize provider access to meaningful and comparative information;
- Establish teams of skilled facilitators to support statewide data guided transformation and ongoing improvement.

To varying degrees, the Blueprint has made progress with each of these areas, and established an infrastructure to support measurement-guided transformation of health services.

Populations can be identified and outcomes can be evaluated for participants in the APCP + CHT environment, and for sub populations participating in various community support programs.

The current status of the evaluation & LHS infrastructure is shown below.

Table 8: Blueprint Multi-Dimensional Evaluation & LHS Infrastructure: Current status and Necessary Enhancements

Evaluation Component	Current Status	Necessary Enhancement
<p>Multi-Payer Claims Database (VHCURES) – Includes paid claims from all major commercial insurers, Vermont Medicaid, Medicare. 2007 Forward.</p>	<ul style="list-style-type: none"> • Utilization - 16 Measures • Expenditures - 26 Measures • Quality (HEDIS) - 112 Measures • Periodic detailed reports • Intervention participants flagged and/or identified thru attribution • Matched comparison groups and regression techniques to create adjusted comparisons in non-participants • Comparative reporting at the practice, organization, area, and state levels • Practice profiles in development 	<ul style="list-style-type: none"> • Expand methods for flagging participants to identify those that are active in one or more interventions.
<p>Central Clinical Registry (DocSite) – fed from EHRs and other data sources thru the VHIE, and from direct data entry by community providers (medical and non-medical).</p>	<ul style="list-style-type: none"> • Clinical Processes including Self-Management, 107 Measures • Health Status, 296 Measures • Web based interactive application with visit planners and flexible reporting • Supports individual patient care & population management • Provides comparative performance reporting • Blueprint dictionary of core data elements and measures used to support EHR enhancements and data capture, interface development, VHIE transmission, mapping and translations, and registry enhancements. 	<ul style="list-style-type: none"> • Expand methods for flagging participants to identify those that are active in one or more interventions. • Include person-entered data from internet-based patient-experience reporting tool and web based reporting platforms so that comparative outcomes profiles and meaningful analytics are readily available to help drive LHS activities of providers and other stakeholders.

<p>Analytics, Reporting & Modeling</p>	<ul style="list-style-type: none"> • Analysts working with All-payer claims data to produce metrics on utilization, quality (HEDIS), and expenditures. Comparison with matched control groups or adjusted outcomes compared to non-participants in Vermont. Advisory support from researchers at the Dartmouth Institute and an actuary consultant • Web based flexible reporting from clinical registry supporting outreach as well as comparative performance measures of health services quality and health status • University of Vermont evaluation team working with individual data sets including NCQA Practice Scoring, NCQA Patient Experience, Project Management Database, Person Centered Team Based Services Assessment, and Chart Review Database • Development and updating of financial impact models populated with results from the All-Payer Claims database. Incorporates projections, investments, outcomes, and return on investment for the Blueprint payment reforms and related health services. Can be adapted to evaluate additional payment reforms and health services layers. • To date, no integrated data platform or advanced analytics and simulations using data from these multiple sources. 	<ul style="list-style-type: none"> • Development of sustainable systems to capture more comprehensive high quality data for evaluation across key domains, and to intensively sample target populations as necessary. • Integration of data from independent sources to common platforms to support generation of more meaningful composite measures; advanced analytics, modeling, and simulations that can be used to guide LHS activities and policy. • Increased analytic and actuary support for outcomes evaluation and development of predictive models. • Development and/or incorporation of intelligent analytic technology to overlay Vermont’s integrated data repositories and provide more advanced simulations and predictive modeling.
<p>Team of Practice Facilitators</p>	<ul style="list-style-type: none"> • Team of trained facilitators assisting practices with preparation for scoring and transformation to operate as an ACP, 10.5 FTEs • Provide ongoing support for data guided quality improvement focused on team based person-centered services to improve outcomes. 	<ul style="list-style-type: none"> • Expansion of the number and type of skilled facilitator and evaluation teams to support continuous improvement based on comparative assessment and to support VHIE and carry out evaluation on non-routine outcomes.

Long-Term Services and Support

Vermont provides long term support services (LTSS) for an estimated 8,000 older Vermonters and people with disabilities through several major programs: Choices for Care, Developmental Disabilities Services, Traumatic Brain Injury Services, and Attendant Services. The annual LTSS expenditures are approximately \$335 million. Today there are 42 nursing homes and that provide skilled and custodial care. Vermont also has one intermediate care facility for people with developmental disabilities. We continuously aim to reduce dependency on nursing homes and develop increased capacity to serve people eligible for long term services and supports in settings of their choice.

These programs are increasing in cost and demand largely due to: demographic shifts in the age of our population; increased prevalence of traumatic brain injuries resulting from combat, athletics, and motor vehicle accidents; and greater pressures on developmental disabilities service providers because of their expertise in supporting community integration for people with intellectual disabilities, mental illness and complex combinations of various diagnoses, including dementia.

Choices for Care has achieved a balance between people receiving services in nursing homes and home and community based settings of 60:40 percent; now we have a target of 50:50 percent. Vermonters who need long term services and supports are able to choose to receive services at home, enhanced residential care homes, or nursing homes. The area agencies on

aging, home health agencies, adult day centers, and PACE Vermont (Program for All-Inclusive Care for the Elderly) are valued partners in achieving our goals.

Developmental disabilities services are provided by designated and specialized service agencies with the goal of cost-effective, integrated, community living. Vermonters with developmental disabilities continue to be supported in the community at a lower cost to the state than most other New England states and lower than the national average.

Traumatic brain injury services diverts and/or returns Vermonters with moderate to severe traumatic brain injuries from hospitals and facilities to community-based settings. In those settings, rehabilitation-based and choice-driven programming helps people achieve their optimum independence and return to work, when possible.

Vermont adults with severe and permanent disabilities who need physical assistance with activities of daily living are supported to live independently and remain in their homes by the Attendant Services Program.

Table 9: Vermont Long-Term Service and Support Programs

Target Populations for Long Term Support Services (LTSS)	LTSS Funding Source/Program	Number of People Receiving Supports SFY 2011	Approximate LTSS Expenditures SFY2013 (without acute costs)
Care and Support for older Vermonters and adults with physical disabilities and cognitive impairment	<u>Choices for Care</u> (1115 Medicaid Demonstration Waiver)	4,764	\$178M
People with developmental disabilities and their families	<u>Developmental Disabilities Services</u> (part of Global Commitment 1115 Medicaid Demonstration Waiver)	2,539	\$153M
Vermonters with moderate to severe traumatic brain injuries	<u>Traumatic Brain Injury Program</u> (part of Global Commitment 1115 Medicaid Demonstration Waiver)	77	\$4.7M
Adults with severe and permanent disabilities who need physical assistance with activities of daily living	<u>Attendant Services Program</u>	233	\$4M
	SUBTOTAL OF LTSS funded by Medicaid	7,613 people	\$335M
Older Vermonters who need help to live as independently as	<u>Older Americans Act Services</u>	56,765 people	\$11M

Target Populations for Long Term Support Services (LTSS)	LTSS Funding Source/Program	Number of People Receiving Supports SFY 2011	Approximate LTSS Expenditures SFY2013 (without acute costs)
possible. Achieved through supporting family caregivers, nutrition programs, case management, health promotion & disease prevention, and legal services.			

By improving person-centered LTSS initiatives related to service delivery, Vermont seeks to improve outcomes across the spectrum of some of Vermont’s biggest CMS-funded LTSS programs. We aim to create a flexible circle of health and supports for people to make informed decisions and choices at the times they are needed.

The State Plan on Dementia

The prevalence of dementia is expected to increase significantly as the population of individuals over age 65 grows. In Vermont, where more than 20% of the population will be over the age of 65 by 2020, this is of particular concern. Alzheimer’s disease is the most common cause of irreversible dementia and accounts for 50 to 70 percent of dementia cases. Alzheimer’s disease is the 6th leading cause of death in Vermont.

Until recently, people with developmental disabilities often died at a fairly young age. Now, as a result of improved medical care and better living conditions, people with

developmental disabilities are living longer and, like the general population of older adults, are at increased risk of developing dementia. The prevalence of Alzheimer's disease among adults with Down's syndrome is about 25% for those who are 40 years of age and older and about 65% for those who are 60 years of age and older. Due to their genetic makeup, people with Down's syndrome are especially vulnerable to developing Alzheimer's disease and onset of symptoms begins some 20 years earlier than in the general population.

Nationally, the direct cost to federal and state government and business was more than \$148 billion in 2005. During that year, Medicare spent \$91 billion on beneficiaries with dementia and those costs are projected to increase to \$189 billion by 2015. State and federal Medicaid spending on nursing home care for people with dementia is expected to increase from \$21 billion in 2005 to \$27 billion by 2015. Costs to businesses with employees who are dementia caregivers are estimated at \$36.5 billion as a result of decreased productivity, missed work and costs to replace workers who leave the work force due to care-giving demands.

While Vermont-specific information regarding the costs of dementia is not available, more is known regarding the cost of care for individuals needing nursing home or home and community-based care. Families and friends provide the majority of long term services and supports for people with dementia. During 2008 in Vermont, 15,848 caregivers provided more than 13.6 million hours of unpaid dementia care valued at \$151,851,997. Family caregivers who leave the workforce to care for their loved ones at home lose income, health care and other benefits and employer contributions to their retirement savings. Vermont supports caregivers

through funding for respite, flexible choices in using benefits and supports the local chapter of the Alzheimer's Association in providing training and support for caregivers as well as education of physicians and other health professionals.

Vermont is also participating in the 2012 CMS Partnership to Improve Dementia Care in Nursing Facilities and reduce inappropriate use of antipsychotic medications by 15% by the end of 2012. Working through the Local Area Networks for Excellence (LANE) – which have 100% voluntary participation – the Department of Disabilities, Aging and Independent Living is implementing the nationally recognized OASIS training and funding for consultation.

Future activities will be to align financial incentives (such as P4P) with provider participation in the President's National Plan to Address Alzheimer's (NAPA) and to assist Blueprint Community Health Teams in identifying appropriate resources such as respite care.

Current Level of Provider Integration

Although Vermont has a comprehensive array of services available to its citizens ranging from academic medical centers to personal caregivers in the home, many of these services are not as well integrated as they could or should be to provide optimum, person-centered care. The SIM grant presents an opportunity to dramatically accelerate our capacity to merge the clinical and claims/administrative data to deliver output that enables us to:

- Improve the integration of care across systems and providers - thus improving quality and outcomes while controlling costs;
- Model and build scenarios for payment reform and delivery system structures and strategies that would more effectively integrate traditional medical services with long term services and supports and community based services;
- Provide feedback to providers and patients to inform behavior change and improve quality of care and quality of life, and;
- Evaluate the performance of providers under the changed structures, demonstrate the value of the changes to payers, providers, and patients, and continue to inform the refinements of an ongoing learning health system.

Prevention, Primary, and Acute Care

Vermont's hospital system currently consists of 14 not-for-profit acute care hospitals that are reasonably well located throughout the state to provide access to the Vermont population.

We have one academic medical center, Fletcher Allen Health Care (FAHC) located in Burlington that provides primary and secondary services to the population in its local service area, and tertiary services to a much broader population across the state. Dartmouth-Hitchcock Medical Center (DHMC) is located in Lebanon, N.H., just east of the Vermont border. DHMC provides tertiary services to the Vermont population primarily in the southern and central parts of the state. Vermont's community hospitals include eight critical access hospitals and five PPS

hospitals, each with a fairly well-defined service area. There is relatively little competition among the hospitals, and fairly well-established referral patterns and market share.

All but one of the hospitals in Vermont are members of the Vermont Association of Hospitals and Health Systems (VAHHS) and each member hospital has a seat on the association board. In addition to representing the hospitals' interests with the Legislature, VAHHS has been instrumental in serving as an integrator or convener for the hospitals to collectively address shared issues including quality improvement initiatives, participation in the state's health care reform programs, and exploring ways in which the hospitals together can help to lead the health reform efforts in our state. The hospitals were early financial contributors to Vermont Information Technology Leaders (VITL), when that corporation was founded to develop a health information technology exchange in the state. Hospitals continue to contribute to VITL, and participate actively on the VITL Board of Trustees. All of the hospitals in Vermont are now using electronic medical record systems, and many have integrated those systems into the practices of their employed physicians.

About two-thirds of the primary care physicians and specialists practicing in Vermont are employed by hospitals or FQHCs, and that number continues to grow. Although independent practitioners now make up only one-third of Vermont's physician practices, they continue to meet the needs of many Vermonters, and many are moving rapidly to integrate electronic medical records systems into their practices and meet the "meaningful use" criteria.

Approximately 100 independent physicians, primary care physicians and specialists recently

formed an organization called Health First, and were recognized as a CMS ACO under the Medicare Shared Savings Program. In September 2012, FAHC and DHMC formed an LLC called OneCare, and along with 12 community hospitals, three FQHCs, and a number of independent physicians submitted an application to CMS to become designated as another CMS ACO under the Medicare Shared Savings Program. These are some important examples of integration efforts that are now occurring in Vermont.

Vermont also has eight federally qualified health centers (FQHCs) located in 47 practice sites throughout the state. As with the hospitals, these sites are fairly well distributed throughout the state with exceptions in southwest and south central Vermont. The FQHCs provide primary care services to a population of approximately 121,000 Vermonters annually. The FQHCs partner with local hospitals and medical centers on emergency room diversion, transitions in care, and other quality initiatives. FQHCs also work with their regional community mental health centers on behavioral health integration, including models of co-location and telemedicine services. FQHCs partner with the Vermont Department of Health on public health initiatives such as cervical and breast cancer screening and smoking cessation services. FQHCs also network with each other to share best practices, and to engage in quality improvement initiatives.

Home and Community Based and Long Term Support Services

Vermont's nationally recognized public health, primary care, acute care, and long term support services are poised to catapult to the next level by integrating our robust provider network and delivery systems. The domains of public health, primary and acute care have gotten a strong start in integrating providers through the success of initiatives like the Blueprint, Chronic Care Initiative and federal HIT funding support. This group of providers and networks are not yet integrated with long term support services nor are the providers within the long term support services arena amalgamated.

People living with dementia, mental illness, physical disabilities, developmental disabilities, traumatic brain injuries, substance abuse and older Vermonters are high users of pharmacy, acute care, and long term supports. Four hundred million dollars (33 percent) of Vermont's \$1.2 billion Medicaid budget supports fewer than 15,000 (10 percent) of the people who receive publicly funded long term support services. Accordingly, provider integration is sorely needed across the domains of care as well as among the long term support providers.

Modernized information flow between the many providers involved with a concentration of relatively few people who are high users of services will promote better care (successful rehabilitation and care transitions), lead to better health (prevention) and lower costs (by decreased re-admission rates to hospitals, poly-pharmacy etc.). A more detailed snapshot of the current level of provider integration follows.

Vermont is very fortunate to have a strong HCBS and LTSS provider networks that have garnered national reputations for high performance and outcomes. These networks include 12 designated agencies and four specialized service agencies that provide specialized mental health, developmental services, and substance abuse treatment services. Other long term support services are provided by 112 residential care homes, 40 nursing homes, 12 home health agencies, five area agencies on aging, 14 adult day providers operating in 16 sites, two sites of the Programs for All-Inclusive Care for the Elderly (PACE), guardians, traumatic brain injury providers and more than 7,500 direct care workers. In addition, Support and Services at Home (SASH) is a partnership led by housing providers that connects affordable housing with health and long term services and supports systems, providing targeted support and services at 112 sites to help participants remain safely at home.

Despite the efforts of hospitals to implement EMRs within their facilities and to support physicians in the development of HIT systems there is much to be done before these disparate systems can provide timely and useful information to multiple providers caring for the same individual. For the most part, the mode of communication among them and with the other parts of the health care continuum (primary care, pharmacies, state agencies, families, and informal caregivers) remains manual via paper or telephone. Vermont does have a framework to address this gap in technology through its multi-payer claims data base, and through VITL's Health Information Exchange. However, full integration of this information and the willingness

of providers to engage in this type of integrated and collaborative effort will require a great deal of resources, leadership, and effort.

People receiving long term support services are often high users of pharmacy, primary care, acute care, and long term support services. Currently communication is delayed, falters or even fails, along the whole continuum of settings. Efficiencies can be capitalized on when the efforts described above are considered as part of an integrated whole system, rather than as separate initiatives: efficiencies for the people receiving services with needs across the whole continuum; efficiencies for providers who can coordinate care more comprehensively and not duplicate visits, contacts, services; and efficiencies for the State in terms of costs—e.g. HIT technology can be developed to capture data across programs and to foster communication across boundaries (rather than each program having its own system and hoping they connect). Myriad people and systems are involved in communicating throughout the circle of supports for people receiving long term services. Those who are receiving longterm support services and those who help them (family caregivers, direct service providers, primary care teams, and long term support teams) could benefit from better access, improved efficiency, and greater accuracy of communication. For many, care is uncoordinated and the system is difficult to navigate.

State Health Care Oversight Structure

There are a number of state entities responsible for overseeing, regulating and monitoring the health care system in Vermont – the Division of Vermont Health Access (DVHA), the Department of Financial Regulation (DFR) (which oversees health care quality and conducts health insurer rate reviews), the Department of Health (DOH), the Department of Disabilities, Aging and Independent Living (DAIL), and the Department of Mental Health (DMH). In Act 48, the general assembly created a new position, the director of Health Care Reform, responsible for coordinating health reform efforts among state agencies and to be a liaison between the executive branch and the Green Mountain Care Board (GMCB). The Green Mountain Care Board is an independent, regulatory board responsible for containing health care costs through the development of a unified health care budget and payment reform policy and for providing regulatory oversight of insurers, hospitals, and other health care providers, among other responsibilities.

The state has created internal structures to ensure coordination in health care reform activities among executive branch agencies, including a health care reform leadership team that includes the key commissioners and deputies, and a health care cabinet that meets quarterly for broader coordination. In addition, there are project-based structures for inter-agency development of policy and operations related to specific initiatives. For example, a health reform enterprise executive committee is responsible for overseeing the development of

information technology and the operational development of the Vermont Health Benefit Exchange and an integrated eligibility system.

The health reform leadership works closely with and reports to the general assembly's Health Care Oversight Committee, a legislative interim committee charged with overseeing health care reform, and with the Mental Health Oversight Committee, a legislative interim committee focusing on mental health systems issues, in particular the replacement of the Vermont State Hospital.

Health Benefit Exchange

The Vermont Legislature has authorized a Health Benefit Exchange that will be, beginning Jan. 1, 2014, the sole health insurance purchasing channel for commercially-insured small groups and individuals in Vermont. Only two payers (Blue Cross and Blue Shield of Vermont (BCBSVT) and MVP) do business in the Vermont small group and non-group markets today. Vermont may also have a co-op entering into the market in 2014, pending state licensure. The leadership of both BCBSVT and MVP has been very supportive of and involved in payment and delivery system reform efforts to date. The Exchange will be a first step toward the implementation of the state's single payer strategy by consolidating risk pools in the individual and small group market and by creating a state-of-the-art enrollment system for use by Vermonters.

Act 48 establishes the Exchange within the existing Department of Vermont Health Access (DVHA), the state's Medicaid agency, and defines its purpose as follows:

- To reduce the number of uninsured and underinsured;
- To reduce disruption when individuals lose employer-based insurance;
- To reduce administrative costs in the insurance market;
- To contain costs;
- To promote health, prevention, and healthy lifestyles by individuals;
- To improve quality of health care.

Vermont has developed its own plan for a state-based Exchange and has been awarded level one and level two Establishment Grants in order to meet its vision. The state is working diligently to meet the ACA and CCIIO timeframes for the launch of the Exchange.

The Vermont Exchange will provide a robust marketplace for all Vermonters to identify insurance coverage options and provide an online channel for those eligible to receive or purchase coverage. The Exchange will have a broad customer base, including Medicaid-eligible individuals and families, Exchange subsidy-eligible individuals and families, individuals and families purchasing coverage without a subsidy, small employers and their employees, and select employees of large employers. The provisions of Act 48 outline the state's plan for an Integrated Eligibility benefits program. An ACA-compliant Exchange represents a significant component of the state's solutions and operational changes necessary to realize this vision. The Exchange will also serve as the platform for the state's future single-payer system.

Delivery System and Payment Reform for Dual Eligibles

Vermont submitted a proposal to the federal government in May 2012 for a demonstration waiver related to “dually eligible” individuals. Under that application, the state of Vermont would continue to operate as if it were a managed care entity for dually eligible Vermonters. Many of these individuals have chronic illnesses and concurrent disabilities which span primary, acute, mental health, substance abuse, developmental, and long term services and supports and support domains. These people have among the most complex care needs with annual costs of almost \$600 million. Failure to coordinate and integrate services for this population drives unnecessary hospitalizations, nursing facility placements, poly-pharmacy and other needless health care expenditures. Vermont’s demonstration will focus on providing person-directed interventions to improve care coordination and service delivery, with performance measures and outcomes linked to payment reform. The foundation of this demonstration relies on the establishment of an integrated person-directed delivery system based on the following elements, as further detailed in the state’s innovation plan.

As envisioned, payment reform will be achieved through DHVA receiving a prospective blended capitated rate for the full continuum of Medicare and Medicaid benefits. The MCE will utilize performance-based reimbursement methodologies that focus on quality and outcomes rather than volume of services. The project will collaborate with community providers and organizations to establish funding approaches that promote service integration and coordination as well as incentives to promote early intervention and prevention. The goal of the

dual eligible project is to improve outcomes, enhance quality, and control costs by providing integrated and person-centered care through integrated care providers (ICPs). Vermont expects to enter into a memorandum of understanding (MOU) with CMS in 2012, followed by a contract in 2013 and implementation in January 2014. An important element of the proposal outlined here is development of plans for integrating the duals project's payment and service delivery models with the Medicare Shared Savings ACO, to which some Vermont Medicare beneficiaries already have been attributed and more will be attributed beginning Jan. 1, 2013. Key questions for Vermont include: Will payment models for ACOs and duals ICPs be integrated or separate?; If separate, how will we maximize continuity of care from the beneficiary perspective?; How will savings be achieved and, if achieved, shared across the models?

V. Health Information Technology Strategy

Vermont is recognized as a national leader in the alignment and integration of health information technology (HIT), including development of the statewide Vermont Health Information Exchange (VHIE), and using technology to support reforms to the health care delivery system with a centralized clinical registry.

Cost effective care depends on health information being available when and where it is needed, so Vermont's system reforms are built on the premise of ubiquitous, multi-dimensional health information exchange. The state is actively working to expand HIT adoption and HIE connectivity statewide, building on a seven year base of planning, consensus building,

governance refinement, and creation and early implementation of a standards-based technical architecture.

The state's HIT strategy is founded on five core values:

- Vermonters will be confident that their health care information is secure and private and accessed appropriately;
- HIT will improve the care Vermonters receive by making health information available where and when it is needed;
- Shared health care data that provides a direct value to the patient, provider or payer is a key component of an improved health care system. Data interoperability is vital to successful sharing of data;
- Vermont's health care information technology infrastructure will be created using best practices and standards, and whenever possible and prudent, will leverage past investments and be fiscally responsible; and,
- Stakeholders in the development and implementation of the health care technology infrastructure plan will act in a collaborative, cooperative fashion to advance steady progress towards the vision for an improved health care system.

HIT Governance: Responsibility for planning, oversight and coordination of HIT policy and implementation is assigned to the secretary of the Agency of the Administration under 18 VSA, Chapter 219 § 9351. That oversight is delegated to the state HIT coordinator, who also serves as the deputy commissioner of Health Reform at DVHA. Chapter 219 § 9352 specifies VITL as

the exclusive operator of statewide HIE, and requires that both the executive and legislative appoint members to VITL's Board of Directors.

VITL is a public/private partnership whose current board is chaired by the CEO of Blue Cross Blue Shield of Vermont, and includes representatives from the Vermont Medical Society, Vermont Association of Hospitals and Health Systems, representatives from individual provider organizations, as well as physician, consumer, and business representatives. In addition, the Green Mountain Care Board must review and approve any changes to the state HIT plan.

Design: Vermont has long seen HIT as an essential foundation for building an integrated system of care. Significantly, the state made the decision early on to adopt a federated, distributed

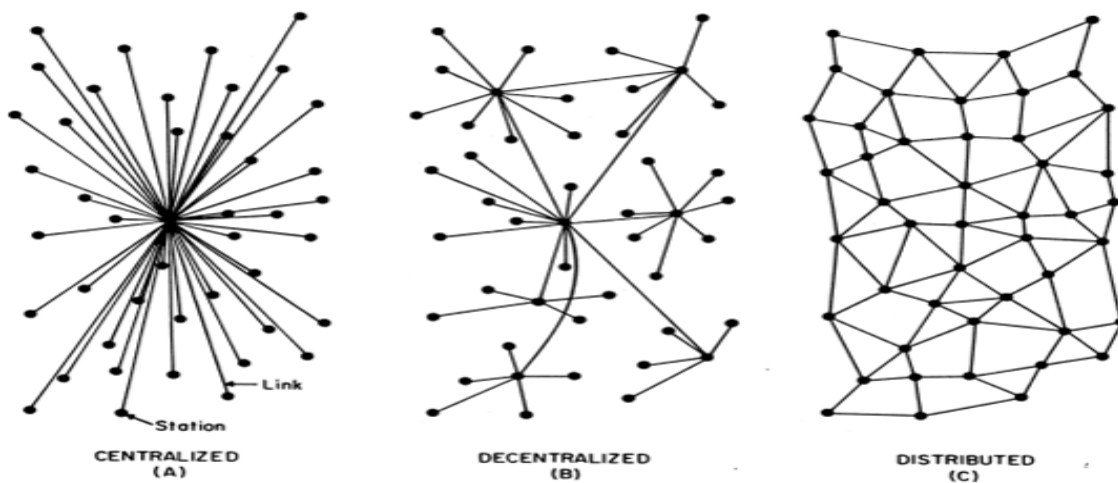


FIG. 1 – Centralized, Decentralized and Distributed Networks

network model of HIE, which emphasizes the equality of each node of the network as contributing participant. Like the design of the internet itself, redundancy of connectivity is the strength of this approach, which emphasizes linking the full continuum of health care providers, community-based social services agencies, other enabling organizations, and all Vermonters

through multiple, inter-operating systems. The distributed network model is both a design principle and a metaphor for a comprehensive system that informs HIT implementation.

Three implementation strategies animate Vermont's approach. All three support and enable statewide data liquidity essential to ensure that data are up to date, accurate, shared among providers and patients, and available for measurement and improvement.

- HIT Strategy 1: Connect everybody. Create a statewide distributed network of health information that reflects clinical and other life data collected from and shared, with appropriate consent, with the full spectrum of health care providers (not just doctors and hospitals), social service organizations, families, and individuals.
- HIT Strategy 2: Identify everybody. Create statewide master persons and master provider directories that serve as the central "look up tables" for the statewide HIT/HIE enterprise to reduce administrative burden and streamline connectivity across disparate data systems.
- HIT Strategy 3: Inform everybody. Create a comprehensive data model and information architecture that provides integration of data from independent sources to common platforms to support generation of more meaningful composite measures, advanced analytics, quality reporting, modeling, simulations, and patient and provider feedback that can guide Learning Health System activities and policy.

Core technologies deployed to enable exchange of health information:

- The VHIE infrastructure for pushing and querying/pulling health information from electronic health record (EHR) systems, including care summaries and continuity of care documents

- A centralized clinical registry with a limited data dictionary of scrupulously standardized data elements enabling both practice and community population level reporting and comparisons to support care management and care coordination;
- Point-to-point secure, clinical messaging using the federal Direct Exchange standards;
- Integration of the VHIE and registry with the Agency of Human Services (AHS) Health Services Enterprise (HSE) Platform, including central, statewide master persons and master provider directories. The HSE also provides connectivity to the public health, including Immunization and birth/death registries to support the VHIE.

The VHIE is operated by the Vermont Information Technology Leaders Inc. (VITL), a 501(c)3 not-for-profit corporation. VITL contracts with Medicity to operate the VHIE infrastructure and Updox for Direct Exchange services. The clinical registry contract is managed directly by the Department of Vermont Health Access (DVHA), which contracts with Covisint/Compuware for the web-based service. The Health Services Enterprise (HSE) systems are managed by AHS and include the Health Benefit Exchange, the Medicaid Eligibility system, the Medicaid Management Information System (or MMIS), and the public health information systems.

VITL is implementing a provider portal for providers who do not yet have EHRs or need to access VHIE data remotely in the fourth calendar quarter of 2012 and will implement a patient

portal early in 2013. In addition, once the state’s identity management infrastructure in the HSE is completed, also in 2013, Vermont will implement “Blue Button” download capacity for consumers directly from the clinical registry and will begin to push alerts and other secure messages directly to individuals.

HIT Adoption: Taken together, the state’s delivery system reforms and HIT-HIE policy create a supportive environment for eligible Vermont providers to meet the meaningful use requirements established by ONC and CMS.

EHR Adoption Rates

Provider Type	% Adoption/Use
Primary Care Physician	73%
Urgent Care Clinics	Estimated 100%
Laboratories	75% of Laboratories deliver electronic data to VHIE.
Hospitals	100%
Pharmacies able to receive prescriptions electronically	93%
Prescribers utilizing e-Rx	73%
Home Health	100% utilize for reporting purposes. Not yet connected to VHIE.
Mental Health/Developmentally Disabled/Substance Abuse	100% of Designated Agencies, but mostly used for administration, internal case management, and reporting. Not yet connected to VHIE.
Long term services and supports	8%

Funding HIT: Recognizing that health information technology is a key component of the state's health care reform initiatives, the Vermont General Assembly approved legislation in May 2008 to provide a stable source of public funding for electronic health records and operation of the statewide health information exchange network through the HIT Reinvestment Fund. With passage of the federal HITECH Act in 2009, Vermont's HIT Fund became the major source of state match for federal funding through the ONC and the Centers for Medicare and Medicaid Services (CMS).

As of Oct. 1, 2008, each health insurer operating in Vermont pays a quarterly fee of 0.199 percent of all health care claims paid for their Vermont members in the previous year into the Health IT Reinvestment Fund. The Department of Financial Regulation, which administers VHCURES, the state multi-payer claims database, produces reports detailing the fees owed by each insurer. The Department of Vermont Health Access (DVHA) collects the fees, administers the HIT Fund, and makes grants to support HIT and HIE activities from the Fund. The definition of health insurer includes third-party administrators for self-insured employers.

Vermont's Health Care Information Technology Reinvestment Fee raises approximately \$3 million annually and is seen as a model for the nation. Originally designed to sunset after seven years, the administration has recommended extending the fund to support HIE on an ongoing basis.

DVHA administers grants from the Health IT Fund to pay for health information technology programs, including:

- Building and operating VITL's statewide health information exchange network;
- Implementation of the Vermont Blueprint for Health's information technology and advanced medical home project; and
- VITL's consulting services to help health care practitioners reengineer their clinical processes to fully utilize electronic health records.

Significantly, Medicaid is at the center of and is driving many of these HIT changes. However, it is critical to note that this transformed system is designed to support an infrastructure for all Vermonters, not only those who happen to be enrolled in on public health coverage programs. With passage of the ACA and the state's decision to develop Health Insurance Exchange (HIX) infrastructure, Vermont has identified an additional opportunity to integrate development of the insurance exchange infrastructure with eligibility and enrollment systems for public benefit programs. Vermont had already launched an effort to modernize that process for Medicaid and other state programs but has now undertaken initial planning steps to integrate public and private insurance enrollment infrastructure, utilizing the system oriented architecture (SOA) components and principles for its Health Services Enterprise (HSE) platform and systems.

Federal funding for these Enterprise components are aligned under a single "jumbo" Implementation Advanced Planning Document (IAPD) approved by CMS for grants and FFAP

under CCIIO, Medicaid Eligibility, MMIS, and State Medicaid HIT Plan (SMHP) authority. The IAPD is itself a kind of model demonstration, and remains the first and only fully integrated IAPD approved by CMS. It allows, in a single spreadsheet, a view of the cost sharing and cost allocation across Vermont's federally supported IT and HIT projects and program.

Vermont proposes that CMS consider technology funding through the SIM opportunity as another column in the IAPD spreadsheet, meaning that the state will negotiate appropriate cost sharing and cost allocation of SIM grant funded IT and HIT systems in an update to the IAPD upon award of SIM funding. In that way, SIM funding to expand upon and leverage, not supplant, other federal IT investment will be fully transparent and alignment across the programs and projects reinforced.

For instance, MMIS and SMHP funding for data analytics focused on the Medicaid population will be significantly enhanced by SIM funding for data analytics to support the multi-payer environment of Vermont's delivery system and payment reform initiatives. Similarly, EHR and clinical data systems not supported by the SMHP's EHR Incentive Program payments, will be complemented by investments through SIM in expansion of clinical data systems for mental health and substance abuse services providers and long term support and services providers in institutional and community settings.

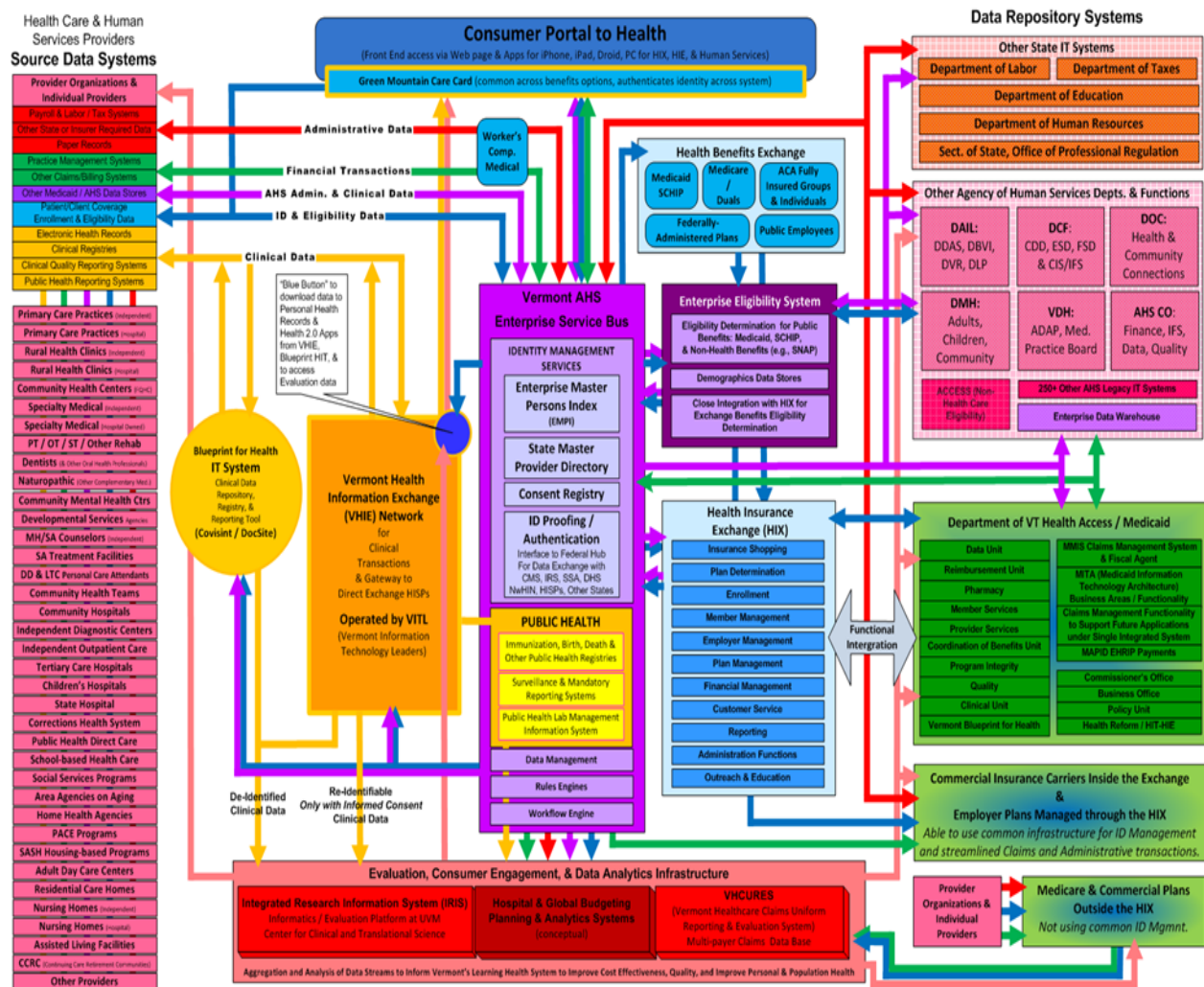
Clinical + Claims + Administrative Data: Vermont is focused on the critical importance of enabling health reform outcomes through more immediately available and actionable clinical

and claims data. Currently, an instance of the VHCURES multi-payer claims data base is housed in a high speed, high performance computing environment called IRIS, the Integrated Research Information System, operated by the University of Vermont health informatics faculty. The IRIS platform, funded jointly by UVM and the state AHS, through an ARRA grant in 2010, forms the foundation of the informatics and health analytics resources the state proposes to build upon with SIM grant funding.

Vermont's approach to an integrated, inter-operating HIT infrastructure combines traditional HIT from HIE, EHR, and other clinical sources with claims and AHS administrative data sources. The IRIS platform is in place, available and is ideally suited for merging disparate source data files. The current gap comes from an incomplete analytics infrastructure.

However, utilizing the master persons and master provider directories and overall identity management resources of the state's HSE Platform and additional data integration and semantic normalization resources, IRIS will be a foundational resource for the expanded analytics needs proposed in the SIM grant, to combine existing but disparate AHS data stores such as the nursing home MDS, home health OASIS, the SAMS for long term support and services, the Developmental Disabilities and Mental Health Agencies' MSR , the ADAP reporting systems, and public health registries and reporting systems into a comprehensive health analytics platform. In turn, the IRIS analytics platform leverages other state and federal IT investments being made in the HSE platform of shared services and its component systems (HIX, Eligibility, MMIS, etc.).

The illustration below provides a high level view of the business architecture of Vermont's integrated HIT infrastructure, linking disparate clinical, claims, and administrative systems with a common core Enterprise infrastructure of shared services to create a single, interoperating HIT system that leverages public and private investments to ensure health information connects and informs all Vermonters.



VI. Health System Design and Performance Goals

To ensure our success in moving our health system delivery and payment reforms forward, Vermont has carefully designed its health care delivery system transformation to meet specific, defined performance goals that will allow for a clear pathway for implementation and measurement of our progress in achieving these goals. The state has defined specific performance goals focused on improving access to and coverage for high-quality health care, improving the health of Vermont's population and reducing health care costs and cost growth.

These goals include:

To assure that all Vermonters have access to and coverage for high-quality health care:

- Cover uninsured Vermonters;
- Increase enrollment and retention in coverage for insured Vermonters;
- Assess the adequacy of Vermont's health care workforce and service availability and recommend specific steps to enhance and improve it as needed;
- Define a minimum standard of benefits for all Vermonters that includes coverage of services with proven cost effectiveness in preventing illness and enhancing their health status, provides incentives for individuals and their health care practitioners to attain and maintain good health and manage disease appropriately, and coordinates with public health services;
- Assure accurate transmission of clinical data through the Health Information

To improve the health of Vermont's population:

- Assure that all Vermonters have access to high quality, well-coordinated preventive health services by building on and continuously improving the Blueprint integrated health services model and expanding the scope of services coordinated through the Blueprint;
- Evaluate and continuously improve health care delivery by expanding the “learning health system” encompassed by the Blueprint for Health;
- Assure access for all working Vermonters to healthy worksites, employee assistance programs, and other community supports that can serve as a gateway to health management;
- Improve the health of school-aged children by promoting and implementing the Coordinated School Health Model recommended by the Centers for Disease Control;
- Support Vermont communities to respond to specific public health challenges;
- Improve the integration of care across payers, including Medicare, Medicaid and commercial payers, including the integration of primary care, chronic care management, pharmacy, home and community based services, and care coordination.

To reduce health care costs and growth:

- Develop and operationalize (through hospital budget, certificate of need and insurer rate review processes) a health care budget for Vermont that reflects the principles embodied in Act 48 and is economically sustainable over time;
- Implement simplifications that reduce administrative costs;
- Implement innovations in payment and benefit design that will encourage individuals and health care providers to reduce costs of care;
- Implement specific efforts to better manage care for Vermonters with one or more chronic conditions;
- Improve coordination of care across providers and settings including care transitions.

In addition to the broad goals, we have set specific performance improvement targets for our system. Vermonters receiving coverage through Medicaid and CHIP give the program high marks in terms of access to care, discussion with personal doctor, and coordination. In the 2011 CAHPS survey of Vermonters covered by Medicaid:

- 84% reported obtaining urgent care right away; and 88% reported obtaining non-urgent care within time needed;
- 98% reported receiving information on choice of treatment and 64% reported discussing prevention of illness with their personal doctor;
- 93% reported that their doctor provide easily understandable explanations, and that their doctor listened to them; and,

- 82% reported that their personal doctor was up to date on other care received; and 89% of those receiving care coordination services reported that the care coordinator provided the help that they needed.

Vermont also tracks its Medicaid and CHIP performance against HEDIS measures. The state performs near or at the national Medicaid average for well-child visits, and substantially above for treatment of asthma and upper respiratory ailments in children, and follow up for children on ADHD medications. However, Vermont has lower than average performance in terms of cancer screening rates, diabetes treatment and timeliness of prenatal treatment.

In addition to the specific improvement targets included in Healthy Vermont 2020, the state will aim to achieve the following improvement targets under this Testing Model:

- Improved access to care in terms of obtaining both urgent and non-urgent care when needed
- Improved patient experience with care coordination
- Improvements in specific clinical process and outcome measures tracked by the Blueprint for Health including (not limited to):
 - Proportion of patients at goal for treatment of chronic conditions for a number of chronic conditions (e.g. Blood Pressure, Cholesterol, LDL, Hgb A1c, Lung Function)
 - Proportion of patients with chronic conditions who have a recorded self-management goal along with tracking of progress against the goal over time
 - Proportion of children with age and gender appropriate assessments as recommended in Bright Futures

- Proportion of adults with age and gender appropriate assessments and treatments as recommended in national guidelines
- Adolescent Well-Care Visits, by Age Group
- Well-Child Visits, by Age
- Adults' Access to Preventive/Ambulatory Health Services, by Age Group
- Several measures of cancer screening (breast, cervical, colorectal)
- Chlamydia Screening in Women, by Age Group
- Diabetes Care – several measures
- Cholesterol Management for Cardiovascular Condition
- Use of Appropriate Medications for People With Asthma, by Age Group

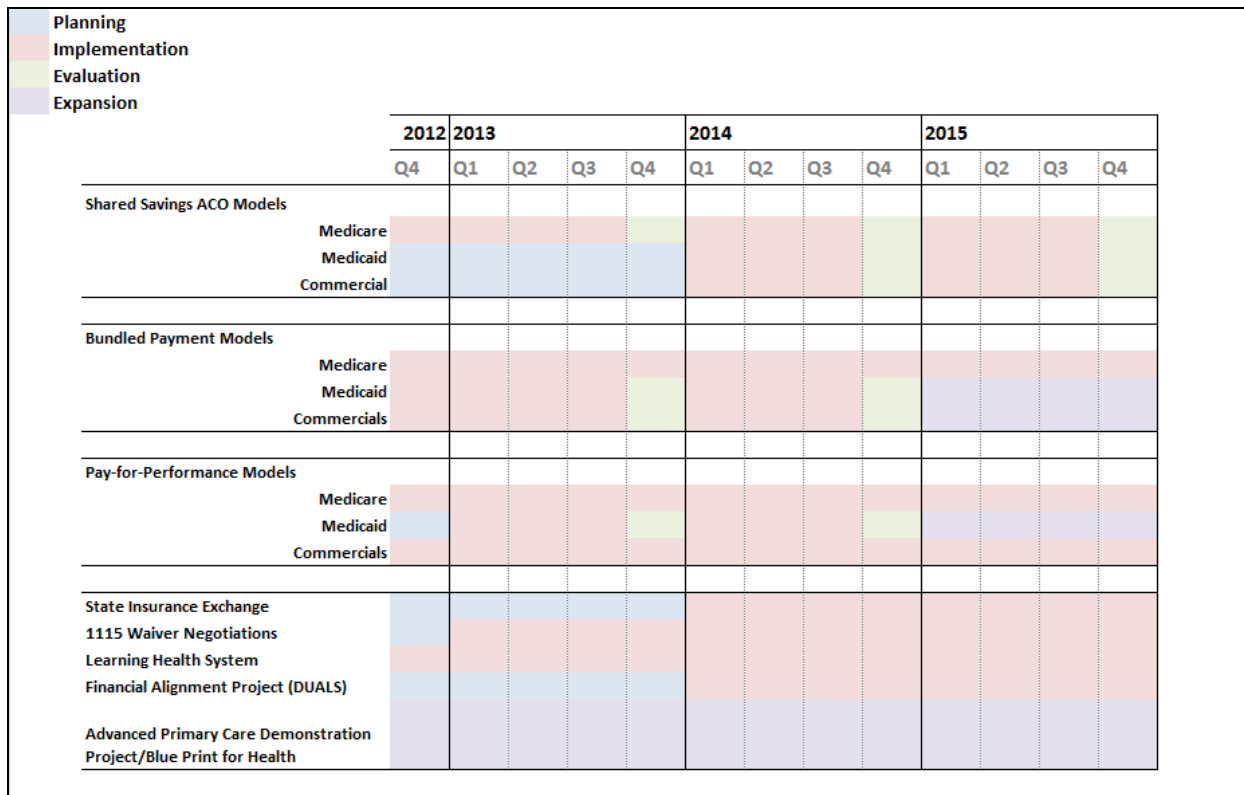
VII. Roadmap for Health System Transformation

In addition to the specific timeline provided for implementation of our testing models (repeated below), our Roadmap for Health System Transformation involves the following milestones:

- Continued work in 2013 and 2014 to integrate overall payment reform and cost containment policy through the GMCB's policy development and regulatory processes:
 - Hospital budgets
 - Health insurer rate reviews
 - Certificates of need

- Payment reform policy
- Expansion of the Blueprint to 300,000 Vermonters in 2013
- Operation of our Health Benefit Exchange beginning January 1, 2014
- Investments in and build-out of our health information technology within state government to assure a strong foundation for our role in the Exchange, eligibility and enrollment across public programs and other core functions
- Continue build-out of the health information exchange, interoperable electronic health records and other core components of health information technology external to state government
- Development of a data integration, analytics and modeling platform that can serve the multiple needs of health care providers, state evaluators and other key data users

Together, these initiatives will ensure that Vermont moves deliberately and rapidly toward a truly integrated, high performance health system that meets our state reform goals.



VIII. Conclusion

Vermont is poised to make significant, positive improvements to its health care delivery system that will provide lasting benefits to the state, its health care delivery system, and most importantly, its citizens. We are uniquely positioned to develop a high-performance, learning health system that achieves the triple aims of:

- Improving Vermonters’ experience of care;
- Improving the health of Vermonters; and,
- Reducing costs of care.

Our plans are ambitious, and will require unprecedented collaboration across state government, and between state government, the federal government, and key stakeholders in the health care system. We are committed to seizing this opportunity and the inherent challenges. Indeed, we believe we have no other choice – we cannot afford inaction, in financial or human terms.