



Vermont Health Information Technology Plan
(VHITP)

March 2016

The 2016 update to the Vermont Health Information Technology Plan is submitted to the Legislature by Secretary Justin Johnson pursuant to 18 VSA § 9351. This Plan was developed collaboratively by the State of Vermont and supported by Mosaica Partners – with extensive participation and contributions by Vermont’s health care community.

– Thank you to all who participated –

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Health care in Vermont – as well as in the country as a whole – is in the midst of a major transformation. In Vermont, health care reform efforts touch virtually all sectors of health and health services. These reform efforts will only be possible with broad effective access to, and use of, high quality and timely clinical health information.

The 2016 Vermont Health Information Technology Plan (VHITP) provides direction and a framework for Vermont’s future clinical health information technology efforts. It describes the initiatives and activities that Vermont needs to undertake to ensure it has the Health Information Technology (HIT) infrastructure and environment necessary to support its health care reform efforts. It describes 17 key short- and longer-term initiatives that enable Vermont to continue to build upon its strong legacy of leadership in health care, services, and information. Health information technology is intended to allow for the transfer of information in support of Vermont’s health care reform initiatives and Vermont’s health care providers. In order to ensure this critical connection is maintained, the 2016 VHITP also recommends that Vermont update the plan annually.

There are challenges inherent in developing a health information infrastructure that supports all of Vermont’s health care reform goals: information for evaluation, information for clinical decision-making, information for predictive analytics and population health planning. Health information needs to be of high quality and timely to impact health outcomes. We have made significant progress to date, but there is more to do. Vermont has the opportunity to ensure that our health data infrastructure continues to be built as efficiently as possible to maximize the benefit to Vermonters.

Scope

The focus of this VHITP is on the electronic collection, storage, and exchange of clinical and social services data. This is consistent with the scope of the previous State HIT Plans and with legislative intent when the statutory HIT Plan requirement was significantly updated in 2009. This version of the VHITP addresses how clinical and services data systems should intersect with other State health technology projects, such as Vermont Health Connect, Medicaid Management Information Systems (MMIS), and Integrated Eligibility, but it does not establish strategic directions for these other systems or projects.

This VHITP does include an increased focus on less traditional health and human services providers, such as those in mental health, substance abuse, and long-term supports and services (including home health, nursing homes, and disability). These providers are generally less advanced in the adoption, use, and exchange of electronic information and have not, to date, received the same levels of federal and state assistance.

Initiatives

The 17 initiatives in this VHITP describe the technical infrastructure and supporting environmental elements that are necessary for successful support of health care reform in Vermont. The goals of the initiatives are to accomplish the following:

1. Establish strong, clear leadership and governance for statewide Health Information Technology/Health Information Exchange (HIT/HIE) with a focus on decision-making and accountability.
2. Continue – and expand – stakeholder dialogue, engagement, and participation.
3. Expand connectivity and interoperability.
4. Provide high quality, reliable health information data.
5. Ensure timely access to relevant health data.
6. Continue the protection of a person’s privacy as a high priority.

A list of all of the initiatives with a high-level description can be found at the end of this section.

Additional Recommendations

In addition to the 17 initiatives there are four recommendations contained within this Plan to enable Vermont to continue moving forward with its health care reform efforts.

1. Launch the transition plan contained in section 7.
2. Continue expansion of broadband (and cellular) access to areas where it’s not currently available.
3. Ensure sustainable funding source for the initiatives contained within this document.
4. Develop centralized capability to proactively identify new federal grant opportunities for HIT/HIE efforts – beyond the traditional CMS grants.

How This Plan Was Created

The process to create this plan took nearly a year and involved the efforts of over 500 health care stakeholders from across the health care spectrum and around the state of Vermont. This process included interviews, workshops, a broad statewide survey, public presentations, and the opportunity for public feedback.

The results of these efforts were a vision, objectives and guiding principles upon which 17 initiatives were created.

VHITP VISION

To ensure the well-being of all Vermonters, our vision is that health and human services information is available at the right time, right place, and in the right ways to support continuous improvements in individual health and wellness experiences, health status, health care outcomes, and to lower costs.

Funding Approach

As described in more detail in Section 2, the HIT Plan must make recommendations on strategic investments and funding to support the infrastructure needed.¹ This plan recommends that one of the first things to put in place is a new, governance structure over statewide HIT/HIE that has accountability, stakeholder representation, and decision-making authority to prioritize projects and programs – from the standpoint of what projects should begin, which ones should be accelerated, and which should be discontinued. The Plan anticipates an interim governance committee, which will create a proposal on governance and funding for the next Governor’s administration.

A substantial investment of resources would be needed to develop an environment that enables health care information to be available wherever and whenever it’s needed. This plan provides a high-level estimate of approximately \$105M to fund the projects that will realize the initiatives contained in the plan over the five-year planning period. The plan recommends that the interim governance process review the projects and prioritize them in order to create a refined budget and funding estimate, which would be proposed to the next administration.

Transition Plan

This updated plan provides high-level strategic direction for HIT/ HIE in Vermont, but recognizes that the work ahead will continue to evolve over time. Many program and project details will be refined over the five-year horizon of the plan. In 2017, Vermont will have a new Governor who will be responsible for implementing this plan. The new administration will benefit from the strategies laid out in this plan and be responsible for the operational details and future plan updates. The Transition Plan included on pp. 92-94 is limited to those actions that can reasonably be accomplished during the next year by the current administration and require the current administration to provide recommendations to the next administration.

¹ 18 V.S.A. § 9351. “Health Information Technology Plan.” Accessed January 2016 at <http://legislature.vermont.gov/statutes/section/18/219/09351>

VHITP INITIATIVES²

Statewide HIT/HIE Governance & Policy

- 01 – Establish (and run) comprehensive statewide HIT/HIE governance.**
Create an entity that has the appropriate authority, accountability, and expertise to promote and ensure the success of public and private HIT/HIE efforts in support of health care and payment reforms across the state of Vermont.
- 02 – Strengthen statewide HIT/HIE coordination.**
Provide overall coordination and communication of the statewide HIT/HIE related projects and activities.
- 03 – Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.**
Establish a statewide master health data management program to address/manage the access, availability, quality, integrity, and security of data.
- 04 – Develop and implement an approach for handling the identity of persons that can be used in multiple situations.**
Develop an approach that will uniquely identify a person across systems and points of care that includes both health care and human services information.
- 05 – Oversee and Implement the State’s Telehealth Strategy.**
Direct, manage, and update as needed the State’s 2015 Telehealth Strategy.
- 06 – Provide bi-directional cross state border sharing of health care data.**
Develop and implement an approach to easily share health information electronically with other states.

Business, Process & Finance

- 07 – Continue to expand provider Electronic Health Record (EHR) and HIE adoption and use.**
Continue to grow the numbers and types of providers who have access to, and use EHRs and HIE capabilities.
- 08 – Simplify State-required quality and value health care related reporting requirements and processes.**
Provide more efficient, streamlined processes and tools for providers to report on required health care metrics.
- 09 – Establish and implement a sustainability model for health information sharing.**
Develop and implement an economic model that ensures that the on-going services, resources, funding, benefits, and cultural norms that foster broad health care information sharing are achieved and maintained over time.

² Initiatives organized by domain. These domains are not prioritized. Initiatives within each domain are generally in a timing/ prioritization order.

Stakeholder Engagement & Participation

10 – Centralize efforts for stakeholder outreach, education, and dialogue relating to HIT/HIE in Vermont.

Consolidate efforts to convene and educate health care stakeholders, including clinicians, so that they can both obtain information on HIT/HIE efforts and engage in a dialogue that promotes ongoing participation and ownership of these efforts.

Privacy & Security

11 – Ensure that statewide health information sharing consent processes are understood and consistently implemented for protected health information – including information covered by 42 CFR Part 2 and other State and Federal laws.

Create a common approach, which is well understood by both providers and consumers that can be used statewide for complying with patient consent requirements.

12 – Ensure continued compliance with appropriate security and privacy guidelines and regulations for electronic protected health information.

Ensure that all systems housing or transporting protected health data in State or statewide systems comply with the Security Rule and all other applicable privacy and security regulations.

Technology

13 – Ensure VHIE connectivity and access to health and patient information for all appropriate entities and individuals.

Complete the implementation of all appropriate providers to VHIE. This includes all appropriate provider practices, regardless of size or location, providers of physical health, mental health, substance use, and support services.

14 – Enhance, expand, and provide access to statewide care coordination tools.

Provide appropriate on-line tools that are organization-independent and broadly available to those involved in providing and coordinating health and human services.

15 – Enhance statewide access to tools (analytics and reports) for the support of population health, outcomes, and value of health care services.

Develop and implement the infrastructure, tools, and processes needed for broad and timely access to analytics capabilities and reports that are needed to evaluate the effectiveness and value of health and human services.

16 – Design and implement statewide consent management technology for sharing health care information.

Develop a technical infrastructure and tools to support the common statewide patient consent approach and processes.

17 – Provide a central point of access to aggregated health information where individuals can view, comment on, and contribute to their personal health information.

Implement tools and processes that enable individuals to access, comment on, add to, or correct their aggregated health information within a reasonable timeframe.

The Vermont Health Information Technology Plan (VHITP) was first published in 2007. The update of the plan was authorized by 18 V.S.A § 9351³ and the Plan was subsequently updated in 2010. The Green Mountain Care Board (GMCB) is responsible for approving updates to the Plan.

The goal of this version of the VHITP is to provide direction and a framework to put in place the necessary technology infrastructure and associated processes to support Vermont's health care reform efforts. The VHITP describes the initiatives and activities Vermont must

Vermont Statute: 18 V.S.A § 9351

The HIT Plan shall:

- 1) support the **effective, efficient, statewide use of electronic health information** in patient care, health care policy making, clinical research, health care financing, and continuous quality improvements;
- 2) **educate** the general public and health care professionals about the value of an electronic health infrastructure for improving patient care;
- 3) ensure the **use of national standards** for the development of an interoperable system, which shall include provisions relating to security, privacy, data content, structures and format, vocabulary, and transmission protocols;
- 4) propose **strategic investments** in equipment and other infrastructure elements that will facilitate the ongoing development of a statewide infrastructure;
- 5) recommend funding mechanisms for the **ongoing development and maintenance** costs of a statewide health information system, including funding options and an implementation strategy for a loan and grant program;
- 6) **incorporate the existing health care information technology** initiatives to the extent feasible in order to avoid incompatible systems and duplicative efforts;
- 7) **integrate** the information technology components of the Blueprint for Health established in chapter 13 of this title, the Agency of Human Services' Enterprise Master Patient Index, and all other Medicaid management information systems being developed by the Department of Vermont Health Access, information technology components of the quality assurance system, the program to capitalize with loans and grants electronic medical record systems in primary care practices, and any other information technology initiatives coordinated by the Secretary of Administration pursuant to 3 V.S.A. § 2222a; and
- 8) address issues related to **data ownership, governance, and confidentiality and security of patient information.**

³ 18 V.S.A. § 9351. "Health Information Technology Plan." Accessed January 2016 at <http://legislature.vermont.gov/statutes/section/18/219/09351>

undertake to ensure adequate HIT/HIE support of its Health Reform goals:⁴

1. Reduce Health Care Costs and Cost Growth.
2. Assure Access to Affordable Health Care for all Vermonters.
3. Improve the Health of Vermont's Population.
4. Assure Greater Fairness in How We Pay for Health Care.

The 2016 VHITP development process involved hundreds of Vermonters who contributed their time, talent, and knowledge. A list of those who participated through interviews, workshops, and meetings can be found in Appendix E. As a result of this, the 2016 VHITP update is the most substantial since it was first published.

The VHITP provides a springboard for the coordination of efforts to define and implement a technical infrastructure to support the role of health information technology (HIT) and health information exchange (HIE) in Vermont. It can also serve as a sounding board to evaluate future HIT/HIE opportunities. As called for in statute, the VHITP should be updated annually.

This update to the VHITP:

- Documents a high-level strategy and roadmap for the electronic collection, storage, and exchange of clinical or service data in support of the Triple Aim⁵: improved patient care, improved health of Vermonters, and lower growth in health care costs.
- Provides direction for future projects, initiatives, and funding.
- Serve as a framework to support the regulatory review of IT projects within the State.

The scope and focus of this Plan is on the electronic collection, storage, and exchange of clinical and social services data.

This is consistent with the scope of the previous State HIT Plans and with legislative intent when the statutory HIT Plan requirement was significantly updated in 2009. This version of the VHITP

Key Definitions

Health Information Technology (HIT) supports a variety of health care services using information technology. Information technology includes the use of computerized systems and the secure exchange of data in support of health care delivery. EHRs and Health Information Exchanges are examples of HIT.

Health Information Exchange (HIE), used as a verb, is the electronic movement of health-related information among organizations according to nationally recognized standards. The goal of health information exchange is to facilitate access to and retrieval of clinical data to provide safer, timelier, efficient, effective, equitable, patient-centered care. Health information exchange, as a noun, usually refers to organizations that provide services to electronically move clinical information between health care information systems.

⁴ State of Vermont. "Strategic Plan For Vermont Health Reform 2012-2014." Accessed December 2015 at <http://hcr.vermont.gov/sites/hcr/files/2013/Strategic%20Plan%20Revised%20July%202012.pdf>

⁵ Institute for Healthcare Improvement (IHI) website. "IHI Triple Aim Initiative." Accessed December 2015 at <http://www.ihl.org/engage/initiatives/tripleaim/Pages/default.aspx>

addresses how clinical and services data systems should intersect with other State health technology projects, such as Vermont Health Connect, Medicaid Management Information Systems (MMIS) and Integrated Eligibility, but it does not establish strategic directions for these other systems or projects.

This VHITP does include an increased focus on less traditional health and human services providers, such as those in mental health, substance abuse, and long-term supports and services (including home health, nursing homes, and disability). These providers are generally less advanced in the adoption, use, and exchange of electronic information and have not, to date, received the same levels of federal and state assistance.

The activities involved in researching, developing, and coordinating stakeholder input, assessing the results of multiple workshops, presentations, briefings, drafting, and reviewing sections of the VHITP took place over a span of 12 months. During that time, the core project team and the project's steering committee – established to guide the project – focused on the role of HIT and HIE to support Vermont's efforts related to health care reform. Participants understood that health care reform is the high-level goal and that efficient and effective HIT and HIE must be present to achieve that goal.

The “*Background*” section describes prior activities related to HIT, HIE, and health care reform, in Vermont and nationally. It documents the current HIT/HIE environment in Vermont and provides a timeline of prior activities in these areas.

The “*How the VHITP was Updated*” section describes how this update to the VHITP was developed and describes the planning and project management methods that were used. One significant difference in how this plan was developed, as opposed to how previous updates were accomplished, was the breadth and depth of stakeholder input received from across the State. During the development of the VHITP, hundreds of clinicians, team members, hospital and practice administrators, non-clinical caregivers, and other individuals were directly involved.

This section describes how stakeholders' objectives – and the capabilities needed to accomplish those objectives – were converted to 17 actionable initiatives.

“*The Path Forward*” section describes 17 initiatives that Vermont should implement to efficiently and effectively use HIT and HIE to achieve health care reform. It also provides a high-level time line showing how the initiatives could be staged for maximum effect.

The “*Funding*” section describes current funding of Vermont's HIT/HIE projects and describes the need to prioritize initiatives and future projects to ensure appropriate implementation within available funding. This section also notes that project team members identified well over 100 state-level projects with a HIT or HIE component, which should be reviewed to ensure consistency with this plan.

The “*Transition Plan and Next Steps*” section describes a series of activities that will be undertaken to continue the interest in, and momentum behind, implementing this update to the VHITP.

The “*Appendices*” section contains the material gathered or generated during the updating of the VHITP. Included in the appendices are:

- Appendix A: Application of Law to the Privacy and Security Framework of a Health Information Exchange Network
- Appendix B: VITL Privacy and Security Policies
- Appendix C: VHIE Connection Criteria
- Appendix D: VHITP Update Process Activities
- Appendix E: List of Participants
- Appendix F: Glossary

HEALTH INFORMATION TECHNOLOGY AND HEALTH CARE REFORM IN VERMONT (2005-2015)

For the last 25 years, Vermont has enacted initiatives to reform the delivery and financing of health care. Concurrently, they passed legislation to advance the use of Health Information Technology (HIT) and Health Information Exchange (HIE) to support these reforms.

This background section will focus on the last 10 years (2005-2015) of health care reform in Vermont. This section will briefly describe the major health care reform events that relate to HIT and HIE. This includes strategic plans, state and federal legislation, federal coordination, State programs, and key stakeholders.

State HIT/HIE Strategic Plans

Since 2005, major health care reform plans and HIT/HIE strategic plans have support and provided direction to the advancement of health information infrastructure:

Vermont's Five Year Health Care Reform Plan (2006-2011)

In 2006, Governor Douglas' administration developed Vermont's Five Year Health Care Reform Plan that supported VITL as the entity to develop the statewide, integrated, electronic health information infrastructure for the sharing of health information among health care facilities, health care professional, public, and private payers, and patients.

Vermont Health Information Technology Plan (2007) and Updates

During 2007, with input from more than 30 stakeholder advisors, VITL completed the first VHITP. The 2008 General Assembly approved the plan and directed VITL to continue to update the plan to include state and national privacy and security policies, and procedures as they became available to reflect industry best practices. Starting in 2009, responsibility for the plan transitioned to the Administration, with the Secretary of Administration delegating that task to the Department of Vermont Health Access (DVHA).

State Medicaid Health Plan

The Department of Vermont Health Access (DVHA) developed the initial State Medicaid Health Plan (SMHP) in 2011 and updated it in 2013 and 2014. The SMHP represents a comprehensive view of HIT/HIE programs within and outside state government. The plan provided a framework for the federal Office of National Coordinator's (ONC) grant to VITL to operate a Regional Extension Center (2010-2015) to assist primary care providers use of EHRs; ONC's grant to the State, which passes through to VITL, to continue developing

Vermont's Health Information Exchange (2010-2014); and the Medicaid EHR Incentive Program that provides financial incentives for providers to use EHRs in a meaningful manner (ongoing).

Strategic Plan for Vermont Health Reform 2012 – 2014

In early 2012, Governor Shumlin's Director of Health Care Reform released the "Strategic Plan for Vermont Health Reform, 2012-2014"⁶. This plan outlined state government's role to reduce health care costs and cost growth; assure Vermonters have access to and coverage for high-quality health care; support improvements in the health of Vermont's population; and assure greater fairness and equity in how Vermonters pay for health care. This plan also discusses the need for HIT/HIE to support Vermont's health care reform goals.

State Legislation

This section provides an overview of State Legislation that supports, funds, and provides oversight to Vermont's HIT/HIE efforts.⁷

Act 71 of 2005 (Appropriation Bill of FY 2006) directed VITL to initiate a pilot involving at least two hospitals to establish sharing of electronic data for clinical decision support, develop a health information plan to establish an integrated, statewide electronic health information infrastructure, and make recommendations for self-sustainable funding of the infrastructure.⁸

Act 191 of 2006 (Health Care Affordability for Vermonters) required VITL to address issues related to data ownership, governance, and confidentiality and security of patient information in the HIT Plan.

Act 70 of 2007 (Clarifications to the Health Affordability Act) tasked the Secretary of Administration and VITL with raising \$1m from voluntary contributions from the Vermont Association of Hospitals and Health Systems (VAHHS), commercial payers, and Medicaid. The funds were used to assist 18 independent primary care providers implement EHRs.

The Act also designated VITL "to operate the exclusive statewide HIE network for this state...nothing in this section shall impede local community providers from the exchange of electronic medical data".

⁶ State of Vermont. "Strategic Plan For Vermont Health Reform 2012-2014." Accessed December 2015 at <http://hcr.vermont.gov/sites/hcr/files/2013/Strategic%20Plan%20Revised%20July%202012.pdf>

⁷ Links to all Vermont Health Care Reform Acts, except 2005 legislation can be found at <http://hcr.vermont.gov/legislation>

⁸ Vermont Act 71. Accessed January 2016 at <http://www.leg.state.vt.us/docs/legdoc.cfm?URL=/docs/2006/acts/ACT071.htm>

Act 61 of 2009 (An Act Relating to Health Care Reform) created the permanent Health Information Technology Fund and transferred responsibility for coordination of Vermont's statewide HIT plan from VITL to the Secretary of Administration. The Secretary formally delegated HIT planning to DHVA.

Act 48 of 2011 (A Universal and Unified Health System) defined the requirements for a single payer system, created the Green Mountain Care Board (GMCB), and authorized DVHA to create and operate Vermont Health Connect.

The GMCB has responsibility for approving the VHITP and for the criteria for connecting to the HIE. Legislation passed in 2012 gave the GMCB oversight and responsibility for the Vermont Health Care Uniform Reporting and Evaluation System (VHCURES) and the Vermont Uniform Hospital Discharge Data Set (UHDDS).

Act 54 of 2015 (an Act Relating to Health Care Reform) transferred oversight of Vermont Information Technology Leaders (VITL) to the GMCB and gave the board authority to approve and monitor VITL's activities and budget.

Coordination with Federal Programs

The 2009 American Recovery and Reinvestment Act (ARRA)⁹ supported advancing the use of electronic health records, and private and secure electronic health information exchange with three major initiatives:

- The Health Information Technology for Economic and Clinic Health (HITECH) Act, which formalized and enhanced the Office of the National Coordinator for Health IT (ONC) and included a Congressional appropriation of \$2 billion to ONC for the implementation of HITECH.¹⁰
- The EHR Incentive Program, which provided \$30 billion to eligible professionals and hospitals to adopt, implement, and meaningfully use Electronic Medical Records (EMR).¹¹
- Regional Extension Centers (RECs) were created to assist eligible professionals to qualify for financial incentives by achieving meaningful use of EMRs.

⁹ American Recovery and Reinvestment Act of 2009. Accessed December 2015 at https://www.healthit.gov/sites/default/files/hitech_act_excerpt_from_arra_with_index.pdf

¹⁰ Office of the National Coordinator for Health Information Technology. "Electronic Health Record Adoption and Utilization, 2012 Highlights and Accomplishments," 2012. Accessed December 2015 at https://www.healthit.gov/sites/default/files/highlights_accomplishments_ehr_adoptionsummer2012_2.pdf

¹¹ Ibid.

In 2010, ONC funded 62 Regional Extension Centers (RECs) with at least one in each state. Based on VITL's success with the earlier EHR implementation pilots, ONC awarded VITL a 4 year, \$6.7m cooperative agreement to operate Vermont's REC.¹²

Concurrently, ONC funded states to develop and implement health information exchange based on a state strategic and operational plan. ONC awarded Vermont a 4 year \$5.0m grant¹³ to fund continued development and implementation of HIT infrastructure to advance the sharing of patient clinical data between appropriate providers.

State Programs

Claims Tax and Health Information Technology Fund (2009)

Starting in the fall of 2009, Act 61 required payers to allocate to the HIT Fund slightly less than two tenths of one percent¹⁴ of the value of medical claims. The claims tax and the HIT Fund were originally scheduled to sunset in 2015, but Act 79 of 2013¹⁵ extended the Fund to July 2017. In 2009, Vermont's Joint Fiscal Office estimated the fund would generate \$35 million over seven years. Through September 2015, the fund has generated \$20.4m in revenue to support legislatively-identified programs/projects including: support VITL, for the Blueprint for Health; HIT projects managed by Bi-State Primary Care Association, Cathedral Square, Designated Agencies, and nursing homes; the EHR Incentive Program; HIT projects in each of the 14 health service areas (HSAs); and program management of the fund.

The State uses the revenue from the claims tax to draw down federal HITECH funds and other federal funds including Medicaid Global Commitment dollars.

Patient Consent (2009-2015)

Vermont law also requires that "[t]he privacy standards and protocols developed in the statewide health information technology plan shall be no less stringent than applicable federal and state guidelines, including the "Standards for Privacy of Individually Identifiable Health Information" established under the Health Insurance Portability and Accountability Act of 1996 and contained in 45 C.F.R., Parts 160 and 164, and any subsequent amendments, and the

¹² VITL. "January 2011 Progress Report to Legislature." Accessed January 2016 at <https://www.vitl.net/sites/default/files/documents/Annual-Reports/2011%20VITL%20Progress%20Report.pdf>

¹³ Ibid.

¹⁴ Actual number is .0199% percent

¹⁵ Vermont Act 79 § 4079. "An act relating to health insurance, Medicaid, the Vermont Health Benefit Exchange, and the Green Mountain Care Board," 2013. Accessed December 2015 at Policies <http://legislature.vermont.gov/assets/Documents/2014/Docs/ACTS/ACT079/ACT079%20As%20Enacted.pdf>

privacy provisions established under Subtitle D of Title XIII of Division A of the American Recovery and Reinvestment Act of 2009, Public Law 111-5, sections 13400 et seq.

Any organization participating in Vermont's HIE must sign business associate agreements spelling out in detail how data is to be used between organizations. No technical work can begin on a project or interface until those agreements have been signed by all parties.

Building on the prior consent structure, Vermont's HIE-consent policy was updated in 2014. The revised consent policy was requested by the Vermont Medical Society and the VITL Board and approved by the Green Mountain Care Board.¹⁶ This consent policy is a global opt-in to view to share patient's clinical information.¹⁷ Like the prior two policies, the new consent policy does not include a structure to meet the more stringent data sharing requirements of 42 CFR Part 2 (Part 2), which is a federal regulation governing a subset of patient data related to substance abuse services. Currently, DVHA is working with VITL to develop a plan for the implementation of a consent process that would be compliant with 42 CFR Part 2. This new process would have to be approved by the Green Mountain Care Board.

State Innovation Model (2013)

In 2013, the Center for Medicare and Medicaid Services (CMS) awarded a \$45 million State Innovation Model Testing (SIM, also known as the Vermont Health Care Innovation Project) grant to Vermont. The goal of this grant is to assist Vermont in achieving the Triple Aim through payment and delivery system reforms. A significant portion of the grant funds are used to expand Vermont's HIT infrastructure. These investments are directed through a public/private work group that focuses on Vermont's health data infrastructure:¹⁸

Health Data Infrastructure (HDI) Work Group

The Health Data Infrastructure Work Group¹⁹ works to strengthen Vermont's data infrastructure to support interoperability of claims and clinical data and predictive analytics through several projects:

¹⁶ "Memorandum Requesting Action by the GMCB", October 16, 2013. Accessed December 2015 at <http://hcr.vermont.gov/sites/hcr/files/2014/MemoGMCB%20%282%29.pdf>

¹⁷ Vermont Green Mountain Care Board. Approved revisions to the Policy on Patient Consent for Provider Access to Protected Health Information on VHIE, 2014. Accessed December 2015 at http://gmcboard.vermont.gov/sites/gmcboard/files/140314_Decision_VHIE_consent_policy.pdf

¹⁸ State of Vermont. "Vermont Health Care Innovation Project" web page. Accessed January 2016 at <http://healthcareinnovation.vermont.gov/node/706>

¹⁹ Vermont Health Care Innovation Project. "Quarterly Report to the Vermont Legislature," November 3, 2015. Accessed December 2015 at

- Gap Analyses of EHR system capabilities for long-term services and supports and ACO providers to connect to Vermont's HIE (VHIE);
- Gap Remediation to address gaps in clinical data quality of health care organizations, including designated mental health agencies and ACO providers, connecting to VHIE;
- Data Extracts to provide a secure data connection from the VHIE to the ACOs' analytics vendors for their attributed beneficiaries;
- Creation of the 2015 Telehealth Strategic Plan;
- Development of a designated mental health agency data repository;
- Procurement of a perpetual license and source code for software to support the Blueprint for Health's clinical registry;
- Discovery and Design related to Shared Care Plans, Event Notification Systems, and Uniform Transfer Protocol; and
- An inventory identifying existing health data sets within state government. The inventory identified 256 databases, data reports, and systems from 30 different organizations and 37 departments.²⁰

Health and Human Services Enterprise

The Health and Human Services Enterprise (HSE) is a portfolio of programs (Vermont Health Connect, Integrated Eligibility, Medicaid Management Information System, HIE/HIT) that rely upon a Services Oriented Architecture (SOA). This approach is consistent with best practices and Federal guidance requiring asset reuse where possible in order to improve the value obtained from the financial investment made in information technology.

Vermont Health Connect

Vermont launched a federally required health benefits exchange, Vermont Health Connect²¹ (VHC), on October 1, 2013. VHC allows individuals and small businesses to compare and purchase qualified private health insurance plans, access federal and state tax credits, determine eligibility, and enroll individuals in public health insurance plans.

http://www.leg.state.vt.us/jfo/healthcare/Health%20Reform%20Oversight%20Committee/2015_11_13/Report%20-%20VHCIP%20Quarterly%20from%20GMCB%20-%20November%202015.pdf

²⁰ Stone Environmental. "Inventory and Analysis of Existing Vermont Health Data," December 9, 2015. Accessed December 2015 at <http://healthcareinnovation.vermont.gov/sites/hcinnovation/files/HIE/12-16-15%20HDI%20-%20DRAFT%20Health%20Data%20Inventory%20Report.pdf>

²¹ Vermont Agency of Human Services. "Vermont Health Services Enterprise (HSE) Implementation Advance Planning Document (IAPD) - Update," page 25, Version 2.5.1, April 25, 2014. Accessed January 2016 at <http://dvha.vermont.gov/administration/vt-hse-apd-v2-5-1.pdf>

Integrated Eligibility and Enrollment

Integrated Eligibility and Enrollment (IE&E)²² is a technical solution that is being developed to determine Vermonters' eligibility and to enroll them in a multitude of assistance services sponsored by the Agency of Human Services, rather than have disparate processes for these services. IE&E will leverage already developed elements in Vermont Health Connect.

Medicaid Management Information System

The new Medicaid Management Information System (MMIS)²³ Program is being developed to align with new Federal and State regulations stemming from the Federal Affordable Care Act and Vermont Act 48 of 2011, as well as be compliant with the CMS Seven Standards and Conditions.²⁴ The MMIS Program is a claims processing system that will streamline billing, payment, and other Medicaid operational components.

Key Stakeholders

Vermont Information Technology Leaders, Inc. (2005-present)

In 2005, Vermont Information Technology Leaders, Inc., (VITL) was created as a private, non-profit organization supported by the Vermont Association of Health and Hospital Systems (VAHHS), Vermont Medical Society (VMS), and Fletcher Allen Health Center (now University of Vermont Medical Center). VITL's initial focus was sharing patient clinical information.

Since 2005, VITL has expanded Vermont's HIE and associated services to support Vermont's health care reform goals.

According to VITL's website²⁵, they securely manage clinical information within the HIE for:

- All 14 Vermont hospitals and Dartmouth-Hitchcock Medical Center in N.H.;
- All of Vermont's 11 Federally Qualified Health Centers;
- 91 Blueprint for Health primary care locations;
- 29 other primary and specialty care locations;
- Five member agencies of the Vermont Nursing Association; and
- Three commercial laboratories.

²² Vermont Agency of Human Services. "Vermont Health Services Enterprise (HSE) Implementation Advance Planning Document (IAPD) - Update," page 26, Version 2.5.1, April 25, 2014. Accessed January 2016 at <http://dvha.vermont.gov/administration/vt-hse-apd-v2-5-1.pdf>

²³ Ibid, page 28.

²⁴ <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Data-and-Systems/Downloads/EFR-Seven-Conditions-and-Standards.pdf>, accessed 12-13-15

²⁵ VITL website. "VITL Celebrates 10 Years as a Health Technology Leader." Accessed December 2015 at <https://www.vitl.net/blogs/joannacummings/vitl-celebrates-10-years-health-technology-leader>

VITL provides additional services that health care providers can use to access and share clinical data, and support EHR procurement:²⁶

- VITLAccess is a secure, provider portal providing a patient-centered view of the clinical data available through the VHIE; and
- VITLDirect is a secure point-to-point messaging system that supports meaningful use transitions of care.
- VITL eHealth specialists support²⁷ providers in the following way:
 - EHR Selection, Implementation, Replacement, and Optimization;
 - Data Analysis & Quality Improvement;
 - Meaningful Use Assistance; and
 - Security Risk Assessment.

More information about VITL can be found on their website at www.vitl.net.

Providers

As discussed above, the VHITP contains initiatives to support Vermont's health care reform goals. Vermont's providers are a key partner in achieving these goals and have a specific role around HIT and HIE. Additionally, there are numerous providers who provide care to Vermonters who are outside Vermont's borders. All of these providers have varying levels of electronic capabilities and information exchange. Many have EHRs and are sending information to the HIE. Many, due to federal incentive programs, have different ways of capturing clinical information. Providers have demonstrated eagerness to share information that would enhance patient care within a privacy and consent structure.

Vermont Care Network / Vermont Care Partners

Vermont Care Partners (Vermont Care Network and the Vermont Council of Developmental and Mental Health Services) is a statewide provider network of 16 non-profit community-based agencies that specialize in developmental disability, mental health and substance use disorder services. Vermont Care Network has received several grants to work with its network members to improve data quality and build a data repository. Goals of the data repository include: enabling network members to send specific data to a centralized data repository; creation of system-wide efficiencies for reporting and exchange of information; and assessment and improvement of care delivery. These providers forward permissible data to the HIE and are continuing to explore other opportunities for broader connectivity.

²⁶ VITL website, Provider Services page. Accessed December 2015 at <https://www.vitl.net/connect/provider-services>

²⁷ VITL website, Consult page. Accessed December 2015 at <https://www.vitl.net/consult-ehealth-specialist>

Accountable Care Organizations (ACOs)

There are three ACOs in Vermont: Community Health Accountable Care (CHAC), Accountable Care Coalition of the Green Mountains/Vermont Collaborative Physicians (ACCGM/VCP), and OneCare Vermont (OCV). They include, collectively, all of the State's hospitals, and Dartmouth-Hitchcock, most of the state's physicians, all of the state's federally qualified health centers and many of the state's home health and mental health providers.²⁸ The ACOs are working with their participating providers to expand the health care information shared and provide analyses of population health. They use a combination of clinical, claims, and survey data, including that provided through the HIE.

Hospitals

Vermont's 14 hospitals have implemented or upgraded their health information systems to provide comprehensive information technology services to their providers as well as to connect to the HIE.

Practices and Clinics

Since 2010, with VITL's Regional Extension Center (REC) assistance, a majority of Vermont's primary care practices and clinics have adopted EHRs and are using them to meet the requirements of CMS's Meaningful Use (MU) program. A majority of these providers are also connected to the HIE. These practices have also been supported by the Blueprint for Health's data quality initiatives since 2010.

Full Continuum or Long-Term Services and Supports Providers

There are ongoing efforts to provide low cost solutions to organizations excluded from MU incentives (mental health and substance abuse providers, nursing homes, and long-term care facilities) to allow for sharing of information. There are numerous solutions under development through the State's SIM work.

²⁸ GMCB. "Overview of Accountable Care Organizations in Vermont." Accessed January 2016 at [http://healthcareinnovation.vermont.gov/sites/hcinnovation/files/SSP and ACO FAQ and Chart 7.8.14.pdf](http://healthcareinnovation.vermont.gov/sites/hcinnovation/files/SSP_and_ACO_FAQ_and_Chart_7.8.14.pdf)

FEDERAL HIT/HIE Related Events

2010	2011	2012	2013	2014	2015
<p>ARRA, thru HITECH, funds \$564M to states to develop health information technology infrastructure</p> <p>Patient Protection and Affordable Care Act (PPACA) signed into law</p> <p>Blue Button Initiative launched</p> <p>MU1 final rule</p> <p>PCAST report released</p> <p>DEA issues final rule permitting eRx of controlled substances</p>	<p>CMMI program launched</p> <p>Beacon Community Program begins awards of \$250M</p> <p>CMS announces the first 32 Medicare Pioneer ACOs</p> <p>27% of hospitals and 34% of providers adopt EHRs</p>	<p>CMS announces the first 27 Medicare Shared Savings program recipients</p>	<p>Meaningful Use Stage 2 Final Ruling</p> <p>Round 1 SIM grants awarded (\$250M)</p> <p>OCR announces the Final Omnibus HIPAA rule</p> <p>51% of hospitals can electronically query other organization for health information</p> <p>HHS releases "Principles & Strategy for Accelerated Health Information Exchange (HIE)" Report</p>	<p>ONC releases "A 10-year vision to Achieve an Interoperable Health IT Infrastructure"</p> <p>80% of hospitals can electronically query other organizations for health information</p> <p>MU2 attestations begin</p> <p>SHIECAP funding ends</p> <p>MU Stage 3 final recommendations released</p>	<p>ONC Publishes "Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap"</p> <p>Federal Health IT Strategic Plan 2015-2020 released</p> <p>HHS releases report to Congress, "Health Information Blocking Report"</p> <p>2015 Interoperability Standards released</p>

VERMONT HIT/HIE Related Events

2010	2011	2012	2013	2014	2015
<p>ONC awards VITL a 4-year REC cooperative agreement of \$6.4M to train primary care providers to meaningfully use EHRs</p> <p>ONC SHIECAP awards DVHA a 4-year HIE cooperative agreement of \$5M. DVHA names VITL as the State Designated Entity (SDE) to expand HIE services</p> <p>Vermont Blueprint for Health expanded</p>	<p>VITL signs contract with Medicity services provider to VHIE</p> <p>VT Act 48 "Universal & Unified Health System," enacted</p> <p>GMCB created by legislature in VT Act 48</p> <p>VT EHRIP program begins</p>	<p>VITL offers VITLDirect (secure email) to providers</p> <p>DVHA receives CMS approval to use Medicaid funds to support 30% of VITL's operating costs</p> <p>Vermont's "Strategic Plan for Vermont Health Reform, 2012-2014" is released</p>	<p>VT Act 79 establishes the Health Care Claims Tax to replace the HIT Reinvestment Fund – VHCURES (all payer claims database)</p> <p>SIM grant of \$45M awarded to State</p> <p>VHCIP office is established to manage SIM grant</p> <p>VHCIP workgroups created</p>	<p>GMCB approves VHIE Connectivity Criteria and global opt-in consent policy for patient consent to share patient clinical information</p> <p>VHCIP HIE Workgroup awards VITL \$5.8M to accelerate the deployment & expansion of the VHIE</p> <p>Revised HIE consent policy approved</p>	<p>VT Act 54 gives GMCB oversight of publically funded portion of VITL budget</p> <p>VITL celebrates 10 year anniversary</p> <p>All Vermont hospitals are live on the VHIE</p> <p>State of Vermont Strategic Plan Connectivity Criteria (to VHIE) approved</p>

SECTION
4

HOW THE VHITP WAS UPDATED

APPROACH USED TO UPDATE THE VHITP

Over the past year, the State involved hundreds of individuals and organizations – from the public, private, and public/private sectors throughout Vermont and beyond – in the process to update the VHITP. These individuals contributed their time and expertise and without their active involvement and participation this update would not have been possible.

The Process

The State employed a structured process – developed by Mosaica Partners, which incorporates specialized consulting and project management tools and techniques – to produce this updated VHITP.

VHITP UPDATE PROCESS



Core Project Team

The VHITP update was coordinated by Vermont’s Health Care Reform Manager, Steve Maier, who is also Vermont’s designated HIT Coordinator.

The core project team was comprised of members from the Department of Vermont Health Access (DVHA), along with the principles of Mosaica Partners and their local consulting affiliate.

	
Vermont Team	Mosaica Partners Team
<ul style="list-style-type: none"> • Steve Maier, HIT Coordinator • Jon Brown • Richard Terricciano • Paula Chetti 	<ul style="list-style-type: none"> • Laura Kolkman, President • Bob Brown • Paul Forlenza • Fran Rubino

VHITP Steering Committee

One of the first actions of the core team was to establish a VHITP Steering Committee comprised of recognized leaders in Vermont’s health care community – along with specialists in health information exchange and technology. The individuals represented the public, private, and public/private sectors. The group’s members agreed to take on the responsibility of providing the core team with oversight and guidance, act as a sounding board, and provide substantive review of the project’s approaches, activities, and outputs.

Monthly, in-person meetings of the VHITP’s Steering Committee and core project team were held at DVHA offices in Winooski. Additional meetings were held by conference call and webinar as needed.



The members of the VHITP Steering Committee:

Steve Maier (Chair)

HIT Coordinator,
Health Care Reform Manager
DVHA

Bard Hill

Information & Data Director
Dept. of Disabilities, Aging and Ind. Living

Darin Prail

CIO
Agency of Human Services

Georgia Maheras

Director
Vermont Health Care Innovation Project

Greg Robinson

VP, Finance & Informatics
One Care Vermont

Heather Skeels

Project Manager
Bi-State Primary Care Association

Jed Batchelder

Independent Healthcare IT Consultant

Joel Benware

VP, IS and Compliance
Northwest Medical Center

John Evans

President/CEO
VITL

Kelly Macnee

Health Policy Analyst
Green Mtn. Care Board

Larry Sandage

HIE Program Manager
AHS

Richard Boes

Commissioner,
DII-State of VT

Simone Rueschemeyer

Executive Director
Vermont Care Network /
Vermont Care Partners

Guiding Principles

At the beginning of the project the core project team developed a set of guiding principles to inform the VHITP update. These principles are based on principles carried forward from the prior VHITP, as well as additional principles based on best practices. The VHITP Steering Committee reviewed and provided guidance on the development of the principles.

VHITP Guiding Principles

- Health information technology will enable the improvement of Vermonters' health and the care they receive by making health information available where and when it is needed.
- Health data is secure, accurate, timely, and reliable.
- Vermonters will be confident that their health information is secure and private and only accessed appropriately.
- Shared health information that provides value to individuals, providers, and payers is a key component of an improved health care system.
- Vermont's health information technology infrastructure will be:
 - Based upon best practices and use industry standards.
 - Interoperable.
 - Resilient and flexible to accommodate and support emerging health reform and technology landscapes.
 - Fiscally responsible and, whenever possible and prudent, leverage past investments.
 - Built with the goal of on-going sustainability.
 - Easy and cost effective for individuals and organizations to adopt and use.
- Vermont will use an open, transparent, and inclusive approach in developing and implementing its health information technology and exchange (HIT/HIE) initiatives.
- Stakeholders responsible for the development and implementation of the health information technology infrastructure will act in a collaborative, cooperative fashion to advance steady progress towards the vision and these principles/core values.

The HIT/HIE Vision

Working with the VHITP Steering Committee, members of the core project team developed a vision statement to describe the desired future state of health and human services information in Vermont.

VHITP VISION

To ensure the well-being of all Vermonters, our vision is that health and human services information is available at the right time, right place, and in the right ways to support continuous improvements in individual health and wellness experiences, health status, health care outcomes, and to lower costs.

Interviews of Key HIT/HIE Stakeholders

Beginning in March 2015 and continuing through July, Mosaica Partners' principles conducted interviews with over 40 of Vermont's key HIT/HIE stakeholders. The interviews, mostly conducted by telephone, were described to the interviewees as confidential – in that any comments or remarks reported back to the core project team and the VHITP Steering Committee would not be identifiable as to the source. The results of the interviews were then aggregated and summarized.

The information gleaned from these interviews – and a coincident review of existing HIT- and HIE-related documentation – provided the core project team with insights into the current state of health information practices and the potential future needs of technology to support health care reform in Vermont.

Envisioning Workshops

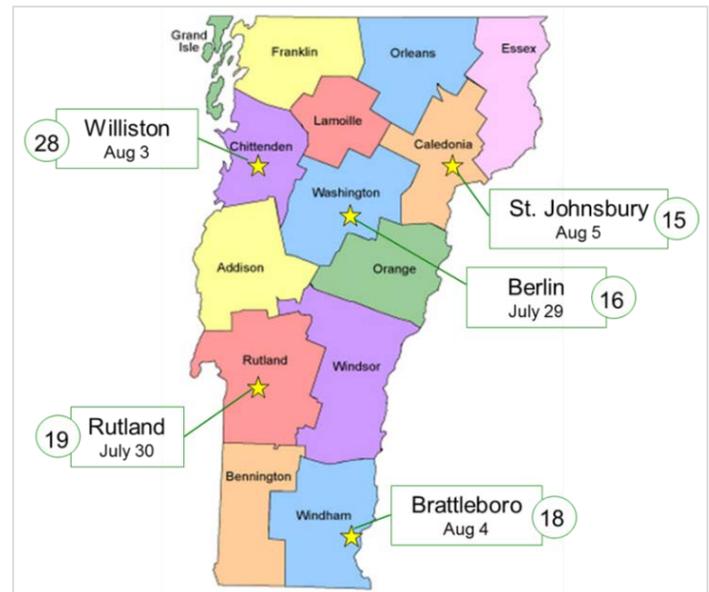
Subsequent to the key stakeholder interviews, Mosaica Partners' principles facilitated five combined education sessions and envisioning workshops, which were held in various locations around the state. The purpose of the workshops was to:

- Introduce stakeholders to the core project team and explain the VHITP update process.
- Uncover their specific wants and needs – not now being met – that are needed to support health care reform in Vermont.
- Understand what the participants regarded as barriers to having an HIT infrastructure that supports health care reform.

- Understand their perspectives on potential issues/challenges that arise with this kind of infrastructure change, especially because it is statewide and impacts so many stakeholders.
- Understand their view on the key elements of success for improving HIT/HIE in Vermont.

FIVE ENVISIONING WORKSHOPS

Conducted around the State of Vermont in the summer of 2015



Berlin	July 29, 2015	16 attendees
Rutland	July 30, 2016	19 attendees
Williston	August 3, 2015	28 attendees
Brattleboro	August 4, 2015	18 attendees
St. Johnsbury	August 5, 2015	15 attendees

Objectives

Based on the results of the workshops, prior interviews and document reviews, and knowledge of best practices in health information, the core project team produced an initial set of HIT/HIE objectives. These objectives were reviewed, adjusted, and vetted by the VHITP Steering Committee.

The 16 resulting objectives answer the question, “If we successfully execute this plan, what will we have accomplished?”

VHITP OBJECTIVES

1. People trust that health care data is secure, accurate, and current	9. Health information sharing in Vermont is sustainable
2. Health care information can be appropriately and securely accessed by authorized people and providers	10. Reporting processes are streamlined to assist providers in complying with mandated reporting requirements
3. People have the information needed to make informed decisions about their care	11. There is statewide transparency and coordination of all appropriate HIT/HIE projects
4. Health care information is readily shareable across all provider organizations where people receive care	12. Health care and health services information collected and maintained by State agencies is easily shared
5. Integrated/Coordinated care is the norm	13. People have expanded access to health care services and providers through technology
6. Consent for sharing physical health, mental health, substance use, and social services information is implemented consistently	14. People can manage the sharing of their health care information
7. High quality health care/services data are accessible and suitable for multiple uses	15. There is active data governance in place for health care/services data
8. The cost of HIT/HIE is not a barrier to Vermont providers in implementing and using technology	16. Vermont easily and appropriately shares health care information beyond its borders

Statewide Survey

After the HIT/HIE objectives were developed and approved by the VHITP Steering Committee, a statewide survey was conducted to obtain additional stakeholder input on the relative importance of the proposed objectives.

DVHA personnel distributed invitations to the individuals on a broad VHITP's stakeholder list. In addition, individual VHITP Steering Committee members and over a dozen professional and community-based organizations assisted in the effort by directly inviting their members/associates to participate in the survey.

Over 500 individuals completed the survey in which they were asked to rate the relative importance of the objectives. The list of objectives above shows the order of importance from the results of the survey.

Capabilities Workshop

The next step in the process was to understand the capabilities that need to be in place to achieve the objectives²⁹. Capabilities describe the attributes of HIT infrastructure necessary to support health care reform in Vermont.

Enablers Workshop

Once the required capabilities had been defined, the next workshop was to understand what pieces of enabling infrastructure needed to be in place to support those capabilities.

Enablers are those things that need to be in place from technical, operational, and policy perspectives for the capabilities to exist and to achieve the objectives and ultimately Vermont's health care reform goals.

Initiatives

Equipped with a list of infrastructure components that needed to be in place to support the required capabilities, the core project team conducted a gap analysis, comparing the desired future state of the HIT/HIE infrastructure with the current state. Gaps were identified and a series of initiatives, designed to close those gaps, were developed. The resulting initiatives, described in detail below, provide the activities that will enable Vermont to continue to develop an HIT/HIE infrastructure that supports our health care reform goals.

Ad Hoc and Periodic Reviews

During the course of the project, the core project team was invited to conduct a number of informal briefing sessions on the state of the project to educate attendees and receive their input.

The core project team met with the leadership of Agency of Administration (AoA), the Department of Vermont Health Access (DVHA), Vermont Information Technology Leaders (VITL), the Vermont Health Care Innovation Project Health Data Infrastructure Work Group, and the Green Mountain Care Board. In each case, the status of the VHITP project was described and feedback was received.

²⁹ Capabilities are the features and functions that must be present in the infrastructure to be able to achieve the objectives.

Please note that the next 3 sections will be revised to reflect the process prior to finalizing the plan:

General Public Comment

Public input is an important step in the development and finalization of this plan. The draft VHITP was released on January 27, 2016 for a general public comment period and a public meeting was held on February 3, 2016 to receive additional feedback. Written comments were also received through February 5, 2016.

Review and Approval by Vermont Agency of Administration (AOA)

Vermont's Agency of Administration (AOA) is statutorily responsible for the overall coordination and submission of the VHITP.³⁰ After public comment, the Secretary of AOA submitted the VHITP to the GMCB on February 19, 2016 for final review and approval. Once that approval was obtained, the Secretary submitted the VHITP to the Legislature on [date] and other entities as required by 18 V.S.A. §9351.

Review and Approval by the Green Mountain Care Board (GMCB)

The Green Mountain Care Board is responsible for the final approval of updates to the VHITP.³¹ This plan was submitted to the GMCB on [date] for final review and approval. The Board held hearings on [dates] and provided [x] weeks of additional public comment prior to finalizing the plan on [date].

³⁰ Vermont Statute 18, VSA § 9351. "Health Information Technology Plan." Accessed January 2016 at <http://legislature.vermont.gov/statutes/section/18/219/09351>

³¹ Vermont H.202 (Act 48). Accessed January 2016 at <http://legislature.vermont.gov/bill/status/2012/H.202>

SECTION

5

THE PATH FORWARD

This section contains 17 initiatives that encapsulate the recommendations for the development and use Vermont's of HIT/HIE infrastructure. The initiatives describe the high-level activities Vermont needs to undertake to ensure it has the Health Information Technology (HIT) infrastructure and environment necessary to support its health care reform efforts. These recommendations are intended to support Vermont's health care reform goals in an efficient and effective manner.

The initiatives presented in this VHITP update are the result of many factors identified and considered during the process of its development. Those factors include: Vermont's health care reform efforts, Vermont's past and current efforts in HIT/HIE, the health care environment in Vermont, the national health care environment, broad input from Vermont health care stakeholders, and knowledge of best practices and emerging trends in HIT/HIE.

Many of the VHITP initiatives are interdependent, while a few can stand alone. The initiatives are flexible to allow Vermont to build on the existing HIT/HIE programs and infrastructure and take advantage of future funding opportunities.

SUMMARY OF INITIATIVES

VHITP INITIATIVES³²

Statewide HIT/HIE Governance & Policy

- 01 – Establish (and run) comprehensive statewide HIT/HIE governance.**
Create an entity that has the appropriate authority, accountability, and expertise to promote and ensure the success of public and private HIT/HIE efforts in support of health care and payment reforms across the state of Vermont.
- 02 – Strengthen statewide HIT/HIE coordination.**
Provide overall coordination and communication of the statewide HIT/HIE related projects and activities.
- 03 – Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.**
Establish a statewide master health data management program to address/manage the access, availability, quality, integrity, and security of data.
- 04 – Develop and implement an approach for handling the identity of persons that can be used in multiple situations.**
Develop an approach that will uniquely identify a person across systems and points of care that includes both health care and human services information.
- 05 – Oversee and Implement the State’s Telehealth Strategy.**
Direct, manage, and update as needed the State’s 2015 Telehealth Strategy.
- 06 – Provide bi-directional cross state border sharing of health care data.**
Develop and implement an approach to easily share health information electronically with other states.

Business, Process & Finance

- 07 – Continue to expand provider EHR and HIE adoption and use.**
Continue to grow the numbers and types of providers who have access to, and use EHRs and HIE capabilities.
- 08 – Simplify State-required quality and value health care related reporting requirements and processes.**
Provide more efficient, streamlined processes and tools for providers to report on required health care metrics.

³² The initiatives are organized within domains that are not prioritized. The initiatives within each domain are generally in a timing/ prioritization order.

09 – Establish and implement a sustainability model for health information sharing.

Develop and implement an economic model that ensures that the on-going services, resources, funding, benefits, and cultural norms that foster broad health care information sharing are achieved and maintained over time.

Stakeholder Engagement & Participation

10 – Centralize efforts for stakeholder outreach, education, and dialogue relating to HIT/HIE in Vermont.

Consolidate efforts to convene and educate health care stakeholders, including clinicians, so that they can both obtain information on HIT/HIE efforts and engage in a dialogue that promotes ongoing participation and ownership of these efforts.

Privacy & Security

11 – Ensure that statewide health information sharing consent processes are understood and consistently implemented for protected health information – including information covered by 42 CFR Part 2 and other State and federal laws.

Create a common approach, which is well understood by both providers and consumers that can be used statewide for complying with patient consent requirements.

12 – Ensure continued compliance with appropriate security and privacy guidelines and regulations for electronic protected health information.

Ensure that all systems housing or transporting protected health data in State or statewide systems comply with the Security Rule and all other applicable privacy and security regulations.

Technology

13 – Ensure VHIE connectivity and access to health and patient information for all appropriate entities and individuals.

Complete the implementation of all appropriate providers to VHIE. This includes all appropriate provider practices, regardless of size or location, providers of physical health, mental health, substance use, and support services.

14 – Enhance, expand, and provide access to statewide care coordination tools.

Provide appropriate on-line tools that are organization-independent and broadly available to those involved in providing and coordinating health and human services.



15 – Enhance statewide access to tools (analytics and reports) for the support of population health, outcomes, and value of health care services.

Develop and implement the infrastructure, tools, and processes needed for broad and timely access to analytics capabilities and reports that are needed to evaluate the effectiveness and value of health and human services.

16 – Design and implement statewide consent management technology for sharing health care information.

Develop a technical infrastructure and tools to support the common statewide patient consent approach and processes.

17 – Provide a central point of access to aggregated health information where individuals can view, comment on, and contribute to their personal health information.

Implement tools and processes that enable individuals to access, comment on, add to, or correct their aggregated health information within a reasonable timeframe.

PROPOSED INITIATIVES TIMELINE

	Interdependence	Prior	2016	2017	2018	2019	2020
Statewide HIT/HIE Governance & Policy							
01 – Establish (and run) comprehensive statewide HIT/HIE governance.	All Others		Start with Transition Plan				
02 – Strengthen statewide HIT/HIE coordination.	All Others		Start with Transition Plan				
03 – Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.	01, 02, 10		Start with Transition Plan				
04 – Develop and implement an approach for handling the identity of persons that can be used in multiple situations.	01, 02, 03, 05, 08, 09, 10		Start with Transition Plan				
05 – Oversee and implement the State’s telehealth strategy.	01, 02, 03, 04, 08, 09, 10		Ongoing - Continue				
06 – Provide bi-directional cross state border sharing of health care data.	01, 02, 04, 10, 12			Ongoing - Continue			
Business, Process & Finance							
07 – Continue to expand provider EHR and HIE adoption and use.	01, 02, 10		Ongoing - Continue				
08 – Simplify State-required quality and value health care related reporting requirements and processes.	01, 02, 03, 04, 05, 10			Ongoing - Continue			
09 – Establish and implement a sustainability model for health information sharing.	02, 03, 04, 05, 08, 10			Ongoing - Continue			
Stakeholder Engagement & Participation							
10 – Centralize efforts for stakeholder outreach, education, and dialogue relating to HIT/HIE in Vermont.	All Others		Ongoing - Continue				
Privacy & Security							
11 – Ensure that statewide health information sharing consent processes are understood and consistently implemented for protected health information – including information covered by 42 CFR Part 2 and other State and federal laws.	01, 02			Ongoing - Continue			
12 – Ensure continued compliance with appropriate security and privacy guidelines and regulations for electronic protected health information.	10		Ongoing - Continue				
Technology							
13 – Ensure VHIE connectivity and access to health and patient information for all appropriate entities and individuals.	05, 06, 07, 09, 10		Ongoing - Continue				
14 – Enhance, expand, and provide access to statewide care coordination tools.			Ongoing - Continue				
15 – Enhance statewide access to tools (analytics and reports) for the support of population health, outcomes, and value of health care services.	04		Ongoing - Continue				
16 – Design and implement statewide consent management technology for sharing health care information.	02, 04			Ongoing - Continue			
17 – Provide a central point of access to aggregated health information where consumers can view, comment on, and update their personal health information.	04					Ongoing - Continue	

DETAILED INITIATIVE DESCRIPTIONS

The following pages provide detailed descriptions of the initiatives. The initiatives describe the high-level activities Vermont needs to undertake to ensure it has the Health Information Technology (HIT) infrastructure and environment necessary to support its health care reform efforts. Each initiative description contains the following:

INITIATIVE NAME

DESCRIPTION	One to two sentence description of initiative.
BACKGROUND & FINDINGS	Context for why the initiative is included.
PURPOSE	The reason the initiative is included and what it should do.
OUTCOME(S)	Specific outcome(s) the initiative is intended to achieve.
SUGGESTED APPROACH	Approaches to consider for undertaking the initiative. This is information gleaned from a variety of sources including workgroups, VHITP steering committee, etc...
LEADERSHIP RECOMMENDATIONS	Describes who should be accountable for completing the initiative. May also provide suggestions on whom else to involve.
TIMING	When this initiative should be started. Estimate by quarters.
INTERDEPENDENCIES	Lists the other initiatives or programs upon which this initiative is dependent. Lists other initiatives or programs that depend upon or interact with this initiative.
POTENTIAL FUNDING SOURCE(S)	Recommended sources for funding the initiative.



Statewide HIT/HIE Governance & Policy

1. ESTABLISH (AND RUN) COMPREHENSIVE STATEWIDE HIT/HIE GOVERNANCE.

DESCRIPTION	Create an entity that has the appropriate authority, accountability, and expertise to promote and ensure the success of public and private HIT/HIE efforts in support of Vermont's health care reforms.
BACKGROUND & FINDINGS	<p>There are many projects and initiatives relating to HIT/HIE planned or underway in Vermont. In the course of this review, numerous projects were also identified that are outside the scope of this plan, but do have some limited connection to the HIT/HIE infrastructure.</p> <p>There are approximately 30 projects planned or underway that directly relate to HIT/HIE. These projects have a 5-year rough cost estimate for development and operations of \$105 million.³³</p> <p>The responsibility for HIT/HIE oversight resides in multiple departments and organizations. There is no single oversight body that has a comprehensive view of the entire range of statewide HIT/HIE needs and activities who is authorized to set priorities, ensure collaboration among programs, optimize spending and resources, and minimize gaps and overlaps on a statewide basis.</p> <p>Vermont's Agency of Administration (AOA) is statutorily responsible for the overall coordination of the VHITP³⁴. AOA delegated this responsibility to the Department of Vermont Health Access (DVHA). AOA also delegated a subset of that responsibility – technical review– to the Department of Information and Innovation (DII).</p> <p>The Green Mountain Care Board is statutorily responsible for the final approval of the plan as well as oversight over VITL's activities and budget³⁵.</p> <p>While 18 V.S.A § 9351 specifies the requirements of the VHITP, there is no entity currently specifically designated with the authority to ensure that both the VHITP initiatives are implemented and the responsibility for effectively weaving business and IT strategies and plans together.</p>
PURPOSE	<p>Create an entity, with appropriate accountability and authority to:</p> <ul style="list-style-type: none"> • Determine the priorities of statewide HIT/HIE initiatives. • Ensure funding, resources, and efforts for statewide HIT/HIE initiatives are prioritized, optimized, and coordinated. • Ensure that initiatives related to statewide VHITP are successfully implemented.

³³ Cost estimates for the 30 HIT/HIE projects were developed by the HIE Program Team in DVHA with input from stakeholders including VITL.

³⁴ Vermont Statute 18, VSA § 9351. "Health Information Technology Plan." Accessed January 2016 at <http://legislature.vermont.gov/statutes/section/18/219/09351>

³⁵ Vermont H.202 (Act 48). Accessed January 2016 at <http://legislature.vermont.gov/bill/status/2012/H.202>

	<ul style="list-style-type: none"> ○ This includes reducing or eliminating gaps and unnecessary overlaps among projects and capabilities. ○ Ensure that the projects implementing the initiatives are well run, meet their objectives, and deliver the value expected. ● Ensure that health data resources that are not directly governed by this entity, but are crucial to statewide HIT/HIE success, are coordinated.
<p>OUTCOME(S)</p>	<p>An operational entity exists that is authorized, funded, and accountable for the coordination and success of statewide HIT/HIE projects/programs/initiatives.</p> <p>There is identifiable and increased accountability for programs/projects covered by the VHITP.</p> <p>VHITP implementation and operations are transparent and involve multiple stakeholders.</p> <p>There is a consistent process used for statewide HIT/HIE program and infrastructure planning.</p>
<p>SUGGESTED APPROACH</p>	<p>Implement as a multi-step process</p> <p>Identify an interim entity to fill this role while a more permanent solution is developed.</p> <p>Authority</p> <p>Confer appropriate authority on the entity and position it at a level that is appropriate to readily carry out the governance function.</p> <p>Structure</p> <p>This entity will have a broad scope of mission and it will require hierarchical support structures and operational staff.</p> <p>Functions reporting into this entity may include, but not be limited to:</p> <ul style="list-style-type: none"> ● HIT Fund management; ● HIE/HIT Coordination (Initiative #2); ● Master data management (Initiative #3); ● Identity of persons (Initiative #4 (through master data management function); and ● Centralize efforts for stakeholder outreach, education and dialogue (Initiative #10) ● Privacy and confidentiality of HIT information <p>Appropriate advisory groups/councils (e.g. business and technical) should be established to ensure broad ongoing stakeholder input.</p>

Scope

Governance includes oversight, authority, and accountability of the following areas:

- The HIT Fund.
- The VHITP:
 - Planning, and strategy;
 - Policy; and
 - Implementation.
- Statewide sharing of health-related information.

The scope will evolve over time as the entity matures and health data infrastructure needs change. See Section 7 “Transition Plan and Next Steps” for transition plan recommendations.

The following list contains suggestions of projects/programs to consider including in the scope for HIT/HIE governance:

- VHIE.
- VHCURES data and processes.
- Information/systems used for population health analytics, such as health care reform quality measure reporting (clinical, claims and survey).
- EHR – Interoperability standards setting for use in statewide health and human services information sharing.
- Care management tools.
- MMIS – when the systems needs to be accessed by other systems.
- Integrated eligibility – when the system needs to be accessed by other systems.
- Patient experience surveys.
- AHS/Surveys that cross systems.
- External interfaces and connections for systems involved in statewide health information sharing.

Operational Considerations

There are several operational considerations. These include:

- Creation of appropriate forum(s) to discuss priorities with public and private stakeholders. For example:
 - Hold regular public meetings.
 - Develop parameters under which the various sectors will comply.
 - Use a collaborative approach whenever possible.
- Functions developed as result of Initiatives #2, #3, and #7 should report directly to this structure:
 - #2 – *Strengthen statewide HIT/HIE coordination.*
 - #3 – *Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.*
 - #7 – *Centralize efforts for HIT/HIE related stakeholder outreach, education, and dialogue.*

	<ul style="list-style-type: none"> • Determination of adequate funding and resources for scope of responsibilities. This entity should leverage existing governance structures as appropriate. • Develop and implement the process for the VHITP annual review. <p>This entity should ensure that the existing VHIE Connectivity Criteria is used as appropriate.</p> <p>Example State HIT Governance and coordination models include:</p> <ul style="list-style-type: none"> • Maine Office of Health Information Technology³⁶ • Michigan Health Information Technology Commission³⁷ • Minnesota Office of Health Information Technology³⁸ • New York Office of Health Information Technology transformation³⁹ • Oregon Office of Health Information Technology⁴⁰
LEADERSHIP RECOMMENDATIONS	Governor's Office or AOA to set up Interim governance structure as described in the transition plan contained in section 7 below.
TIMING	This should begin in the first quarter of plan implementation.
INTERDEPENDENCIES	The entity identified for this function will be accountable for the successful implementation of the VHITP. In that sense, all of the initiatives will have some level of accountability to this entity.
POTENTIAL FUNDING SOURCE(S)	Redirect current program management funding and leverage additional federal funds as necessary (i.e. Global Commitment and IAPD).

³⁶ Maine Department of Health and Human Services. "Office for Health Information Technology" web page. Accessed January 2016 at <http://www.maine.gov/hit/>

³⁷ Michigan Department of Health and Human Services. "Michigan Health Information Technology Commission" web page. Accessed January 2016 at http://www.michigan.gov/mdhhs/0,5885,7-339-71551_5460_44257---,00.html

³⁸ Minnesota Department of Health. "Office of Health Information Technology" web page. Accessed January 2016 at <http://www.health.state.mn.us/divs/hpsc/ohit/>

³⁹ New York State Department of Health. "Office of Health Information Technology Transformation" web page. Accessed January 2016 at <https://www.health.ny.gov/technology/>

⁴⁰ State of Oregon. "Office of Health Information Technology" web page. Accessed January 2016 at <http://www.oregon.gov/oha/ohit/pages/index.aspx>

2. STRENGTHEN STATEWIDE HIT/HIE COORDINATION

DESCRIPTION	Provide overall coordination and communication of statewide HIT/HIE related projects and activities.
BACKGROUND & FINDINGS	<p>There are a multitude of HIT/HIE-related projects in Vermont that are addressing a variety of health care reform related needs. These projects are sponsored, funded, and coordinated by a variety of public, private, and public/private entities such as Medicare, Vermont Medicaid, AHS and its Departments, VITL, and providers.</p> <p>There is no common oversight approach, person, or entity with a view into all the needs and activities that has the authority to coordinate statewide the HIT/HIE program and infrastructure activities. As a result, there is fragmentation among the projects, some duplication of effort, technology, and resource expenditure, and lack of opportunity for synergy.</p>
PURPOSE	Ensure that statewide HIT/HIE-related projects and efforts are coordinated, optimized, achieving their goals, and contributing to the goals of health care reform.
OUTCOME(S)	Health care reform goals are supported by well-coordinated technology efforts and investments resulting in efficient and effective effort and use of resources.
SUGGESTED APPROACH	<p>Coordinate this initiative with Initiative #1. This would include an expansion of the current role of State HIT coordinator with additional authority, accountability, and resources for coordination of statewide HIT/HIE projects and activities. The HIT/HIE coordinator position should have enough delegated authority from the governance entity to make decisions and implement them as appropriate.</p> <p>Vermont should leverage the efforts of the multiple on-going projects to define and refine this function and consider the following:</p> <ul style="list-style-type: none"> • Program Charter for the State of Vermont’s Health Information Exchange Program.⁴¹ • State Program Management Office (PMO) which provides project management for large State system projects. • Vermont Health Care Innovation Project governance, which is managing and coordinating multiple SIM-funded health data infrastructure projects related to its grant requirements. • VITL and its Board and strategic plans. • Agency of Human Services, its Departments and their respective goals and processes.

⁴¹ State of Vermont. “Health Information Exchange (HIE) – Program Charter.” Accessed January 2016 at http://healthcareinnovation.vermont.gov/sites/hcinnovation/files/HIE.WG_Charter.22Oct2013.FINAL_.pdf

	<ul style="list-style-type: none"> • Agency of Human Services Health Services Enterprise. • AOA’s Department of Information and Innovation processes and procedures. <p>Process</p> <ul style="list-style-type: none"> • Continue examining what other states are doing – and being successful with – and develop a model for Vermont. • Identify gaps, overlaps, and areas for collaboration on statewide HIT/HIE projects and facilitate partnerships across multiple initiatives where appropriate. <p>Roles and Responsibilities</p> <ul style="list-style-type: none"> • Coordination activities should be an essential part of the HIT/HIE governance entity to ensure that the entity is fully informed of activities and issues it needs to address. • Roles, responsibilities, authority, and accountability must be clearly defined, understood, and implemented. • Define the scope of responsibilities and the boundaries – for example: <ul style="list-style-type: none"> ○ Determine how State agency and private sector HIT/HIE projects will be addressed. ○ Consider including projects/activities that are statewide. • Provide adequate staffing and resources to successfully fulfill the goals of HIT/HIE coordination. • Coordinate activities for the governance entity. • Oversee implementation of the VHITP.
LEADERSHIP RECOMMENDATIONS	Governor’s Office or AOA to set up interim structure as described in section 7 below.
TIMING	Begin in first quarter of VHIT Plan implementation.
INTERDEPENDENCIES	<p>Initiative #1 <i>Establish (and run) comprehensive statewide HIT/HIE governance.</i> This function should be accountable to the Governance entity formed as a results of this initiative</p> <p>Initiative #10 <i>Centralize efforts for HIT/HIE related stakeholder outreach, education, and dialogue.</i></p>
POTENTIAL FUNDING SOURCE(S)	Redirect existing project management resources. Seek additional resources as necessary and appropriate including Medicaid Advanced Planning Document (APD) funding.

3. ESTABLISH AND IMPLEMENT A STATEWIDE MASTER DATA MANAGEMENT PROGRAM (DATA GOVERNANCE) FOR HEALTH, HEALTH CARE, AND HUMAN SERVICES DATA.

DESCRIPTION	Establish a statewide Master Health Data Management Program to address/manage the access, availability, quality, integrity, and security of health, health care, and human services data.
BACKGROUND & FINDINGS	<p>The success of health care reform depends, at least partially, on high quality, trusted data, which can be readily and appropriately shared across multiple systems.</p> <p>In Vermont, there are multiple systems housing health information, both public and private. Many of these organizations share information, but there still are many that cannot effectively and efficiently share their health-related data outside their organization. This often results in multiple inconsistent “sources of truth” for data – the consequences of which include lack of trust in the data, overlap of requests for data, incomplete information available, lack of integration of clinical and claims (and other) data, and overall difficulty in sharing health information and obtaining the information necessary for improving the quality and cost of care.</p> <p>Master data management includes the overall management of the availability, quality, integrity, and security of the data being used. A sound Master Data Management Program includes a governing body or council, a defined set of policies and procedures, and a plan and resources to execute those procedures.</p> <p>There are multiple Federal^{42,43,44,45,46,47} national, and multi-State efforts underway to address the interoperability of health data. However, as yet there is no solution to the problem.</p>

⁴² The Office of the National Coordinator for Health Information Technology. “Connecting Health and Care for the Nation – A Shared Nationwide Interoperability Roadmap.” October 2015. Accessed December 2015 at <https://www.healthit.gov/sites/default/files/hie-interoperability/nationwide-interoperability-roadmap-final-version-1.0.pdf>

⁴³ The Office of the National Coordinator for Health Information Technology. “Report on Health Information Blocking.” Report to Congress, April 2015. Accessed December 2015 at https://www.healthit.gov/sites/default/files/reports/info_blocking_040915.pdf

⁴⁴ The Office of the National Coordinator for Health Information Technology. “2016 Interoperability Standards Advisory.” Accessed December 2015 at https://www.healthit.gov/sites/default/files/2016interoperabilitystandardsadvisoryfinalv2_02.pdf

⁴⁵ S&I Framework (Standards & Interoperability). Home page. Accessed December 2015 at <http://www.siframework.org/>

⁴⁶ The Office of the National Coordinator for Health Information Technology. “Federal Health IT Strategic Plan 2015 – 2020.” September 2015. Accessed December 2015 at <https://www.healthit.gov/sites/default/files/federal-healthIT-strategic-plan-2014.pdf>

⁴⁷ Health IT Standards Committee, <https://www.healthit.gov/facas/health-it-standards-committee>

<p>PURPOSE</p>	<p>Increase the accuracy and interoperability of, and trust in, health and health care data. This includes clinical, services and claims data.</p> <p>Promote the interoperability of health data among all appropriate systems, both public and private in a way that protects and preserves the data – while also promoting the sharing and appropriate use of the data.</p>
<p>OUTCOME(S)</p>	<p>High quality trusted health related data across the spectrum of health and human services that can be readily accessed and used for multiple appropriate purposes.</p>
<p>SUGGESTED APPROACH</p>	<p>Develop a common statewide approach to manage data shared across organizations, such as metadata tags and coordination of data dictionaries.</p> <p>Include data relating to social determinants of health as well as direct health and human services data.</p> <p>Leverage current efforts, such as:</p> <ul style="list-style-type: none"> • AHS Health Service Enterprise protocols. • Department of Information and Innovation protocols. • VHIE Connectivity Criteria. • Data quality efforts of the Blueprint for Health, VHCIP project, VITL, and others. • The Improving Medicare Post-Acute Care Transformation Act of 2014⁴⁸ (the IMPACT Act). <p>Provide support for evaluation and quality improvement data integration by integrating VHCURES and other health-related data sets with clinical information.</p> <p>Stay informed and participate, as appropriate, in both federal and multi-state initiatives working on health data interoperability.</p> <p>Stakeholder Involvement</p> <ul style="list-style-type: none"> • Include a multi-stakeholder advisory council with members from both public and private sectors. • Determine who/what entities are involved in this effort. • Coordinate with other on-going activities.

⁴⁸ The IMPACT Act requires the submission of standardized data by Long-Term Care Hospitals (LTCHs), Skilled Nursing Facilities (SNFs), Home Health Agencies (HHAs) and Inpatient Rehabilitation Facilities (IRFs) Centers for Medicare and Medicaid. “Summary of Feedback from the Technical Expert Panel (TEP) Regarding Cross-Setting Measures Aligned with the IMPACT Act of 2014.” April 2015. Accessed December 2015 at <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/Downloads/SUMMARY-OF-FEEDBACK-FROM-THE-TECHNICAL-EXPERT-PANEL-TEP-REGARDING-CROSS-SETTING-MEASURES-ALIGNED-WITH-THE-IMPACT-ACT-OF-2014-Report.pdf>

Data Management Guiding Principles

Master data management guiding principles generally include the following for all data being managed by the program:

- **Accountability**
An accountable member of senior leadership oversees the master data management program and delegates program responsibility for information management to appropriate individuals.
- **Transparency**
Processes and activities relating to master data management are documented in an open and verifiable manner.
- **Integrity**
Guarantee of authenticity and reliability.
- **Protection**
Protection from breach, corruption, and loss.
- **Compliance**
With applicable laws, regulation, standards, and organizational policies.
- **Availability**
Ensure timely, accurate, and efficient retrieval of data.
- **Retention**
Maintain the information for an appropriate time.
- **Disposition**
Provide secure and appropriate disposition for information no longer required to be maintained by applicable laws and the organization's policies.

Policies & Procedures

A statewide master data management program should include the following policies and procedures:

Access & Availability

- Ensure that those with appropriate authorization to access the data can do so in a timely basis.
- Consider how to integrate individually generated/supplied data.
- Continue to facilitate data connections through existing standards while coordinating with new standards.

Quality and Integrity

- Ensure data are correct, current, and consistent (maintains its meaning across systems).
- Could be a standards setting body for Vermont's HIE/HIT infrastructure.
- Specify data input requirements.
- Develop/enhance and maintain a master data dictionary.
- Ensure quality of health, health care, human services, and claims data.
- Maintain high-level data architecture and map for clinical and claims data.
- Ensure clinical and claims data are accurate and secure and can be generated once and used many times.

	<p><i>Use</i></p> <ul style="list-style-type: none"> • Specify allowed uses of the data. • Work towards increased integration of claims and clinical data. • Create an environment of using and sharing data. • Provide guidelines/rules for the use of data that is shared. • Approach use from the standpoint of data “stewardship” – not data ownership – because there is a shared responsibility and shared need for the data, not just one particular owner. Develop policies to support this. • Develop policies that support analysis of clinical and claims data in a timely fashion. <p><i>Security</i></p> <ul style="list-style-type: none"> • Ensure that only those with appropriate authorization have access to the data. • The goal is to share data appropriately. • Data must be as secure as reasonably possible and comply with State and federal laws. • Security issues and breaches will occur and therefore there needs to be a robust breach response policy and procedure. <p><i>Standards</i></p> <ul style="list-style-type: none"> • Maintain up-to-date knowledge of federal interoperability model and standards and apply to Vermont as appropriate. Work with CMS/ONC regarding standards setting efforts. • Use the VHIE Connectivity Criteria. • Set additional standards as appropriate • Provide coordination where there are no standards.
LEADERSHIP RECOMMENDATIONS	TBD by Interim Governance Structure
TIMING	See Transition Plan
INTERDEPENDENCIES	<p>Initiative #1 <i>Establish (and run) comprehensive statewide HIT/HIE governance.</i> This function should be accountable to the Governance entity formed as a results of this initiative</p> <p>Initiative #2 <i>Strengthen statewide HIT/HIE coordination</i></p> <p>Initiative #4 <i>Develop and implement an approach for handling the identity of persons that can be used in multiple situations</i> This function should oversee and be accountable for implementing identity matching</p>
POTENTIAL FUNDING SOURCE(S)	SIM funds for terminology services and data quality improvement for 2016 as approved by the Core Team at their January 15, 2016 meeting.

4. DEVELOP AND IMPLEMENT AN APPROACH FOR HANDLING THE IDENTITY OF PERSONS THAT CAN BE USED BY MULTIPLE SYSTEMS.

DESCRIPTION	Develop an approach that will uniquely identify a person across systems and points of care that includes both health care and human services information.
BACKGROUND & FINDINGS	<p>Achieving health care reform and the Triple Aim requires the unambiguous identification of a person and the links to their relevant health related information.</p> <p>Currently in Vermont, there are many siloed Master Patient/Person Index (MPI) implementations throughout the health care and human services community. Most of these MPIs are focused on patient identification and are used by a single organization or system. Generally, they are not interoperable.</p> <p>For example, VITL currently uses its vendor's (Medicity®) MPI for the VHIE. Health systems have their own EHR/organization-centric MPIs. Also, State agencies use various and different approaches to identify persons in its systems.</p> <p>Due, in part, to the differences in these MPIs, which complicates the matching of patients to their records, information about a person cannot easily be shared across systems.</p> <p>It will continue to be difficult for Vermont to integrate information from various systems – so that a person's complete health information and the sphere of services provided to an individual can be easily known and coordinated – until a single common approach is implemented statewide.</p>
PURPOSE	Provide the basis for the clear identification of an individual across the multiple systems in the care continuum.
OUTCOME(S)	A master person identity approach – for use by multiple entities and systems – that significantly reduces or eliminates the ambiguity about a person's identity.
SUGGESTED APPROACH	<p>Discovery</p> <ul style="list-style-type: none"> • Determine the current environment related to person identity capabilities: <ul style="list-style-type: none"> ○ Inventory the number, types, capabilities, sources of truth, and resources expended on multiple MPIs. ○ Determine the extent and cost of unnecessary duplication. <p>Harmonize</p> <ul style="list-style-type: none"> • Develop an approach for a common person identity that can be used by multiple systems. • Align and consolidate identity-matching approaches into a common statewide approach.

	<ul style="list-style-type: none"> • Leverage and align approach with federal direction and capabilities/systems on statewide common services approach.⁴⁹ • Leverage systems and knowledge that exist. • The scope for this initiative should be broader than HIT/HIE infrastructure to ensure maximum interoperability. <ul style="list-style-type: none"> ○ This requires understanding the broad and diverse requirements needed for health and human services information linking. • Utilize record locator services that can be federated across information source systems. • Ensure that an individual's privacy continues to be protected.
LEADERSHIP RECOMMENDATIONS	<p>DII and AHS HSE leadership.</p> <p>Should include representatives from VITL and providers who are currently employing MPI services.</p>
TIMING	TBD
INTERDEPENDENCIES	<p>Initiative #3 <i>Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.</i></p>
POTENTIAL FUNDING SOURCE(S)	TBD

⁴⁹ The Sequoia Project. "A Framework for Cross-Organizational Patient Identity Management." November 10, 2015 (draft for public review and comment). Accessed December 2015 at <http://sequoiaproject.org/framework-for-cross-organizational-patient-identity-matching/>

5. OVERSEE AND IMPLEMENT VERMONT'S TELEHEALTH STRATEGY

DESCRIPTION	Direct, manage, and update, as needed, the State's 2015 Telehealth Strategy.
BACKGROUND & FINDINGS	<p>Achieving health care reform and the Triple Aim will require continuous investment in new modes and models of care. These may include virtual patient visits and patient-generated/patient-captured information accomplished through multiple evolving technologies.</p> <p>Telehealth is an important avenue to support health care reform and is increasingly seen as an acceptable alternative to many types of in-person provider visits.</p> <p>Vermont has already made significant inroads into providing remote access to care through telehealth services and the 2015 Telehealth Strategy identifies four strategic goals:</p> <ol style="list-style-type: none"> 1. Designation of a coordination body to support expansion of telehealth services that promote patient-centered care and health care reform by monitoring existing efforts, identifying gaps, coordinating all telehealth programs to align with the strategy, leveraging the purchase of new technologies, and developing a consistent set of outcome measures. 2. Alignment of state policies referable to telehealth reimbursement, licensure, and privacy with the goals of health care reform and maintenance of a patient-centered approach to care 3. Telehealth technologies that are secure, accessible to people with disabilities, interoperable to the degree possible, cloud-based where appropriate, aligned with Vermont's statewide HIT infrastructure, supported by sufficiently robust broadband or wireless platforms, and meet usability testing standards. 4. Resources to engage clinician interest in and adoption of telehealth products and services, and to provide ongoing support for the effective and efficient implementation of those products and services to the benefit of patients <p>While providing care remotely using telehealth technologies is not a new method of care, there are significant discussions and initiatives relating to key issues; among them reimbursing providers for services rendered via telehealth, and addressing licensure requirements when the patient and the provider are physically in different states. Medicare has updated its payment structure to broaden the telehealth services covered.⁵⁰</p>

⁵⁰ Centers for Medicare and Medicaid, Telehealth Services. "Rural Health Fact Sheet Series." Accessed January 2016 at <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/TelehealthSrvcsfctsh.pdf>

	There is significant focus by the Veterans' Administration ⁵¹ (VA) on using telehealth to improve access to care by veterans.
PURPOSE	<p>Ensure broader access to care and decreased disparities of access through evolving methods such as telehealth and other emerging technologies.</p> <p>Ensure data collected through telehealth programs is treated similarly to data collected in ambulatory and acute medical practices and is interoperable.</p>
OUTCOME(S)	Vermonters have equal access to care regardless of their geographic location – which eliminates or significantly reduces disparities in access to care.
SUGGESTED APPROACH	<p>Vermont's Telehealth Strategy includes a Roadmap that considers Vermont's transition from volume-based to value-based payment. This was developed to guide prioritization of telehealth projects and their alignment with new clinical processes that are being adopted as payment reform evolves.</p> <p>The following recommendations are included in the strategy and derived from the Roadmap⁵²:</p> <ol style="list-style-type: none"> 1. Support increased use of remote monitoring for patients as the delivery system seeks to better coordinate care. 2. Extend reimbursement for e-visits beyond Medicaid in preparation for the delivery system assuming downside financial risk, particularly for those patients with any type of behavioral health morbidity that could affect or is affected by their physical health. 3. Invest in a Project ECHO (Extension for Community Health Outcomes) program to support primary care physicians caring for more complicated and complex patients in preparation for managing downside risk. 4. Reimburse for store-and-forward technologies to support episode-based payment pilots. 5. Improve broadband (upgrade download speeds) or wireless coverage throughout the state in order to be able to meet the vision of needed care anywhere, anytime.

⁵¹ U.S. Department of Veterans Affairs. "VA Telehealth Services" web page. Accessed January 2016 at <http://www.telehealth.va.gov/>

⁵² State of Vermont. "A Statewide Telehealth Strategy For the State of Vermont – Report on Statewide Telehealth Strategy and Pilot Projects." September 2015. (page ii) Accessed December 2015 at http://www.healthcareinnovation.vermont.gov/sites/hcinnovation/files/HIE/Telehealth_Strategy_Report_Final_9-16-15.pdf

	<p>Ensure support for evolving VA telehealth initiatives by:</p> <ul style="list-style-type: none"> • Ensuring that the federal requirements for veterans' access are integrated with the State's approach. • Staying informed on the progress of VETS Act 2015⁵³ and other federal legislation enabling broader access to telehealth for veterans by enabling providers for veterans to provide cross-state telemedicine services.
LEADERSHIP RECOMMENDATIONS	TBD
TIMING	Continue current efforts.
INTERDEPENDENCIES	<p>Initiative #2 <i>Strengthen statewide HIT/HIE coordination</i></p> <p>Initiative #3 <i>Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.</i></p>
POTENTIAL FUNDING SOURCE(S)	USDA telemedicine grant opportunities ^{54, 55}

⁵³ U.S. Congress. "H.R. 2516 - Veterans E-Health & Telemedicine Support Act of 2015." Introduced May 21, 2015. Summary accessed December 2015 at <https://www.govtrack.us/congress/bills/114/hr2516/summary>

⁵⁴ U.S. Department of Agriculture. Rural and Community Development website. "Infrastructure Investment." Accessed December 2015 at <http://www.usda.gov/wps/portal/usda/usdahome?navid=rural-development>

⁵⁵ U.S. Department of Agriculture. News Release No. 0321.15. "On National Rural Health Day, USDA Announces \$23.4 Million in Distance Learning and Telemedicine Grants for 75 Projects in 31 States." November 19, 2015. Accessed December 2015 at <http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2015/11/0321.xml>

6. PROVIDE BI-DIRECTIONAL CROSS STATE BORDER SHARING OF HEALTH CARE DATA.

DESCRIPTION	Develop and implement an approach to easily share health information electronically with other states.
BACKGROUND & FINDINGS	<p>Many of Vermont’s residents routinely obtain care from providers in bordering states. Likewise, many Vermont providers regularly treat residents of border states.</p> <p>In addition, Vermont hosts many visitors from other states as well as being home to many residents who frequently travel to other states. Many of these persons receive care when away from their local providers.</p> <p>The sharing of health information with other states is constrained by privacy and consent laws, regulations, and interoperability issues.</p> <p>There are many federal and multi-state initiatives currently underway to address these issues.</p>
PURPOSE	Resolve the issues that are preventing smooth exchange of health information on an interstate level.
OUTCOME(S)	Transparent exchange of health information regardless of state borders.
SUGGESTED APPROACH	<ul style="list-style-type: none"> • Develop a multi-stakeholder task force – including providers – to determine high priority states for health information sharing. • Explore options and approaches to reduce or eliminate barriers to sharing information across state borders. • Explore the feasibility of a regional approach to meet the more immediate priority needs. • Work with high priority states to identify areas that present barriers to the sharing of information. • Initially focus efforts on sharing information with Border States – especially in those areas where there are shared health care services. • Consider a step-wise approach that may include using the Direct secure messaging⁵⁶. • Coordinate the efforts with existing federal and state programs. <ul style="list-style-type: none"> ○ Leverage the Sequoia Project connection criteria⁵⁷ and standards for multi-state sharing for sharing with federal programs.

⁵⁶ HealthIT.gov. “Implementing Direct Secure Messaging.” Accessed January 2016 at <https://www.healthit.gov/policy-researchers-implementers/implementing-direct-secure-messaging>

⁵⁷ The Sequoia Project. “Onboarding to the eHealth Exchange.” Accessed December 2015 at <http://sequoiaproject.org/ehealth-exchange/onboarding/>

	<ul style="list-style-type: none"> ○ Leverage the Direct Trust Accredited Trust Anchor Bundle⁵⁸ agreement which eliminates the need for one-off negotiations with each participant within the trust agreement. ○ Leverage progress of other states that are sharing information across their borders such as Georgia with both South Carolina (SCHIE) and Alabama.⁶⁰ ● Continue to participate in multi-state HIE collaboratives, such as the Strategic Health Information Exchange Collaborative (SHIEC)⁶¹ to stay abreast of emerging practices. ● Determine if there are Vermont statutes that are limiting cross-border sharing of information. ● Recommend steps to take to eliminate or reduce the barriers to sharing information. ● Expand the efforts to collaborate with other multi-state efforts.
LEADERSHIP RECOMMENDATIONS	HIE/HIT governance entity and VITL.
TIMING	Year 2
INTERDEPENDENCIES	<p>Initiative #3 <i>Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.</i></p> <p>Initiative #11 <i>Ensure that statewide health information sharing consent processes are understood and consistently implemented both for physical health information and that related to 42 CFR Part 2.</i></p> <p>In addition to the technology used to connect to other states, a large part of the success of this initiative is dependent upon harmonizing patient consent policies for the sharing of health information across state borders.</p>
POTENTIAL FUNDING SOURCE(S)	TBD

⁵⁸ DirectTrust. “Accredited Trust Community” web page. Accessed January 2016 at https://services.directtrust.org/about_accredited_bundle/

⁵⁹ SCHIE website. “Georgia and SC Launch State-to-State Exchange of Health Information.” December 17, 2014. Accessed December 2015 at <http://schiex.org/2014/12/georgia-and-sc-launch-state-to-state-exchange-of-health-information/>

⁶⁰ The Alabama Medicaid Agency website. “Alabama, Georgia Connect to Securely Exchange Health Information.” October 29, 2015. Accessed December 2015 at http://medicaid.alabama.gov/news_detail.aspx?ID=10013

⁶¹ SHIEC website. Home page. Accessed December 2015 at <http://strategichie.com/>

Business, Process & Finance

7. CONTINUE AND EXPAND PROVIDER EHR AND HIE ADOPTION AND USE

DESCRIPTION	Continue to grow the numbers and types of providers who have access to, and use EHRs, the VHIE, or in other ways digitize and exchange data.
BACKGROUND & FINDINGS	<p>Vermont has made great strides in the numbers of providers who use EHRs. Much of this progress can be credited to the CMS Meaningful Use (MU) incentives available to “eligible providers” and the efforts of Vermont’s Regional Extension Center (REC). However, while the growth in use of EHRs for this population has been significant, there are still many providers who were not eligible for the MU incentives and continue to find the cost of adopting and using EHRs to be cost prohibitive.</p> <p>The federal EHR incentive program (e.g. Meaningful Use) only applied to a small percentage of health and human services providers (“eligible providers”⁶² and “eligible hospitals”⁶³). Those providers left out of the program include many mental health and substance use care providers, home health providers, long-term care providers, most non-medical providers, and others. These providers are part of the community of care continuum and it is important that health information can be appropriately and readily shared with, and among, these providers as well as the “eligible providers” to achieve health care reform goals.</p> <p>Under HITECH, 2016 is the final year that an eligible provider can initiate participation in the program.</p>
PURPOSE	Decrease/remove the barriers (cost, time, talent, and resources) to EHR adoption and use and promote broader sharing of health information.
OUTCOME(S)	<p>Complete and appropriately available information contained in a person’s longitudinal health care record is available wherever a patient receives care.</p> <p><i>Interim indicators of success</i> may include trends that show:</p> <ul style="list-style-type: none"> • Rate of EHR adoption and use net increases by X. • Rate of HIE connection and use net increases by Y. • Percent of providers connected to the VHIE and using information contained therein to support patient care. • Percent of clinicians and other caregivers who can view a patient’s longitudinal record and care events. • Amount/types of data shared. • Quality of the data submitted and shared. • Types of successful uses of the data.

⁶² Centers for Medicare and Medicaid Services. Regulations and Guidance web page. Accessed December 2015 at <https://www.cms.gov/regulations-and-guidance/legislation/ehrincentiveprograms/eligibility.html>

⁶³ Centers for Medicare and Medicaid Services. Regulations and Guidance web page. Accessed December 2015 at <https://www.cms.gov/regulations-and-guidance/legislation/ehrincentiveprograms/eligibility.html>

<p>SUGGESTED APPROACH</p>	<p>Continue and expand provider incentives for EHR adoption, implementation, and use and for the sharing of health information through the Vermont Medicaid EHR Incentive Program⁶⁴ (EHRIP).</p> <p>Build upon and expand programs for incenting providers to adopt and appropriately use EHRs or other tools and actively utilize the data within the HIE through additional state-based incentives for providers not eligible for the EHRIP incentives.</p> <p>Provide Resources:</p> <ul style="list-style-type: none"> • Continue to assist small business health care providers with resources for the successful adoption and use of EHRs and the HIE. • Continue the current program to identify and assist providers not using EHRs to adopt EHRs as appropriate. <p>Reduce Cost:</p> <ul style="list-style-type: none"> • Continue and expand incentive program to support providers not previously eligible for MU incentives. <ul style="list-style-type: none"> ○ Include independent, psychologists, and licensed counselors and social workers as well as designated agencies and long-term supports and services providers. • Ensure that connection and access to the data within the HIE and other health data infrastructure services made available is not cost prohibitive to any provider. • Consider that cost includes workload, workflow, ease of use, and ability to capture the patient story. <ul style="list-style-type: none"> ○ Need to include training, support, on-going maintenance, and operations. • Consider providing/expanding cost-effective alternatives to traditional on-site based EHRs – such as cloud based services and portal access. • Coordinate with and leverage federal, state, payer, and private incentive programs. <p>Promote Sharing:</p> <ul style="list-style-type: none"> • Ensure that incentives promote the adoption and use of technology that meets the Vermont HIE Connectivity Criteria, recognized standards, and other relevant criteria. • Increase the rate of adoption and implementation of VITLAccess
<p>LEADERSHIP RECOMMENDATIONS</p>	<p>Overall governance and coordination to be provided by new governance entity.</p> <p>Authority and responsibility for program design and implementation delegated from that entity to the appropriate entity.</p>
<p>TIMING</p>	<p>TBD</p>

⁶⁴ State of Vermont, Agency of Administration. “The Vermont Electronic Health Record Incentive Program (EHRIP). Accessed January 2016 at <http://hcr.vermont.gov/hit/ehrip>



Vermont HIT Plan
2016

INTERDEPENDENCIES	
POTENTIAL FUNDING SOURCE(S)	Medicare and Medicaid HIT infrastructure incentives.

8. SIMPLIFY STATE-REQUIRED QUALITY AND VALUE HEALTH CARE RELATED REPORTING REQUIREMENTS AND PROCESSES.

DESCRIPTION	Provide more efficient, streamlined processes and tools for providers to report on required health care metrics.
BACKGROUND & FINDINGS	<p>Providers are inundated with multiple reporting requirements from State and Federal programs – as well as commercial payers. Many of these requirements use the same or similar data, but require the data and reports in different formats and on different schedules.</p> <p>There are multiple data standards, projects, and programs requiring providers to report data on multiple forms, in multiple formats and on different schedules. This lack of coordination causes an increasing workload with little or no recognized return to the provider.</p> <p>Providers are willing to provide the data but are seeking relief from the multiple, sometimes redundant, requests by multiple entities such as ACOs, commercial payers, Medicaid, Medicare, and State programs.</p>
PURPOSE	Ease the reporting workload for providers and implement a more efficient process for required reporting.
OUTCOME(S)	Simplified and streamlined processes – with associated tools – to support providers’ required reporting.
SUGGESTED APPROACH	<p>Assess current efforts and requirements:</p> <ul style="list-style-type: none"> • Begin with a review of the areas within the State’s purview such as health care reform efforts that are currently underway to streamline reporting. • Leverage progress to date as appropriate. <p>Prioritize areas to address:</p> <ul style="list-style-type: none"> • Identify the top priority areas by obtaining input from providers regarding their “pain points.” • Involve stakeholders in the process as advisors to ensure their top priority areas area addressed early. • Determine a subset of data to address first. <p>Harmonize reporting requirements for State sponsored (including federally funded) projects.</p> <ul style="list-style-type: none"> • Collaborate with State and State-affiliated entities to coordinate current data input, gathering, and aggregation efforts. • Harmonize reporting schedules and data formats where possible and feasible <p>Implement changes in stages ensuring coordination with payment reforms.</p> <p>Provide tools and/or services to support ease of reporting.</p>



Vermont HIT Plan
2016

LEADERSHIP RECOMMENDATIONS	Interim Governance Structure
TIMING	Begin early in VHITP implementation with a demonstration project that aligns with existing quality measure alignment efforts within State programs.
INTERDEPENDENCIES	Initiative #3 <i>Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.</i> Work with this initiative to identify, prioritize, and standardize the data requirements.
POTENTIAL FUNDING SOURCE(S)	TBD

9. ESTABLISH AND IMPLEMENT A SUSTAINABILITY MODEL FOR HEALTH INFORMATION SHARING

<p>DESCRIPTION</p>	<p>Develop and implement an economic model that ensures that the on-going HIE-related services, resources, funding, benefits, and cultural norms that foster broad health care information sharing are achieved and maintained over time.</p>
<p>BACKGROUND & FINDINGS</p>	<p>The on-going sharing of health information among providers is crucial to achieving and sustaining health care reform. However, to date demonstrating the value of HIE through return on investment, either in terms of patient outcomes or financial return has been elusive throughout the country.</p> <p>Part of the reason for this elusiveness is that for the value of health information exchange to be clearly demonstrated many other factors/incentives must also be in place. They include such things as value-based payment models where providers are rewarded for coordinating the care of their patients, the use of HIE that is integrated into a provider's workflow so it's convenient to use, and ensuring a critical mass of patient data are available through the exchange.</p> <p>VHIE – The Vermont Statewide HIE</p> <p>VITL is designated by legislation to operate the exclusive statewide HIT – VHIE. The VHIE is currently largely funded through State funds (HIT Fund) and matching federal funds. Participants are not charged a fee for the core services. This means that the VHIE is dependent upon the public funding to connect additional providers and support its operations.</p> <p>Currently the health claims tax that supports the HIT Fund is scheduled to sunset on July 1, 2017. If the general assembly chooses not to renew this funding source, a new funding source will be needed to support the VHIE and HIT projects.</p> <p>VHIE Core Services</p> <p>The GMCB has statutory authority to define VITL's core services and those related to the VHIE. At time of this report, however, there is no formal or common definition of specifically what those core services are beyond what is included in its contracts with the State. Nor are there specified services levels to which the VHIE is held.</p> <p>VITL currently holds twice-yearly statewide meetings with stakeholders and quarterly meetings with clinicians to gather input on new or expanded services. This works in conjunction with the State appropriation process. Legislation passed in 2015 requires the GMCB to also review VITL's scope of activities and budget to provide a better defined, more transparent process. This new process should provide better clarity for VITL and other stakeholders about priority setting. This should also add more predictability in the budget process for all. Additionally, the annual updates recommended to this VHITP should provide additional prioritization and stakeholder input.</p>

	<p>VITL is currently working on many grant-funded projects to establish and expand its capabilities. As projects are funded to enhance the core services – and those services become operational – the cost to support the ongoing operation and maintenance of those services will increase. While the grants support development, they do not provide funding for ongoing maintenance. Ongoing costs, along with resources for continuing development must be taken into consideration as the funding for VHIE is considered.</p>
<p>PURPOSE</p>	<p>Ensure that there is adequate governance, planning, transparency, and funding for current and future requirements to support health information exchange for the data in the VHIE.</p>
<p>OUTCOME(S)</p>	<p>There are sufficient resources available to support the evolving health information sharing requirements as Vermont’s health care reform efforts mature.</p> <p>The VHIE’s core services (and their respective service level requirements), which are funded through the State’s HIT Fund are clearly defined and communicated.</p> <p>Vermont continues to provide funding for VHIE core services in a transparent and well-governed manner.</p> <p>There is recognized and demonstrated value for health information sharing and the services provided by VHIE, as the statewide HIE, in support of health care reform.</p> <p>There is a formal, transparent process to determine appropriate continuation, enhancement, and expansion of core services.</p>
<p>SUGGESTED APPROACH</p>	<p>Funding and Planning</p> <ul style="list-style-type: none"> • Ensure sufficient state resources to support the HIE. This includes development of a plan to support anticipated future growth. • Develop a planned growth path for VHIE services appropriate to support health care reform efforts in Vermont. • Create a five-year plan for predictable and obligated funds for VHIE operations that includes performance targets and specific measurements. <p>VHIE Core Services</p> <ul style="list-style-type: none"> • Ensure that what are considered VHIE “core services” are clearly defined and well-known and that the expected service levels for each are clearly understood. <ul style="list-style-type: none"> ○ Use the core services definitions and service levels as part of the DVHA grant contracting process as a starting point. <p>HIE Value</p> <ul style="list-style-type: none"> • Develop and publicize use cases demonstrating the value of health information exchange in support of health care reform – realizing that the value does not accrue equally to all across the system (e.g. payers, patients, and providers).

	<ul style="list-style-type: none"> • Long term HIE sustainability hinges on both reducing costs and improving care/outcomes. <ul style="list-style-type: none"> ○ Identify candidate areas which can show the value of HIE and begin to collect baseline data now. ○ Look for indicators of progress.
LEADERSHIP RECOMMENDATIONS	GMCB
TIMING	TBD
INTERDEPENDENCIES	<p>Initiative #1 <i>Establish (and run) comprehensive statewide HIT/HIE governance.</i></p> <p>Initiative #3 <i>Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.</i></p> <p>Initiative #4 <i>Develop and implement an approach for handling the identity of persons that can be used in multiple situations.</i></p>
POTENTIAL FUNDING SOURCE(S)	Identify sustainable sources of public and/or private funding.

Stakeholder Engagement & Participation

10. CENTRALIZE EFFORTS FOR HIT/HIE RELATED STAKEHOLDER OUTREACH, EDUCATION, AND DIALOGUE.

DESCRIPTION	Consolidate efforts to convene and educate health care stakeholders, including clinicians, so that they can both obtain information on HIT/HIE efforts and engage in a dialogue that promotes ongoing participation and ownership of these efforts.
BACKGROUND & FINDINGS	<p>Health care reform efforts are changing health care in Vermont. As part of that change, there are a multitude of statewide HIT/HIE programs and initiatives that affect health care stakeholders*.</p> <p>Currently there are many separate efforts to communicate with stakeholders. However, there is not a well-known or well-used pathway or process to reach out to stakeholders, educate them, and engage them in dialogue to obtain their input on HIT/HIE related objectives and efforts. Likewise, there is no common process or access for stakeholders to ask and receive answers to their questions.</p> <p>However, there is a current project to recommend methodologies for AHS across all provider facing IT projects. The project is scheduled to provide recommendations as this plan is being completed.</p> <p>Additionally, VITL has a stakeholder input process that convenes its stakeholders on a bi-annual basis and a provider advisory committee that meets on a quarterly basis. They also host an annual Summit.</p> <p>Other projects and organizations also have various formats and channels for obtaining stakeholder inputs.</p> <p>*As used here, stakeholder includes, providers, consumers, payers, State agencies and others interested/involved in health, health care, and human services in Vermont or for people in Vermont.</p>
PURPOSE	Develop a predictable and known process and pathway for Vermont's health care stakeholders to ask questions, obtain information, provide input to, and collaborate on statewide HIT/HIE efforts.
OUTCOME(S)	<p>Overall increased transparency, understanding, and participation of/in HIT/HIE efforts.</p> <p>There is a well-known, well-coordinated, common approach used for outreach to, education of, and input from stakeholders.</p> <p>A broad base of stakeholders are actively participating in on-going communication and dialogue for relevant HIT/HIE projects and activities.</p>
SUGGESTED APPROACH	<p>Coordinate and consolidate existing efforts to develop a common communications approach to stakeholders on statewide HIT/HIE efforts.</p> <p>Leverage and coordinate current communication and education programs such as AHS provider communication project, VITL communications, VHITP stakeholder list, VHITP Steering Committee, and VHCIP project communications.</p>

	<p>The responsible entity should be trusted by stakeholders – an organization that:</p> <ul style="list-style-type: none"> • Provides education programs appropriate to individual, as well as broad stakeholder segments. • Develops programs to promote collaboration among stakeholders. • Provides a forum for the sharing of best practices. • Seeks input from stakeholders on HIT/HIE-related topics. • Informs stakeholders how their input was addressed as well as the decisions and resultant plans related to their input. • Has a strong outreach and engagement capability.
LEADERSHIP RECOMMENDATIONS	Governor’s Office or Agency of Administration to create permanent entity. This should be addressed in the transition plan as the interim governance entity is identified.
TIMING	Work on this should begin within the first quarter of plan implementation.
INTERDEPENDENCIES	<p>This function should be accountable to the Governance entity.</p> <p>Requires input from, and supports, many other initiatives and projects to provide coordinated up-to-date information.</p> <p>Initiative #3 <i>Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.</i></p>
POTENTIAL FUNDING SOURCE(S)	TBD



Privacy & Security

11. ENSURE THAT STATEWIDE HEALTH INFORMATION SHARING CONSENT PROCESSES ARE UNDERSTOOD AND CONSISTENTLY IMPLEMENTED FOR PROTECTED HEALTH INFORMATION – INCLUDING INFORMATION COVERED BY 42 CFR PART 2 AND OTHER STATE AND FEDERAL LAWS.

DESCRIPTION	<p>Create a common approach which is well understood by both providers and consumers and that can be used statewide for complying with patient consent requirements.</p>
BACKGROUND & FINDINGS	<p>Health care reform requires the integration of physical health, mental health, and substance use information to enable the coordinated care of an individual. Currently, an individual may need to provide his/her consent multiple times for all their information to be shared.</p> <p>The sharing and integration of health information is inhibited by several things including multiple interpretations of HIPAA and State requirements for sharing protected health information as well as the specific rules of disclosure found in 42 CFR Part 2.⁶⁵</p> <p>Providers in Vermont have adopted various approaches, and use different forms, to obtain consent to share health information. This inconsistency in process and understanding contributes to a lack of complete patient information readily and appropriate available at the point of care.</p> <p>“Opt in” consent Vermont uses an “opt in” model for consent whereby a person must sign a consent for their information to be viewed by providers participating in the VHIE. The VHIE consent is a “global consent” meaning that if a patient “opts in,” all of their information that is in VHIE will be available to be viewed by those involved in the patient’s care and who have the appropriate authorization.</p> <p>This patient consent is in addition to the provider’s VHIE participation agreement. The participation agreement, when executed, allows a patient’s information to be sent from a provider’s system to the VHIE and stored there. While a patient’s information may be <i>stored</i> in VHIE without express consent, it may not be <i>shared</i> without a specific opt-in consent. The only exception to this patient protection is for an emergency situation, where obtaining the information without explicit consent is necessary due to an emergency health crisis of the patient.</p>

⁶⁵ U.S. Government Publishing Office. “Title 42, Chapter 1, Subchapter A, Part 2: Confidentiality of Alcohol and Drug Abuse Patient Records,” January 13, 2016. Accessed January 2016 at <http://www.ecfr.gov/cgi-bin/text-idx?rgn=div5;node=42%3A1.0.1.1.2>

	<p>Vermont is one of only seven states in the country still using this opt in approach to information sharing⁶⁶. All other states have either an opt-out policy or a no-opt position – which means they have no statutes beyond HIPAA compliance – for sharing information.</p> <p>To date, 45,000 people have been presented with the option to opt-in to sharing their health information that resides in the VHIE. People are only offered the option of sharing their information at the time they actually present for care. Of those 45,000, the opt-in rate is approximately 96%. Even this high rate of opting in still represents a small portion of Vermont’s population – contributing to the perceived lack of critical mass of information housed in VHIE.</p> <p>42 CFR Part 2</p> <p>The State and VITL are currently engaged in a project to develop a plan for implementation of a 42 CFR Part 2-compliant HIE architecture and consent process. The structure will enable the legal and appropriate exchange, among participants of the VHIE, of drug and alcohol treatment encounter data from 42 CFR Part 2 substance abuse treatment programs across Vermont.</p>
<p>PURPOSE</p>	<p>Eliminate the wide variance in practices in use by providers in Vermont for obtaining patient consent to share their health information by developing and implementing common policies and procedures for obtaining consent that are used consistently and regularly by providers statewide.</p> <p>Ensure that individuals are informed about consenting to share their health information – and what it means to them.</p>
<p>OUTCOME</p>	<p>Common statewide consent policies and procedures for sharing health information <i>that are implemented consistently</i> across all appropriate providers in Vermont.</p>
<p>SUGGESTED APPROACH</p>	<p>Process</p> <ul style="list-style-type: none"> • Develop a common consent process for obtaining consent for sharing information. Ensure this process supports person-directed care. • Ensure that the process for obtaining consent is well-integrated into provider workflow. • Explore options for increasing the rate of obtaining consents. • Begin with the physical health consent processes already in place. • Incorporate mental health/substance use data when appropriate. <p>Education</p> <ul style="list-style-type: none"> • Provide education and outreach to providers and consumers relating to consent topics.

⁶⁶ Terry, Ken. “Health Information Exchanges Introduce Patient Consent Questions,” *Medical Economics* eNewsletter, July 8, 2014. Accessed December 2015 at <http://medicaleconomics.modernmedicine.com/medical-economics/content/tags/health-information-exchange/health-information-exchanges-introduce-pa?page=full>

	<ul style="list-style-type: none"> • Ensure consistent understanding and use of the VHIE consent. <p>Pilot CFR Part 2 Project</p> <ul style="list-style-type: none"> • Complete the pilot of the Part 2 technology and consent project – prior to full statewide implementation – to test the technical, legal, and workflow requirements involved. • Include results of the 42 CFR Part 2 HIE Architecture and Consent Design Process. • Continue to use REC-like resources to implement across providers where appropriate. • Include considerations for consent requirements for cross-state sharing of information.
LEADERSHIP RECOMMENDATIONS	New Governance entity
TIMING	
INTERDEPENDENCIES	<p>Initiative #1 <i>Establish (and run) comprehensive statewide HIT/HIE governance</i></p> <p>Initiative #6 <i>Provide bi-directional cross state border sharing of health care data</i></p> <p>Initiative #10 <i>Centralize efforts for stakeholder outreach, education, and dialogue relating to HIT/HIE in Vermont.</i></p> <p>Initiative #16 <i>Design and implement statewide consent management technology for sharing health care information</i></p>
POTENTIAL FUNDING SOURCE(S)	TBD

12. ENSURE CONTINUED COMPLIANCE WITH APPROPRIATE SECURITY AND PRIVACY GUIDELINES AND REGULATIONS FOR ELECTRONIC PROTECTED HEALTH INFORMATION.

DESCRIPTION	Continue to ensure that all systems housing or transporting protected health data in State or statewide systems comply with the Security Rule and all other applicable privacy and security regulations.
BACKGROUND & FINDINGS	<p>The HIPAA Security Rule⁶⁷ is a federal minimum for securing protected health information (PHI) that applies to all covered entities and business associates. Covered entities and business associates are subject to Office of Civil Rights (OCR) audits to ensure compliance with the Security rule. Failure to comply fully with the HIPAA Security Rule may result in risks to PHI as well as in fines to organizations that are not in compliance.</p> <p>It is important to note that during data gathering and analysis for this project, the team did not identify security gaps that need to be addressed. Such an assessment was outside the scope of the project. However, what was identified through the multiple stakeholder workshops is the need for increased <i>individual confidence</i> in the security of their data.</p> <p>Individual confidence is engendered through two paths:</p> <ol style="list-style-type: none"> 1. Solid protection of the PHI. 2. Educated individuals who are aware of the need for PHI to be protected and understand how that is accomplished. <p>Both of these are required for sustained statewide health information sharing.</p> <p>See Appendix A Summary of federal and state privacy and security requirements relating to HIEs and Appendix B for VITL privacy policies.</p>
PURPOSE	To ensure that PHI is well-protected and that individuals, through education and understanding, are confident of the security and privacy of their PHI.
OUTCOME(S)	<p>Individuals are informed about and trust that their PHI is protected.</p> <p>Vermont systems comply with all applicable rules and regulations relating to privacy and security for PHI.</p>
SUGGESTED APPROACH	<ul style="list-style-type: none"> ● Identify key relevant systems to which the HIPAA Security Rule applies. ● Use the Security Rule as a minimum standard for compliance.

⁶⁷ U.S. Department of Health and Human Services. "Health Information Privacy." Accessed December 2015 at <http://www.hhs.gov/ocr/privacy/hipaa/administrative/securityrule/>



	<ul style="list-style-type: none"> • Perform a “Mock Audit” to assess readiness and make recommendations for actions that would be necessary to pass a formal OCR audit. • Work with a certification body, such as EHNAC⁶⁸, to obtain HIE Program certification – which includes an assessment of security practices. • Develop and implement a program to inform individuals about the protection of their PHI.
LEADERSHIP RECOMMENDATIONS	Security officers (State and VITL)
TIMING	TBD
INTERDEPENDENCIES	<p>Initiative #1 <i>Establish (and run) comprehensive statewide HIT/HIE governance. The governance entity created by this initiative should have authority to ensure compliance.</i></p> <p>Initiative #10 <i>Centralize efforts for stakeholder outreach, education, and dialogue relating to HIT/HIE in Vermont.</i></p>
POTENTIAL FUNDING SOURCE(S)	TBD

⁶⁸ Electronic Healthcare Network Accreditation Commission (EHNAC). Programs – Health Information Exchange web page. Accessed December 2015 at <https://www.ehnac.org/health-information-exchange/>

Technology

13. ENSURE VHIE CONNECTIVITY AND ACCESS TO HEALTH AND PATIENT INFORMATION FOR ALL APPROPRIATE ENTITIES AND INDIVIDUALS.

<p>DESCRIPTION</p>	<p>Complete the connection of all appropriate providers to VHIE. This includes all appropriate provider practices, regardless of size or location, providers of physical health, mental health, substance use, and support services.</p>
<p>BACKGROUND & FINDINGS</p>	<p>Success in health care reform requires that all appropriate providers have access to relevant information about those for whom they provide care.</p> <p>While Vermont has made significant progress in connecting providers to the VHIE, there is still work to be done to ensure that all appropriate providers – throughout the care continuum – are connected to and using health information exchange.</p> <p>To date, approximately 2000 distinct users (clinicians and office staff) have been trained and authorized to access data in the VHIE through the VITLAccess provider portal. This roll-out began in 2015 and has so far been well-received by the provider community. The number of users, however, represents a relatively small number of the total potential provider users in the State.</p> <p>When a provider has been trained and on-boarded for VITLAccess, they begin the process of gathering consents from patients for the viewing and use of their aggregated data in the VHIE. To date, 45,000 people have been presented with the option to opt-in to sharing their health information that resides in the VHIE. People are only offered the option of sharing their information at the time they actually present for care. Of those 45,000, the opt-in rate is approximately 96%. Even this high rate of opting in still represents a small portion of Vermont’s population – contributing to the perceived lack of critical mass of information housed in VHIE.</p>
<p>PURPOSE</p>	<p>Ensure health care and services providers have complete and timely access to information about their patients when and where needed.</p> <p>Provide focus and prioritization of VHIE efforts.</p>
<p>OUTCOME(S)</p>	<p>Ultimately, the result of full access to relevant information is better outcomes for patients through better access to, and availability of, their health information.</p> <p>Provider Access All appropriate health care providers in Vermont are actively sharing and accessing all relevant information about their patients regardless of where the care was/is provided.</p>

For those providers for whom VHIE connection and/or full bi-directional sharing of information may not be feasible/desired, an alternative method such as VITLAccess⁶⁹ is available for access to shared patient information.

Measures of Progress

Develop and measure indicators of progress (metrics). These metrics should focus on the amount, type, and relevance of information flowing, not just on raw numbers of transactions or connections. The sophistication of the metrics should mature over time and as the use of data sharing grows.

Examples of early indicators of progress may include the following:

- Percentage of providers connected to the VHIE and sharing patient information.
 - Define the denominator (e.g., what is the universe of providers to connect and how many are there? e.g., increase the denominator to add: hospitals, medical providers, mental health, long term support services, human services, border state providers). This may change over time as additional connection capabilities are added.
 - Show progress as trends of percentage of providers connected rather than just raw data.
 - Use as the numerator the number of providers, etc. (denominator definition) who are connected.
- Percentage of population whose records are shared through VHIE.
- Completeness of relevant patient information that is available at the point of care.
- Percentage of queries that result in expected patient information.
- Percentage of providers actively using the VHIE.

SUGGESTED APPROACH

There should not necessarily be a one-size-fits-all approach to sharing health information. Multiple approaches may be needed to achieve statewide health information sharing.

Significantly increase the rate of adoption and implementation of VITLAccess.

Identify priority providers

- Identify and prioritize providers for connection to VHIE – or an approved alternate connection such as VITLAccess.
- Define the scope of providers that is reasonable and cost effective.
- Consider a phased approach identifying the high priority needs to meet first.
- Approach should include connection to providers where Vermonters routinely receive care.
- The prioritization should take into account Vermont's payment reform plans.

⁶⁹ Vermont Information Technology Leaders (VITL). "VITLAccess" web page. Accessed December 2015 at <https://www.vitl.net/connect/provider-services/vitlaccess>

	<p>Collaboration and coordination</p> <ul style="list-style-type: none"> • Use the described value of connection to the VHIE as a result of implementing Initiative #9 <i>Establish and implement a sustainability model for health information sharing</i> as a motivator for providers to connect and share information. <p>Funding</p> <ul style="list-style-type: none"> • Ensure there is sufficient funding to connect all potential providers. • Incentives resulting from Initiative #7 <i>Continue and expand provider incentives for EHR adoption and the sharing of health information</i> can be used to ease the cost to providers. • Continue to stay abreast of federal developments, which may help fund connections for skilled nursing facilities (e.g. S. 1916 The Rural Health Care Connectivity Act of 2015⁷⁰). • Leverage the information contained in the “Disability and Long-Term Services and Supports Data Gap Remediation Project: Next Steps”⁷¹ report. <p>Metrics</p> <ul style="list-style-type: none"> • The results of Initiative #6 <i>Provide bi-direction cross state border sharing of health care data</i> can be used as indicators of progress.
<p>LEADERSHIP RECOMMENDATIONS</p>	<p>The priority setting should be determined in conjunction with the new governance entity.</p> <p>VITL as the entity operating the VHIE is responsible for accomplishing this initiative in collaboration with DVHA as the entity responsible for administering the HIT Fund.</p>
<p>TIMING</p>	<p>TBD</p>
<p>INTERDEPENDENCIES</p>	<p>Initiative #4 <i>Develop and implement an approach for handling the identity of persons that can be used in multiple situations.</i></p> <p>Initiative #6 <i>Provide bi-directional cross state border sharing of health care data.</i></p> <p>Initiative #7 <i>Continue and expand provider incentives for EHR adoption and the sharing of health information.</i></p> <p>Initiative #9 <i>Establish and implement a sustainability model for health information sharing.</i></p>

⁷⁰ S. 1916 The Rural Health Care Connectivity Act of 2015. Accessed December 2015 at <http://www.commerce.senate.gov/public/cache/files/4ad4e07d-00b2-4cd3-a6cb-e15bcfd2cbf3/04B5F2CBF3495B609B21D70D02E08F40.s.-1916-rural-health-care-connectivity-act-of-2015.pdf>

⁷¹ Presented to HDI workgroup on November 18, 2015

	<p>Initiative #11 <i>Ensure that statewide health information sharing consent processes are understood and consistently implemented both for physical health information and that related to 42 CFR Part 2.</i></p> <p>Initiative #12 <i>Ensure continued compliance with appropriate security and privacy guidelines and regulations for electronic protected health information.</i></p>
<p>POTENTIAL FUNDING SOURCE(S)</p>	<p>HIT Fund</p>

14. ENHANCE, EXPAND, AND PROVIDE ACCESS TO STATEWIDE CARE COORDINATION TOOLS.

DESCRIPTION	Provide appropriate on-line tools that are organization-independent, useable, and broadly available to those individuals and organizations involved in providing and coordinating health and human services.
BACKGROUND & FINDINGS	<p>Health care reform requires care coordination across the continuum of care.</p> <p>Care management through access to, and sharing of, relevant health information is a long-standing and critical need for Vermont providers and consumers. Today, most providers are using paper-based or dated technology to support care coordination efforts. These tools are generally insufficient to meet the growing demands for care coordination.</p> <p>As Vermont implements the emerging models of care and payment methods, the need for tools to support care coordination across consumers, providers, and services, will continue to grow.</p>
PURPOSE	Ensure that timely and appropriate information is available at the point of care/care coordination by providing access to high quality, efficient, effective care coordination tools.
OUTCOME(S)	<p>Robust, efficient, effective coordination of care in Vermont.</p> <p>Care delivered in Vermont is optimally coordinated not only when patients transition between settings of care, but also when there are multiple providers or services involved in caring for the person.</p> <p>All applicable caregivers are working from a shared care plan and have access to a patient's complete care plan across providers and/or services as appropriate.</p>
SUGGESTED APPROACH	<ul style="list-style-type: none"> ● Assess, leverage, coordinate, and collaborate on current efforts such as the emerging ADT (admission, discharge, transfer) notification capability. ● Strengthen statewide approach to care coordination, including shared care planning, event notification tools, universal transfer protocol tools, and referral management tools. ● Coordinate the project with the various care teams (and care team projects) to prevent duplication, such as Blueprint for Health, MMIS, other payers, health systems, VHIE, and VHCIP efforts. ● Implement a standard approach to statewide care coordination tools. ● Continue to pilot tools and processes to support care management and the transfer of health related information. ● Ensure integration with current information sharing architecture and VHIE offerings.
LEADERSHIP RECOMMENDATIONS	TBD

TIMING	TBD
INTERDEPENDENCIES	<p>Initiative #1 <i>Establish (and run) comprehensive statewide HIT/HIE governance.</i></p> <p>Initiative #2 <i>Strengthen statewide HIT/HIE coordination.</i></p> <p>Initiative #3 <i>Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.</i></p> <p>Initiative #11 <i>Ensure that statewide health information sharing consent processes are understood and consistently implemented for protected health information – including information covered by 42 CFR Part 2</i></p>
POTENTIAL FUNDING SOURCE(S)	SIM funds to support Event Notification System, Shared Care Plan, and Uniform Transfer Protocol.

15. ENHANCE STATEWIDE ACCESS TO TOOLS (ANALYTICS AND REPORTS) FOR THE SUPPORT OF POPULATION HEALTH, OUTCOMES, AND VALUE OF HEALTH CARE SERVICES.

DESCRIPTION	Develop and implement the infrastructure, tools, and processes needed for broad and timely access to analytics capabilities and reports that are needed to evaluate the effectiveness and value of health and human services.
BACKGROUND & FINDINGS	<p>One key to successful health care reform is understanding the value and the effectiveness of care and services delivered. This requires a robust ability to measure and analyze both the outcomes of care and the associated cost(s) of that care.</p> <p>Improving health and human services is accomplished one patient at a time and one provider at a time. Each provider needs to understand the needs of their individual patients as well as the effectiveness of the services they provide.</p> <p>On a larger scale, understanding population level outcomes is necessary to both identify trends and areas for concern as well as to gauge the state’s overall progress on health care reform.</p> <p>As the ability to capture, aggregate and analyze information grows, the health care system will mature in its ability to not only understand what happened – and why – but also to take actions to ward off untoward events.</p> <p>There is progress being made through many efforts. The Blueprint for Health has implemented a tool to assist in their collection and analysis of data and the State’s three ACO’s are employing various tools to analyze population health analytics.</p> <p>While there are multiple projects and activities ongoing to provide analytics in Vermont today, access to the tools necessary for even the basic layer of analytics is out of reach of many provider organizations.</p>
PURPOSE	Provide broad access to analytics tools and reports that provide actionable information that can be used to help inform and improve health and health care.
OUTCOME(S)	<p>There are broad analytics and reporting capabilities that meet the needs of multiple providers and stakeholders.</p> <p>All relevant and appropriate providers have access to analytics capabilities and reports (as appropriate).</p>
SUGGESTED APPROACH	<ul style="list-style-type: none"> • Build on knowledge acquired through the use of current tools and capabilities. • Work with providers to understand their priority needs for to access to tools and reports. • Leverage information such as that in the VHIE, VHCURES and the hospital discharge data set.

	<p>Considerations</p> <ul style="list-style-type: none"> • Must provide timely access to results (reports). • A one-size-fits-all approach is not recommended. • Make data available for many analytics users. • Provide basic tools to a broad set of users. • Include use and integration of multiple data sources like claims and clinical data to maximize cost-effectiveness analyses. • Develop use cases based on prioritized needs. • Develop capabilities to address the high priority needs first.
LEADERSHIP RECOMMENDATIONS	State
TIMING	TBD
INTERDEPENDENCIES	<p>Initiative #1 <i>Establish (and run) comprehensive statewide HIT/HIE governance.</i></p> <p>Initiative #3 <i>Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.</i></p>
POTENTIAL FUNDING SOURCE(S)	TBD

16. DESIGN AND IMPLEMENT STATEWIDE CONSENT MANAGEMENT TECHNOLOGY FOR SHARING HEALTH CARE INFORMATION.

DESCRIPTION	Develop a technical infrastructure and tools to support the common statewide patient consent approach and processes.
BACKGROUND & FINDINGS	<p>Managing patient consent to share health care information is a complex endeavor. It is becoming increasingly complex as new requirements are added.</p> <p>While it is generally agreed that full integration of a patient’s health information is the desirable end goal, we are still on the journey to achieving that integration.</p> <p>In 2014, ONC sponsored the PHR Ignite Project⁷², which piloted sending health information from a provider’s EHR into a patient’s personal health record (PHR). While there is still much work to be done, this could signal a trend where patients determine what information to release to which providers – a process known as “consumer-mediated exchange”. This will affect the complexity of consent management.</p> <p>Vermont must be well prepared for the challenges of consumer-controlled consent, integrating physical health, mental health, and substance use information, human services information, increasing levels of consent granularity (if appropriate), and the multiple organizations involved in the patient consent process.</p>
PURPOSE	Ensure that an individual’s consent for sharing their PHI is accurately and consistently implemented across all appropriate provider organizations.
OUTCOME	Sharing of PHI is done consistent with privacy regulations and the person’s consent.
SUGGESTED APPROACH	Use the consent processes developed through Initiative #11 (Ensure that statewide health information sharing consent processes are understood and consistently implemented both for physical health information and that related to 42 CFR Part 2) as the basis for designing/selecting and implementing a tool for consent management.
LEADERSHIP RECOMMENDATIONS	State
TIMING	Year 2 or 3, after Vermont’s consent processes are harmonized through Initiative #11.

⁷² Office of the National Coordinator for Health Information Technology. “ONC State Health Policy Consortium – Summary Report on the PHR Ignite Project: Advancing Consumer-Mediated Exchange.” March 2014. Accessed December 2015 at https://www.healthit.gov/sites/default/files/onc_shpc_phrignite_summaryreport.pdf

INTERDEPENDENCIES	Initiative #11 <i>Ensure that statewide health information sharing consent processes are understood and consistently implemented both for physical health information and that related to 42 CFR Part 2.</i>
POTENTIAL FUNDING SOURCE(S)	TBD

17. PROVIDE A CENTRAL POINT OF ACCESS TO AGGREGATED HEALTH INFORMATION WHERE INDIVIDUALS CAN (ELECTRONICALLY) VIEW, COMMENT ON, AND CONTRIBUTE TO THEIR PERSONAL HEALTH INFORMATION.

<p>DESCRIPTION</p>	<p>Implement tools and processes that enable individuals to access, comment on, add to, or contribute their aggregated health information within a reasonable timeframe.</p>
<p>BACKGROUND & FINDINGS</p>	<p>Patient engagement is necessary for health care reform. As more health-related information about individuals is gathered and shared, and as those individuals become more informed, there will be increasing demands for the ability of individuals to not only electronically view their information, but to contribute and comment as well.</p> <p>Many providers and health systems have discreet, organization-centric, capabilities for patients to electronically view their information. These capabilities primarily came about as a result of a requirement in the meaningful use program Stage 2 (MU2). However, patients must log into a variety of diverse systems to view their information from different providers and payers. This inhibits their ability to easily view and understand their complete record.</p> <p>To date few, if any, of these systems provide an individual the capability to have a consolidated view of their information across settings, comment on, or contribute to their health related information.</p>
<p>PURPOSE</p>	<p>Provide support for engaged individuals that enables them to easily and electronically view, contribute to, and comment on their aggregated health information.</p>
<p>OUTCOME(S)</p>	<p>Individuals are able to easily, securely, and electronically view, contribute, and comment on their health related information across provider (and payer) settings – without the need to manually log on to multiple disparate systems.</p>
<p>SUGGESTED APPROACH</p>	<p>Determine readiness for this capability – while preparing for upcoming “consumer mediated exchange” capabilities where individuals will have the ability to decide what information to share and with whom.</p> <p>Understand the key requirements – and limitations – associated with “consumer mediated exchange” and individual access to their health related information.</p> <p>Develop/select and implement a tool that is designed for individuals to access to their aggregated information.</p> <p>Considerations:</p> <ul style="list-style-type: none"> • Ensure that information provided is accurate, complete and timely • Develop an infrastructure that supports patient driven analytics (e.g. consumer apps) that present the data in relevant and user-friendly ways (e.g.

	<p>“show me my lab trends over the last 3 years regardless of where the test was performed”).</p> <ul style="list-style-type: none"> • Include access to complete longitudinal information across payers and providers. • Develop a process that considers the timing of an individual’s access to test results relative to provider access and the need for personal contact and explanation.
LEADERSHIP RECOMMENDATIONS	TBD
TIMING	Year 4 or 5
INTERDEPENDENCIES	Initiative #3 <i>Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.</i>
POTENTIAL FUNDING SOURCE(S)	HIT Fund

ADDITIONAL RECOMMENDATIONS

In addition to the 17 initiatives there are four recommendations contained within this Plan to enable Vermont to continue moving forward with its health care reform efforts.

1. Launch the transition plan contained in section 7.
2. Continue expansion of broadband (and cellular) access to areas where it's not currently available.
3. Ensure sustainable funding source for the Initiatives contained within this document.
4. Develop centralized capability to proactively identify new federal grant opportunities for HIT/HIE efforts – beyond the traditional CMS grants.

Over the past seven years, Vermont has utilized HIT Fund dollars and matching federal funds to support HIT/HIE infrastructure. In the past two years, the infrastructure has benefited from additional federal funds through the State Innovation Models Testing Grant. This combination of funds has enabled Vermont to make significant headway in building and operating an electronic health information exchange infrastructure.

Vermont HIT Fund

The State of Vermont launched the Health Information Technology (HIT) fund in 2008. This fund is dedicated to supporting programs that provide electronic health information systems and practice management systems for health care and human service practitioners in Vermont.

As provided for in 32 V.S.A. Chapter 243, the HIT fund accumulates receipts raised by a 0.199% charge on private health benefit claims.⁷³ The claims tax is administered by the Vermont Department of Taxes. Currently, management of the fund and its expenditures has been delegated by the Agency of Administration (AOA) to the Department of Vermont Health Access (DVHA) under 18 V.S.A. Chapter 219, Subchapter 1. Under current law, the HIT fund will sunset on June 30, 2017.

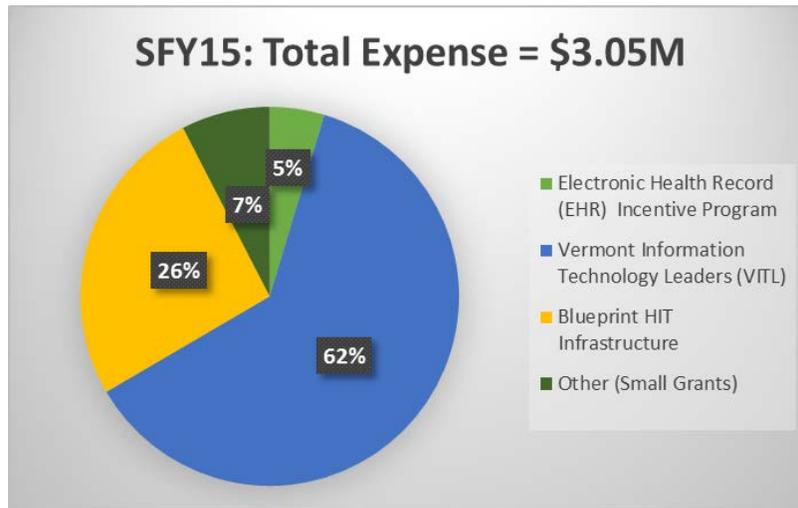
In recent years, the State has successfully worked with federal partners at CMS to continue to provide a mix of federal and State HIT Fund monies to support HIT/HIE. Federal funding has been available through both Vermont's Global Commitment for Health Medicaid 1115 waiver and through HITECH Medicaid "fair share" funding. During State Fiscal Years 2011 – 2013, the State increased the balance of the HIT fund. This growth was achieved primarily due to a grant from the Office of the National Coordinator for Health Information Technology to promote the exchange of health information pursuant to the Health Information Technology for Economic and clinical Health (HITECH) Act. This Act was enacted by Congress as part of the American Recovery and Reinvestment Act (ARRA).

The grant through HITECH covered staff and personnel costs, as well as a majority of the annual funding awarded to VITL. The grant provided funding for three State Fiscal Years with

⁷³ This does not include Medicaid, Medicare, or other health care assistance programs financed with federal funds. See 32 V.S.A. 10401 for definitions.

the award totaling \$5,034,328. For all grant expenditures, the State was required to provide a match rate of 12.26%. The grant helped the State maximize HIT Fund.

For State Fiscal Year 2015, the chart below shows the projected expenditures from the HIT Fund by project:



The \$3.05 million in HIT funds expended supported a total of \$12,143,795 in health information projects for the year due to federal matching dollars.

In recent years, the State has managed the HIT Fund in compliance with guidance from the Department of Finance and Management regarding appropriations. Additionally, the State has been conservative in expenditures to ensure continued support of programs beyond the HIT Fund sunset on June 30, 2017. At the fund's current rate of expenditure, it is projected to be depleted approximately twelve months after the fund's sunset. However, if state funds are identified at approximately the same level beyond 2017, at the current rate of expense, investment, and management of its balance (not including new investments identified in this Plan), the fund is projected to be sustainable through SFY 2021.

The State's ability to secure and match federal funding has been dependent on the existence of dedicated dollars, raised through the HIT Fund. The ability to secure the HITECH Medicaid "fair share" funding is even more dependent on the HIT Fund because CMS requires a demonstration that private payers also contribute a "fair share" to the proposed projects, which Vermont is able to do given the claims tax funding mechanism that supports the Fund. This is an important consideration for the general assembly when it determines the appropriate funding source in the future.

Other Funding Sources

Vermont's HIT/HIE program and infrastructure development has also benefitted significantly from the State Innovation Models (SIM) Testing grant from the federal Center for Medicare and Medicaid Innovation. Roughly 25% of these federal funds have been allocated to projects that have supported the building of HIT/HIE infrastructure throughout the State. The funding available under this program will end in June 2017.

Other funding sources that have supported HIT/HIE development in Vermont include the federal Electronic Health Record (EHR) Incentive (Meaningful Use) Program, provider networks (e.g., through Accountable Care Organizations), provider organizations (such as the Vermont Care Partners/ Vermont Care Network and the Bi-State Primary Care Association that have secured grants from the federal Health Resources and Services Administration (HRSA) and other sources), and individual providers through their investments of time and money for EHR, registry, and data analytics systems.

Expenditure Projections

The initiatives outlined in the VHITP continue or launch approximately 30 projects directly related to HIT/HIE program and infrastructure. These projects include a combination of ongoing operational costs for existing projects and proposed new projects that could be developed and launched over the next 5 years. The 5-year rough cost estimate for ongoing operations is \$52 million in combined State and Federal investments. This plan recommends that the new governance structure prioritize the potential future projects and thus the expenditure needs for these projects for the next 5 years. This section provides information to assist in this process.

The figures in the following tables provide more detail on the estimated costs.

5-Year Estimates by Funding Source

	State HIT Funds	Federal Matching Funds	Other Funds	TOTAL
On-going operations	\$21M	\$31M		\$52M

	State HIT Funds	Federal Matching Funds	Other Funds	TOTAL
Proposed Development (with Implementation)	\$11.2M	\$36.7M	\$5.1M	\$53M

5-Year Estimates by Year

	2017	2018	2019	2020	2021	TOTAL
On-going operations	\$9.8M	\$10.5M	\$10.2M	\$10.6M	\$10.9M	\$52M

	2017	2018	2019	2020	2021	TOTAL
Proposed Development (with Implementation)	\$9.9M	\$12M	\$11.6M	\$12.8M	\$6.7M	53M

For all of the tables above:

1. On-going operations including: program management staff⁷⁴, Blueprint for Health projects, and ongoing operations of the VHIE at VITL.
2. Proposed Development: These are projects either in early planning and need to be prioritized through the future governance.

The State should also seek additional ways to maximize federal CMS funding, such as by seeking approval for more projects under the HITECH Medicaid funding program and more generally through the Medicaid MMIS program. After fully exploring these strategies and prioritizing the projects, the Agency of Administration should recommend to the general assembly the appropriate funding strategies to complete the priorities over time.

⁷⁴ Included in these estimates is the cost associated with program/project management in the amount of \$13.5m (\$1.35M of HIT Fund matched by federal funds) over 5 years.

SECTION

7

TRANSITION PLAN AND NEXT STEPS

The 2016 update to the VHITP includes many opportunities to improve Vermont's HIT/HIE infrastructure. This transition plan sets forth specific next steps to be completed by December 31, 2016 in order to provide recommendations for the next Administration on key issues, such as governance and funding. In addition to this transition plan, DVHA will continue projects currently underway. All other initiatives are proposed to start after the next administration has reviewed this Plan.

The transition plan focuses on activities over the 7 months subsequent to VHITP approval and leverages our current resources and projects.

We propose to provide two written updates to GMCB on progress towards the enumerated milestones by 9/30/2016 and 12/31/2016 respectively.

Governance Transition Steps

The highest priority during the transition period is to focus on initial steps related to governance, as outlined in the tables below. These tables also provide other high priority tasks in priority order:

Action/Activity	Milestone	Responsibility
Set up interim governance and coordination structures (<i>Initiative #1</i>) which have the appropriate authority and resources to prioritize, oversee, and coordinate HIT/HIE related projects, and to communicate regularly with key stakeholders.	Interim governance holds first meeting within first two months after plan approval. Develops prioritized lists of projects within six months after plan approval. Develop a plan for interim stakeholder communication and engagement; incorporate providers and consumer advocates as appropriate.	Governor's Office/Agency of Administration to: <ul style="list-style-type: none"> • Identify executive leadership, staff leads, roles, and responsibilities. • Establish cross-agency committee. • Set up stakeholder committee to support the interim governance structure.
Begin the work to establish a proposal for a permanent HIT governance entity. (<i>Initiatives #1,2,3,10</i>)	New entity identified and recommendations made to new Administration by 1/1/2017.	Interim Governance Committee, reviewed by Agency of Administration

	Address range of responsibilities, including authority, staffing and resource requirements, oversight, coordination, and outreach functions within recommendations made to new Administration by 1/1/2017.	
Begin to identify funding needs and sources to accomplish tasks contained within the VHITP.	Proposal for prioritization of funding needs for the new Administration by 1/1/2017. Options for revenue to support priorities, for the new Administration by 1/1/2017.	Interim Governance Committee.
Launch expanded HIT coordination (<i>Initiative #2</i>)	Initial role, responsibility, and authority defined. Develop coordination and outreach plan, including necessary substance, documentation, and stakeholder engagement. Coordination and outreach plan due by 1/1/2017 to new Administration.	Interim Governance Committee.

In addition to governance work during the transition period, the State will also initiate the following activities in 2016 and make applicable recommendations to the new Administration by 1/1/2017:

Action/Activity	Milestone	Responsibility
Launch project to simplify state reporting requirement (<i>Initiative #8</i>)	Project team identified. Survey existing requirements and existing reporting coordination efforts. Top 10 data elements to address identified.	Interim Governance Committee.
Explore Master Data Management function (<i>Initiative #3</i>)	First meeting held, roles, responsibilities, and high-level budget and schedule defined.	Interim Governance Committee.

Begin work on Consent Management Initiative (<i>Initiative # 11</i>)	Project team identified.	Interim Governance Committee.
Recommendations from the transition plan proposed as the update of VHITP.		Interim Governance Committee.

SECTION
8 APPENDICES

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APPENDIX A: APPLICATION OF LAW TO THE PRIVACY AND SECURITY FRAMEWORK OF A HEALTH INFORMATION EXCHANGE NETWORK

This appendix to the *Vermont Health Information Technology Plan* is intended to incorporate recent developments in state and federal privacy and security regulations, policies and procedures consistent with Joint Resolution No. 348 of the 2007-2008 Legislature which approved the Plan.

In December, 2008, the United States Department of Health and Human Services (HHS) through its Office of Civil Rights (OCR) published guidance documents to implement the Nationwide Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information (Privacy and Security Framework) to illustrate how the HIPAA Privacy Rule would apply to electronic health information exchange between health care providers who are Covered Entities under the HIPAA Privacy Rule. The following discussion summarizes the six principles set forth in the guidance documents, and summarizes the other applicable federal and state law provisions which govern the application of these principles to electronic health information exchanges, including the privacy and security provisions included in the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009.

Compliance with these six principles and the relevant law provisions should be considered in the establishment and operation of electronic health information exchange infrastructure. Operational policies for the Vermont Health Information Exchange Network, consistent with these principles and the relevant law provisions have been developed and will be regularly revised to address specific issues and concerns identified as the Network is established and gains experience. (Current versions of these policies are included following this discussion.)

PRIVACY AND SECURITY FRAMEWORK - OPENNESS AND TRANSPARENCY

PRINCIPLE: There should be openness and transparency about policies, procedures, and technologies that directly affect individuals and/or their protected health information.

Description: The Openness and Transparency Principle emphasizes the concept that trust in electronic health information exchange can best be established in an open and transparent environment. Health Care Providers participating in a Health Information Exchange should provide clear notice of their policies and procedures in order that individuals understand what individually identifiable health information exists about them, how that information is collected, used, and disclosed, and how reasonable choices can be exercised with respect to that information. The OCR indicates that the Notice of Privacy Practices of a Health Care Provider can help facilitate the openness and transparency in electronic health information exchange that is important for building trust. Individual health care providers can tailor their Notice of Privacy Practices to describe the role of a Health Information Exchange Network.

Applicable federal law: HIPAA's Privacy Rule, at 45 CFR § 164.520, provides individuals with a right to receive a notice of privacy practices "in plain language", which, among other things,

describes how a health care provider may use and disclose their protected health information, the individual's rights with respect to that information, as well as the provider's obligations to protect the confidentiality of that information. Under the HIPAA Privacy Rule, a health information exchange does not itself have an obligation to provide a notice of privacy practices to individuals. The HIPAA Privacy Rule permits, however, health care providers to give notice to individuals of the disclosures that will be made to and through the health information exchange, as well as how individuals' health information will be protected in a networked environment. Also, where electronic health records are maintained and exchanged, the HITECH Act enhances an individual's right to obtain an accounting of disclosures of electronic protected health information by a covered entity for the purposes of treatment, payment and health care operations. See § 13405(c).

A health care provider participating in the Health Information Exchange who must comply with the federal regulations concerning confidentiality of alcohol and drug abuse treatment patient records must comply with the patient notice provisions of 42 CFR § 2.22. In devising its notice to patients, the health care provider should consider adding to the written notice that must be provided to patients a description of its participation in the Health Information Exchange.

Applicable state law: Under Vermont law, individuals are implied to have a full right of access to their protected health information in that a failure of a licensed health care provider to make that information available upon the patient's written request is grounds for discipline under various health care provider licensure laws. See 26 VSA § 1354(a)(10) and 3 VSA § 129a (a)(8). The Hospital Bill of Rights, 18 VSA §§ 1852(a)(3),(4) and (9), requires that a patient has the right to obtain from the physician coordinating his or her care, complete and current information concerning the diagnosis, treatment and any known prognosis in terms the patient can reasonably be expected to understand. The patient has the right to receive information necessary to give informed consent for any procedure or treatment and the right to know the identity and professional status of individuals providing services. The Nursing Home Residents Bill of Rights, 33 VSA § 7301(c), requires that a resident be fully informed of his or her medical condition and given an opportunity to participate in the planning of medical treatment. Although neither statute requires patient notice regarding the electronic exchange of protected health care information, the provision of such notice is within the spirit of each law. Additionally, both statutes require hospital patient or nursing home resident consent for the disclosure of such information outside of those individuals involved with the individual's treatment within the relevant facility. See 18 VSA § 1852(7) and 33 VSA § 7301(2) (H). See also Vermont consent law discussion set forth in the Individual Choice Principle below.

PRIVACY AND SECURITY FRAMEWORK - INDIVIDUAL CHOICE PRINCIPLE: Individuals should be provided a reasonable opportunity and capability to make informed decisions about the collection, use, and disclosure of their protected health information.

Description: The OCR guidance documents emphasize that an important aspect of building trust in the electronic exchange of protected health information is to provide individuals the opportunity and ability to make choices with respect to their participation in the exchange.

Providing certain rights to an individual, such as right to access information, right to receive a Notice of Privacy Practices, right to seek amendment, right to obtain an accounting of certain disclosures, right to consent, agree or object to disclosure and a right to request restrictions on disclosures, empower an individual to manage his or her protected health information. Health Information Exchange Networks can further facilitate an individual's management of the portability of his or her protected health information. Without considering state or other federal law ramifications, the guidance documents describe that the HIPAA's Privacy Rule gives health care providers flexibility with regard to the decision of whether to obtain an individual's consent in order to use or disclose PHI for treatment, payment, and health care operations purposes, and with regard to the content of the consent and the manner of obtaining it. Health care providers may obtain patient consent before disclosing any protected health information through a health information exchange, or they may obtain consent that limits disclosures on a more selective 'granular' level. Examples of the latter are obtaining consent for disclosures for certain purposes, to certain categories of recipients, or for certain types of information.

Patients may seek to restrict access to their protected health information if it will be available in a health information exchange. The OCR suggests that health care providers that participate in a health information exchange may want to consider their policies with respect to the right to request restrictions, and how they might respond to such requests in a manner that recognizes the importance of individual choice in building trust in such exchanges.

Applicable federal law: The HIPAA Privacy Rule provides an individual with the right to access their protected health information, 45 CFR § 164.524 as amended by HITECH Act § 13405(e), the right to seek amendments to it, 45 CFR § 164.526, the right to receive an accounting of certain disclosures, 45 CFR § 164.528 as amended by HITECH Act § 13405(c), the right to receive a Notice of Privacy Practices, 45 CFR § 164.520, and the right to agree or object to certain disclosures, 45 CFR § 164.510. The Privacy Rule allows each covered entity to tailor their consent policies and procedures, if any, according to what works best for their organization and the individuals with whom they interact. See 45 CFR § 164.506(b). The HIPAA Privacy Rule, at 45 CFR § 164.522, also provides individuals with a right to request that a health care provider restrict uses or disclosures of protected health information about the individual for treatment, payment, or health care operations purposes. With one exception, health care providers are not required to agree to an individual's request for a restriction, but they are required to have policies in place by which to accept or deny such requests. Pursuant to section 13405(a) of the HITECH Act, requests to restrict access by a health plan to protected health information regarding a service or item for which the individual has fully paid out of pocket must be agreed to.

Under 42 CFR Part 2, a health care provider must have patient consent to make disclosures and re-disclosures of protected health information related to covered services for alcohol or drug abuse treatment or to disclose the identity of an individual receiving such services, 42 CFR § 2.13, § 2.32 and § 2.33. Any such consent must meet written requirements as set forth in 42 CFR § 2.31. These regulations require patients be given a Notice of Confidentiality Requirements, 42 CFR § 2.22.

Applicable state law: Vermont law may be interpreted to require individual consent for a health care provider to make disclosures of information gathered and maintained for the purpose of the health care provider's treatment of the patient. The patient privilege statute, 12 VSA § 1612, has been interpreted by some to prohibit physicians, chiropractors, dentists, nurses, mental health providers (and by implication the organizations who maintain their records) from disclosing protected health information without the patient's consent ("waiver") or an express requirement of law. The Hospital Patient Bill of Rights, 18 VSA § 1852(7), and the Nursing Home Resident Bill of Rights, 18 VSA § 1852(7), state that patients or residents have the right to expect that all communications and records pertaining to their care shall be treated as confidential. Under 18 VSA § 7103(a), no disclosure may be made of the protected health information relating to an individual who is or was receiving mental health treatment, or of the individual's identity, without the individual's written consent. Similarly, no protected health information which includes the results of genetic testing or the fact that an individual has been tested shall be disclosed without the written consent of the individual, 18 VSA § 9332(e). Drug test results subject to Vermont's drug testing law set forth in 21 VSA § 516(a) and (b) may not be disclosed except as provided in the statute or with the written consent of the individual.

PRIVACY AND SECURITY FRAMEWORK - COLLECTION, USE, and DISCLOSURE

LIMITATION PRINCIPLE: Individually identifiable health information should be collected, used, and/or disclosed only to the extent necessary to accomplish a specified purpose(s) and never to discriminate.

Description: The OCR guidance documents emphasize that appropriate limits should be set on the type and amount of information collected, used and disclosed for any purpose. The Privacy Rule requires health care providers to take reasonable steps to limit the disclosure of or any requests for protected health information to the minimum necessary, when requesting such information from other providers for purposes other than for treatment. The OCR considers that most of the requests or disclosures to or through a health information exchange may not be subject to the Privacy Rule's minimum necessary standard because they are made for the purpose of treatment. However, providers engaging in electronic health information exchange are free to apply minimum necessary concepts when developing policies that limit the information they include and exchange, even for treatment purposes. Business Associate Agreements between health care providers and any organization facilitating a health information exchange must limit uses and disclosures to be consistent with any such policies. The OCR suggests for routine exchanges of information for treatment purposes, health care providers and the health information exchange can develop a standard set of information that should be included in an exchange and that would be considered minimally necessary for the purpose. Doing so would be consistent with the Collection, Use, and Disclosure Limitation Principle, and may help foster increased trust in electronic health information exchange.

In an electronic health information exchange environment, the OCR expects that exchange use likely will be limited to only certain discrete purposes, primarily treatment purposes, and that disclosures of protected health information for public policy related purposes are unlikely. Many of the types of disclosures of protected health information which the HIPAA Privacy Rule

permits, without patient authorization, such as to report suspected child abuse, by their nature may not lend themselves to an electronic health information exchange environment. The use of de-identified information for research is permitted and may be facilitated in a health information exchange environment.

Applicable federal law: The HIPAA Privacy Rule, at 45 CFR § 164.502(b), requires health care providers to take reasonable steps to limit the use or disclosure of protected health information to the minimum necessary to accomplish the intended purpose unless the disclosure is for treatment purposes. The HITECH Act requires that the minimum amount necessary for non-treatment purposes be restricted, in most cases, to the limited data set as defined in 45 CFR § 164.514(e)(2). See § 13405(b). 45 CFR § 164.512 permits uses and disclosures of protected health information for a number of public policy and benefit purposes, such as research or public health, without the individual's authorization. However, specific conditions or limitations apply to uses and disclosures by a health care provider for these purposes, in order to strike an appropriate balance between the individual's privacy interests and the public interest need for this information. Section 13405(c) of the HITECH Act gives an individual whose protected health information is part of an electronic health record the right to obtain an accounting of all disclosures made by a covered entity in the prior six years for the purposes of treatment, payment and health care operations, and all other purposes covered in the HIPAA Privacy Rule. 45 CFR § 164.528.

Under 42 CFR Part 2, individual patient consent must be obtained in order for a health care provider to disclose protected health information regarding alcohol or drug abuse treatment covered under those regulations. Exceptions to this rule can be made when the individual is experiencing a medical emergency, 42 CFR § 2.51; the information is subject to a research protocol meeting the requirements of 42 CFR § 2.52, relates to reporting crimes on the premises or child abuse, is necessary for government audits; or when disclosure is ordered by a court. See 42 CFR §.2.12.

Applicable state law: Under Vermont law, the scope of disclosure of protected health information will be governed by the patient consent permitting such disclosure, since patient consent, as described in the discussion of the Individual Choice Principle above, is often required for any disclosure of protected health information beyond the treating health care provider. However, there are also a number of disclosures which Vermont law requires a health care provider to make without patient consent. These include, disclosure of treatment of firearm wounds, 13 VSA § 4012, certain instances of cancer or communicable disease, 18 VSA § 151-157, § 1001-1007, § 1041 and § 1093, child and vulnerable adult abuse, 33 VSA § 4913 and § 6903, lead poisoning of children under age six, 18 VSA § 1755(d) and immunizations 18 VSA § 1129. Nothing in Vermont law prohibits these required disclosures from being made electronically through an exchange, if the health care provider and the exchange agreed to do so.

PRIVACY AND SECURITY FRAMEWORK - CORRECTION PRINCIPLE: Individuals should be provided with a timely means to dispute the accuracy or integrity of their protected health

information, and to have erroneous information corrected or to have a dispute documented if their requests are denied.

Description: Individuals have a critical stake in the accuracy of their protected health information and play an important role in ensuring the integrity of that data. The Office for Civil Rights notes that health information exchanges can be very useful in facilitating the amendment process and disseminating amended information.

Applicable federal law: Pursuant to § 164.526 of the HIPAA Privacy Rule, individuals have the right to have a health care provider amend their protected health information. The provider must act in a timely manner, usually within 60 days, to correct the record as requested by the individual or to notify the individual that the request is denied. When a correction is made, the provider must make reasonable efforts to see that the corrected information is made available to other providers and entities such as health information exchanges. A provider may deny a requested amendment if it determines that the information is accurate and complete, and on limited other grounds. When a request is denied, but the individual continues to dispute the accuracy of the information, the individual must be provided an opportunity to file a statement of disagreement with the provider. The provider must include documentation of the dispute with any subsequent disclosure of the disputed protected health information.

Applicable state law: None.

PRIVACY AND SECURITY FRAMEWORK - SAFEGUARDS PRINCIPLE: Protected health information should be protected with reasonable administrative, technical, and physical safeguards to ensure its confidentiality, integrity, and availability and to prevent unauthorized or inappropriate access, use, or disclosure.

Description: Administrative, technical and physical safeguards include such actions and practices as securing locations and equipment; implementing technical solutions to mitigate risks; and workforce training. Safeguards are generally described in order to be “scalable” to allow entities of different sizes, functions, and needs to adequately protect the privacy of protected health information as appropriate to their circumstances. Because each provider chooses the safeguards that best meet its individual needs, the types of protections applied may not be the same across all participants in a health information exchange. Even so, the OCR suggests that the actual exchange of information may be facilitated and even enhanced if all participants adopt and adhere to the same or consistent safeguard policies and procedures. Health information exchange participants may agree to use a common set of procedures and mechanisms to verify the credentials of and to authenticate persons requesting and accessing information through an exchange network or to apply the same standard training for persons who utilize the network. Common safeguards policies may include enforcement mechanisms and penalties for breaches and violations. A health information exchange also may establish and centrally control the exchange network, network equipment, and exchange conduits, so that the exchange process itself is protected by a single set of safeguards and security mechanisms.

Applicable federal law: The HIPAA Privacy Rule, at 45 CFR § 164.530(c), requires health care providers to reasonably safeguard protected health information from any intentional or unintentional use or disclosure in violation of the Privacy Rule. The Privacy Rule's safeguards standard is flexible and does not prescribe any specific practices or actions that must be taken by health care providers.

The HIPAA Security Rule, at 45 CFR §§ 164.302 et seq., provides further elaboration on the nature of administrative, physical and technical safeguards required of any health care provider who maintains electronic protected health information. These provisions are "scalable" to apply to health care providers of different sizes and types. See §§ 164.308, 164.310 and 164.312. The HITECH Act extends the HIPAA Security Rule requirements and related enforcement provisions to business associates and requires any health information exchange organization to have business associate agreements with participating covered entities. See §§ 13401(a) and 13408.

Consistent with the above, health care providers who must comply with the federal regulations governing the confidentiality of alcohol and drug abuse patient records must comply with the security provisions of 42 CFR § 2.16, requiring secure premises and written procedures regulating access to and use of written records.

Applicable state law: Vermont's Health Information Technology law provides that any standards and protocols developed by VITL require that protected health information be secure and traceable by an electronic audit trail, 18 VSA § 9351(e), (formerly 22 VSA § 903(f)).

PRIVACY AND SECURITY FRAMEWORK - ACCOUNTABILITY PRINCIPLE: The Principles in the Privacy and Security Framework should be implemented, and adherence assured, through appropriate monitoring, and other means and methods should be in place to report and mitigate non-adherence and breaches.

Description: The Privacy Rule gives health care providers considerable flexibility in developing and implementing policies and procedures which are appropriate and scalable to their own environment. This flexibility allows providers that engage in the electronic health information exchange to consider how best to comply with the Privacy Rule's administrative standards.

The OCR notes that health care providers either will need to write new privacy policies and procedures or adapt their existing policies and procedures to address the changes in their business practices needed to accommodate electronic exchanges of protected health information. Workforce members whose functions involve the electronic exchange of protected health information, including those workforce members responsible for monitoring and overseeing the entity's participation in an electronic health information exchange, should receive training on these new or amended policies and procedures. Health care providers participating in the health information exchange should review and amend as necessary its policies and procedures for sanctioning workforce members who fail to comply with the entity's privacy policies and procedures or the requirements of the HIPAA Privacy Rule. For example, the

entity's sanction policies may need to address changes in responsibility for accessing, using, and disclosing protected health information, the types of noncompliance that may arise in an electronic environment, and the appropriate sanctions for such noncompliance.

Mitigation is required, where practicable, for known harmful effects caused by the health care provider's own workforce misusing or improperly disclosing electronic protected health information or by such misuse or wrongful disclosure by the business associate that facilitates the health information exchange. Mitigation steps may include: identifying the cause and amending procedures to ensure it does not happen again; taking steps to limit further distribution of improperly disclosed information; and notifying the individual of the violation.

Health information exchange networks must have accountability provisions written into their business associate agreements with health care providers to ensure that the networks operate in compliance with the federal and state requirements governing a health care provider's obligations with regard to electronic protected health information.

Applicable federal law: The HIPAA Privacy Rule, at 45 CFR § 164.530, provides the foundation for accountability within an electronic health information exchange environment by requiring health care providers that exchange protected health information to comply with its administrative requirements (including workforce training and discipline, a complaint process and mitigation) and to extend such obligations to their business associates, 45 CFR §§ 164.314(a), 164.502(e) and 164.504(e). The HIPAA Security Rule also reinforces the need for a health care provider to have policies and procedures to prevent, detect, contain, correct or mitigate any security violation and to have response plans ready. 45 CFR § 164.308. The HITECH Act, at §§ 13401 and 13404, specifically requires business associates to meet HIPAA Privacy and Security Regulations to protect protected health information. The HIPAA Privacy Rule also promotes accountability by establishing mechanisms for addressing non-compliance through the OCR procedures which promote voluntary mitigation, resolution and corrective action plans. The Secretary of HHS has the authority to impose civil monetary penalties as set forth in 45 CFR § 160.404 as amended by HITECH Act § 13410 and which extends enforcement to State Attorneys General.

The HITECH Act adds substantial accountability requirements by requiring covered entities to provide notification to affected individuals where there has been a privacy or security breach resulting in the unauthorized acquisition, access, use or disclosure of unsecured protected health information. See §13402.

Applicable state law: Vermont's Health Information Technology law provides that any standards and protocols developed by VITL require that protected health information be secure and traceable by an electronic audit trail, 18 VSA § 9351(e), (formerly 22 VSA § 903(f)). Vermont's mental health information provisions, 18 VSA § 7301(c), provides that any person violating its prohibitions against releasing protected health information relating to mental health services without consent, may be fined not more than \$2,000 or imprisoned for not more than one year, or both. Outside of this specific provision, accountability for maintaining the

confidentiality of protected health information under Vermont law largely falls under the State's licensure provisions for specific types of health care providers and facilities rather than through a private right of action under state law. In the event that an individual has a complaint relating to the use or disclosure of his or her protected health information, a professional grievance against the health care provider or facility responsible may be submitted for review by the licensing authority.

APPENDIX B: APPROVED CONSENT POLICY (LAST UPDATE MAY 2014)⁷⁵

Policy on Patient Consent for Provider Access to Protected Health Information on VHIE or through the Blueprint

Section 1 - Introduction

Upon approval by the Vermont Secretary of Administration and the Green Mountain Care Board, this Policy shall be incorporated into and become part of the Vermont statewide Health Information Technology Plan (the “Plan”). Vermont law requires that the Plan include standards and protocols for the implementation of an integrated electronic health information infrastructure for the sharing of electronic health information among health care facilities, health care professionals, public and private payers, and patients.⁷⁶

As required by statute, VITL has been designated in the Plan to operate the exclusive statewide health information exchange network for the State of Vermont and its standards and protocols shall be consistent with those adopted by the Plan.⁷⁷ In consultation with health care providers and health care facilities, VITL shall establish criteria for creating and maintaining connectivity to the Vermont Health Information Exchange (“VHIE”).⁷⁸

Section 2 - Definitions

(a) “Consent” or “Written Consent” shall mean an individual’s act of giving written permission to a Participating Health Care Provider in the Vermont Health Information Exchange (“VHIE”) and in the Blueprint Registry maintained under the State of Vermont Blueprint for Health (“Blueprint” and, collectively with VHIE, the “Exchanges”) to permit access to the individual’s protected health information (“PHI”) on the Exchanges to all Participating Health Care Providers involved in the treatment of the individual. Consent shall be evidenced by a signature provided in writing or other legally recognized tangible medium that is retrievable in a perceivable form. Consent may be provided by an individual’s legal representative as authorized by law.

⁷⁵ Approved by Secretary of Agency of Administration and By Green Mountain Care Board as of March 13, 2014.
Replaces Policy Approved as of October 25, 2012.

⁷⁶ 18 VSA § 9351(a)

⁷⁷ 18 VSA § 9352(c)

⁷⁸ 18 VSA § 9352(i)

(b) “De-identified” shall mean that all identifying information related to an individual as set forth in the HIPAA Privacy and Security Rule⁷⁹ are removed from the protected health information.

(c) “Exchanges” shall mean the Vermont Health Information Exchange (“VHIE”) and the Blueprint Registry maintained under the State of Vermont Blueprint for Health (“Blueprint”).

(d) “Health Care Operations” shall mean activities of Participating Health Care Providers providing treatment to an individual relating to quality assessment and improvement, evaluations relating to the competence of treating providers or necessary administrative and management activities⁸⁰.

(e) A “Legal Representative” under Vermont law may be a legal guardian, a parent of an unemancipated minor or an agent once an advance directive becomes effective.

(f) A “Medical Emergency” is a condition which poses an immediate threat to the health of any individual and which requires immediate medical intervention⁸¹. The term “Medical Emergency” specifically is intended to include an “Emergency Medical Condition” which is defined as a medical condition manifesting itself by acute symptoms of sufficient severity such that the absence of medical attention could reasonably be expected to result in (1) placing the health of the individual in serious jeopardy or (2) serious impairment to bodily functions or (3) serious dysfunction of any bodily organ or part⁸².

(g) A “Participating Health Care Provider” shall mean a health care provider, including a physician practice and any health care organization,⁸³ that has contracted with either the Vermont Information Technology Leaders, Inc. (“VITL”) or the State of Vermont Blueprint for Health initiative to make PHI of its patients available electronically on either or both of the Exchanges. The term “Participating Health Care Provider” shall include all the individual providers and authorized staff employed or otherwise legally associated with the entity or organization.

(h) “Protected Health Information” (“PHI”) shall mean “individually identifiable health information” in any form or medium about the past, present or future physical or mental health or condition of an individual as such terms are defined in the HIPAA Privacy and Security Rule⁸⁴.

⁷⁹ 45 CFR § 164.514(b).

⁸⁰ 45 CFR §164.501.

⁸¹ 42 CFR 2.15.

⁸² 42 U.S.C. § 1395dd(e)(1); 42 C.F.R. § 489.24(b).

⁸³ As defined in 18 VSA § 9402(6).

⁸⁴ 45 CFR §160.103.

(i) “Revoke” or “Revocation” of Consent shall mean an individual’s statement of intent to terminate the permission given to a Participating Health Care Provider to access the individual’s Protected Health Information on the Exchanges. Revocation of Consent shall be evidenced by a signature provided in writing or other legally recognized tangible medium that is retrievable in a perceivable form. Revocation of Consent may be provided by an individual’s legal representative as authorized by law.

(j) “Treatment” shall mean the provision, coordination, or management of health care and related services by one or more health care providers.

Section 3 - Policy

(a) Consent for Provider Access

Participating Health Care Providers shall only access Protected Health Information on the Exchanges for individuals who have a current Written Consent for such access on record. The policy does not apply where the PHI is being accessed from the Participating Health Care Provider’s own electronic health record or the PHI is directed to a Participating Health Care Provider from another Participating Health Care Provider in a manner consistent with the federal HIPAA privacy regulations and Vermont law.

(b) Patient Education Materials

Participating Health Care Providers shall direct individuals to educational information developed and made available to them by VITL and the State of Vermont regarding the Exchanges and their use by Participating Health Care Providers, and shall refer individuals to VITL and the State of Vermont for additional information. This information shall advise individuals of the ability of Participating Health Care Providers to access their PHI for treatment and of their individual rights under this Policy. It shall advise them of the content of the information on the Exchanges accessible to Participating Health Care Providers. It also shall advise them that their information can be available to Participating Health Care Providers providing treatment in an emergency and that de-identified information may be used for research, quality improvement and public health purposes. Upon request, the individual shall also be provided a Notice of Privacy Practices by the Participating Health Care Providers.

(c) Consent Procedure for Provider Access

Participating Health Care Providers shall enter into a Business Associate Agreement (“BAA”), including, if applicable, a Qualified Service Organization Agreement (“QSOA”), with the Exchange(s) to make the PHI of its patients available to the Exchange(s). Written Consent from patients for access to their PHI on the Exchanges shall have been obtained by a Participating Health Care Provider using a

Consent form which includes statements required by this Policy. The Exchanges shall establish a mechanism for Participating Health Care Providers to confirm that an individual has consented to Participating Health Care Providers' access to the individual's PHI on that Exchange. It is the obligation of the Participating Health Care Provider that collects a Written Consent from a patient to provide confirmation to the Exchange that the individual has consented to Participating Health Care Providers' access to the individual's PHI on that Exchange and to maintain a record of the individual's Written Consent.

(d) Form of Consent

(1) An individual's Consent for Participating Health Care Providers' access to his or her PHI on either or both of the Exchanges (1) shall be dated with the name, address, and birth date of the individual, (2) shall be effective until the Exchange(s) ceases operation or Consent is revoked and (3) shall include statements substantially similar to the following:

- (A) I give my consent to Participating Health Care Providers to access and use or disclose my protected health information, including mental health, and substance abuse treatment information, on the Vermont Health Information Exchange, or through the Vermont Blueprint for Health's Registry (the "Exchanges") for my treatment, for payment for my treatment and for health care operations consistent with the federal HIPAA privacy regulations and Vermont law.
- (B) I have been referred to VITL and the State of Vermont Blueprint for Health for information regarding the Exchanges and am aware that I can request information regarding the privacy practices of any Participating Health Care Provider as described in its Notice of Privacy Practices.
- (C) I understand I do not have to give my consent in order to receive treatment from any Participating Health Care Provider.
- (D) This consent is subject to my revocation (termination) at any time except to the extent that my protected health information obtained from the Exchanges has already been accessed by Participating Health Care Providers and included in their medical records.
- (E) If not previously revoked, or otherwise stated, my consent will terminate automatically when the Exchange stops operating. My consent will remain in effect indefinitely unless I provide written notice of revocation.

(2) Consent may be given by an Individual's Legal Representative as authorized by law.

(e) Individual Access to PHI on the Exchanges

An individual shall be provided the right of access to his or her PHI available on the Exchanges through a Participating Health Care Provider or through VITL or the State of Vermont Blueprint for Health.

(f) Access by Treating Participating Health Care Providers Only

All Participating Health Care Providers shall have policies and procedures (1) to ensure that PHI from another Participating Health Care Provider is accessed on the Exchanges only when an individual has provided Consent or the PHI is directed to the Participating Health Care Provider from another Participating Health Care Provider and (2) to ensure that only those involved in the diagnosis or treatment of an individual, payment for that treatment or necessary health care operations may access the individual's PHI on the Exchanges. Participating Health Care Providers, VITL and the State of Vermont Blueprint for Health shall comply with all applicable federal and state laws.

(g) Emergency Access to PHI on Exchanges

A Participating Health Care Provider may access the PHI of an individual on the Exchanges without the individual's Consent for use in the treatment of the individual for a Medical Emergency when the Participating Health Care Provider is unable to obtain the individual's Consent due to the individual's Emergency Medical Condition. Participating Health Care Providers accessing PHI for a Medical Emergency must notify the individual or the individual's Legal Representative of such access as soon after such access as is reasonably possible and must obtain Written Consent for further access to PHI of that individual on the Exchange after the Medical Emergency has ended.

(h) Audit of Consents

VITL and the State of Vermont shall periodically audit the Consent records of Participating Health Care Providers in the VHIE or in the Blueprint, respectively. Failure to obtain patient consent, as required by this Policy, shall result in sanctions. VITL and the State of Vermont shall review all instances of emergency access to PHI on the VHIE or the Blueprint, respectively.

(i) Request for Audit Report

An individual may request and receive an Audit Report of access to his or her PHI on the VHIE by contacting VITL's Privacy Officer. VITL shall provide the requested Audit Report as soon as reasonably possible and within 30 calendar days. An individual may request and receive an Audit Report of access to his or her PHI on the Blueprint by contacting the State of Vermont Agency of Human Services' Privacy Officer. The State of Vermont shall provide the requested Audit Report as soon as reasonably possible and within 30 calendar days.

(j) Revocation

An individual who has granted Consent to permit his or her PHI to be accessed on the Exchanges for treatment, for payment for treatment, and Health Care Operations by Participating Health Care Providers shall be entitled to revoke such

consent. After receiving an individual's Revocation of Consent, Participating Health Care Providers shall not access the Exchanges to seek the individual's PHI. VITL and the State of Vermont shall each establish a mechanism for Participating Health Care Providers to confirm that an individual has revoked consent for access to the individual's PHI on their respective Exchange. It is the obligation of VITL and the State of Vermont to maintain a record of the individual's Revocation for their respective Exchange.

Section 4 – Substance Abuse Treatment Programs

The regulations set forth in 42 C.F.R. Part 2, governing substance abuse treatment records, require additional protections before PHI from such records may be available to be shared between providers on the Exchanges. Therefore, VITL and the State of Vermont intend to supplement this Policy to accommodate PHI from substance abuse treatment programs upon the completion of necessary due diligence and a final plan for the implementation of a 42 CFR Part 2-compliant HIE and consent architecture that will enable the legal and appropriate exchange of PHI from substance abuse treatment programs.

APPENDIX C: VITL PRIVACY AND SECURITY POLICIES

VITL has several privacy and security policies in place. They are posted here for reference:
<http://healthdata.vermont.gov/sites/healthdata/files/HitHie/PDF/VITLPrivacyandSecurityPolicies.pdf>.

APPENDIX D: VHIE CONNECTION CRITERIA

STATE OF VERMONT GREEN MOUNTAIN CARE BOARD

In re: Criteria for Creating or Maintaining Connectivity)
to the Vermont Health Information Exchange (VHIE))
_____)

Under 18 V.S.A. § 9352(i)(2), Vermont Information Technology Leaders (VITL) must “establish criteria for creating or maintaining connectivity to the State’s health information exchange network” and provide those criteria to the Green Mountain Care Board (the “Board”) by March 1 each year. On February 6, 2014, VITL provided connectivity criteria to the Board, which voted to accept the criteria.⁸⁵ The criteria are attached to this document as Appendix A.

In developing the criteria, VITL consulted with a broad cross-section of Vermont providers. The criteria established by VITL comprise four incremental stages designed to achieve interoperability among providers via the Vermont Health Information Exchange (VHIE):

- Stage 1 (Pre-condition): Basic interaction with the VHIE;
- Stage 2 (Baseline): Minimal connectivity, sufficient to support identity matching
- Stage 3 (Transitional): Information exchange with inbound and outbound interfaces, contributing and receiving clinical data
- Stage 4 (Interoperable): Full integration of providers with the VHIE

The connectivity criteria are, therefore, a critical tool in achieving Vermont’s health care reform goals. According to the U.S. Department of Health and Human Services, “all patients, their families, and providers should expect to have consistent and timely access to standardized health information that can be securely shared” across the full spectrum of providers and others involved in health care delivery and decision-making. Principles and Strategy for Accelerating Health Information Exchange, Office of the National Coordinator for Health Information Technology, HHS, at 8 (Aug. 7, 2013) [“Principles & Strategy”], *available at* http://www.healthit.gov/sites/default/files/acceleratinghieprinciples_strategy.pdf. “Critical to the success of these programs and the ultimate goal of a transformed health care system is real-time interoperable⁸⁶ HIE [health information exchange] among a variety of health care

⁸⁵ See VITL Criteria Project, Presentation to the Board (Feb. 6, 2014), *available at* http://www.gmcboard.vermont.gov/sites/gmcboard/files/VITL_Criteria020614.pdf.

⁸⁶ Interoperability is generally accepted to mean the ability of two or more systems or components to exchange information and use the information that has been exchanged. See IEEE Standard Computer Dictionary: A Compilation of IEEE Standard Computer Glossaries (New York, NY: 1990). Interoperability therefore requires both the ability to exchange information and the ability to use the information that has been exchanged.

stakeholders (clinicians, laboratories, hospital, pharmacy, health plans, payers and patients) regardless of the application or application vendor.” *Id.* at 1.

Interoperability is reflected in the core values embodied in Vermont’s HIT Plan, which recognizes that “[s]hared 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 Health Information Technology Plan, at 7 http://hcr.vermont.gov/sites/hcr/files/Vermont_HIT_Plan_4_6__10-26-10__0.pdf. However, Vermont providers currently use more than 70 different electronic health record systems (EHRs), and our provider community will continue to acquire EHRs and update or replace existing ones.

In light of the above, the Board believes that provider support and compliance with the connectivity criteria in the selection and implementation of EHRs is critical to achieving interoperability, as it will accelerate connectivity to the VHIE and reduce the cost and complexity to develop interfaces for the many EHRs in use in Vermont.

In conclusion, we thank VITL for its work on developing the criteria and its ongoing efforts to use the criteria as it supports providers in implementing EHRs and connecting to the VHIE. We also thank the provider community for its high EHR uptake and its continuing efforts to move towards interoperability. Going forward, we expect Vermont providers to use the connectivity criteria in that work and we look forward to considering the criteria to evaluate certificate of need applications and hospital budgets.

Issued: February 27, 2015
Montpelier, Vermont

Appendix A
Interoperability: Criteria for Connectivity, Data and Security (Approved by GMCB on 2/6/14)

Connectivity Criteria

Stage	Objective	Characteristics	Criteria
One	Basic interaction with VHIE	Pre-condition to participation in VHIE	VHIE Services Agreement 1 VITLAccess or VITLDirect user ID or live interface
Two	Minimal connectivity	Established interface to the VHIE sufficient to support identity matching	One live ADT or PIX Identity Feed; (see data criteria) HL7 v2.5.1; C-CDA; or newer
Three	Information exchange	Inbound and outbound interfaces: contributing and receiving clinical data	At least one inbound data interface to the healthcare organization; (see data criteria) AND At least one outbound interface from the healthcare organization to the VHIE in addition to ADT (see data criteria)
Four	Full integration	Full integration of providers with the health information network	XCPD/XCA, XDS.b Query

Data Criteria

Stage	Objective	Characteristics	Criteria
One	Basic interaction with VHIE	Pre-condition	NA
Two	Initial data requirements	Provides data sufficient to support identity matching	Information supporting patient matching Utilize one of the following message types (ADT, C-CDA, CDA or PIX/PDQ) which would need to include patient demographic data: <ul style="list-style-type: none"> ○ First Name ○ Middle Name ○ Last Name ○ DOB ○ Gender ○ Street Address 1 ○ City ○ State ○ Zip ○ Phone (Home or Cell) ○ Patient Id (MRN)
Three	Information exchange	Initial, high-priority, clinical information available	Lab results contain LOINC- Patient summaries conforms with CCDA Immunizations conform with MVX and CVX Clinical notes representing <25% of patient chart (may be semi-structured, unstructured data in HL7 format)
Four	Full integration	Contributing data for ACCOs, PCMH or other quality measures or programs	Meet full VITL data set by provider organization type: for non-hospitals ADT, VXU and CCDA and for hospitals ADT, lab results, radiology reports, transcribed reports, VXU and CCDA Supports all state mandated medical quality measures Clinical notes representing <80% of patient chart (may be semi-structured, unstructured data in HL7 format)



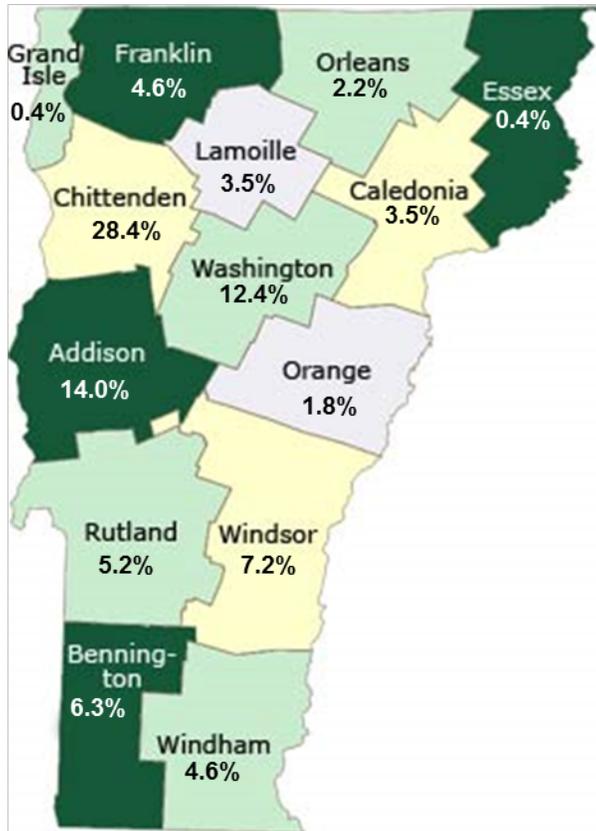
Security Criteria

Stage	Objective	Characteristics	Criteria
One	Base Security	Have security policies and a risk assessment	Attest to HIPAA Compliance
Two	Secure Customer	Have a comprehensive security program	Can provide policies and procedures Have completed security training or VTL Training
Three	Assessed Compliance	Technical security assessment	Organization appropriate security assessment performed
Four	Certified compliance	Certified security compliance program	Develop and implement audit remediation plan

APPENDIX E: VHITP UPDATE PROCESS ACTIVITIES

BROAD SURVEY REPRESENTATION

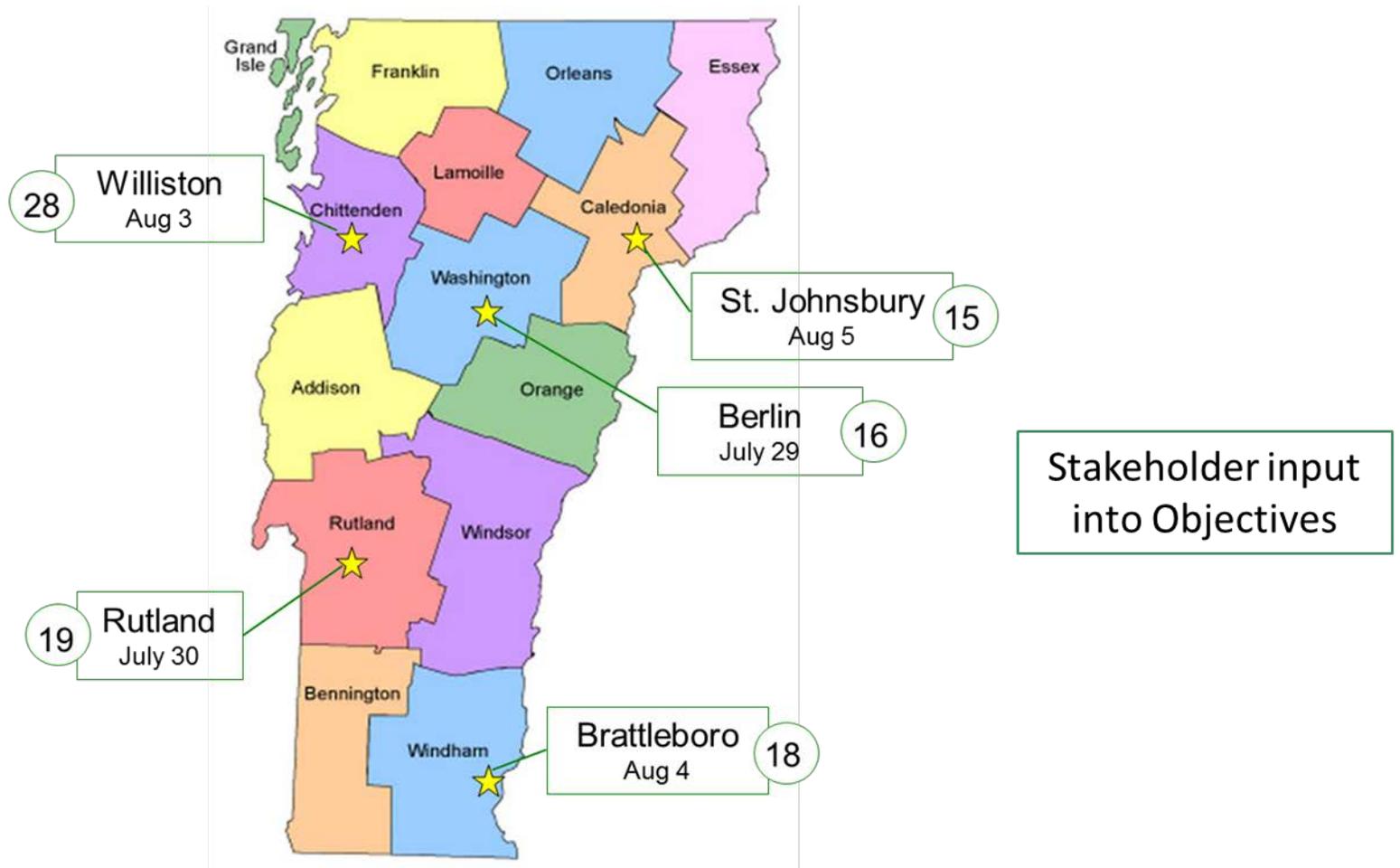
Respondent Demographics



County	%	# Respondents
Addison	14.0%	76
Chittenden	28.4%	154
Bennington	6.3%	34
Caledonia	3.5%	19
Essex	0.4%	2
Franklin	4.6%	25
Grand Isle	0.4%	2
Lamoille	3.5%	19
Rutland	5.2%	28
Orange	1.8%	10
Orleans	2.2%	12
Washington	12.4%	67
Windham	4.6%	25
Windsor	7.2%	39
Outside of Vermont	5.0%	27
Did not answer	0.6%	3
		542

FIVE ENVISIONING WORKSHOPS

Held around the State of Vermont in the summer of 2015



FEEDBACK FROM ENVISIONING WORKSHOPS

Feedback from Envisioning Workshops

"...appreciated all the different representatives from various walks of the health care continuum."

"...pleased with the breadth of stakeholders..."

"...provided a productive structure..."

"...process used to create the plan is robust..."

"...inclusive and transparent..."

"...powerful as it drew in various regions from the entire state."

"...appreciate our being a part of the way forward."



APPENDIX F: LIST OF PARTICIPANTS

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2016

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APPENDIX G: GLOSSARY

ACCESS is Vermont's legacy eligibility system to determine Vermonters' eligibility to participate in various AHS programs. The system is being phased out with a new system to be completed by the end of 2015 or beginning of 2016.

Accountable Care Organizations (ACOs) are groups of doctors, hospitals, and other health care providers, who come together voluntarily to give coordinated high quality care to their Medicare patients. When an ACO succeeds both in delivering high-quality care and spending health care dollars efficiently, it will share in the savings it achieves for the Medicare program.

Administration for Children and Families (ACF) is a division of HHS that promotes the economic and social well-being of families, children, individuals, and communities with partnerships, funding, guidance, training and technical assistance.

Administration for Community Living (ACL) was established as an organization with HHS in 2012 by combining the Administration on Aging, the Office on Disability and the Administration on Developmental Disabilities. Through budget legislation in subsequent years, Congress moved several programs that serve older adults and people with disabilities from other agencies to ACL, including the State Health Insurance Assistance Program, the Paralysis Resource Center, and the Limb Loss Resource Center. The 2014 Workforce Innovation and Opportunities Act moved the National Institute on Disability, Independent Living, and Rehabilitation Research and the independent living and assistive technology programs from the Department of Education to ACL.

Admit Discharge Transfer (ADT) is an electronic message sent by health care providers to the Vermont Health Information Exchange (VHIE). It contains demographic data used to uniquely identify a patient. Data elements include name, date of birth, and address. Patient demographic data are used to facilitate the aggregation of a shared community health record. This record may be forwarded to registries, such as the Blueprint central clinical registry, at the request of the sending organization.

Affordable Care Act (ACA) refers to two separate pieces of legislation: the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act of 2010. Together they expand Medicaid coverage to millions of low-income Americans and make numerous improvements to both Medicaid and the Children's Health Insurance Program (CHIP). ACA requires states to develop an electronic insurance marketplace or use the federal system.

Agency for Healthcare Research and Quality (AHRQ) is an agency within HHS with a mission to produce evidence to make health care safer, higher quality, more accessible, equitable, and affordable. ACA created a national initiative to harness the potential of Patient Centered Research Outcomes (PCOR). As part of this effort, AHRQ is charged with investing in developing PCOR methods, training PCOR researchers, and disseminating PCOR findings.

Agency for Toxic Substances and Disease Registry (ATSDR), based in Atlanta, Georgia, is a federal public health agency within HHS. ATSDR serves the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and diseases related to toxic substances.

Agency of Human Services (AHS) was created by the Vermont Legislature in 1969 to serve as the umbrella organization for all human service activities within state government. The AHS mission is to improve the conditions and well-being of Vermonters and protect those who cannot protect themselves. Within AHS are Department of Children and Families (DCF), Department of Corrections (DOC), Department of Aging and Independent Living (DAIL), Vermont Department of Health (VDH), Department of Mental Health (DMH), and Department of Vermont Health Access (DVHA). (See individual entries for each of these departments.)

Alcohol and Drug Abuse Programs (ADAP) is a program to extend substance abuse services to all Vermonters and collaborate with other programs, especially as Vermont moves through health reform and works to provide comprehensive health care statewide.

All Payer Claims Database (APCD) is used to collect medical and pharmacy claims data and eligibility data, from both private and public payers. These comprehensive, longitudinal, multi-payer datasets are providing research and policy opportunities for improving the health care delivery system. Vermont's APCD is Vermont Health Uniform Reporting and Evaluation System (VHCURES).

American Recovery and Reinvestment Act of 2009 ARRA, enacted in 2009, includes measures to modernize the nation's infrastructure. Within ARRA is the Health Information Technology for Economic and Clinical Health (HITECH) Act. The HITECH Act promotes the use of electronic health records and the meaningful use of certified electronic health records. These programs are led by Centers for Medicare & Medicaid Services (CMS) and the Office of the National Coordinator for Health IT (ONC).

Banking, Insurance, Securities and Health Care Administration (BISHCA) has been renamed the Vermont Department of Finance Regulation (DFR)

Behavioral Health Network (BHN) - see Vermont Care Network

Bi-State Primary Care Association (Bi-State) is a nonpartisan, nonprofit charitable organization that promotes access to effective and affordable primary care and preventive services for underserved populations in Vermont and New Hampshire. In Vermont, all eleven FQHCs are members of Bi-State

Blue Cross Blue Shield of VT (BCBSVT) offers health care insurance in Vermont to individuals & families. BCBSVT has the largest market share of health care insurance in the state. For several years, the CEO of BCBS-VT has been a member of VITL's Board.

Blueprint for Health is Vermont's state-led initiative charged with guiding a process that results in sustainable health care delivery reform. Originally codified in Vermont statute in 2006, then modified further in 2007, 2008, and finally in 2010 with Vermont Act 128 amending 18 VSA, Chapter 13. The statute defines Blueprint as a "program for integrating a system of health care for patients, improving the health of the overall population, and improving control over health care costs by promoting health maintenance, prevention, and care coordination and management." The blueprint is managed by DVHA and works closely with VITL.

Blueprint Sprint is an intensive model of project management for end-to-end transmission of high quality demographic and clinical data from the source, Electronic Health Record (EHR), through the Vermont Health Information Exchange (VHIE) to the statewide clinical registry (Covisint DocSite).

Bureau of Primary Health Care (BPHC) is a federal agency that funds Health Centers in underserved communities.

Care integration is the integration of mental health, substance abuse, and primary care services and proves an effective approach to caring for people with multiple healthcare needs.

Center for Medicare & Medicaid Innovation (CMMI) supports the development and testing of innovative health care payment and service delivery models.

Center for Rural Studies (CRS) at the University of Vermont works with people and communities to address social, economic, and resource-based challenges through applied research, community outreach, program evaluation, and consulting. CRS is the U.S. Census Bureau's Vermont State Data Center.

Centers for Disease Control and Prevention (CDC) is a division of HHS and is responsible for protecting America from health, safety and security threats the US and abroad. CDC is especially focused on infectious diseases in the US and abroad.

Centers for Medicare & Medicaid Services (CMS) administers Medicare, Medicaid, the Children's Health Insurance Program (CHIP), and parts of the Affordable Care Act (ACA).

Central Source for Measurement and Evaluation (CSME) is AHS's agency wide data warehouse to support Medicaid and other agency program operations, reporting, evaluation, and planning. One of the objectives of the data warehouse is to provide a view of an individual across all departments, including all services, authorizations and programs.

Certified Electronic Health Record Technology (CEHRT) is EHR software that has been certified by ONC for use by clinicians to achieve Meaningful Use. One of the requirements is the ability of the CEHRT to exchange health information with other providers.

Champlain Community Services (CCS) is a Specialized Service Agency that helps individuals with developmental disabilities. CCS is located in Colchester, Vermont.

CHCRR Community Health Centers of the Rutland Region (CHCRR) is a FQHC serving the Rutland area.

Children's Health Insurance Program Reauthorization Act (CHIPRA) provides flexibility to states to expand health care coverage to children who need it. CHIPRA tasked the Secretary of Health and Human Services (HHS) with developing standards by which states can measure the quality of the care that children are receiving. CHIPRA was reauthorized in 2009.

Children's Integrated Services (CIS) is a resource for pregnant or postpartum women and families with children from birth to age six. CIS is a program managed by the Vermont Department for Children and Families.

Cigna provides health insurance in Vermont and other states.

Clara Martin Center (CMC) is a Designated Mental Health Agency providing a comprehensive array of mental health and substance abuse services to the greater Upper Valley area including Orange County and surrounding towns. CMC is located in Randolph, Vermont.

Clinical decision support (CDS) systems provide clinicians with patient-specific assessments or recommendations to aid clinical decision making.

Community Based Long Term Services were included in the Affordable Care Act. The services include a number of program and funding improvements to help ensure that people can receive long-term care services and supports in their home or the community. CMS is working in partnership with states to create a sustainable, person-driven, long-term support system for people with disabilities and chronic conditions.

Community Based Outpatient Clinic (CBOC) provides veterans with an alternative to receiving outpatient care at a Veterans Administration Hospital. There are five CBOCs in Vermont and more than 800 across the country.

Community Health Centers of Burlington (CHCB) is a FQHC located in Burlington.

Community Health Services of Lamoille Valley (CHSLV) is a FQHC located in Morrisville.

Community Health Team (CHT) is a locally based care coordination team deployed to manage patients' complex illnesses across providers, settings, and systems of care. Comprising multidisciplinary staff from the fields of nursing, behavioral health, pharmacy, and social work, the team provides crucial support to health care providers working in resource-limited small or medium-sized practices. The Blueprint makes extensive use of community health teams.

Community Mental Health Center (CMHC) is a provider of comprehensive mental health services, offering inpatient, outpatient, home-based, school, and community-based programs to individuals and families.

Computerized Provider Order Entry (CPOE) refers to any system in which clinicians directly enter medication orders, tests and procedures into a computer system, which then transmits the order to the appropriate organization. These systems are increasingly common in the inpatient setting as a strategy to reduce medication errors. A CPOE system ensures standardized, legible, and complete orders and thus has the potential to greatly reduce errors at the ordering and transcribing stages.

Continuity of Care Document (CCD) is an electronic message containing recent patient data such as a problem list, medications, allergies, immunizations, lab results, patient notes, and other summarized data. A clinical summary is used to convey patient information at a specific point in time, and is not a complete medical record. CCD's are electronically exchanged with other providers, usually through an HIE, such as the VHIE. Clinical summaries can be routed to registries, such as the Blueprint central clinical registry, allowing Blueprint community health teams to assist with management of a patient population.

Counseling Service of Addison County (CSAC) is a Vermont Designated Mental Health Agency providing mental health and substance abuse services in Addison County. CSAC is located in Middlebury.

Covered Entity is defined in HIPAA rules as health plans, health care clearinghouses, and health care providers who electronically transmit personal health information or personal health records.

Critical Access Hospital (CAH) is a hospital certified under a set of Medicare Conditions of Participation (CoP), which are structured differently than the acute care hospital Community of Practice. Vermont has eight hospitals designated as CAHs.

Dartmouth Hitchcock Medical Center Dartmouth (DHMC) is New Hampshire's only academic medical center. Forty percent of DHMC's patients are Vermonters. DHMC is a participant in OneCare VT and is located in Lebanon, NH.

Department for Children and Families (DCF) provides a wide array of programs and services, including adoption & foster care, child care, child development, child protection, child support, disability determination, and economic benefits such as 3SquaresVT, fuel assistance, and Reach Up. DCF is a department within AHS.

Department of Corrections (DOC) is responsible for developing and administering a correctional program designed to protect persons and property against criminals and to render treatment to offenders with the goal of achieving their successful return and participation as citizens of the community. DOC is a department within AHS.

Department of Disabilities, Aging and Independent Living (DAIL) is responsible for all community-based long-term care services for older Vermonters including people with developmental disabilities, traumatic brain injuries and physical disabilities. DAIL contracts with a variety of local private service providers to support 15,000 older Vermonters and people with disabilities. DAIL also provides direct supports through the Office of Public Guardian.

Department of Financial Regulation (DFR) regulates a variety of financial service providers in Vermont such as banks, credit unions, mortgage brokers, consumer loan companies, securities brokers/dealers, investment advisors and insurance companies (previously named BISHCA).

Department of Human Resources (DHR) provides leadership to and works in partnership with other departments within Vermont State Government to promote managerial and workforce excellence while fostering an understanding and observance of regulatory requirements.

Department of Information and Innovation (DII) provides direction and oversight for all activities related to information technology for Vermont State Government. Information Technology includes phone service, hardware, software, accessibility, and the communications and technology infrastructure for the State of Vermont. The Commissioner of DII is the State Chief Information Officer (CIO).

Department of Mental Health (DMH) is responsible for mental health services provided under state funding to special-needs populations. These include children with severe emotional disturbances (SED) and adults with severe mental illnesses. Funding is provided through the AHS Master Grants to Designated Agencies (DAs) and Specialized Service Agencies (SSAs) located across the state.

Department of Public Safety (DPS) is responsible for promoting the detection and prevention of crime, to participate in searches for lost and missing persons, and to assist in cases of statewide or local disasters or emergencies. The Department is organized into four divisions, the Vermont State Police, Vermont Emergency Management, Criminal Justice Services, and Fire Safety.

Department of Vermont Health Access (DVHA) is the department within AHS responsible for the management of Vermont's publicly funded health insurance programs. DVHA provides leadership to improve access, quality and cost effectiveness in health care reform. DVHA administers Medicaid and the Children's Health Insurance Program. DVHA is also responsible for managing the EHR Meaningful Use Incentive program in Vermont and developing and operating Vermont Health Connect.

Design, Development and Implementation (DDI) is part of a traditional methodology to project management large, complex projects including information technology projects.

Designated Agency (DA), under contract to the Vermont Department of Health, provides developmental services in local communities. VDH has contracts with ten Vermont Designated Agencies. Key responsibilities include intake and referral, assessing individual needs, providing regional crisis response services, and seeing there is a comprehensive service network that assures the capacity to meet the support needs of all eligible people in the region.

DIRECT Project was created by ONC to develop the technical standards and services necessary to securely push content from a sender to a receiver. These services are used by providers and organizations to transport and share clinical content. Direct-Project-specified transport standards may satisfy some Stage 1 Meaningful Use requirements. For example, a primary care physician who is referring a patient to a specialist can use the Direct Project to provide a clinical summary of that patient to the specialist and to receive a summary of the consultation.

DocSite is a Clinical Data Registry that supports individualized patient care with guideline based decision support. It also supports management of populations with flexible reporting that moves easily between groups of patients selected by specific criteria and their individual patient records. DocSite is used by the Blueprint for Health.

Dual eligible individuals are among the most chronically ill and costly individuals enrolled in both the Medicare and Medicaid programs. They account for a disproportionately large share of expenditures in both programs. The ACA created the Medicare-Medicaid Coordination Office to improve coordination between the federal government and the states.

Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) Program is the child health component of Medicaid. EPSDT is required in every state and is designed to improve the health of low-income children, by financing appropriate and necessary pediatric services.

EHR Incentive Programs provide incentive payments to Eligible Professionals (EPs) and Eligible Hospitals (EHs) that achieve meaningful use (MU) of Certified EHRs. CMS manages the Medicare EHR Incentive Program and coordinates the Medicaid EHR Incentive Program with state Medicaid offices. DVHA administers the EHR Incentive Program (EHRIP) in Vermont.

Electronic Clinical Quality Measures (eCQMs) are specifications promulgated by CMS and ONC for the electronic reporting of clinical quality measures for multiple CMS programs. These include Meaningful Use and the Physician Quality Reporting System (PQRS). Recent CMS updates to the specifications are focused on reducing the burden on providers to report quality measures by synchronizing the requirements where possible.

Electronic Health Record Incentive Program (EHRIP) for Medicaid eligible professions (EPs) and eligible hospitals (EHs) is administered by DHVA. Vermont is one of thirteen states using the Medical Assistance Provider Incentive Repository (MAPIR) System to manage Medicaid EHRIP applications.

Electronic Health Records (EHRs) are a digital version of the paper charts in the clinician's office. An EHR contains the medical and treatment history of the patients in a provider organization. Additionally, EHRs are designed to share that information with other provider organizations, usually using a Health Information Exchange (HIE). Also, see EMRs and Certified EHR technology.

Electronic Laboratory Reporting (ELR) is the electronic transmission from laboratories to public health agencies. The laboratory reports identify reportable conditions. ELR is promoted as a public health priority by CMS and is included as a meaningful use objective for public health.

Electronic Medical Records (EMRs) are a digital version of the paper charts in the clinician's office. An EMR contains the medical and treatment history of the patients in one practice. The term EMR is often used interchangeable with EHRs. However, technically they are not the same since EHRs have the capability to exchange clinical data with other providers.

Electronic prescribing (e-Rx) allows a clinician to order medication for the patient and direct the order to the patient's choice of pharmacies. e-Rx services provide the healthcare provider with a patient's medication history. Most e-Rx networks have the capability to securely connect to a HIE.

Electronic Prescribing Incentive Program is a voluntary health care reporting program that provides an incentive payment to participating eligible professionals or groups. The program is administered by CMS.

Eligible Hospital (EH) is defined by CMS as a hospital eligible to participate in both the Medicare and Medicaid EHR Meaningful Use Incentive Programs. Medicare EHs are paid under the Inpatient Prospective Payment System (IPPS) and also include critical access hospitals (CAHs) and Medicare Advantage (MA-Affiliated) Hospitals. Medicaid EHs are acute care hospitals (including CAHs and cancer hospitals) with at least 10% Medicaid patient volume. Children's hospitals are eligible without needing the Medicaid patient volume requirements.

Eligible Professional (EP) is defined by CMS for the purposes of being eligible to participate in either the Medicare or Medicaid EHR Incentive Programs. For the Medicare program, EPs must be a doctor of

medicine or osteopathy; dental surgery or dental medicine; podiatry or optometry; or a Chiropractor.

EPs eligible for under the Medicaid EHR Incentive Program include doctors of medicine or osteopathy; nurse practitioners; certified nurse-midwives; dentists; or physician assistants who provide services in a Federally Qualified Health Center (FQHC) or Rural Health Clinic (RHC). The FQHC or RHC must be led by a physician assistant. To qualify for an incentive payment under the Medicaid EHR Incentive Program, an eligible professional must also meet one of the following criteria: have a minimum 30% Medicaid patient volume; have a minimum 20% Medicaid patient volume for pediatricians; or practice predominantly in a FQHC or RHC with a minimum 30% patient volume attributable to needy individuals. Children's Health Insurance Program (CHIP) patients do not count toward the Medicaid patient volume criteria. Medicare EPs do not have patient volume requirements.

Enterprise Service Bus (ESB) is software architecture for middleware that provides fundamental services for more complex architectures.

Families First in Southern VT (FFSV) is a Vermont Specialized Service Agency providing services to individuals with development disabilities.

Federal Financial Participation (FFP) is a Medicaid program that allows CMS to provide 90 percent federal matching funds for the design and development of new or improved Medicaid eligibility determination systems that states are develop to accommodate parts of the Affordable Care Act. These include supporting modified adjusted gross income (MAGI) rules and coverage with the Marketplaces. States may also receive 75 percent federal match for maintenance and operations.

Federal Fiscal Year (FFY) is the 12-month period October 1 to September 30 for the federal budget.

Federally Qualified Health Center (FQHC) is a community health center receiving grants under Section 330 of the Public Health Service Act (PHS). FQHCs must serve an underserved area or population, offer a sliding fee scale, provide comprehensive services, have an ongoing quality assurance program, and have a governing board of directors. FQHCs qualify for enhanced Medicare and Medicaid reimbursements. In Vermont there are eleven FQHCs.

Fletcher Allen Health Care (FAHC) changed its name to the University of Vermont Medical Center in 2014 as part of a branding strategy. See UVMC.

Food and Drug Administration (FDA) is responsible for protecting and promoting public health by regulating food safety, prescription and over the counter medications, medical devices, vaccines and other food and medical related products. The FDA is a federal agency within HHS.

GE Healthcare (GE) is a software and services vendor that developed and operated Vermont's HIE from 2006 to 2011. In 2011, VITL signed a contract with Medicity to develop and operate the VHIE.

Green Mountain Care Board (GMCB) was created by the Vermont legislature in 2011 with responsibility for regulation, innovation and evaluation of health care. GMCB regulates health insurance rates, hospital budgets and major hospital expenditures. GMCB evaluates new ways to pay for and deliver health care as part of Vermont's health reform initiatives. GMCB has responsibility for oversight of VITL's budget, criteria for connecting to the VHIE and Vermont's Patient Consent policy.

Green Mountain Support Services (GMSS) is a Vermont Specialized Service Agency providing services to people with developmental disabilities in the Morrisville area.

Health & Human Services (HHS) is a federal agency with the mission is to enhance and protect the health and well-being of all Americans. There are 11 operating divisions in HHS: Administration for Community Living (ACL), Agency for Healthcare Research and Quality (AHRQ), Agency for Toxic Substances and Disease Registry (ATSDR), Centers for Disease Control and Prevention (CDC), Centers for Medicare & Medicaid Services (CMS), Food and Drug Administration (FDA), Health Resources and Services Administration (HRSA), Indian Health Service (IHS), National Institutes of Health (NIH), Substance Abuse and Mental Health Services Administration (SAMHSA). ONC is a division within HHS and reports to the Secretary of HHS.

Health Benefits Exchange (HBE) is an electronic marketplace to enable low and moderate-income individuals and small employers obtain health coverage. The ACA requires that every state develop an HBE or use the federal HBE. Vermont Health Connect was developed by AHS to meet ARRA requirements. A HBE, also referred to as a Health Insurance Exchange (HIX), is often confused with a Health Information Exchange, which is primarily used for exchanging patient demographic and clinical information.

Health Care & Rehabilitation Services (HCRS) is a Vermont Designated Mental Health Agency providing mental health and substance abuse services in Windham and Windsor counties.

Health Care Reform (HCR) in Vermont has focused for more than two decades on expanding and improving health insurance coverage, improve fairness in the insurance market, and fundamentally redesign and improve the primary care system. Since 2006, the Vermont Legislature has annually passed health care reform legislation. Current goals of HCR include reduce health care costs and cost growth; assure that all Vermonters have access to and coverage for high-quality health care (mental and physical health and substance abuse treatment); support improvements in the health of Vermont's population; and assure greater fairness and equity in how Vermonters pay for health care.

Health Center Controlled Networks (HCCNs) were created to help Federally Qualified Health Centers and the safety net community with their health IT needs. Funded by grants from HRSA, HCCNs offer a wide range of health IT support services. Bi-State developed Vermont Rural Health Alliance (VRHA) as a Health Center Controlled Network (HCCN).

Health Information Exchange (HIE), used as a verb, is the electronic movement of health-related information among organizations according to nationally recognized standards. The goal of health information exchange is to facilitate access to and retrieval of clinical data to provide safer, timelier, efficient, effective, equitable, patient-centered care. Health information exchange, as a noun, usually refers to organizations that provide services to electronically move clinical information between health care information systems. These organizations are often referred to as Health Information Organizations (HIOs). HIOs provide the infrastructure for secondary use of clinical data for purposes such as public health, clinical, biomedical, and consumer health informatics research as well as institution and provider quality assessment and improvement. Most HIOs are regional health information organizations (RHIOs). HIE, as a noun, also refers to the actual information technology infrastructure providing the services described above.

Health Information Technology (HIT) supports a variety of health care services using information technology. Information technology includes the use of computerized systems and the secure exchange of data in support of health care delivery. EHRs and Health Information Exchanges are examples of HIT.

Health Information Technology for Economic and Clinical Health Act (HITECH) was enacted as part of ARRA. HITECH promotes the adoption and meaningful use of health information technology.

Health Insurance Exchange (HIX) – see Health Benefits Exchange (HBE)

Health Insurance Portability and Accountability Act (HIPAA) protects health insurance coverage for individuals who lose or change jobs. HIPAA prohibits group health plans from denying coverage to individuals with specific diseases and pre-existing conditions, and from setting lifetime coverage limits.

HIPAA also directs the HHS to establish national standards for processing electronic healthcare transactions. These standards require healthcare organizations to implement secure electronic access to health data and to remain in compliance with privacy regulations set by HHS.

Health Level 7 International (HL7) provides a framework and standards for the exchange, integration, sharing, and retrieval of electronic health information. HL7 standards support clinical practice and the management, delivery, and evaluation of health services. These standards define how information is packaged and communicated from one party to another, setting the language, structure and data types required for seamless integration between systems.

Health Resources and Services Administration (HRSA) is the primary Federal agency responsible for improving access to health care by strengthening the health care workforce, building healthy communities and achieving health equity. HRSA's programs provide health care to people who are geographically isolated, economically or medically vulnerable. HRSA is an agency with HHS.

Health Services Enterprise (HSE) in Vermont is a multi-year, multi-phased portfolio of programs within AHS. The goals are to reshape and enhance business processes, improve public/private sector partnerships, optimize utilization of information, modernize the IT environment, and result in an end-to-end transformation of the person-centric experience. Stakeholders include Vermonters, health and human service providers; AHS employees; and other parties such as contractors and advocates. The HSE Portfolio includes Vermont Health Connect, Integrated Eligibility, Medicaid Management Information System and Health Information Exchange with an emphasis on an integrated approach to Enterprise Program Management and adherence to project management best practice.

Health Services Enterprise Portfolio Management Office (HSE PMO) was established within AHS to manage the HSE portfolio of projects and to establish a consistent processes, tools and artifacts to manage cross-project dependencies, funding, reuse, and processes.

Healthcare Information Xchange of New York (HIXNY) is a regional health information organization (RHIO) comprised of a diverse group of health care organizations including hospitals, physician practices, health plans and health care associations. HIXNY provides HIE services to the Capital Region and northern NY State. HIXNY and the VHIE are exchanging health information for patients receiving health care in both states.

Home Health Care is a wide range of health care services that can be given in a patient's home. The goal of home health care is to provide a less expensive, more convenient, and as effective as care provided in a hospital or skilled nursing facility.

Howard Center (HC) is a Vermont Designated Mental Health Agency providing mental health and substance abuse services in Chittenden County.

Immunization Registry in Vermont is a computer-based system that participating health care practices are able to view vaccination records. The Registry was established by state law in 1997. The registry is operated by the Vermont Department of Health.

Implementation Advance Planning Document (IAPD) is a planning document state governments submit to CMS to request funding for HIT projects. The Vermont Health Services Enterprise (HSE) Advance Planning Document (APD) is a request to CMS for Federal Financial Participation (FFP) for Medicaid Management Information System (MMIS), State Medicaid Health Information Technology Plan (SMHP), and Eligibility and Enrollment (E&E) Vermont's original Health Services Enterprise (HSE) Implementation Advance Planning Document (IAPD) [occasionally referred to as the Jumbo IAPD] was approved by CMS in 2012. The IAPD was revised and approved in 2014.

Indian Health Service (IHS) is an agency within HHS responsible for providing federal health services to American Indians and Alaska Natives. The provision of health services to members of federally-recognized Tribes grew out of the special government-to-government relationship between the federal government and Indian Tribes

Information technology (IT) is the application of computers and telecommunications hardware and software to store, retrieve, transmit and manipulate data.

Institute for Health Improvement (IHI) is a private organization committed to improving health care for patients all over the world. IHI is financed by foundations, companies, individuals and fee based program offerings. IHI promotes Triple Aims as a fundamental part of health care reform. See Triple Aim for more information.

Integrated Eligibility (IE) project will facilitate Vermont's transition from a legacy, siloed, program-centric approach to a person-centric philosophy supporting improved health care and human services delivery and outcomes via web based services. IE is being designed to be common to all Health and Human Services assistance programs.

Joint Fiscal Office (JFO) provides non-partisan financial analyses to the House and Senate Appropriations Committees, the House Ways & Means Committee, the Senate Finance Committee, the House and Senate Transportation Committees, and the Joint Fiscal Committee. JFO also provides additional non-partisan staff support to committees in a variety of fiscal areas including health care, education finance, institutions and general fiscal analysis.

Lamoille County Mental Health Services (LCMHS) is a Vermont Designated Mental Health Agency providing mental health and substance abuse services in Lamoille County.

Legislative Council provides the Vermont legislature with non-partisan legal advice and bill drafting services; administrative committee and operations support; and information technology services.

Lincoln Street (LSI) is a Vermont Specialized Services Agency providing services to people with developmental disabilities in the Springfield area.

Little Rivers Health Care (LRHC) is a Vermont FQHC providing comprehensive health care services to patients in Wells River, East Corinth and Bradford communities.

Logical Observation Identifiers Names and Codes (LOINC) is a standard for the electronic exchange of clinical health information. The HL7 Standards Development Organization identified LOINC as a preferred code set for laboratory test names in transactions between health care facilities, laboratories, laboratory testing devices, and public health authorities.

Long Term and Post-Acute Care (LTPAC) is provided to patients by a variety of providers including skilled nursing facilities, home care and hospices, long-term acute care hospitals, inpatient rehabilitation facilities and assisted living facilities. Patients of long-term or post-acute care providers are likely to have chronic conditions or behavioral health needs. These patients often transition from one type of provider to another.

Long Term Care (LTC) is comprehensive care to older, disabled, and chronically ill individuals who have a multitude of health issues, multiple care providers, and transition frequently from one setting to another.

Long Term Support Services (LTSS) refers to the delivery of long term services and supports often through capitated Medicaid managed care programs. Many states use managed LTSS as a strategy for expanding home and community-based services, promoting community inclusion, ensuring quality and increasing efficiency.

Master Patient Index (MPI) is an electronic medical database that holds information on every patient registered in an HIE. It may also include data on physicians, other medical staff and facility employees.

An MPI uses algorithms to accurately match records for a unique individual. VITL manages the MPI used in the Vermont Health Information Exchange (VHIE).

Meaningful Use (MU) is defined as the use of certified EHR technology in a meaningful manner as specified by CMS. Meaning Use requirements include the electronic exchange of health information to improve the quality of care. Eligible professions and hospitals must achieve Meaningful Use to qualify for EHR Medicare and/or Medicaid EHR Incentives.

Medicaid Information Technology Architecture (MITA) provides a national framework to support improved systems development and health care management for the Medicaid enterprise. MITA has a number of goals, including development of seamless and integrated systems that communicate effectively through interoperability and common standards. CMS sponsors MITA.

Medicaid Management Information System (MMIS) is an integrated information system containing six defined core subsystems or functional areas: Claims Processing; Management and Administrative Reporting; Provider Enrollment; Recipient Eligibility; Reference File; and Surveillances and Utilization Review. A state receives 90% Federal financial participation (FFP) for the design, development, or installation, and 75% FFP for operation of a state mechanized claims processing and information retrieval system. Each state is required to operate a MMIS unless waived by the Secretary.

Medical Assistance Provider Incentive Repository (MAPIR) Collaborative is a group of 13 states with a their common technology partner that developed the Medical Assistance Provider Incentive Repository application. MAPIR is an IT tool designed to manage Medicaid EHR incentive payments and to improve accountability. MAPIR relies on a provider portal, provider data, a financial system and encounter data sources to support the processing of incentive applications. States can obtain MAPIR at no cost and run it on their own Medicaid Management Information Systems.

Mental Health (MH) includes a patient's emotional, psychological and social well-being.

Mental Health Intergovernmental Service System Interactive Online Network for Vermont (MHISSION-VT) identifies at-risk veterans, intercepts them before irrevocable involvement with the criminal justice system, and connects them with an appropriate array of service and treatment options to get them on a path to recovery instead of a jail sentence. MHISSION-VT uses information systems, workflows, methodologies, and tools to help connect disparate information systems and systems of care. MHISSION-VT is managed by the University of Vermont for Clinical and Translational Science (UVM-CCTS)

MVP Health Care provides health insurance to residents of Vermont and other states.

National Committee for Quality Assurance (NCQA) is a private, not-for-profit organization dedicated to improving health care. NCQA administrations evidence-based standards, measures, programs, and accreditation.

National Institutes of Health (NIH) is the nation's medical research agency made up of 27 Institutes and Centers, each with a specific research agenda, often focused on particular diseases or body systems. NIH is also the largest source of funding for medical research in the world.

National Level Repository (NLR) is a CMS data repository that tracks EHR incentive payments to health care providers that adopt electronic health records.

New England Healthcare Exchange Network (NEHEN) is a consortium of regional payers and providers that has designed and implemented a secure and innovative health information exchange with the intent of reducing administrative costs and improving the quality, safety, and efficiency of patient care.

New England States Consortium Systems Organization (NESCO) is a non-profit corporation whose members include six New England states and the UMASS Medical School. NESCO provides information exchange with government & private organizations, manages multi-state projects, explores collaborative solutions and assist states with RFP's and grant proposals.

Northeast Kingdom Human Services (NKHS) is a Vermont Designated Mental Health Agency providing mental health and substance abuse services in Caledonia, Essex and Orleans Counties.

Northeastern Family Institute (NFI) is a Vermont Designated Mental Health Agency providing mental health and substance abuse services in Chittenden County.

Northeastern Vermont Regional Hospital (NVRH) is a community, not for profit, acute care, critical access hospital located in the Northeast Kingdom. NVRH is designated as a Baby Friendly hospital by the United Nations. NVRH provides primary and preventive care, surgical and specialty services, inpatient and outpatient care and 24-hour physician staffed emergency services.

Northern Tier Center for Health (NOTCH) is a Vermont FQHC providing comprehensive primary care services to Franklin and Grand Isle counties.

Northwestern Counseling & Support Services (NCSS) is a Vermont Designated Mental Health Agency providing mental health and substance abuse services in Franklin and Grand Isle Counties.

Office of Rural Health Policy (ORHP) coordinates activities related to rural health care within HHS. ORHP has responsibility for analyzing the possible effects of policy on residents of rural communities. ORHP administers grant programs designed to build health care capacity at both the local and State levels. These grants provide funds to 50 State Offices of Rural Health (SORH) to support on-going improvements in care, and to rural hospitals through the Medicare Rural Hospital Flexibility Grant (Flex).

Office of the National Coordinator for Health Information Technology(ONC) is the principal federal entity charged with coordination of nationwide efforts to implement and use the most advanced health information technology and the electronic exchange of health information. The position of National Coordinator was created in 2004, through an Executive Order, and legislatively mandated in the Health Information Technology for Economic and Clinical Health Act (HITECH Act) of 2009.

OneCare Vermont (OCV) is a statewide Accountable Care Organization (ACO) working with Medicare, Vermont Medicaid and the Commercial Exchange Shared Saving Programs. OCV comprises a network of providers to coordinate the health care of approximately 95,000 combined Medicare, Medicaid and Commercial Exchange Vermont beneficiaries. Members include all 14 of Vermont's hospitals, two New Hampshire hospitals, hundreds of primary and specialty care physicians and Advance Practice Providers, FQHCs, and several rural health clinics.

Patient portal is a secure online website that gives patients convenient access to personal health information from anywhere with an Internet connection.

Per Member Per Month (PMPM) is the amount paid to a provider (hospital or healthcare worker) each month for each of the provider's patients. PMPM is part of health care payment reform.

Personal or Protected Health Information (PHI) includes demographic information, medical history, test and laboratory results, insurance information and other data that a healthcare professional collects to identify an individual and determine appropriate care. HIPAA specifies that covered entities (which include healthcare providers, insurers and their business associates) are limited in the types of PHI they can collect from individuals, share with other organizations or use in marketing. In addition, organizations must provide protected health information to patients if requested .

Person-centered care or individualized care **Person-centered care** is health care focused on patient control. In a person-centered care environment, the patient becomes an active decision maker, along with family members, doctors and staff employees.

Pharmacy Benefits Manager (PBM) is a third-party administrator of prescription drug programs. PBMs are primarily responsible for developing and maintaining the formulary, contracting with pharmacies, negotiating discounts and rebates with drug manufacturers, and processing and paying prescription drug claims.

Regional Extension Center (REC) is a program to assist primary care providers in the adoption and meaningful use of electronic health records. ONC selected 62 organizations to provide these services. Starting in 2010, ONC provided these organizations with four year grants. VITL was awarded \$6.3 m to operate the Vermont REC.

Rutland Mental Health Services (RMHS) is a Vermont Designated Mental Health Agency providing mental health and substance abuse services in Rutland County.

Rutland Regional Medical Center (RRMC) is a general medical and surgical hospital in Rutland, VT. RRMC is the biggest community hospital in Vermont and the second largest hospital in the state.

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services. SAMHSA awarded VDH a five year, \$10m grant to implement SBIRT in Vermont. The goal is to provide screening in primary care offices, hospital emergency departments, and community clinics.

Skilled Nursing Facility (SNF) provides care for people who are not yet able to care for themselves at home following a hospital stay.

Social Services are a range of government provided services including health care, subsidized housing, job training and food subsidies. In Vermont, social services are administered by various agencies within AHS.

Specialized Service Agency (SSA) provides distinct and specialized services to meet the needs of Vermonters with developmental disabilities. DAIL contracts with four SSAs to deliver these services.

Springfield Medical Care Systems (SMCS) is a not-for-profit, community-based health care system that includes a network of seven FQHC locations, and Springfield Hospital. SMCS serves southeastern Vermont and southwestern New Hampshire.

Sprint - See Blueprint Sprint

State Fiscal Year (SFY) is the 12 month period July 1 to June 30 for Vermont State Government.

State Innovation Model (SIM) is a CMS initiative to provide financial and technical support to states for the development and testing of state-led, multi-payer health care payment and service delivery models. The goal is to improve health system performance, increase quality of care, and decrease costs for all state residents but primarily for Medicare, Medicaid and Children's Health Insurance Program (CHIP) beneficiaries. In 2013, CMS awarded Vermont a four-year SIM grant for \$45m. Fifteen million dollars is allocated to HIT/HIE projects. See VHCIP.

State Medicaid Director Letter (SMDL) is used by CMS to provide states with guidance and clarification on current information and/or statutory changes pertaining to Medicaid and CHIP policy and financing.

State Medicaid HIT Plan (SMHP) provides State Medicaid Agencies and CMS with a common understanding of the activities the state agency will be engaged in over the next 5 years relative to implementing provisions of the American Recovery and Reinvestment Act (ARRA). CMS approved Vermont's SMHP in 2011.

State of Vermont (SOV) refers to Vermont State Government.

Sterling Area Services (SAS) is a Specialized Service Agency under contract to DAIL. SAS provides developmental services in the Morrisville area.

Substance Abuse and Mental Health Services Administration (SAMHSA) is the agency within HHS that leads public health efforts to advance the behavioral health of the nation. SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities. The Vermont Department of Health (VDH) has a multi-year SAMSHA grant to implement Screening, Brief Intervention and Referral to Treatment (SBIRT)

Support and Services at Home (SASH) is designed to provide personalized coordinated care to help adult participants stay safely at home. SASH is part of the Blueprint for Health. SASH helps seniors and individuals with special needs access the care and support they need. SASH is available in many communities throughout Vermont and serves primarily persons 65 and older and persons with disabilities.

The Health Center (THC) is a Vermont FQHC providing comprehensive primary care services in the Plainfield area.

Transformed Medicaid Statistical Information System (T-MSIS) is mandated by CMS and the Affordable Care Act (ACA). T-MISS is an extension of current Decision Support Systems (DSS) and data warehouse solutions in state agencies.

Triple Aim Triple Aim is a framework developed by the Institute for Healthcare Improvement (IHI) that describes an approach to optimizing health system performance. IHI believes that new designs must be developed to simultaneously pursue three dimensions, called the Triple Aim: improving the experience of care, improving the health of populations, and reducing per capita costs of health care.

Uniform Data System (UDS) is a standardized reporting system that provides consistent information about health centers. The UDS includes socio-demographic characteristics of people served, types of services provided, counts of staff, quality of care data, cost and efficiency data, and sources and amounts of income. UDS is administered by the Bureau of Primary Care.

United Counseling Service (UCS) is a Vermont Designated Mental Health Agency providing mental health and substance abuse services in Bennington County.

Upper Valley Services (UVS) is a Vermont Specialized Services Agency providing services to people with developmental disabilities

UVM Health Network is a four-hospital system in Vermont and northern New York. Member hospitals include UVMC (formerly known as Fletcher Allen Health Care), Central Vermont Medical Center, Champlain Valley Physicians Hospital (NY), and Elizabethtown Community Hospital (NY). UVMC is affiliated with the University of Vermont College of Medicine and College of Nursing and Health Sciences.

Value-based care is emerging as a solution to address rising health care costs, clinical inefficiency and duplication of services. In value-based models, doctors and hospitals are paid for helping keep people healthy and for improving the health of those who have chronic conditions in an evidence-based, cost-effective way.

Vermont Care Network (VCN) is a non-profit organization originally incorporated as Behavioral Health Network of Vermont. VCN is focused on creating effective partnerships and efficiencies to facilitate the provision of accessible, high quality services and supports in Vermont.

Vermont Care Partners (VCP) is collaboration between the Vermont Council of Developmental and Mental Health Services and the Vermont Care Network. VCP's mission is to provide statewide leadership for an integrated, high quality system of comprehensive services and supports. VCP's sixteen non-profit community-based member agencies offer care to Vermonters with developmental disabilities, mental health conditions and substance use disorders.

Vermont Center for Geographic Information (VCGI) is a division of the Agency of Commerce and Community Development responsible for assisting the Vermont GIS community interested in geospatial technology or mapping.

Vermont Center for Independent Living (VCIL) is a nonprofit organization directed and staffed by individuals with disabilities. VCIL works to promote the dignity, independence and civil rights of Vermonters with disabilities.

Vermont Coalition for Disability Rights (VCDR) is a disability advocacy organization that seeks to increase awareness of disability issues and effect systemic change through legislative and administrative processes.

Vermont Council of Developmental and Mental Health Services (VCDMHS) is the trade association of 16 non-profit community-based agencies that serve Vermonters affected by developmental disabilities, mental health conditions, and substance use disorders.

Vermont Department of Health (VDH) is the state's lead agency for public health policy and advocacy. VDH is a department within AHS.

Vermont Health Care Innovation Project (VHCIP) is Vermont's initiative to implement the four year State Innovation Model (SIM) grant. VHCIP provides a forum for coordinating policy and resources to support development of the organizations, technology and financing necessary to achieve the development of a high performance health care system.

Vermont Health Connect (VHC) is the state's electronic marketplace offering health insurance to individuals and small employers. VHC was authorized by the state legislature to be the electronic marketplace required by ARRA. In 2012, the federal government awarded Vermont with a \$104 million federal grant to design and develop an insurance marketplace.

Vermont Health Information Exchange (VHIE) is Vermont's statewide Health information Exchange. VITL is responsible for the development and operation of VHIE.

Vermont Health Information Strategic Plan (VHISP)

Vermont Health Information Technology Plan (VHITP)

Vermont Health Uniform Reporting and Evaluation System (VHCURES) is Vermont's All-Payer claims database. VHCURES contains data derived from medical, pharmacy and dental claims provided by private and public insurance carriers including Medicaid and Medicare.

Vermont Psychiatric Hospital (VPCH) is the state's hospital dedicated to serving Vermonters with serious mental disorders including clinical depression, bi-polar disorder and schizophrenia. VPCH is located in Berlin. Previously, VPCH was named the Vermont State Hospital.

Vermont Rural health Alliance (VHRA) was created by Bi-State in partnership with the DHVA, Office of Rural Health & Primary Care and the federal Office of Rural Health Policy (ORHP). In 2007, Bi-State received federal network planning grant funding. In Act 71 of 2007, the legislature appropriated matching funding for a federal rural health network development grant awarded in 2008. That match funding is included in the Blueprint budget. In June 2010 VRHA received funding from the Federal Bureau of Primary Health Care to support HIT goals, focusing on data integrity, HIE, and quality improvement.

Vermont State Hospital is now called the Vermont Psychiatric Hospital (VPCH).

Vermont Statutes Annotated (V.S.A) can be found online at

<http://legislature.vermont.gov/statutes/> and
<http://www.lexisnexis.com/hottopics/vtstatutesconstctrules/>

Vermont Telecommunications Authority (VTA) was established in 2007 with the responsibility to ensure all Vermont residences and business have access to affordable broadband services. VTA also has the responsibility to ensure telecommunications and broadband infrastructure is continuously upgraded.

VITL Vermont Information Technology Leaders, Inc. (VITL) is a nonprofit organization that assists Vermont health care providers with adopting and using health information technology, to improve the quality of care delivery, to enhance patient safety and to reduce the cost of care. VITL is legislatively designated to operate the health information exchange (HIE) for Vermont, and is governed by a collaborative group of stakeholders including health plans, hospitals, physicians, other health care providers, state government, employers, and consumers.

VNAs of Vermont (VNAV) is the professional association for Nonprofit Home Health and Hospice Agencies and Visiting Nurse Associations in Vermont.

Washington County Mental health Services (WCMHS) is a Vermont Designated Mental Health Agency providing mental health and substance abuse services in Washington County and the adjacent towns of Orange, Washington and Williamstown, MA.

White River Junction Veterans Administration Medical Center (WRJ VAMC) is responsible for the delivery of health care services to eligible Veterans in Vermont and the 4 contiguous counties of New Hampshire. These services are delivered at the Medical Center's main campus located in White River Junction, Vermont, and at its seven Outpatient Clinics (Bennington, Brattleboro, Burlington, Newport, and Rutland, Vermont; Keene and Littleton, New Hampshire). The White River Junction VA is closely affiliated with the Geisel School of Medicine (formerly Dartmouth Medical School) and the University of Vermont College of Medical.