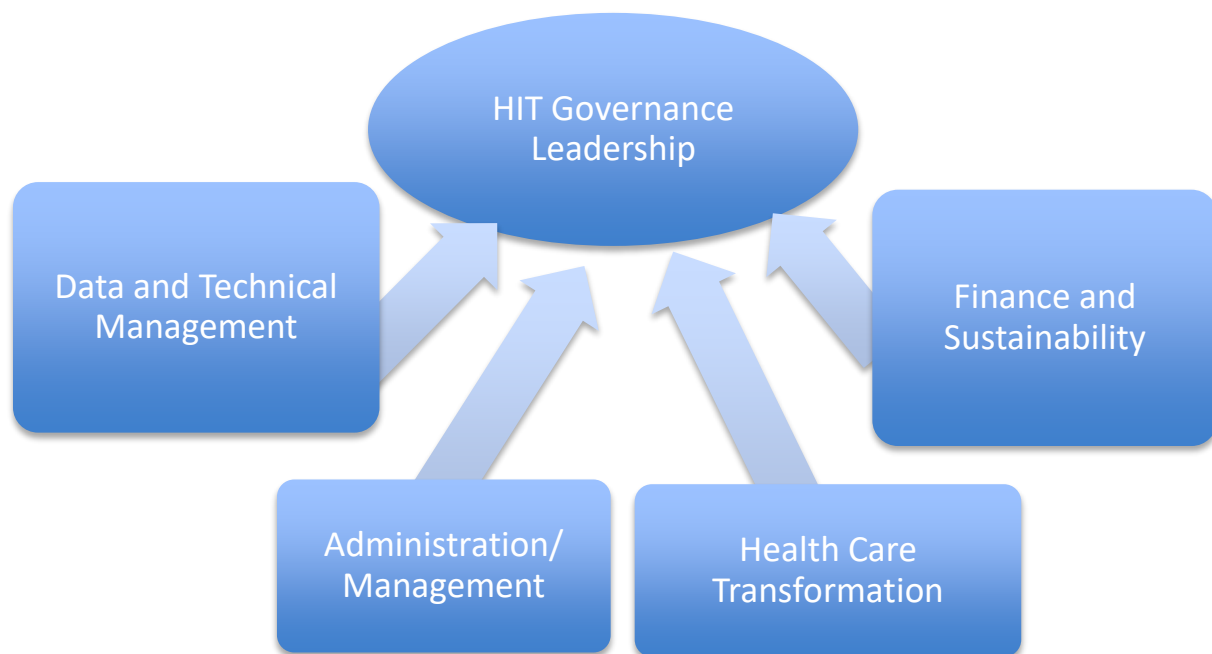


Vermont Health Data Utility: Governance and Strategic Priorities



PROJECT NO.

14-237

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Vermont Health Data Utility: Governance and Strategic Priorities

Document Title

Vermont Health Data Utility: Governance and Strategic Priorities Support Documents

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1. Introduction

The Vermont Health Care Innovation Project Program's (VCHIP) Health Data Infrastructure (HDI) Work Group charged Stone Environmental and its subcontractors Rachel Block and Larry Sandage to investigate other state/regional data health utility organizations from around the country. After gathering other state information for this research effort, our efforts switched to supporting HDI Governance Work Group established during the summer of 2016. This work group was charged with developing a HDI Data Governance Strategy for the next administration. This report contains a brief history of health data organizations (Chapter 2); a summary of interviews made with other states (Chapter 3); agendas and minutes from the HDI Governance Planning Work Group and the Draft Governance Strategy (Appendix B and C); and lastly other useful materials obtained during this investigation (Appendix B-K).

2. A Brief History of Vermont Health Data Organizations and Data Collection¹

Vermont has been collecting health data for over 100 years. While the goals of health data collection have remained fairly consistent over time, data collection and management responsibilities have been shuffled among multiple and changing organizations. Often, these organizations have been inadequately supported, either financially or politically. There have been some efforts to share and integrate data, but these efforts have been handicapped by a lack of standards and resources and by turf issues.

Governmental agencies have been the major players in health data collection and management, but three non-profits have also played a role. Of these, two (CHICV and VHIC) discontinued operations primarily as a result of funding issues, while the third, VITL, is struggling to find a sustainable funding mechanism.

The earliest uses of health data were built on a system that also had an important legal function – vital records. In addition to containing valuable information about population health, the vital record system documented the two most significant transitions in life – birth and death.

Purposes and Uses of Health Data

Beyond supporting the care of individuals, health data can serve many purposes, including:

- monitoring for general health or specific diseases / conditions
- evaluation and improvement of health care and public health initiatives
- regulation and planning

Subsequent systems were built to specifically monitor, evaluate, and support health care in Vermont. The table below summarizes the history of health data in Vermont.

Who ²	Vermont Vital Records	Vermont Uniform Hospital Discharge Data Set (VUHDDS)	Vermont Health Care Uniform Reporting and Evaluation System (VHCURES)	Electronic Health Records	Integrated Health Information System	VHHIS and BRFSS
VDH	1902 -	1983-1992 ³				VHHIS: 2015 - BRFSS: 1990 -
CHICV		1972-1982				

¹ This Chapter was prepared by Steven Kappel, Policy Integrity, LLC.

² Organizations are described below

³ VDH manages this data for all the historic responsible organizations.

Who ²	Vermont Vital Records	Vermont Uniform Hospital Discharge Data Set (VUHDDS)	Vermont Health Care Uniform Reporting and Evaluation System (VHCURES)	Electronic Health Records	Integrated Health Information System	VHHIS and BRSS
HCA		1992-1996	statutory authority			
BISHCA		1996-2011	2007-2011			2000-2011
DFR			2012			2012-2014
GMCB		2011-	2013 -			
VHIC					1992-1994	
Blueprint				2010 -		
VITL				2005 -		

2.1. Historical View of Vermont Organizations that Have Managed Health Data

VDH - *Vermont Department of Health* <http://healthvermont.gov/> In addition to vital statistics, the Health Department has numerous other datasets, some of which are single-purpose and others are more general. Since 1983, VDH has managed the state’s hospital discharge database. When the state’s hospital budget process was created, administrative support was provided by VDH. Coincidentally, CHICV ceased operations and its data became available for purchase. VDH obtained the data to support the hospital process. As the responsibility for the budget process has moved among other state agencies, VDH has contracted with those agencies to manage discharge data. Recently VDH assumed responsibility for the Vermont Household Health Insurance Survey (discussed below).

CHICV – The *Cooperative Health Information Center of Vermont* was established in the early 1970s. It focused on the application of small area analysis to Vermont hospital utilization. Discharge data were provided voluntarily by Vermont hospitals, Mary Hitchcock Memorial Hospital, and the VA hospital in White River Junction. Analyses were published in a series of reports called the Monograph Series. CHICV went out of business in 1982 primarily due to funding issues.

HCA – The *Health Care Authority* was created by the Vermont legislature during its 1991-1992 session. HCA had a wide range of responsibilities, including design of system reform proposals, the hospital budget process, Certificate of Need, and data collection. The statutory basis for data collection, codified as 18 VSA § 9410, has remained constant, other than changes in the responsible organization. In 1996, HCA was merged with the Department of Banking, Insurance and Securities to create BISHCA. According to one history of health care reform in Vermont, “legislative disenchantment with the whole [health care reform] process made Governor Dean fear for the future of the Authority itself.”⁴

⁴ Vermont State Government Since 1975, University of Vermont, p. 382

BISHCA – *Banking Insurance, Securities, and Health Care Administration*, the division of Health Care Administration assumed many of the responsibilities of the Health Care Authority, but with a strengthened focus on regulatory activities. Upon creation of the Green Mountain Care Board, most health-related activities were transferred from BISHCA to GMCB and the remaining department was renamed to the Department of Financial Regulation.

DFR – *Department of Financial Regulation* (<http://www.dfr.vermont.gov/>) - the GMCB was created, DFR retained responsibility for regulation of banks, insurance other than health insurance, and securities. During a transition period, DFR was responsible for VHCURES. DFR also managed VHHIS through the 2014 survey.

GMCB - The *Green Mountain Care Board* (<http://gmcboard.vermont.gov/>) was created by Act 48 in 2011. It was given a range of responsibilities similar to but broader than the Health Care Authority. Currently, the board has data responsibilities created in 18 VSA § 9410 and originally assigned to the Health Care Authority.

VHIC – The *Vermont Health Information Consortium* was a non-profit, funded in 1992 by a grant from the John Hartford Foundation and governed by a board that included most of the major players in the Vermont health care system. The Foundation was promoting its Community Health Management Information System model. CHMIS was a regional system designed to support all health care transactions, including both financial and clinical. The Health Care Authority entered into a formal agreement with VHIC to carry out the requirements of 18 VSA § 9410. VHIC ceased operations in 1994, primarily due to a lack of sustainable funding.

Blueprint for Health (<http://blueprintforhealth.vermont.gov/>)- The Blueprint for Health is part of the Department of Vermont Health Access (VDVA), is Vermont’s statewide medical home project⁵. The Blueprint was initiated during the Douglas administration in 2003. It collects its own health data information and uses VHCURES to evaluate its efforts.

VITL - *Vermont Information Technology Leaders* (<https://www.vitl.net/>) is a non-profit organization enabled by state statute. A majority of its funding comes from state grants. VITL is Vermont’s designated Health Information Exchange⁶ (HIE) – it is responsible for the sharing of information among health providers.

2.2. Data Streams

The oldest data system by far is Vermont’s **vital records** system. Vermont town clerks began recording births, deaths, and marriages in 1779. Reporting to the Secretary of State began in 1857. Act 114 of 1902 mandated that town clerks report births, marriages, and deaths to the state Board of Health and that the Board issue semi-annual reports⁷.

In addition to its duration, the vital records system is unique in its comprehensiveness (all events occurring to Vermont residents AND all events occurring in Vermont), its standardization (established national standards) and its inclusion of a small amount of clinical information not included on claims (e.g., APGAR scores, birth weight, medical risk factors on birth certificates) and sociodemographic information (e.g. parental education,

⁵ 18 VSA § 703 et seq.

⁶ 18 VSA §9352

⁷ <https://www.sec.state.vt.us/archives-records/vital-records/state-registry-history.aspx>

parental race on birth certificates). In addition to birth certificates, this system also includes fetal deaths and deaths.

Information on **hospital discharges** has been collected in Vermont since the mid-1970s. Initially, data were collected by the Cooperative Health Information Center of Vermont, a private not-for-profit, on a voluntary basis. The state assumed this responsibility in the early 1980s, in conjunction with a new hospital budget process. The theory was that hospital utilization patterns could provide valuable context for budget deliberations. Several different state agencies have had statutory responsibility for this data, but the data have been continuously managed by the Department of Health. Over the years, VDH has performed this management under contract with the Health Care Authority, BISHCA, and currently, the Green Mountain Care Board.

All discharges from Vermont hospitals are included, regardless of patient residence. For many years, only inpatient discharges were included. Starting in 1989, outpatient procedures that occurred in an operating room were reported. Starting in 2001, the scope of outpatient reporting was expanded to include nearly all procedures were reported. While data from Vermont general hospitals has been included consistently, data on Vermont residents receiving care in border states (NH, MA, & NY) has been added incrementally and is not available for all years. This system includes no information on Vermont resident use of hospitals in states other than the three that border Vermont.

Act 160 (1992 session of the Vermont legislature) created the **Health Care Authority (HCA)**. Among HCA's responsibilities was to "establish and maintain a unified health care data base to enable the authority to:

- (1) Determine the capacity and distribution of existing resources.
- (2) Identify health care needs and direct health care policy.
- (3) Evaluate effectiveness of intervention programs on improving patient outcomes.
- (4) Compare costs between various treatment settings and approaches.
- (5) Provide information to consumers and purchasers of health care.

This charge has been the key driver in several different data projects, most notably **VHCURES** (Vermont Health Care Uniform Reporting and Evaluation System, an all-payer claims database), but also in a partnership between the **Health Care Authority** and the **Vermont Health Information Consortium**. VHCURES is referred to as an all-payer claims database, but it is both more and less than that. In addition to paid claims, VHCURES contains information on enrollment and provider characteristics for Vermont residents covered by Medicare, Medicaid, and a subset of commercial insurers. Initially, smaller health insurers and coverage provided to employees and members of the military by the federal government were exempted. Recently, a U.S. Supreme Court decision made submission of data by self-insured employers voluntary.

The idea of unified patient records has a fairly long history. According to some, a physician at the University of Vermont, Larry Weed, was one of the earliest proponents⁸. Others cite the Mayo Clinic, which became one

⁸ http://www.healthtechnologyreview.com/art135_history_of_electronic_medical_records.php

of the earliest adopters of an electronic health record, in the 1960s. Development continued through the decades, and received a major boost with the passage of the Affordable Care Act.

One of the boldest visions for electronic health data was the *Community Health Management Information System* (CHMIS), promoted by the Hartford Foundation. The foundation awarded a grant to a Vermont organization, the Vermont Health Information Consortium. The CHMIS proposed CHMIS model included both a communications system, modeled on an ATM model, and a database built from transactions that used the communications system.

While all of the above data sources are based on large numbers of individual records, Vermont has also made extensive use of information from two surveys, the **Vermont Household Health Insurance Survey** (VHHIS) and the national **Behavioral Risk Factor Surveillance System** (BRFSS), a national system funded by the federal CDC and administered by individual states.

The VHHIS is based on a survey designed by RAND and funded by the Robert Wood Johnson Foundation (RWJF). In the late 1980s, RWJF funded 10 states that were each taking a different approach to health care reform. RWJF was interested in comparing results among these states and the survey (along with a companion employer survey) was intended to provide a baseline against which reforms effects could be measured. Vermont found the survey data useful enough that the state has funded several iterations of the survey, with the most recent in 2014. VHHIS includes information on insurance coverage, socio-demographics, knowledge, and health status. Because it is a state survey, content is very flexible, but not always comparable with other states. In addition, it has a very large sample size, allowing for detailed analyses. BRFSS is funded by the federal Centers for Disease Control and prevention (CDC) and is conducted annually in all 50 states. BRFSS and VHHIS surveys have much in common, but focus on different policy areas.

Appendix – Description from “Health Data in the Information Age: Use, Disclosure, and Privacy”

Institute of Medicine (US) Committee on Regional Health Data Networks; Donaldson MS, Lohr KN, editors. Washington (DC): [National Academies Press \(US\)](http://www.nationalacademies.org); 1994. Available at: <http://www.ncbi.nlm.nih.gov/books/NBK236556/>

The Vermont Health Care Authority. The Vermont Health Care Authority (VHCA) is the creation of 1992 state legislation (Vermont Health Reform Act). It draws on earlier state efforts to share health care information, particularly the Vermont Program for Quality in Health Care, a project that has been under way since the late 1980s (Keller, 1993). The VHCA program will be inclusive (covering all Vermont residents) and comprehensive (all health care services that Vermont residents receive from providers both in state and out of state). The initiative will include a lifetime patient record—essentially a unified health care database—linked to an information repository.

The unified database is to be developed by a subsidiary group, Vermont Health Care Information Consortium, using files of all providers, a uniform insurance claims form, and electronic claims submission. The claims-driven health care database is intended to provide policy-related information such as aggregate

levels of expenditures and utilization by sectors; it will include Medicare, Medicaid, Blue Cross and Blue Shield, and other provider or insurer groups (e.g., HMOs).

The information repository, when linked to the lifetime health record, is meant to be an integrated system that improves access, controls costs, gives consumers health care information, and improves quality of care. These outcomes are to be achieved through two proposed mechanisms that are similar to those examined in Chapter 3 of this report: (1) feedback programs to share data on quality and practice patterns with one-third of Vermont's practicing physicians and (2) public disclosure of information about providers.

As of late 1993, the role of state agencies was not yet clear, but governance of the not-for-profit consortium will include a public-private partnership, with representation of state government (the Department of Health and the governor's office), Vermont employers, the Vermont Business Roundtable, Blue Cross and Blue Shield, health care providers (hospitals, physicians, the state's medical school), and consumer and patient advocates. It will have an advisory committee and several subcommittees for activities focused on patient advocacy and confidentiality, a business plan, financial issues, technical concerns, and data elements.

3. Summary of Other State HIT Governance Structures and Elements⁹

The following is a summary of different HIT Governance Models compiled from interviews conducted by with eight states: Colorado, Delaware, Maine, Maryland, Michigan, New York, Rhode Island, and Washington.

State HIT Governance Models – Many states have developed structured HIT governance models, but the organization and focus for these models is quite varied. Several states have a HIT Policy Commission or similar entity that developed and oversee state HIT strategy or roadmap – the membership typically includes senior leaders from state government and the stakeholder community.

Most states have maintained or built on the State HIT Coordinator model, but actual role differs in each state. While Medicaid is a primary funding source for most state HIT activities, Medicaid’s governance role is also varied.

State governance encompasses one or more of the following functions:

- Regulations and policy for health information exchange (*Regulation*);
- Prioritization and allocation of resources for HIT initiatives (*Strategy*);
- Management oversight including contracting using federal and state funds (*Administration*);
- Coordination of HIT implementation including focus on standards, adoption and use (*Operations*).

The state’s relationship with the HIE organization(s) is mostly correlated to the state governance focus as relates to strategy and operations (i.e., they are more or less independent based on how directly the state regulates or manages these functions). Each state’s primary functions are listed in the left hand column.

State/Function(s)	Operational Summary
Colorado	
Primary State Functions: -Strategy -Administration -Operations (limited)	Office of eHealth Innovation – State HIT Coordinator – in Governor’s office eHealth Commission (advisory group) SIM funding Medicaid HIT coordinator – oversees Medicaid EHR and MU; IAPD funding; also fiscal agent providing contracting, procurement, administrative support for OeHI

⁹ This Chapter prepared by Rachel Block.

State/Function(s)	Operational Summary
	<p>HIE(s): CoRHIO and Quality Health Network Independent self-governing State contracts with RHIOs for specific activities</p>
Delaware	
<p>Primary State Functions: -Regulation -Strategy</p>	<p>Delaware Health Care Commission; State HIT Coordinator SIM funding</p> <p>HIE: Delaware Health Information Network (DHIN) Statute and regulations established HIE as a “state instrumentality,” subsequent statute granted them authority as a self-governing entity</p>
Maine	
<p>Primary State Functions: -Strategy (limited)</p>	<p>No broad state role SIM funding</p> <p>HIE: Healthinfonet – independent self-governing State members on board State contracts for specific activities</p>
Maryland	
<p>Primary State Functions: -Regulation -Strategy -Administration -Operations</p>	<p>State HIT Coordinator, state policy board housed within Maryland Health Care Commission; Health Services Cost Review Commission driving HIT-related health reform activities Acts as “Utility regulator” Regulations – registration required for HIEs; privacy and security requirements Medicaid IAP and 1115 waiver funding Actively participates in use case development tied to traditional state health functions and health reform</p> <p>HIE: Chesapeake Regional Information System for Patients (CRISP) Non profit State members on board Strategic and operational partnership to advance state health reform initiatives</p>
Michigan	
<p>Primary State Functions: -Regulation -Strategy -Administration -Operations</p>	<p>State HIT Policy Office and Coordinator in Department of Health and Human Services; State HIT Commission Medicaid IAPD funding SIM funding Participates as a data provider and user (“qualified organization”)</p> <p>HIE: Michigan Health Information Network (MIHIN) Non-profit State reps on board Advisory and operations committees Coordinates efforts through multiple regional HIEs State contracts for specific activities</p>
New York	

State/Function(s)	Operational Summary
Primary State Functions: -Regulation -Strategy -Administration -Operations	State HIT Coordinator; Medicaid HIT Coordinator – NYS Department of Health Regulations including HIE (QE) certification requirements, contract management and oversight, operational monitoring 1115 funding (Medicaid IAPD mainly focused on MU related activities) Five domains for QE certification requirements: Organizational – non profits Operational – “member facing services” Policy – privacy security audits etc Technical – common set of technical capabilities Oversight and enforcement Single source contract with statewide HIE and all QEs (regional) HIE: New York eHealth Collaborative Two committees: policy, business and operations State contracts for core operations and specific activities
Rhode Island	
Primary State Functions: -Regulation -Strategy -Operations (limited)	State HIT Coordinator in Office of Health and Human Services State regulations; strategic priorities for HIT implementation SIM funding – multi-sector and multi-agency approach to achieve greater degree of coordination and integration HIE: Rhode Island Quality Institute operates CurrentCare State members on board
Washington	

Appendix A: Glossary of Terms



GLOSSARY OF HEALTH CARE ACRONYMS

ACC – Accountable Care Community	IFS – Integrated Family Services
ACG – Adjusted Clinical Groups	INTERACT – Interventions to Reduce Acute Care Transfers
ACH – Accountable Communities for Health	IOM – Institute of Medicine
ACO – Accountable Care Organization	IT – Information Technology
ACS-NSQIP – American College of Surgeons National Surgical Quality Improvement Program	LS – Learning Session
ADAP – Alcohol and Drug Abuse Programs	LTSS – Long-Term Services and Supports
AHS – Agency of Human Services	MA – Medical Assistant
AOA – Agency of Administration	MD – Medical Doctor
APM – All-Payer Model	MPI – Master Patient Index
APMH – Advanced Practice Medical Home	NAACO – National Association of ACO’s
BHN – Behavioral Health Network	NIST – National Institute of Standards and Technology
BRFSS – Behavioral Risk Factor Surveillance System	NMC – Northwestern Medical Center
CAGR – Cumulative Average Growth Rate	NPI – National Provider Identifier
CAHPS – Consumer Assessment of Healthcare Providers and Systems	NQF – National Quality Forum
CBC – Complete Blood Count	OCR – The Office for Civil Rights within HHS
CCHL – Community Committee on Healthy Lifestyle	OCV – OneCare Vermont
CCIO – The Center for Consumer Information & Insurance Oversight	ONC – The Office of the National Coordinator for HIT w/in HHS
CCMR – Care Coordination Medical Record	OS – Operating System
CCT – Community Care Team	P4P – Pay for Performance
CD – Clinical Director	PCMH – Patient Centered Medical Home
CDM – Chronic Disease Management	PCP – Primary Care Physician
CHA – Community Health Advocate	PDF – Portable Document Format
CHAC – Community Health Accountable Care, LLC	PHI – Protected Health Information
CHF – Congestive Heart Failure	PPS – Prospective Payment System
CHIP – Children’s Health Insurance Program	PRG – Pharmacy Risk Grouper
CHT – Community Health Team	QCCM – Quality and Care Coordination Manager
CMMI – Center for Medicare and Medicaid Innovation	QI – Quality Improvement
CMO – Chief Medical Officer	RFP – Request for Proposal
CMS – Centers for Medicare and Medicaid Services	RN – Registered Nurse
COPD – Chronic Obstructive Pulmonary Disease	RUI – Resource Use Index
CSA – Community Supported Agriculture	SAS – Statistical Analysis System
DAIL – Department of Disabilities, Aging, and Independent Living	SBIRT – Screening, Brief Intervention, and Referral to Treatment
DAs – Designated (mental health) Agencies	SC – Surgical Champion
DHMC – Dartmouth Hitchcock Medical Center	SCR – Surgical Care Reviewers
DID – Difference in differences	SCÜP – Shared Care Plan/Universal Transfer Protocol
DLTSS – Disability and Long Term Services and Supports	SIM – State Innovation Model
DUA – Data Use Agreement	SMHP – State Medicaid Health Information Technology Plan
DVHA – Department of Vermont Health Access	SMS – Short Message Service
ED – Emergency Department	SOV – State of Vermont
EHR – Electronic Health Record	SPA – State Plan Amendment
EMR – Electronic Medical Record	SPC – Statistical Process Control
EMT – Emergency Medical Technician	SRA Tool – Security Risk Assessment Tool
EOC – Episodes of Care	SSA – Specialized Service Agency
ePHI – Electronic Protected Health Information	SSCPC – Statewide Surgical Collaborative Project Coordinator
ERG – Episode Risk Grouper	SSP – Shared Savings Program
FAHC – Fletcher Allen Health Care	SVHC – Southwestern Vermont Health Care
FEDU – Frequent ED Use	SVMC – Southwestern Vermont Medical Center
FICA – Federal Insurance Contributions Act	SW – Social Worker
FQHC – Federally Qualified Health Center	SWOT – Strengths, Weaknesses, Opportunities, and Threats
FTE – Full Time Equivalent	TACO – Totally Accountable Care Organization
GMCB – Green Mountain Care Board	TBD – To be determined
HC – Health Care	TCI – Total Cost Index
HCM – Health Confidence Measures	TCM – Transitional Care Model
HDI – Health Data Infrastructure	TCN – Transitional Care Nurse
HF – Healthfirst	TCOC – Total Cost of Care
HH – Health Home	TCRRV – Total Care Relative Resource Value
HHS – U.S. Department of Health and Human Services	UCC – Unified Community Collaborative
HIE – Health Information Exchange	VCN – Vermont Care Network
HIPAA – Health Insurance Portability and Accountability Act of 1996	VCP – Vermont Care Partners
HIPPA – Health Insurance Portability and Accountability Act	VCP – Vermont Collaborative Physicians
HIT – Health Information Technology	VDH – Vermont Department of Health
HITECH Health Information Technology for Economic and Clinical Health Act	VHCIP – Vermont Health Care Innovation Project
HP – Hospital Readmissions	VHCURES – Vermont Healthcare Claims Uniform Reporting & Evaluation System
HPA – Health Promotion Advocate	VHIE – Vermont’s Health Information Exchange
HRQL – Health Related Quality of Life	VITL – Vermont Information Technology Leaders
HSA – Health Service Area	VPQHC – Vermont Program for Quality in Health Care
HSE – Health Services Enterprise	VT – Vermont
IBNR – Incurred But Not Reported	WRFP – White River Family Practice
IFS – Integrated Family Services	XSSP – Commercial Shared Savings Program

Source: VT HIT Plan & HHS Terms



Appendix B: Draft Proposal- Vermont's Health Information Technology/Health Information Exchange (HIT/HIE) Governance



DRAFT Proposal- Vermont's Health Information Technology/Health Information Exchange (HIT/HIE) Governance

12.2.2016

Vermont is pursuing payment and delivery system reforms that are intended to moderate cost growth, improve health, and improve care for all Vermonters. To be successful in payment and delivery system reform, the State, payers, providers, and individuals all need access to information. Ideally, this information will flow electronically through the most effective and efficient means possible. Vermont's HIT Strategy is in service of these payment and delivery system reform goals. Though much progress has been made to-date, the State and stakeholders have identified areas for improvement in coordination and decision-making to achieve Vermont's HIT goals. The specific areas for improvement are identified in Vermont's Health Information Technology Strategic Plan.¹

The Secretary of Administration convened a work group to develop recommendations for the first part of this improvement: HIT Governance.² This HIT Governance work group first refined the goals³ identified in the Health Information Technology Strategic Plan (VHITP). The group then developed the organizational structure described below. The organizational structure description incorporates the functions that need to be established and provides examples of specific activities that could be undertaken.

Section 1. OBJECTIVES FOR HIT GOVERNANCE

These objectives are a consolidation of the goals identified in Appendix B and are provided for ease of review of this document.

- **SUPPORT HEALTH CARE REFORM IN VERMONT:** The governance model should set HIT strategic direction and ensure coordination that aligns HIT with priorities for health care transformation.
- **DESIGNATE AUTHORITY AND IDENTIFY RESOURCES FOR HIT PLANNING AND IMPLEMENTATION:** The governance model should designate appropriate authority, define accountability, secure the expertise to implement the state's HIT agenda and ensure the effective, efficient, optimal use of resources for public and private HIT/HIE efforts.
- **STRENGTHEN ACCOUNTABILITY FOR HIT PROGRAMS:** The governance model should ensure that the HIT strategy and programs operate in a more transparent way that actively engages key stakeholders.

¹ This can be found here:

http://healthdata.vermont.gov/sites/healthdata/files/VHITP%204.8.16_web.pdf.

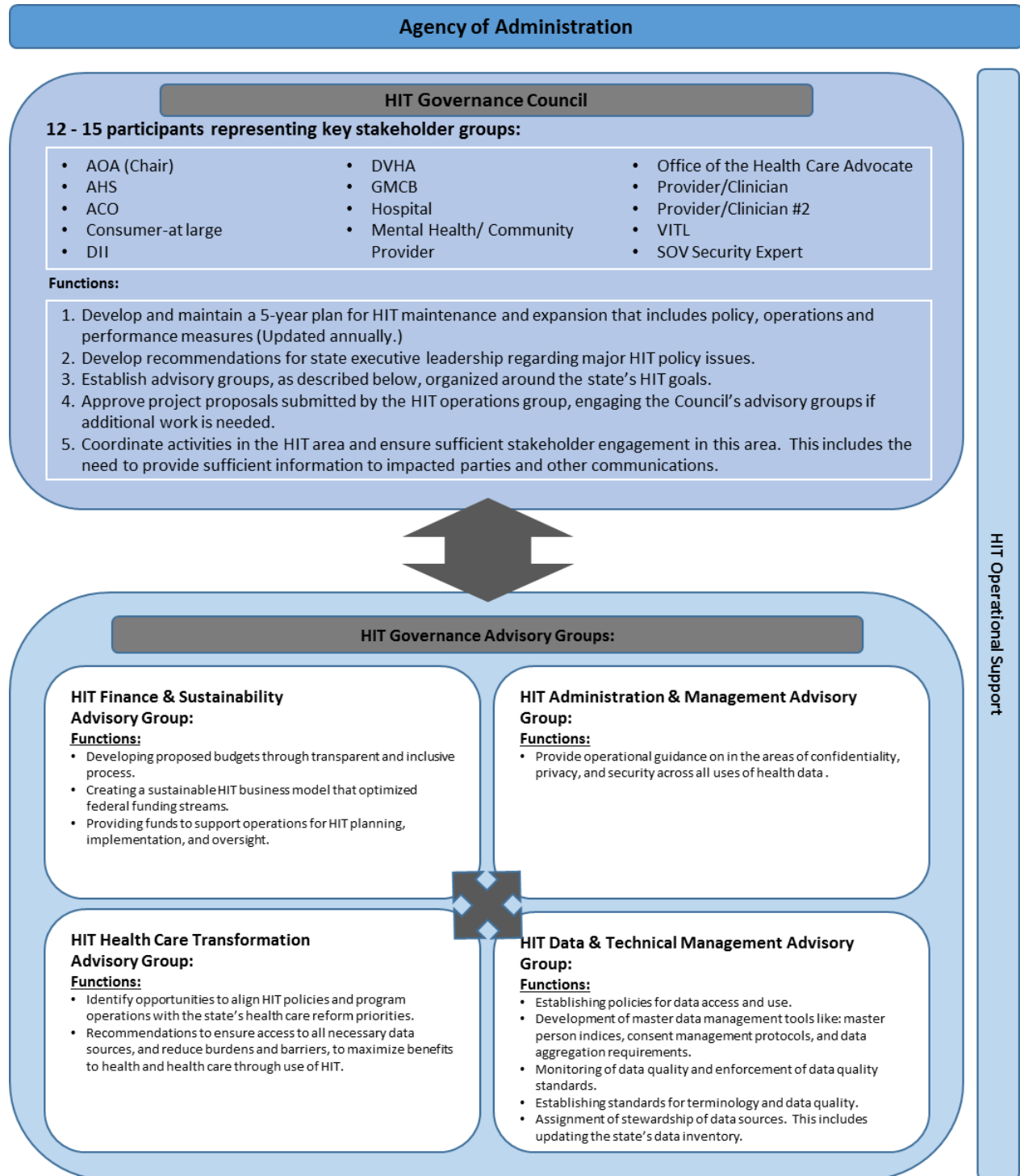
² A list of work group members can be found in Appendix A to this document.

³ These goals are provided in Appendix B.

-
- **IMPROVE ACCESS TO HEALTH DATA:** The governance model should facilitate improved access to high quality data at all levels and coordinate with the wide range of health data sources outside the scope of HIT programs.
 - **CREATE TRUST AND SYSTEM PROTECTIONS:** The governance models should ensure that public and private entities in Vermont are accountable for health information data privacy (including consent), security, confidentiality, and validity within their control.

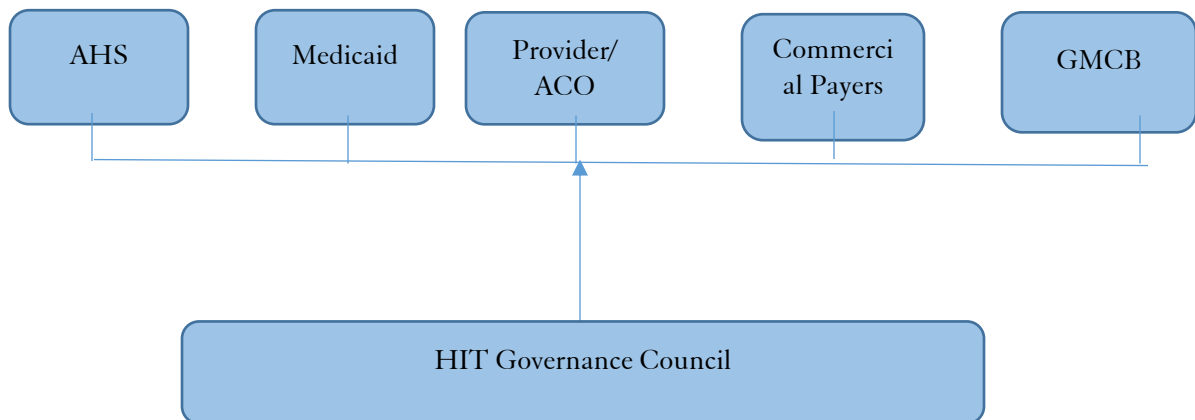
Section 2. OVERVIEW OF HIT GOVERNANCE KEY COMPONENTS

The proposed governance model is designed to address key functions necessary to advance the state's HIT agenda.



The Council will be chaired by the designated representative of the Agency of Administration. The Council’s membership includes and is representative of the key stakeholders, appointed by the Secretary of Administration, who: are critical to the success of the HIT strategy, regularly utilize HIT systems, and/or depend on this strategy for the success of their health care transformation roles and activities. This proposal recommends that no less than 55% of the Council be comprised of private sector representatives. This proposal includes key representative entities and does not specify individuals within each of those entities. Additionally, it is assumed that the Advisory Groups (described in detail below) include any additional entities as appropriate for the work they are performing. The Council will be supported by administrative and technical staff⁴.

The HIT Governance Council would serve as the statewide governance and leadership structure for Vermont HIT. The HIT Governance Council’s role is to review, and approve, policies and projects in this area. The Governance Council’s ‘approval’ of a policy or project is deemed a recommendation to the entity that would finalize the policy or execute the contract for the project. While the Governance Council is not the final decision-maker, it is assumed that their recommendations bear significant weight in the final determination. The graphic below demonstrates this relationship:



The HIT Governance Council’s purpose:

- Establish and oversee strategy;
- Provide policy direction in support of a health data infrastructure that supports health care transformation for all Vermonters; and
- Ensure accountability, sustainability, and transparency in all aspects of the plan.

To the extent that there are issues that need resolution or mediation, either the Agency of Administration or the Green Mountain Care Board should have final decision-making authority.

⁴ Staff support currently resides within the HIE Program embedded in DVHA. This support can be utilized for the Council.

The HIT Governance Council's specific functions:

- Develop and maintain a 5-year plan for HIT maintenance and expansion that includes policy, operations and performance measures. Updated annually, this plan can be used to update the HIT Strategic Plan required by statute.
 - Develop recommendations for state executive leadership regarding major HIT policy issues.
- Establish and seek input from advisory groups, as described below, organized around the state's HIT goals.
- Approve project proposals submitted by the HIT operations group, engaging the council's affinity groups if additional work is needed.
- Coordinate activities in the HIT area and ensure sufficient stakeholder engagement in this area. This includes the need to provide sufficient information to impacted parties and other communications.
- Provide guidance on duplicative technologies and data sources to ensure the highest quality data is being utilized.

Section 3. HIT GOVERNANCE COUNCIL ADVISORY GROUPS

To assist with the processing/vetting of proposals and resolution of issues, four council advisory groups would be established. The members would come from private and public sectors based on nominations from the key government agencies and external stakeholder groups. While broadly representative, the number of advisory group members should be limited to ensure that the groups can operate effectively and efficiently.

Health Care Transformation Advisory Group

The HIT Health Care Transformation Advisory Group (HCT AG) identifies opportunities to align HIT policies and program operations with the state's health care reform priorities⁵ and requires leadership from health care innovation leaders, clinicians, and consumer organizations.

THE HCT AG would make recommendations to ensure access to all necessary data sources and reduce burdens and barriers, to maximize benefits to health and health care through use of HIT.

This could include:

- Recommending activities that promote standardization, adoption and use of HIT tools to support system transformation, including: EMR/EHR adoption, telehealth technologies, care coordination tools, and data analytics. This could include inventories, surveys, and implementation and performance measures.

⁵ This group supports the following activities that are identified in the VHITP: Initiatives 7, 8, 13, 14, 15, 16, 17; pp. 57-61, 75-86.

-
- This group will intentionally focus on meeting the needs of health care organizations, individual providers and consumers.

Data & Technical Management Advisory Group

The Data & Technical Management Advisory Group (DTM AG) focuses on the specific technical standards and stewardship activities required to achieve HIT goals⁶ and requires leadership from CIOs and CTOs in state government and across the health care system. This would include:

- Establishing policies for data access and use.
- Development of master data management tools like: master person indices, consent management protocols, and data aggregation requirements.
- Monitoring of data quality and enforcement of data quality standards.
- Establishing standards for terminology, data quality, and HIT connectivity.
- Assignment of stewardship of data sources. This includes updating the state's data inventory.

HIT Finance & Sustainability Advisory Group

The HIT Finance & Sustainability Advisory Group (HITFS AG) will develop short and long-range budget estimates and identify sustainable financing to maintain and enhance the state's HIT resources. The budget and financing plans would account for funding necessary to build and sustain state HIT priorities, and to ensure appropriate resources for state/governance operations⁷.

The funding plan would be designed to maximize federal funding and ensure equitable sharing of financial responsibility across sectors.

Specific activities would include:

- Developing proposed budgets through transparent and inclusive process. The initial budget will be a five-year funding plan and this would be updated at least once a year, if not more frequently.
- Creating a sustainable HIT business model that optimized federal funding streams.
- Providing funds to support operations for HIT planning, implementation, and oversight.

⁶ This group supports the following activities that are identified in the VHITP: Initiatives 3-4; pp. 45-50.

⁷ This group supports the following activities that are identified in the VHITP: Initiative 9; pp. 62-64; more detail in pp. 88-91.

HIT Administration & Management Advisory Group

The HIT Administration & Management Advisory Group (HITAMAN AG) would provide operational guidance in the areas of confidentiality, privacy, and security across all uses of health data⁸. This group incorporates the operational support necessary for this work including: managing staffing, resources, and compliance with State rules and regulations.

Section 4. EXAMPLE:

The following example details how the proposed governance process would function:

Example #1: *Project proposed to HIT Governance Council (HITGC) to integrate mental health data into the VHIE.*

1. Proposal submitted to the HITGC.
 - a. HITGC reviews for appropriate detail to approve, perform additional investigation, request additional information, or reject.
 - b. HITGC chooses to “perform additional investigation”.
2. Proposal is sent to the following Advisory Groups for review:
 - a. Data & Technical Management Advisory Group
 - b. Administration & Management Advisory Group
3. Advisory Groups work with applicable stakeholders to investigate further. Given the nature of these data, legal consultation is required.
4. Once review is completed, recommendation made back to HITGC.
5. Recommendation forwarded to State or private sector entity for approval/implementation.

APPENDIX A: Governance Work Group Participants

- Georgia Maheras, AOA
- John Stern, AHS-HSE
- Leah Fullem, OneCare Vermont
- Richard Boes, DII
- Joseph Liscinsky, DVHA
- Susan Barrett and Roger Tubby, GMCB
- Joel Benware, NMC
- Simone Rueschemeyer, Vermont Care Partners
- Kaili Kuiper, Office of the Health Care Advocate
- Teresa Upton, Clinician, CHCRR
- Heather Skeels, BiState Primary Care
- John Evans, VITL

⁸ This group supports the following activities that are identified in the VHITP: Initiatives 11-12; pp. 69-73.

APPENDIX B: GOALS FOR HIT STRATEGY

HIT Strategy

- Strategy for statewide governance and coordination.
- Develop a consistent way to do strategic planning that aligns HIT with health care transformation activities.

Planning and Resources

- Implement HIT plan
- Designate an entity and staff that has appropriate authority, accountability, and expertise to ensure the effective, efficient, optimal use of resources for public and private HIT/HIE efforts.

Access to Data

- Improve Access to Key Data Sources.
- Coordinate with health data sources that are outside the HIT Plan.

Protections

- Data privacy, security, confidentiality, and validity within their control. Ensure public and private entities in Vermont are accountable for aspects of health information

Accountability

- Increase accountability for programs/project covered by the HIT Strategic Plan.
- Make the HIT Governance program operations more transparent and involve stakeholders.

Appendix C: HIT Governance Work Group Agendas and Minutes

Members

August 9, 2016 Agenda and Notes

September 14, 2016 Agenda and Notes

October 11, 2016 Agenda and Notes

Fg;

HIT Governance Meeting Notes

8/9/16

Scope:

There was a wide-ranging conversation about scope.

Key themes:

- Can we separate scope of coordination from scope of control?
- Broader scope is better
- Need to understand funding and sequencing as part of the governance process (ie. when recommendations get made, etc...)
- Need a starting point for this (anchor in some vision). Suggestions are: payment and delivery system reform
- It is about getting data out and being able to analyze and make decisions with that data.
- Scope of governance needs to address both the high-level strategy AND the data standards themselves.

Governance:

We identified the need for some more background materials:

- Colorado (Maheras)
- Delaware (Evans)
- SOV research to date (DII/Cleary)
- Gartner contract might be helpful (Boes)
- NORC(Rueschemeyer)
- ONC/other state resources (Maheras)

What we think the recommendation needs to contain (this list will change):

- scope- reference the inventory
- budgeting process for SOV
- goals/success criteria (Evans to propose some to the group)
- Sustainability
- Charter? Maybe we can use the GMCB charter documents (Barrett to provide these)
- Include an example to provide clarity
- Interoperability standard
- Security? Privacy?
- Impact of national standards

Proposed Goals:

We will rewrite the goals and also provide some suggestions about how we can meet them. Goals should be framed in active voice and indicate that we want strategies around these so that we can indicate how our proposed governance gets us closer to these goals. Below is a list of goals with assignments:

- RUESCHEMEYER: Increase accountability for programs/project covered by the HIT Strategic Plan.
 - Need a different level of accountability that is holistic.
- STERN: Make the program operations more transparent and involve stakeholders.

-
- There is a considerable amount of mystery in current activities that causes unnecessary issues.
 - This impacts stakeholders so it should include them in some formal way.
 - EVANS: Develop a consistent way to do strategic planning.
 - This planning should be broad-based and support state health care system transformation activities. It should also provide a roadmap so all understand where we are going and how we will get there.
 - FULLEM: Improve access to key data sources.
 - This is another area where state agencies and the private sector are requesting better access.
 - MAHERAS: Ensure funding, resources, and efforts for statewide initiatives covered by the HIT Strategic Plan are optimized.
 - KUIPER: Ensure entities (public and private entities) are accountable for aspects within their control.
 - Ensure that we implement the HIT Plan.
 - SKEELS: Coordination role for those health data sources that are outside the HIT Plan.
 - BARRETT: Designate an entity that has appropriate authority, accountability, and expertise to ensure the effective, efficient use of resources for public and private HIT/HIE efforts in support of health care and payment reform across the state of Vermont.
 - BOES: Strategy for statewide governance and coordination. This includes within the state and between the state and others.

HIT GOVERNANCE PLANNING MEETING AGENDA

September 14, 2016

1:00 - 3:00

DVHA Conference Room Williston

Members: See List

AGENDA ITEMS

Topic	Presenter	Time allotted
Introductions	All	5 minutes
Overview/Goals for Meeting	Georgia	5 minutes
Homework Goal Assignments Presentation (w/o Discussion?)	All	20 minutes
Presentation of Other State HIT Governance Structures/Questions	Rachel Block	30 minutes
Presentation of Components of an HIT Governance Program	Rachel Block	20 minutes
Refinement of Goals - Discussion	Georgia Leads	30 minutes
Next Steps/Assignments	Georgia	10 minutes

HIT Governance Planning Work Group	
Attending Meeting September 14, 2016	
X	Georgia Maheras, Deputy Director for Health Care Reform-Payment and Delivery System Reform at State of Vermont, Georgia.Maheras@vermont.gov
	Susan Barrett, Executive Director at Green Mountain Care Board, Susan.Barrett@vermont.gov;
X	John Stern, Deputy CIO, HSE Portfolio Director, Agency of Human Services, john.stern@vermont.gov
X	Simone Rueschemeyer, Executive Director, Vermont Care Network, Simone@vermontcarepartners.org
X	Joel Benware, Vice President of Information Systems and Compliance, Northwestern Medical Center jbenware@nmcinc.org
X	Tracy Upton, Quality Improvement and Clinical Analytics Manager, Community Health Centers of the Rutland Region, tupton@chcr.org
X	Heather Skeels, Project Manager, Bi-State Primary Care Association, hskeels@bistatepca.org
	John K. Evans, President, CEO, VITL, jevans@vitl.net
X	Richard Boes, Chief Information Officer, Department of Innovation and Information, Richard.Boes@vermont.gov
X	Leah Fullem, Director, Accountable Care Analytics, One Care Vermont, leah.fullem@onecarevt.org
X	Joseph Liscinsky, Health Reform Enterprise Director, Vermont Department of Health Access, Joseph.Liscinsky@vermont.gov
X	Kaili Kuiper, Attorney, Vermont Legal Aid, Kkuiper@vtlegalaid.org
	Julia Shaw, Health Care Policy Analyst, Office of the Health Care Advocate, Vermont Legal Aid, Inc., JShaw@vtlegalaid.org
Work Group Support	
X	David Healy, Vice President, Applied Information Management, Stone Environmental, Inc., Facilitator/Resource, dhealy@stone-env.com
X	Larry Sandage, Project Resource Consultant, HIT Consultant, Larry.Sandage@partner.vermont.gov
X	Rachel Block, Health IT Policy Consultant, Part of Stone Environmental Team, Project Resource Consultant, rachelblock13@gmail.com
X	Richard Terricciano, Associate Health Information Technology Coordinator, Vermont Department of Health Access, Richard.Terricciano@vermont.gov

HIT Governance Planning Work Group

Notes from September 14, 2016 Meeting

Attending: See List

Georgia opened meeting with some history and goals for work group. The homework assignment on each goal was presented. The following are those with member comments at the end of each.

Proposed Goal 1: Improve Access to Key Data Sources. (Fuller) (This is another area where state agencies and the private sector are requesting better access.

Vermont will improve access to key data sources that provide valuable information to support the development of a high-performance health care system. Access to key data sources will be granted to stakeholders including state agencies, Accountable Care Organizations, Integrated Delivery Systems, provider organizations, researchers, and any entity with a mission of improving health care access, costs, quality of care, and/or patient experience for Vermonters. Access to information will be provided while maintaining appropriate privacy and confidentiality of patients, providers, and payer data.

Strategies:

- Create a centralized data governance body that is responsible for reviewing and approving all requests for data from any source within the inventory of state-funded or state-owned data repositories.
- The charge of this group should be how can we APPROVE (NOT deny) access to the information while maintaining minimum-necessary requirements to maintain privacy and confidentiality, supported by clearly written principles, policies and procedures for each data source.
- Data Use agreements should be executed with each requestor, and existing state data use agreements with source systems (CMS, DHVA, Payers) should be modified to allow for sharing.
- Resources (such as programmer/analyst time) should be adequately funded at the state level in order to accommodate the timely delivery of requested data sets.
- Requestors should share results of analyses and use of data broadly in order to disseminate learning and improvement opportunities.
- Background: “The Vermont Health Care Innovation Project’s (VHCIP) 31-member Health Data Infrastructure (HDI) Work Group is responsible for providing funding and policy recommendations regarding the health information system and infrastructure necessary to support a high performing health care system. HDI’s activities support the development of clinical, claims, and survey data systems to support alternative payment models. VHCIP is making strategic investments in clinical data systems to allow for passive quality measurement – reducing provider burden while ensuring accountability for health care quality – and to support real-time decision-making for clinicians. VHCIP is also working to strengthen Vermont’s data infrastructure to support interoperability of claims and clinical data and predictive analytics.” (Data Inventory Report)

Discussion:

KK- What is meant by de-identified data?

JB—Are we talking about patients and general public?

RB-Seems to be some overlap with other goals

JS-Is there a separate item on security.

GM-I think there is consensus that there is need for a Goal on Security?

RB-Absolutely needed. Need for stronger policy role.

GM-Programmer analyst may need legal resources available.
HS-Someone is needed to manage administration.
RB-Governance goal-suggest a federation—are their policy and procedures adequate at each level. A federated governance model. Allows for dynamic.
HS-Data Administrator, they need policy and procedures to follow.
RB-Governance Organization should define who has access.
GM-Local vs central control. We need to move thru this over process. Everyone agrees to this. No denial.
JB-On what purpose are we want to provide access what is process on who what purpose. What qualifies you to have a purpose?
KK-What is cost who pays
LF-Transparency needed
GM-Need to cover costs

Leah will update this goal based on feedback.

Proposed Goal 2: Ensure funding, resources, and efforts for statewide initiatives covered by the HIT Strategic Plan are optimized. (Maheras)

Designate a State employee, i.e., the HIT Coordinator, to design a funding plan in coordination with the HSE. The funding plan should include a five-year projection on costs and identify specific activities to obtain resources to meet those costs. The funding plan should include optimization of federal funds (70/30 and 90/10, along with Grant resources) and other funding sources available. The funding plan should be updated at least twice a year. The funding plan should be approved by the new governance entity.

Discussion:

GM-Funding Plan: HSE Health Services Enterprise and new entity; funding source that everyone or individual buys. Not stagnant.
???-Grant funding from foundations should also be part of strategy, e.g., Robert Wood Johnson. State should take advantage of all resources.
GM-Federal funds do dry up.
RB- Would this HIT Coordinator to be responsible for charging for data. How does this person do this? Needs to be coordinated with data access.
JS-Other state consortiums (NESCO?) attempt to leverage technology and solutions; partnering will be needed.
JS-Approved is interesting in relation to funding
RB-Need for a Funding Plan
GM-More expanded scope will be developed later.
GM-Boston Fed reserve should be tapped as well.

Proposed Goal 3: Ensure public and private entities in Vermont are accountable for aspects of health information data privacy, security, confidentiality, and validity within their control. (Kuiper)

Proposed:

- Designate state expert in health care data privacy, security, and confidentiality laws.
 - Lead teams working on state HIT privacy, security, and confidentiality issues.

-
- Consult with HIT plan project directors to ensure plans are meeting state and federal privacy, confidentiality, and security rules.
 - Offer confidential consultations to in-state entities with questions on adherence to federal and state privacy, security, and confidentiality laws.
 - Define privacy, confidentiality, security, and validity in accordance with federal and state laws.
 - Implement reporting requirements to the state HIT governing entity for privacy, security, confidentiality, and validity concerns.
 - Define relevant entities within state control –state entities listed in Vermont Health Data Inventory.
 - All defined relevant entities including HIPAA defined “business associates” must report potential privacy, security, confidentiality, and validity concerns, both internal and external, to the state HIT governing entity.
 - HIT governing entity must report potential HIPAA violations to OCR and AG’s office. This does not preempt covered entities’ responsibilities to report.
 - Identify cause of issue.
 - Amend entity procedure to ensure it does not reoccur.
 - Implement steps to limit further distribution of confidential or invalid data.
 - Notify relevant individual/s if their confidential health information has been improperly shared.
 - Notify relevant entities if invalid data has been shared.
 - Ensure invalid data has been corrected. Implement procedures to correct invalid data in all stored locations when invalid data has been shared among entities.
 - Identify entities in Vermont receiving reports of HIT privacy, security, confidentiality, and validity issues.
 - Receive de-identified reports from these entities describing nature and frequency of issues reported.
 - Develop action plans to deal with any patterns that develop including advocating for more robust privacy, security, and confidentiality rules in Vermont.
 - Advocate for state laws to ensure business associates are held accountable for HIPAA level confidentiality and security compliance. (Covered entities are currently responsible for ensuring that their contracts with business associates require the business associate to comply with HIPAA.)
 - Release sample business associate agreement with required HIPAA language.
 - Release sample patient information release forms in plain language at reading level no higher than 7th grade.

Discussion:

DH-Is Validity the as QC data?

KK-Yes

GM-Share who is HIPPPA responsible in Vermont? No one or who is it?

KK-Person needs work with development of policy and procedure

Compliance Officer-Asst. AG is current lead

JB – Who?

GM-AG does not offer legal advice to private communities

LF- it is bigger than state government.

RB- a large portion of HIT data is coming from providers

GM-The responsibility is with the provider. If shared, then both have responsibility. Consultation piece is needed and work with AG and working with BAA.

RB-Biggest issue is ownership of data—accepting accountability for that data. In order to provide access to this data needs to get resolved.

KK- What is needed is ownership and stewardship.

JB-Need to define each of the terms in a Definition section.

KK-how do all the plays together, state may want a tighter definition?

GM-Question on reporting requirements depending on different entities. Different obligations. Office of Civil Rights, Fed may have taken over. Need to figure that out.

KK-under HIPPA, covered entities must report to OCR. OCR currently only look into violations that cover more than 500 people. State would never know. Trying to state accountability. OCR is said they may look at small number.

RB-could use technology to help with this.

GM-what do providers think about this. Meet intent of accountability.

KK-intended to revise 4th bullet. Group needs to decide what a violation is.

HS-Feds do care.

RB-Individual office might have a data breach. Many federal regulations around this. State guidance on this, but nothing in statute. Not superseding Feds, state does have an obligation. Need to augment. Need to define when a data breach occurs.

KK-Validity-good data

GM-what are other obligations influence this. What fed vs state requirements?

KK-We need to keep track incorrect data was shared. Bounced around. HIPPA is not okay.

RB-Glossary of terms are needed to make sure we are using same language. Common definitions.

Proposed Goal 5: Coordination role for those health data sources that are outside the HIT Plan. (Skeels)

In support of health care delivery system and payment reform the governance entity shall:

- Coordinate identified health data sources that are outside the HIT Plan, promoting utilization of national guidelines and standards.
- The committee or designee of the committee shall review and update the Vermont Health Data Inventory in odd numbered years.
- Publicize the online tool, Data Source Collection Portal for Vermont's Health Data Inventory Project to stakeholders.
- Make the Data Source Collection Portal interactive to take suggestions of other data sets to help the update process.

Discussion:

??: Need more public

??: Crowd source solutions

?? What do you mean by coordinate? Does it mean identify or get common language? Define coordination role.

HS: Future proof new data sets as they come up.

RB: When you assign roles to govern entity, is usually a decision not an action body. All these things need work. Where do we get resources to support this type of work?

GM: We are looking at a governance structure with multiple components. This falls into the Administrative bucket.

RB GB needs to decided what is in and what is not in Health Data Realm.

Terminology is a problem.

GM: Needs a clearinghouse/tracking function.

RB: Follow-up to bring in Governance Experts.

DH: Is there a distinction between Data and Policy?

RB: Split into policy and data segments. One of them is federated and the other may not be.

Make sure new things end up in same structure

Proposed Goal 6: Make the program operations more transparent and involve stakeholders. (Stern)

There is a considerable amount of mystery in current activities that causes unnecessary issues.

This impacts stakeholders so it should include them in some formal way.

Proposed:

- Identify Stakeholders – discuss their particular concerns, identify what is in it for them
- Determine Communication Plan – content, frequency, medium
- Identify and address any barriers to information sharing
- Establish framework for communication (multi-nodal)
- Identify Responsible Entity for driving Governance Communication

Discussion

GM- Mystery is HIT Plan, primary care folks, what is it am I doing –how do I play. Mystery about why is this happening.

RB-Key to identify who you are trying to message to. “We shared this” need to be deliberative.” Have to be cautious. Get users interested to point in which they want to participate.

JB-Same stakeholders in goal 1?

JS- Entities need to have communications plan/operation—identify how communication etc. does or does not happen.

Proposed Goal 8: Strategy for statewide governance and coordination. This includes within the state and between the state and others. (Boes) *NOT PRESENTED BUT DISCUSSED*

RB Draft Executive order—get copy of statement.

RB-Federated definition—different policy that apply to them only.

Coordinated policies that need to be imposed.

Have to adopt some sort of Federated model. Data ownership/stewardship. Where do we get this data? Who owns data sources?

Who uses it to make information?

What policies and procedures that they have already.

GM-National standards.

Refer to RB—4 functions.

RB-Split into governance group—decision making the other policy making.

Goals Not Discussed

Proposed Goal 6: Ensure that we implement the HIT Plan. (Liscinsky)

Proposed Goal 7: Designate an entity that has appropriate authority, accountability, and expertise to ensure the effective, efficient use of resources for public and private HIT/HIE efforts in support of health care and payment reform across the state of Vermont. (Barrett)

Proposed Goal: Increase accountability for programs/project covered by the HIT Strategic Plan. (Rueschemeyer)

Need a different level of accountability that is holistic.

Proposed Goal: Develop a consistent way to do strategic planning. (Evans)

This planning should be broad-based and support state health care system transformation activities. It should also provide a roadmap so all understand where we are going and how we will get there.

Presentation of Other State HIT Governance Structures/Questions

Rachel Block presented the results of her research on what other states are doing. She indicated no two states are doing it the same.

Presentation of Components of an HIT Governance Program

Rachel Block presented a proposed diagram and details of concept for all components of HIT Governance. She broke it down into four components:

HIT Governance Executive Leadership

Purpose

- Establish health data infrastructure that supports health care transformation for all Vermonters

Functions

- Strategy
- Policy
- Accountability,
- Sustainability
- Specific HIT Plan Activities
- Governance entity
- Coordination
- Overall strategy for telehealth and cross-state data sharing
- Stakeholder engagement
- Major policy issues (consent, mandates)

Data Management and Oversight/Technical Operations

Goal:

- Provide accountability and efficiencies for data use

Functions:

- Master data management/data standards
- Stewardship

Specific HIT Plan Activities:

- Master data management,
- Master person index (MPI)
- Management of consent and privacy/security operations,
- Data aggregation

Health Care Transformation

Goal

- Maximize benefits to health and health care through use of HIT

Functions

- Regulate or promote adoption and use;
- Includes clinician and consumer focus

Specific HIT Plan Activities

- Expand EHR adoption;
- Quality and payment reporting;
- Care coordination tools
- Data analytics

Finance and Sustainability

Goal

- Secure necessary funding to build and sustain HDI

Functions:

- Budgeting
- Cost allocation,
- Federal and state funding streams

Specific HIT Plan Activities

- Sustainable HIT business model

Administration and Support

Goal

- Ensure proper use of resources and progress towards goals

Functions

- Manage contracts, staffing, skill development, accountability measures

Next Steps/Assignments

Having run out of time, the next steps were to complete homework and refine the goals based on the discussion and presentations.

Hit Governance Planning Meeting Agenda

October 11, 2016 10:00-12:00

Montpelier

Members: Georgia Maheras, Susan Barrett, John Stern, Simone Rueschemeyer, Joel Benware, Tracy Upton, Heather Skeels, John K. Evans, Richard Boes, Leah Fullem, Joseph Liscinsky, Kaili Kuiper, Attorney, Julia Shaw. Staff: David Healy, Larry Sandage, Rachel Block, Richard Terricciano

Agenda

	Topic	Presenter	Time allotted
✓	Introductions	All	5 minutes
✓	Overview/Goals for Meeting	Georgia	5 minutes
✓	Homework Goal Assignments Presentation Round 2	All	45 minutes
✓	Refinement of Goals - Discussion	All	45 minutes
✓	Assignment of Teams	Georgia Leads	15 minutes
✓	Wrap up	Georgia	5 minutes

Meeting Notes:

Attending: Members: Georgia Maheras, Susan Barrett, John Stern, Simone Rueschemeyer, Joel Benware, Tracy Upton, Heather Skeels, John K. Evans, Richard Boes, Leah Fullem, Joseph Liscinsky, Kaili Kuiper, Attorney, Julia Shaw. Staff: David Healy, Larry Sandage, Rachel Block, Richard Terricciano

Overview/Meeting Goals

Homework Goal Assignments Presentations

HIT GOVERNANCE TRANSITION GOALS

DRAFT: 10.10.16

This is a draft document meant for discussion purposes. The goals are in bold with additional information about the goals in regular text below the goal itself.

Proposed Goal 1: Improve Access to Key Data Sources. (Fullem)

Vermont will improve access to key health data sources for patients and providers that provide valuable information to support the development of a high-performance health care system. Access to key data sources will be granted to stakeholders including state agencies, Accountable Care Organizations, Integrated Delivery Systems, provider organizations, researchers, the public, and any entity with a mission of improving health care access, costs, quality of care, and/ or patient experience for Vermonters. Access to information will be provided while maintaining appropriate privacy and confidentiality of patients, providers, and payer data.

The HIT Governance Entity should:

Create a centralized governance body that is responsible for reviewing and approving all requests for critical data from any source within the inventory of state-funded or state-owned data repositories.

- The charge of this group should be how can we APPROVE (NOT deny) access to the information while maintaining minimum-necessary requirements to maintain privacy and confidentiality, supported by clearly written principles, policies and procedures for each data source.
- Data Use agreements should be executed with each requestor, and existing state data use agreements with source systems (CMS, DHVA, Payers) should be modified to allow for sharing.
- Resources (such as programmer/analyst time) should be adequately funded at the state level in order to accommodate the timely delivery of requested data sets.
- Requestors should share results of analyses and use of data broadly in order to disseminate learning and improvement opportunities.
- Background: “The Vermont Health Care Innovation Project’s (VHCIP) 31-member Health Data Infrastructure (HDI) Work Group is responsible for providing funding and policy recommendations regarding the health information system and infrastructure necessary to support a high performing health care system. HDI’s activities support the development of clinical, claims, and survey data systems to support alternative payment models. VHCIP is making strategic investments in clinical data systems to allow for passive quality measurement – reducing provider burden while ensuring accountability for health care quality – and to support real-time decision-making for clinicians. VHCIP is also working to strengthen Vermont’s data infrastructure to support interoperability of claims and clinical data and predictive analytics.” (Data Inventory Report)

Proposed Goal 2: Ensure funding, resources, and efforts for statewide initiatives covered by the HIT Strategic Plan are optimized. (Maheras)

The Health Governance Organization shall have funded position, , i.e., the HIT Coordinator, whose function is to design a funding plan in coordination with the HSE. The funding plan should:

- Contain a five-year projection on costs and identify specific activities and partnerships to obtain resources to meet those costs including assessment of cost recovery methods.
- Optimization of federal funds (70/30 and 90/10, along with grant resources from foundations) and other possible funding sources.
- Should be updated at least twice a year.
- Should be approved by the new governance entity.

Proposed Health Governance Goal 3: Ensure public and private entities in Vermont are accountable for aspects of health information data privacy, security, confidentiality, and validity within their control. (Kuiper)

The Health Governance Entity shall: Designate a state expert in health care data privacy, security, and confidentiality laws.

- Lead teams working on state HIT privacy, security, and confidentiality issues.
- Consult with HIT plan project directors to ensure plans are meeting state and federal privacy, confidentiality, and security rules.
- Offer confidential consultations to in-state entities with questions on adherence to federal and state privacy, security, and confidentiality laws.
- Define privacy, confidentiality, security, and validity/quality in accordance with federal and state laws.

-
- Implement reporting requirements to the state HIT governance entity for privacy, security, confidentiality, and validity concerns.
 - Define relevant entities within state control – state entities listed in Vermont Health Data Inventory.
 - All defined relevant entities including HIPAA defined “business associates” must report potential privacy, security, confidentiality, and validity concerns, both internal and external, to the state HIT governing entity.
 - HIT governing entity must report potential HIPAA violations to OCR and AG’s office. This does not preempt covered entities’ responsibilities to report.
 - Identify cause of issue.
 - In order to provide access to data needs to get resolved - Data owners must accept accountability for that data.
 - Amend entity procedure to ensure it does not reoccur.
 - Implement steps to limit further distribution of confidential or invalid data.
 - Notify relevant individual/s if their confidential health information has been improperly shared.
 - Notify relevant entities if invalid data has been shared and notice when corrections have been made
 - Ensure invalid data has been corrected. Implement procedures to correct invalid data in all stored locations when invalid data has been shared among entities.
 - Identify entities in Vermont receiving reports of HIT privacy, security, confidentiality, and validity issues.
 - Receive de-identified reports from these entities describing nature and frequency of issues reported.
 - Develop action plans to deal with any patterns that develop including advocating for more robust privacy, security, and confidentiality rules in Vermont.
 - Advocate for state laws to ensure business associates are held accountable for HIPAA level confidentiality and security compliance. (Covered entities are currently responsible for ensuring that their contracts with business associates require the business associate to comply with HIPAA.)
 - Release sample business associate agreement with required HIPAA language.
 - Release sample patient information release forms in plain language at reading level no higher than 7th grade.
 - Good data verification tools should be identified and implemented prior to making data publically available.

Proposed Goal 5: Coordination role for those health data sources that are outside the HIT Plan. (Skeels)

In support of health care delivery system and payment reform the HIT Governance entity shall:

- Coordinate identified health data sources that are outside the HIT Plan by establishing a Health Data Clearinghouse
 - Promote utilization of national guidelines and standards.
 - Shall designate an entity that shall review and update the Vermont Health Data Inventory in odd numbered years.
 - Publicize the online tool, [Data Source Collection Portal](#) for Vermont’s Health Data Inventory Project to stakeholders.
 - Make the Data Source Collection Portal interactive to take suggestions of other data sets to help the update process.
 - Portal shall be improved as technology advances.
 - Enable crowd sourced information using same structure.
-

-
- Create common glossary of terms for broad adoption.

Proposed Goal 6: Make the HIT Governance program operations more transparent and involve stakeholders. (Stern)

- There is a considerable amount of mystery in current activities that causes unnecessary issues and impacts stakeholders. To improve this situation the HIT Governance entity should develop a program to engage stakeholders to participate continuously. This includes: Identification of Stakeholders – discuss their particular concerns, identify what is in it for them
- Determine communication plan – content, frequency, medium
- Identify and address any barriers to information sharing
- Establish framework for communication (multi-nodal)
- Identify Responsible Entity for driving Governance Communication
- Encourage robust discussion to foster inclusion
- Each Health Data organization needs to have a formal operational communications plan.

Goals Not Discussed Completely

Proposed Goal 8: Strategy for statewide governance and coordination. This includes within the state and between the state and others. (Boes)

Proposed Goal 6: Ensure that we implement the Vermont Health Information Technology Plan (VHITP) . (Liscinsky)

- Review transition plan and schedule developed for VHITP for short and long term initiatives
 - Align short and long term initiatives with efforts already in progress
- Determine on-going Communication Plan – for post GMCB-approval of VHITP
- Using last year's VHITP for a model, identify stakeholders for VHITP updates
- Identify feedback loop for VHITP review on periodic schedule (monthly/quarterly) to identify and address:
 - progress, roadblocks, risks/issues, staffing, and financials
- Strategically align the State Medicaid Health Information Technology Plan (SMHP) to the VHITP
 - Efforts for SMHP update are well underway
 - Work with Stakeholders for review of document and submittal to CMS

Proposed Goal 7: Designate an entity that has appropriate authority, accountability, and expertise to ensure the effective, efficient use of resources for public and private HIT/HIE efforts in support of health care and payment reform across the state of Vermont. (Barrett)

Proposed Goal 8: Increase accountability for programs/project covered by the HIT Strategic Plan. (Rueschemeyer)

Need a different level of accountability that is holistic.

Proposed Goal: Develop a consistent way to do strategic planning. (Evans)

This planning should be broad-based and support state health care system transformation activities. It should also provide a roadmap so all understand where we are going and how we will get there.

Statewide Planning Structure and Expected Outcomes

- Steering committee to oversee workgroup activities and provide final recommendations for the following (examples):
 - impact of national and Vermont environmental scans
 - data governance
 - data management
 - perform SWOT based on input from workgroups
 - final recommendations for the following:
 - roadmap for technology deployment based on statewide priorities for population health
 - technology gaps to be filled to meet analytics and related requirements
 - processes and metrics to be used to measure deployment and expected outcomes

- Technical workgroup to provide recommendations for the following (examples):
 - analyze results of a statewide technology readiness assessment
 - review current planning documentation developed by private and public sources for health information technical planning
 - develop a statewide technical architecture
 - develop priorities for technology investments
 - together with finance, healthcare reform and clinician workgroups develop expected outcome measures

- Privacy and Security workgroup to provide recommendations for the following (examples):
 - privacy best practices
 - security best practices and attainment of national ‘certification’ (ex: NIST)
 - approach to 42 CFR Part 2 data

- Finance workgroup to provide recommendations for the following (examples):
 - quantify cost of technology investments
 - identify and quantify cost of technology deployment ongoing costs
 - identify and quantify cost of sustaining technology costs
 - sustainability model/plan

- Health care reform workgroup to provide recommendations for the following (examples):
 - priorities for data use
 - priorities for data sources
 - priorities for data types
 - analytics needed to support population health activities

- Clinician workgroup to provide recommendations for the following (examples):
 - ways to improve workflow based on population health and other additional tasks/reporting
 - needs for health information technology adoption

- Patient workgroup to provide recommendations for the following (examples):
 - patient engagement
 - access to patient and clinical information
 - global opt-in consent policy

Key Inputs to Planning Process

- National environmental scan that identifies factors that are expected to occur nationally which could impact VT's healthcare system transformation (MACRA, MIPS, etc.)
- Vermont environmental scan that identifies factors that are expected to occur in Vermont and the region which could impact VT's healthcare system transformation (VCO, Blueprint for Health, VITL, etc..)
- Statewide Technology Readiness Assessment which identifies all of VT's providers and their technological ability to exchange data
- Engagement of stakeholders through interviews, surveys, etc. to assist with identification of needs and priorities for types of data, sources of data and uses of data

Rueschemeyer: Increase accountability for programs/project covered by the HIT Strategic Plan.

- Need a different level of accountability that is holistic.

Stern: Make the program operations more transparent and involve stakeholders.

- There is a considerable amount of mystery in current activities that causes unnecessary issues.
- This impacts stakeholders so it should include them in some formal way.

Evans: Develop a consistent way to do strategic planning.

- This planning should be broad-based and support state health care system transformation activities. It should also provide a roadmap so all understand where we are going and how we will get there.

Fuller: Improve access to key data sources.

- This is another area where state agencies and the private sector are requesting better access.

Maheras: Ensure funding, resources, and efforts for statewide initiatives covered by the HIT Strategic Plan are optimized.

Kuiper: Ensure entities (public and private entities) are accountable for aspects within their control.

- Ensure that we implement the HIT Plan.

Skeels: Coordination role for those health data sources that are outside the HIT Plan.

Barrett: Designate an entity that has appropriate authority, accountability, and expertise to ensure the effective, efficient use of resources for public and private HIT/HIE efforts in support of health care and payment reform across the state of Vermont.

Boes: Strategy for statewide governance and coordination. This includes within the state and between the state and others.

Presentation of Other State HIT Governance Structures/Questions

Rachel:

Presentation of Components of an HIT Governance Program

Refinement of Goals – Discussion

Next Steps/Assignments

Appendix D: Components of HIT Governance Power Point – Rachel Block



Components of HIT Governance For Discussion

Prepared for the
Governance Planning Committee
Health Data Infrastructure Work Group
Vermont Health Care Innovation Project

Rachel Block, HIT Consultant
August 30, 2016

Components of HIT Governance



HIT Governance Executive Leadership

Purpose

- Establish health data infrastructure that supports health care transformation for all Vermonters

Functions

- Strategy
- Policy
- Accountability,
- Sustainability

Specific HIT Plan Activities

- Governance entity
- Coordination
- Overall strategy for telehealth and cross-state data sharing
- Stakeholder engagement
- Major policy issues (consent, mandates)

Data Management and Oversight/Technical Operations

Goal:

- Provide accountability and efficiencies for data use

Functions:

- Master data management/data standards
- Stewardship

Specific HIT Plan Activities:

- Master data management,
- Master person index (MPI)
- Management of consent and privacy/security operations,
- Data aggregation

Health Care Transformation

Goal

- Maximize benefits to health and health care through use of HIT

Functions

- Regulate or promote adoption and use;
- Includes clinician and consumer focus

Specific HIT Plan Activities

- Expand EHR adoption;
- Quality and payment reporting;
- Care coordination tools
- Data analytics

Finance and Sustainability

Goal

- Secure necessary funding to build and sustain HDI

Functions:

- Budgeting
- Cost allocation,
- Federal and state funding streams

Specific HIT Plan Activities

- Sustainable HIT business model

Administration and Support

Goal

- Ensure proper use of resources and progress towards goals

Functions

- Manage contracts, staffing, skill development, accountability measures

Appendix E: Vermont Health Information Technology Plan, Presentation to GMCB

State of Vermont

Vermont Health Information Technology Plan (VHITP)

Green Mountain Care Board

March 17, 2016

Review of Project

Project Background

Vermont Statute: 18 V.S.A § 9351

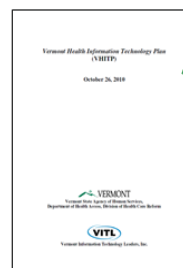
The HIT Plan shall:

- 1) support the **effective, efficient, statewide use of electronic health information** in patient care, health care policymaking, 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.**

Purpose of the VHITP

- Set high-level strategy and roadmap for the statewide electronic collection, storage, and exchange of clinical or service data in support of improved patient care, improved health of Vermonters, and lower growth in health care costs – consistent with the Triple Aim
- Provide direction for future projects, initiatives, and funding
- Serve as a framework for regulatory authority such as GMCB review of IT projects within the Certificate of Need process or to support HIE connectivity/interoperability criteria

We're Not Starting from Scratch...



The 2010 version is the latest version – with minor revisions in 2012 and 2014 related to HIE consent

- Significant Progress
- Adoption and Use of EHRs by providers
 - Connections to and development of HIE by VITL
 - Large and growing quantity of data in HIE
 - Significant attention to data quality and reliability
 - 2014 – beginnings of true exchange among providers – VITL Access
 - Other services around the corner

WHY HIT MATTERS

- “An improved ability to identify frequent ED users allows better targeting of case management and other services that can improve frequent ED users’ health and reduce their use of costly emergency medical services.” (Jason S. Shapiro, Sarah A. Johnson, John Angiolillo, William Fleischman, Arit Onyile, and Gilad Kuperman [Health Information Exchange Improves Identification Of Frequent Emergency Department Users](#) *Health Affairs*, 32, no.12 (2013):2193-2198).
- “Enabling physician access to more complete patient information is particularly relevant to the ED setting where longitudinal patient information from multiple providers is frequently not easily accessible due to a variety of patient and healthcare system factors. Patients present to the ED with urgent and unplanned health problems [5, 6] and often with fragmented care patterns [7, 8]. Health information exchange (HIE) systems facilitate the electronic sharing of patient level information among different providers in a community. Therefore, access to an HIE system could potentially avert unnecessary admissions from the ED by providing relevant clinical data, such as the presence of renal insufficiency or an electrocardiogram abnormality at baseline. This information could also potentially avert unnecessary admissions by providing access to lists of medications and problems as well as access to the medical opinions of previous physicians. (Vest JR, Kern LM, Campion TR Jr, Silver MD, Kaushal R. Association between use of a health information exchange system and hospital admissions. *Appl Clin Inf* 2014; 5: 219–231)



3
March 17, 2016



Data Now Driving Change



Smart choices. Powerful tools.

HSA Profile: Barre

Period: Jan. 2014 - Dec. 2014 Profile Type: Adults (18+ Years)

Diabetes: HbA1c Testing

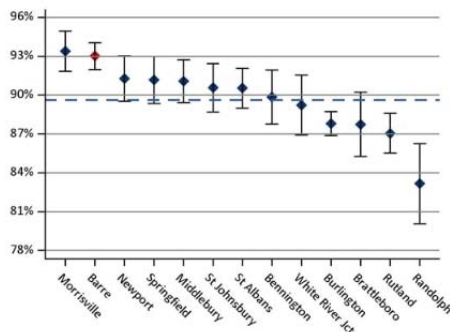


Figure 9: Presents the proportion, including 95% confidence intervals, of continuously enrolled members with diabetes, ages 18–75 years, that received a hemoglobin A1c test during the measurement year. The blue dashed line indicates the statewide average.

Diabetes: HbA1c Not in Control (Core-17, MSSP-27)

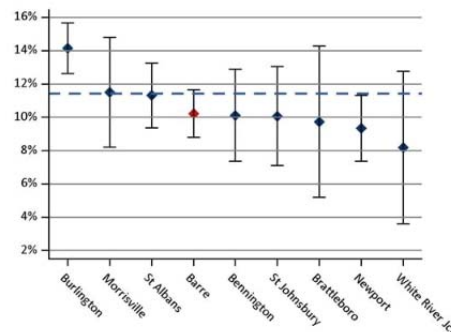


Figure 10: Presents the proportion, including 95% confidence intervals, of continuously enrolled members with diabetes, ages 18–75 years, whose last recorded hemoglobin A1c test in the DocSite clinical database was in poor control (>9%). Members with diabetes were identified using claims data. The denominator was then restricted to those with DocSite results for at least one hemoglobin A1c test during the measurement year. The blue dashed line indicates the statewide average.



4
March 17, 2016



VHITP Project Team

 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

Steve Maier (Chair)
 HIT Coordinator,
 Health Care Reform Manager
 DVHA

Jed Batchelder
 Independent Healthcare IT Consultant
 North Country Hospital

Joel Benware
 VP, IS and Compliance
 Northwest Medical Center

Richard Boes
 Commissioner,
 DII-State of VT

John Evans
 President/CEO
 VITL

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 Information & Data Director
 Dept. of Disabilities, Aging and Ind.
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Kelly Macnee
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 Green Mtn. Care Board

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Greg Robinson
 VP, Finance & Informatics
 One Care Vermont

Simone Rueschemeyer
 Executive Director
 Vermont Care Partners

Larry Sandage
 Program Manager
 VHIE

Heather Skeels
 Project Manager
 Bi-State Primary Care



Who Else is Involved in Project?

- ✓ Hospital Systems
- ✓ Providers
- ✓ Payers
- ✓ Mental Health and Substance Use
- ✓ Long Term Services & Supports (LTSS)
- ✓ Public Health
- ✓ VITL
- ✓ UVM Medical Center
- ✓ State Agencies
- ✓ ACOs
- ✓ Consumers
- ✓ Consumer Organizations
- ✓ Vermont Legislators
- ✓ Green Mountain Care Board
- ✓ Federal Agencies (CMS, ONC)



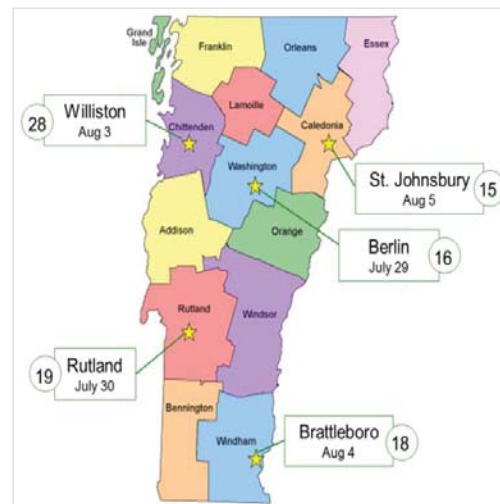
VHITP Update Process



Number of Active Participants

- 40 Stakeholder Interviews
- 96 participants in Envisioning Workshops
- 500+ survey respondents
- 18 participants in Capabilities Workshop
- 19 participants in Enablers Workshop

Envisioning Workshops



Vermont HIT Plan Objectives

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. People trust that health care data is secure, accurate, and current 2. Health care information can be appropriately and securely accessed by authorized people and providers 3. People have the information needed to make informed decisions about their care 4. Health care information is readily shareable across all provider organizations where people receive care 5. Integrated/Coordinated care is the norm 6. Consent for sharing physical health, mental health, substance use, and social services information is implemented consistently 7. High quality health care/services data are accessible and suitable for multiple uses 8. The cost of HIT/HIE is not a barrier to Vermont providers in implementing and using technology | <ol style="list-style-type: none"> 9. Health information sharing in Vermont is sustainable 10. Reporting processes are streamlined to assist providers in complying with mandated reporting requirements 11. There is statewide transparency and coordination of all appropriate HIT/HIE projects 12. Health care and health services information collected and maintained by State agencies is easily shared 13. People have expanded access to health care services and providers through technology 14. People can manage the sharing of their health care information 15. There is active data governance in place for health care/services data 16. Vermont easily and appropriately shares health care information beyond its borders |
|---|---|



Project Findings

- Vermont has a good vision for evolving to a more efficient health care system.
- Vermont has made significant progress in implementing health information technology (HIT) to support health reform and is viewed as a leader in that area, but there is more to do.
- Vermonters are engaged and passionate about using HIT to support health care reform.
- Vermont has leveraged State resources well for multiple federal grants and other funding to support HIT development.
- While there are many HIT-related projects and systems in the State, there is a lack of overall statewide governance/coordination.
- Vermont is making progress on the integration of physical health, mental health, substance use, and social services information, but there is still much work to do – including patient consent and data interoperability.
- There is a high level of stakeholder concern about Vermont's past/current investments in HIT/HIE with less than expected results.
- The Vermont Health Information Exchange (VHIE, currently operated by VITL) is dependent upon state and federal funding. The uncertainty around the availability of continued funding impacts the ability to make long term sustainable plans for the on-going operation and maintenance of the VHIE.



VHITP Initiatives – Overview

Fully implementing the VHITP Initiatives will:

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

VHITP Initiatives

Page 1 of 2

Statewide HIT/HIE Governance & Policy

- 01 – Establish (and run) comprehensive statewide HIT/HIE governance.
- 02 – Strengthen statewide HIT/HIE coordination.
- 03 – Establish and implement a statewide master data management program (data governance) for health, health care, and human services data.
- 04 – Develop and implement an approach for handling the identity of persons that can be used in multiple situations.
- 05 – Oversee and implement the State’s telehealth strategy.
- 06 – Provide bi-directional cross state border sharing of health care data.

Business, Process & Finance

- 07 – Continue to expand provider EHR and HIE adoption and use.
- 08 – Simplify State-required quality and value health care related reporting requirements and processes.
- 09 – Establish and implement a sustainability model for health information sharing.

Stakeholder Engagement & Participation

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

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

Technology

- 13 – Ensure VHIE connectivity and access to health and patient information for all appropriate entities and individuals.
- 14 – Enhance, expand, and provide access to statewide care coordination tools.
- 15 – Enhance statewide access to tools (analytics and reports) for the support of population health, outcomes, and value of health care services.
- 16 – Design and implement statewide consent management technology for sharing health care information.
- 17 – Provide a central point of access to aggregated health information where consumers can view, comment on, and update their personal health information.



Additional Recommendations

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

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



Summary of Public Comments

TOPIC	COMMENTS	RESPONSE
Level of Detail	Some said more; one said just right	High-level strategic plan; details come later through governance entity and annual updates
Flexibility	Plan should be flexible	We agree, and think it allows for flexibility
Governance	Agree it's needed; more detail; interim steps suggested	We agree; see Transition Plan
Outreach and Communication	Leadership and next steps weak	Added to Transition Plan
Consumer Advocacy	Should be more consulted/ included in the process	Were consulted in process; agree we should continue to do so; to define as part of Transition Plan
Patient Access to Records	Should allow for greater access	Basic access is allowed by law; technology and rules for full 2-way real-time communication not yet mature

Summary of Public Comments

TOPIC	COMMENTS	RESPONSE
Privacy & Security	Should have higher priority in Plan	Already a high priority and will continue to be so; no known problems today
VITL Access and Patient Consent for HIE Use	Roll-out and gathering of consents too slow	We agree, and have made some changes to more clearly call for an accelerated roll-out
VHCURES and Other Data Sets	Use of multiple data sets will be required, e.g., for new payment and delivery models	We agree, and have made some changes to more clearly address this issue
Funding Plan	Should consider add'l funding options, such fees and MMIS	We agree that all possible funding sources should be fully explored; key responsibility of governance entity
Analytics and Tools	Will be needed going forward (e.g., care coord., event notif.)	We agree and some progress has been made; specific choices and details to be part of governance entity;

Funding Summary and Assumptions

- Current State and Federal spending rate on HIT/ HIE is about \$10 million per year, or \$50 million over 5 years.
- The VHITP calls for new programs/ projects that would cost an additional roughly \$50 million over 5 years.
- The HIT Fund, which is a claims assessment, (scheduled to sunset 7/1/17) provides all State funds for HIT/ HIE.
 - 0.199 of one percent of all health insurance claims
 - Many current programs/ projects (including HIE staff, Blueprint, VITL, others) depend on HIT Fund to pull down federal funds.
 - Most of VHITP implementation will depend on HIT Fund extension or other State matching funds.
- Federal funding is through Medicaid Global Commitment and HITECH (several match rates and requirements).

Funding Amount and Approach

5-Year Estimates by Funding Source (millions)

	State HIT Funds	Federal Matching Funds	Other Funds	TOTAL
On-going operations	\$21	\$31		\$52
Proposed Development (with Implementation)	\$11	\$37	\$5	\$53

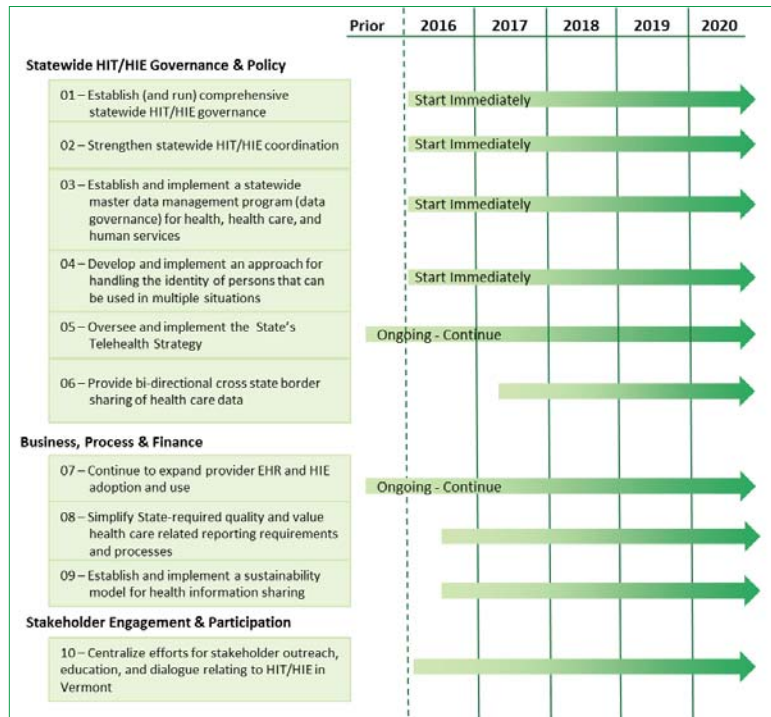
5-Year Estimates by Year (millions)

	2017	2018	2019	2020	2021	TOTAL
On-going operations	\$10	\$10	\$10	\$11	\$11	\$52M
Proposed Development (with Implementation)	\$10	\$12	\$12	\$12M	\$7M	53M

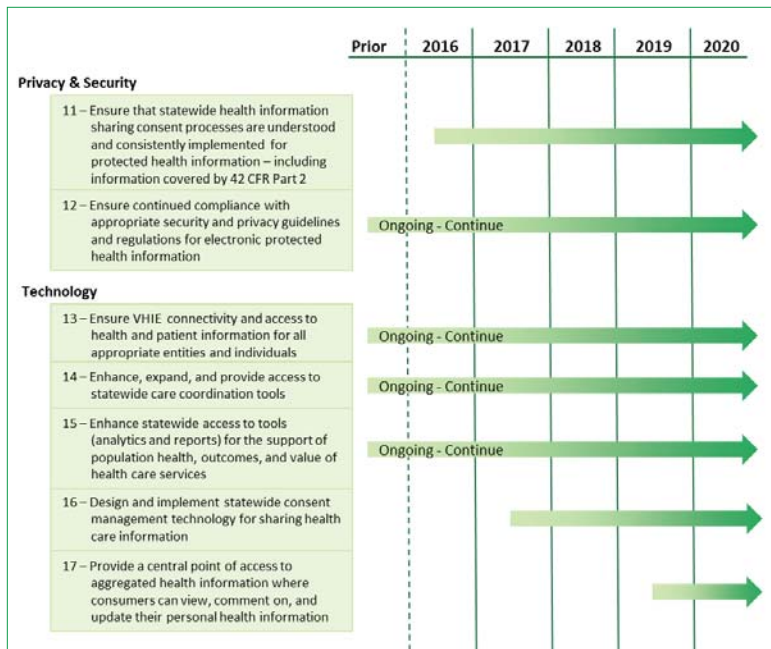
For all of the tables above:

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

Initiatives Timeline



Initiatives Timeline



Current Governance

- Statutory Authority for the HIT Plan and the HIT Fund reside with the Secretary of Administration. This is delegated to DVHA.
- During transition period AOA and the Governor's Office would lead the transition planning team (using staff at AOA and DVHA).
- Transition team would include State and private sector representatives.

Transition Plan – Months 1- 4

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 plan for stakeholder communication and engagement; incorporate providers and consumer advocates as appropriate.	Governor's Office to: <ul style="list-style-type: none"> • Identify executive leadership, staff leads, roles, and responsibilities. • Set up stakeholder committee to support the interim governance structure.
Begin the work to establish a permanent HIT governance entity. (<i>Initiatives #1,2,3,10</i>)	New entity identified and operational by 1/1/2017. Address range of responsibilities, including authority, staffing and resource requirements, oversight, coordination, and outreach functions.	Governor's Office Agency of Administration
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.	TBD by Interim Governance Structure.

Transition Plan – Months 5 - 8

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.	TBD by Interim Governance Structure.
Begin to identify funding needs and sources to accomplish tasks contained within the VHITP.	High level plan for obtaining resources, including recommendations to the Secretary of Administration and next Administration for SFY18.	TBD by Interim Governance Structure.

Transition Plan – Months 9 - 12

Action/Activity	Milestone	Responsibility
Finalize recommendations related to governance entity and resources.	Members identified, roles and responsibilities documented, meeting held, support resources identified. Recommendation regarding governance entity made to new Administration.	Governor's Office Agency of Administration
Explore Master Data Management function (<i>Initiative #3</i>)	First meeting held, roles, responsibilities, and high-level budget and schedule defined.	TBD by Interim Governance Structure.
Begin work on Consent Management Initiative (<i>Initiative # 11</i>)	Project team identified.	TBD by Interim Governance Structure.
Begin process of annual review and update of VHITP.		TBD by Interim Governance Structure.

Appendix F: Data Governance Charter, Green Mountain Care Board

State of Vermont



**Green Mountain Care Board
Data Governance Charter**

Version 1.4
February 3, 2015

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Document Version History			
Version	Date	Author	Comments
1.0	11/3/14	Peter Alfrey BerryDunn	Initial version, based on several workgroup meetings, includes data governance definition and implementation sections.
1.1	12/2/14	David Regan BerryDunn	Incorporated comments from S. Murdock and revisions discussed on Dec. 2, 2014 meeting with S. Murdock, C. Leadbetter, and D. Regan.
1.2	1/13/15	Stacey Murdock GMCB	Revised following December 16, 2014 Council meeting including Workgroup's scope of work. Also added Advisory Committee section for discussion.
1.3	2/3/15	Dian Kahn GMCB	Deleted section 5.3.3 VHCURES Implementation Special Workgroup due to the suspension of the VHCURES 2.0 procurements. Renumbered the following section as 5.4 and revised this section to describe the purpose, responsibilities, and activities of the Data Advisory Committee.
1.4	2/3/15	David Regan BerryDunn	Reduced scope of proposed Section 5 with regard to workgroups, which can be described in a separate document.

1 Background

The Green Mountain Care Board (GMCB) is the steward of several data resources for the State of Vermont, including the Vermont Health Care Uniform Reporting and Evaluation System (VHCURES) and the Vermont Uniform Hospital Discharge Data Set (VUHDDS). These data resources support a number of State responsibilities and activities in health care regulation, evaluation, and innovation. Vermont law (18 V.S.A. § 9410) also specifies that, to the extent allowed by the Health Insurance Portability and Accountability Act (HIPAA), information from VHCURES is to be made available to a broader public to the extent permissible under federal and state laws addressing privacy of personal and economic information.

The GMCB has created a Data Governance Council (hereafter referred to as the Council) that consists of key staff with the authority to execute on decisions and assign resources to identified and prioritized work items. This document serves to describe some of the basic approaches that the Council will employ as it supports data governance at the GMCB. In implementing data governance, the Council will make use of existing staff that have been performing many of these functions for several years, and who are highly knowledgeable about a broad spectrum of management aspects from data quality to analytics and policy considerations. The Council will also leverage existing processes and documentation (e.g., VHCURES data use agreements, policies and procedures, file specifications) in furthering data governance practices at the GMCB.

This charter and the data governance efforts at GMCB will initially focus on the VHCURES data resource. It is expected that in the future, practices similar to those used for governing VHCURES will be applied to additional data resources at the GMCB, including VUHDDS.

2 Purpose

The GMCB is the steward of VHCURES and several other important data resources. In this role, the GMCB is responsible for a broad set of data management concerns. While not intended as an all-encompassing inventory, these concerns can generally be attributed to the following four categories:

- Data quality—Establishing data stewardship to monitor the quality of VHCURES and other data resources
- Risk—Ensuring best practices with regards to data privacy and security
- Finance—Ensuring the financial sustainability of VHCURES by evaluating expenditures and potential revenues
- Data Release—Supporting clear processes for the evaluation of data requests and the release of data to State and non-State research entities

By implementing data governance, the GMCB intends to address each of these four major areas of data management for VHCURES and other data resources. Additionally, the GMCB intends to increase mutual trust both within the agency and across other State agencies with a stake in GMCB health data resources (e.g., the Vermont Agency of Human Services, the Department of Vermont Health Access).

Data governance is also intended to help identify and formalize clear procedures for data resource management. In general, these procedures are based on agency policies, which are in turn based on agency and State principles. Many procedures related to certain aspects of data management already exist at the GMCB and are well documented. Most notably among these documents are the drafts of the Data Submission Guide and the Health Data Protection and Disclosure Guide. Neither this charter nor any other singular document is intended to provide an inventory of all the procedures that will be involved in governing the GMCB's data resources. It is anticipated that as new procedures are developed through the data governance process, modifications to this charter and other existing documentation will be required, and additional documentation may also need to be created.

3 Components of Governance

3.1 Defining Data Governance

Data governance is often an ambiguous topic, and multiple definitions exist of both the term and the concepts that the term represents¹. The lack of a universal and detailed definition derives in part from the fact that the characteristics of organizations that use data and large-scale data systems show a tremendous amount of variation. Some experts have, however, suggested the following as a broad definition: “data governance is the organization and implementation of policies, procedures, structures, roles, and responsibilities which outline and enforce rules of engagement, decision rights, and accountabilities for the effective management of information assets.”² While this definition certainly pertains to the utility of data governance at the GMCB, the agency has additional considerations with respect to the management of a data consolidation vendor; oversight of data quality checks and improvement; administration of technical specifications and data use agreements; alignment of analytic efforts with State objectives and policy needs; and increasing the utility of maturing data resources. There are many more additional considerations to be taken into account when adapting the definition of data governance at the GMCB.

At a minimum, data governance at the GMCB is intended to be the organization of the agency's approach to the implementation of the Board's policies in managing VHCURES and other data resources, including vendor management, data quality oversight, data release, and analytic agendas. This definition is provided with the understanding that a formalized approach to data governance at the GMCB is currently in its early stages, and will need to be adjusted and elaborated as the program matures.

3.2 Data Governance Goals

The goals of data governance for VHCURES and other data resources will include:

- Managing and mitigating privacy and security risks
- Monitoring and improving the quality of the VHCURES data
- Establishing data release policies and procedures for State and non-State research entities
- Aligning data resource management, analytic agendas, and policy initiatives at the agency and the State
- Improving the financial sustainability of VHCURES and other data resources

¹ Alex Berson and Larry Dubov. *Master Data Management and Data Governance*. McGraw Hill. 2011. pp 400.

² Ladley, John. *Data Governance*.

3.3 Expected Results

Through the work of the Council and the prioritized work items, the following results are expected:

- Continued refinement of existing data release policies to ensure the safeguarding of protected health information and compliance with federal data security standards
- Creation of well-defined stewardship roles within the Council and with select members of the GMCB and GMCB staff members
- Development and implementation of data governance and stewardship processes
- Establishment of collaborative and transparent processes with the data consolidation vendor and analytic researchers
- Establishment of regular meetings of the Council and adherence to Vermont Open Meeting Law
- A documented quality assurance process with the VHCURES vendor, including provisions to engage payers in the data validation
- Periodic evaluation of the GMCB's ability to respond to State and non-State data requests as part of continuous improvement efforts

3.4 Implementation

The extent to which organizations may choose implement data governance practices varies widely, with most implementations being non-comprehensive.³ This does not imply that any one organization's implementation is incomplete or inadequate, and in fact may often be the result of adapting the scale of data governance to true organizational needs.

Many different frameworks for data governance are described in relevant literature. A framework can be considered the definition of roles, responsibilities, and processes of a data governance team.⁴ Very comprehensive frameworks may be considered appropriate for organizations that produce large volumes of data, manage and warehouse data internally, conduct analytics and interpretation internally, and modify internal business processes based on analytic results. These comprehensive frameworks may also require substantial resources to implement effectively, and many data-centric organizations have encountered difficulties in achieving effective results from complex data governance frameworks. Consequently, many organizations have adopted an agile approach to data governance, which borrows the term from agile software development practices that have proliferated since the early 2000s.⁵

³ Alex Berson and Larry Dubov. *Master Data Management and Data Governance*. McGraw Hill. 2011. pp 401.

⁴ Martha Dember, "7 Stages for Effective Data Governance," <http://www.architectureandgovernance.com>. Retrieved 11 July 2014.

⁵ "Agile Software Development," www.wikipedia.org. Retrieved 11 July 2014.

In general the goal of agile data governance is to allow organizations to address data management initiatives in increments that are sized according to the specific organization's available resources and rate of project execution. This approach helps to ensure that individual and specific governance results are achieved in the short-term, simultaneously contributing to advances in long-term objectives. The GMCB has adopted agile processes in their approach to data governance, many of which are described further in subsequent sections of this charter.

3.5 Measurement

Measurement of data governance success will be established and reviewed by the Council to ensure there is alignment with data governance principles, policies, and procedures (e.g., the Council intends to establish metrics that answer whether the data governance initiatives at the GMCB can achieve financial sustainability for VHCURES through effective data stewardship). Factors that may contribute to establishing measurements that describe data governance success may include:

- Realization of data governance results as identified above
- Acceptable timeframes associated with taking governance initiatives from 'active' status to 'substantially complete'
- Quantifiable increases in data quality and data resource utility
- Increased availability of organizational resources in conjunction with improved organization of data management procedures

The Council will work on an ongoing basis to refine a set of program metrics for reporting to measure the success of the GMCB's data governance program, as well as the timing and delivery method of metrics and reporting.

4 Agile Methodology

The agile approach for data governance is derived from agile software development methodologies, which were developed in response to the known shortcomings of comprehensive, process-oriented development methods. The overarching intent of the agile approach is to deliver completed work items that have resulted in significant gain and benefit to the GMCB or its data resources, while simultaneously maintaining a robust and prioritized inventory of the work items that the Council may choose to address depending on resource availability, typically referred to in agile methodology as a “backlog”. The backlog of work items will be maintained on SharePoint, which will be reviewed regularly by the Council. Depending on resource availability, typically only the highest priority item will be addressed at any one time. This review will allow the full attention of the assigned resources to that task in order to ensure it is completed in as timely a manner as possible. The agile approach for data governance at the GMCB will also take into account that the priorities of the GMCB can change over time, and actions supporting data governance at the GMCB can change and be re-prioritized accordingly.

The following steps should be adopted by the Council to continue organizing work specific to data governance:

- Organize the current priorities for data governance and the items that will be placed in a backlog of activities
- Between Council meetings GMCB staff will review and revise the backlog keeping Council Members informed about the contents of the backlog.
- At each Council meeting, time permitting, review current data governance activities and how each project is tracking, and review future activities that are part of the backlog to determine an appropriate priority level.
- Clarify the requirements and resources required for current priorities for data governance, as selected by the Council
 - Determine the individuals or workgroup(s) to support the current priorities
 - Estimate the resource commitment involved for each priority
 - Determine how success for each priority will be measured
 - Track progress on each activity through the use of SharePoint
- At Council meetings, discuss and assess how the agile approach is progressing and where improvements can be made

5 Organizational Framework

5.1 Board Sponsorship and Vermont Open Meeting Law

On September 4, 2014, the Board approved the development of a data governance program and the formation of the Council to implement the program. With this approval, the Council will act as a public body within the definition of Vermont Open Meeting Law, since it is a committee of the Board. All meetings of the Council will comply with the Open Meeting Law requirements and will be open to the public. To meet additional requirements, the Council will ensure:

- Public announcement of all meetings. The schedule of meetings (with details on meeting date, time and location, etc.) is made available to the public on the GMCB and Vermont Department of Libraries websites
- The Open Meeting Law requires that any gathering of a quorum of the voting members of the Council, for the purpose of discussing the business of the Council or taking action, must be held as an open meeting, with notice given to the public
- In general, the same procedures that guide how internal communications are conducted with the Board are relevant to the voting members of the Data Governance Council
- Agendas are posted 48 hours in advance for all meetings
- Special meetings of the Council will be announced at least 24 hours before the meeting
- To the extent possible, the meeting agenda will indicate if the Council will be voting on a particular topic
- Minutes taken at meetings are made available five days after each meeting
- Public comment (subject to reasonable rules, 1 V.S.A. § 312(h)) is made available at each meeting
- Responses are made in a timely manner when there is an allegation of violation of the law. 1 V.S.A. § 314(b)
- Documents created by and for the Council should be marked “For Discussion Only” while the document is being developed, or if the intent of the document is solely to support a discussion during a Council meeting. As the document approaches a draft for review by the Council, it should then be marked as “Draft”. Documents that are final should not contain either of the aforementioned watermarks.
- Only final versions of documents are posted to the GMCB website. Other documents may be made available to the public upon request.
- Working documents created for discussion by the Council will be maintained according to the Green Mountain Care Board records retention schedule.

The Council can assign work to its members or individuals outside its membership, which can be conducted outside of a public meeting, just as the Board assigns work to its staff. Vermont Open Meeting Law applies to the Council’s meetings, but not to all of its work.

5.2 Roles and Responsibilities

The voting membership of the Council will be comprised of three distinct roles.

1. **Council Chair:** The Chair of the Council is responsible for overseeing the data governance work between Council meetings, for managing the meeting, and facilitating decision making of the Council. The role of the chair will be held by the Executive Director of the GMCB.
2. **Council Members from the Board:** The Council will include Board members in its membership. Their role is to provide the perspective of the board and to communicate with other board members about the work of the Council.
3. **Council Members from the Staff:** The Council will include executive-level staff members to provide a high level perspective on the alignment of data management activities with the business initiatives of the GMCB to support the Council in decision-making.

Non-voting members of the Council will participate in Workgroups and Council meetings providing the Council with information related to their respective areas of expertise. Non-voting members will include GMCB General Counsel and staff members who have data management or analysis roles in the Agency.

The membership of the Council approved by the GMCB on September 4, 2014 is summarized in the following table:

Voting members	Non-voting members
Ena Backus	Mike Donofrio
Susan Barrett (Chair)	Dian Kahn
Mike Davis	Stacey Murdock
Betty Rambur	Zach Sullivan
Allan Ramsay	

Review of the membership (both voting and non-voting members) of the Council will be conducted on an ongoing basis, and when necessary, changes to the composition of voting and non-voting membership will be made to support the objectives of the Council.

5.3 Workgroups

In addition to the membership of the Council, workgroups may be created to support GMCB data governance activities. Standing workgroups may guide a particular area of data governance (e.g., Data Quality or Data Release) and special workgroups may be assigned a specific role over an expected timeframe. Workgroups are not intended as policy-making bodies but will inform the Data Governance Council on matters related to the management of the GMCB's information resources. To ensure proper administration, each workgroup should have a

lead member responsible for scheduling, planning, facilitating workgroup meetings, and reporting to the Data Governance Council as needed.

Appendix G: Data Governance 7ci bW5Wcb D`U! Department of Innovation and Information





VT Data Governance Council Action Plan

2016

Prepared By: Casey Cleary, Information Architect
Prepared For: John Hunt, Chief Technology Officer

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Document History

Version	Date	Author(s)	Revision Notes
DRAFT 1	2/22/2016	Casey Cleary, Information Architect - DII	1 st draft

Executive Summary

In 2016, governments, like many complex organizations, stand at a crossroads. Technology has never been more essential to the core operations of organizations. Technology facilitates communications – both internal and with external customers and stakeholders. It collects, houses, and allows access to data that informs decision making, best practice, and organizational transparency. Arguably the most important, technology facilitates and supports modern government.

Useful technology is often simple and intuitive. It is easily understandable, easy to learn and use, and easy for people at all levels of technical proficiency to interact with. As important, it is easy to see the value that the technology brings to a task or operation by adding value, increasing access, enhancing transparency, or using a variety of other measures. This all could be said for the information or data that is being either consumed or generated by the above stated technology.

The Report of the Special Committee acknowledged the importance and need of data in the state by suggesting:

“Create a position of Chief Data Officer responsible to ensure that every unit of State government embraces data as central to operations and decision making and defines “open standards” between government entities and acceptable private sector access to the data.”

IT is central to how employees do their work, how leaders make decisions, how information is made available to the public, and the core data upon which to conduct research and inform evidence based practice and drive data-driven decision making to improve outcomes for all Vermonters¹.

Per the State of Vermont IT Strategic Plan 2015-2019, given the alignment of IT infrastructure and statewide services, the state of Vermont will be positioned for better productivity throughout government. This alignment occurs through thoughtful application of enterprise architecture (EA) and project management principles under the umbrella of Data and Application governance. Done properly, EA drives digital transformation based on the needs and business drivers of the business².

DII uses eight key principles in designing, reviewing and prioritizing work.

1. Leverage successes of others, learning best practices from outside Vermont
2. Leverage shared services and cloud-based IT, taking advantage of IT economies of scale
3. Adapt the Vermont workforce to the evolving needs of state government
4. Apply enterprise architecture principles to drive digital transformation based on business needs
5. Couple IT with business process optimization, to improve overall productivity and customer service
6. Optimize IT investments via sound Project Management
7. Manage data commensurate with risk
8. Incorporate metrics to measure outcomes

¹ Report of the Special Committee on the Utilization of Information Technology in Government Presented to Vermont General Assembly pursuant to 32 V.S.A. §315 Sec. 3 January 15, 2016

² State of Vermont IT Strategic Plan 2015-2019 Information Enabling State Government January 2015

The Action Plan includes:

- A clear vision statement and specific goals designed to help guide the future use and deployment of data governance policies and procedures in State government.
- Identified data needs and opportunities within State government.
- Recommended actions designed to help the State move toward implementation of the vision and goals outlined in this Action Plan.
- Who to engage, when, and with what material.
- Create a business case for the creation of the Vermont Data Governance Council.
- Create, finalize, and publish a Vermont Data Governance Council Charter.
- Create a SharePoint Framework for Data Governance repository and possible workflow.
- Create a Project Plan/WBS to highlight and communicate what activities are considered Day 1 critical path.

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Methodology

This Action plan for the State's Data Governance Council was crafted by using existing structures found in state government such as those from the Green Mountain Care Board and the VCGI Enterprise GIS Consortium and abstracted out any program specific documentation and/or processes. This was done to provide a generalized template for the State Data Governance Council to use during the initiation period

- **GMCB Data Governance Council Charter**
- **VCGI Enterprise GIS Consortium Charter**
- **VCGI VT GIS Action Plan - 2016**

On October 15th, 2015, an initial meeting was held to discuss the possibility of creating and executing a State-Wide data governance council. In attendance of the first meeting was a cross-functional representation of all aspects of state government that deal with data. The goal of this meeting and the preceding informal information gathering interviews with key data stakeholders from across state government is to obtain a snapshot of what it out there across the state in regards to data- structured vs. unstructured, who owns it, how mature is the governance process around it, has it had VASARA TAP analysis performed on it, what is the perceived quality, what are its upstream and downstream users, where does "the golden record" live, etc....

A separate workgroup should be formed to address the above question and perform a data inventory of what information is being used across the state. This work will be an input into the State wide data governance councils initial focus and help define the box and scope in which the council will work within versus what should be passed down to the department and agency level.

Action Items for the successful implementation of Data Governance Council:

1. Identify Data Governance Council Members and Key stakeholders
2. Create a value statement for the Council and data governance as a whole
3. Establish goals and success metrics
4. Develop a roadmap on how to meet established goals
5. Acquire support and buy-in from key stakeholders
6. Design a state-wide data governance program that supports meeting the established goals
7. Implement state-wide data governance program administered and managed by Data Governance Council to include the creation of processes involved with governing data
8. Execute on processes involved in monitoring, measuring, and reporting status of data, programs, and projects occurring throughout the state
9. Establish regular Data Governance Council Meetings to ensure the on-going success of the state wide data governance program

Action Items for the successful creation of Data Governance Program:

1. Meet with identified data champions throughout the state to obtain thorough cross section of current or intended data governance practices
2. Gather information on from identified data champions on short and long term goals, current and planned initiatives, and any other activities related to data governance

3. Consolidate best practices found and documented through steps 1 and 2 and abstract out any specificities around agency, department, or initiative
4. Combine abstracted internal best practices with external industry standards and best practices to create state wide data governance program that is agency, department, initiative, and technology agnostic
5. Once high level principals, policies, and mandates are identified, drill down to create processes that provide the Data Governance Council the ability to administer, manage, and support each identified principal, policy, and mandate
6. Identify success metrics for each process to ensure compliance and outcomes are measurable and communicable
7. Dovetail into above Action Item List for the creation of Data Governance Council (step 6)
8. Through the implementation and execution of state wide Data Governance Program and Council, evolve established policies and mandates to ensure current applicability to business, political, and legislative needs

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Vision & Goals

Vision Statement: to create, maintain, and ensure the longevity of a State Wide Data Governance Council to create, modify, administer, and assist in the outreach, education, and implementation of common industry standards, best practice, and necessary data governance policies, roles, and activities state wide that are tangible, actionable and measurable.

Goals

- Promote transparency in government and an engaged constituency through improved and enhanced citizen services.
- Provide common and authoritative datasets and services to be shared across agencies, business systems, and all stakeholders inside and outside of state government.
- Empower an efficient and effective workforce by improving and enhancing departmental workflows.
- Support effective cross-departmental information sharing and collaboration.
- Promotes quality and consistency through standardization.
- Implement an agile and standards-based approach for the configuration and provisioning of software applications and information products.
- Establish and maintain a robust State Data governance structure.
- Improve decision making inside and outside of state government.
- Understand Vermonters (single view of citizen)
- Improve overall data quality
- Acquire and utilize citizen insight
- Comply with Regulations
- Reduce data management costs
- Build standard, repeatable data governance processes
- Reduce costs and increase effectiveness through coordination of efforts
- Ensure transparency of data governance processes.

Common Data Governance Needs & Recommended Actions

The Information Architect used the most common themes that arose through the initial round of information gathering through informal interviews with cross-functional data stakeholders.

Need #1: Authoritative Data & Web Services

VTDGC Recommendation #1: Establish a data governance structure to steer the creation, management, and dissemination of “authoritative” datasets and web services. Create and maintain a central data portal where State employees and the public can use to find “authoritative” datasets and web services which they are authorized to access. This will facilitate sharing and collaboration, reduce redundancy and duplication of effort while fostering better decision making through the use of common “authoritative” dataset and web services.

VTDGC Action Item #1:

1. Establish the VTDGC as the State’s data governance body responsible for establishing policies and standards regarding the creation, management, and dissemination of “authoritative dataset” and “authoritative web service”. Dovetail this with other agency’s efforts to foster and support better data governance throughout State government.
2. Develop policies and standards which guide the creation, management, and dissemination of “authoritative dataset” and “authoritative web service”.
3. Define the terms “authoritative dataset” and “authoritative web service”.
4. Craft a "VT Data Management Plan" that identifies authoritative datasets and web services and the "stewards" of those datasets/services.
5. Establish a mechanism for tagging authoritative dataset and web services within VT’s Open Data Portal to promote discovery and use.

Need #2: Enhancing Data & Information Sharing

VTDC Recommendation #2: The VTDGC believes that the existing Socrata platform can help facilitate information sharing. However, it is important to recognize that there are other software solutions available to support information sharing. Software isn’t the only barrier to sharing; institutional “culture” is often the greatest barrier within State government. This is a long-term challenge that requires long-term institutional support to establish and maintain a culture where information sharing is expected and demanded.

VTDC Action Item #2:

1. Develop and promote common data and metadata naming standards within State government in order to simplify data and information sharing.
2. Develop guidelines for information and data sharing between agencies and departments within State government.
3. Implement Recommendations and Action Steps outlined under Need #1, #4, and #6.

Need #3: Open Access to Geospatial, Health and Human Service Data

VTDGC Recommendation #3: The VTDGC believes that some of the State’s datasets and services should be openly available via a central VT Open Data Portal. The VTDGC believes that agencies should be allowed to create their own Open Data Portals, however, they must be required to follow standards and must “federate” with the State’s central VT Open Data Portal.

VTDGC Action Item #3:

1. Establish and implement VT Open Data Portal policies and standards.
2. Build a “federated” VT Open Data Portal, Socrata, and populate it with datasets and web services which they manage.

Need #4: State Wide Data Governance

VTDGC Recommendation #4: The VTDGC believes that the State of Vermont needs to create a data governance structure designed to support the creation, management, and dissemination of “authoritative datasets”. Currently there are cases, where there are multiple agencies maintaining duplicate and inconsistent data due to the lack of proper data governance and oversight.

VTDGC Action Item #4:

1. Refer to the recommendations under VTDGC Action Item #1.

Need #5: Develop a strong Data-Driven Workforce

VTDGC Recommendation #5: The State will be unable to leverage the full benefits of data governance without a strong data-driven workforce. The State’s data professionals and users need to stay current on the latest data methods, trends, and capabilities. The VTDGC believes that a coordinated data-driven workforce development plan would benefit the state by improving efficiency, access, and identify areas where additional training resources need to be offered. However, the VTDGC also believes that agencies and departments should retain the freedom to develop their own individual plans, while identifying training elements which they can coordinate with other agencies via the VTDGC.

VTDGC Action Item #5:

1. Develop and implement a coordinated State Data-Driven Workforce Development Plan to include and define key roles such as data stewards, records officers, and data analysts/models.

Need #6: VTDGC's Roles, Responsibilities, and Resources

VTDGC Recommendation #6: Both the Report of the Special Committee on the Utilization of Information Technology in Government and DII's IT Strategic Plan 2015 – 2019 clear state the need for and role of data governance as a key lynchpin in the continued strategy of information enabling state government. Now the State needs to review and possibly modify or create VTDGC-specific roles and responsibilities. The State also needs to determine if VTDGC is adequately resourced to fulfill its obligations.

VTDGC Action Item #6:

1. Evaluate VTDGC's current roles, responsibilities, and authority. Contrast this to the needs of the VT Data Community. Recommend modifications, as needed, that would help align VTDGC's roles, responsibilities, and authority with the needs of the VT Data Community.
2. Evaluate VTDGC's proposed resource levels (staff and equipment) in light of its responsibilities, and identify any recommended changes.

Need #7: Governance of Vermont's Information and Data

VDGC Recommendation #7: The State of Vermont currently lacks a clear Data Governance structure with clearly defined roles, responsibilities, and authority. The VTDGC believes that the State of Vermont needs to establish a clearly defined State Data Governance framework with clearly defined roles, responsibilities, and authority to influence the use and deployment of data resources in the State of Vermont to maximize the efficient and effective use of this technology.

VTDGC Action Item #7:

1. Establish, Vermont's Data Governance Council as the State's Data and Information steering committee and governing body with the following structure and responsibilities
 - a. Membership structure:
 - i. Voting Members: State government representatives (Executive branch)
 - ii. Non-voting Members: RPC representatives, Municipal representatives, private sector representatives.
 - b. Authority and responsibility to establish and maintain State Data policies, standards, and guidelines.
 - c. Authority and responsibility to steer and advise DII and State agencies regarding their use, deployment, and maintenance of geospatial technology and data.

Attachment A – EGC Member Directory

To Be Updated

VT Center for Geospaitial Information (VCGI)	Steve Sharp	1 National Life Dr. Montpelier, VT 05620	Steve.sharp@vermont.gov	
VT Agency of Commerce and Community Development	David Metraux	1 National Life Dr. Montpelier, VT 05620	david.metraux@vermont.gov	
VT Agency of Human Services	Craig Benson	208 Hurricane Lane, Williston Vt	Craig.benson@vermont.gov	
VT Agency of Natural Resources	Peter Telep	1 National Life Dr., Davis Building, 6th Floor Montpelier, VT 05620-0501	peter.telep@vermont.gov	
VT Agency of Transportation	June Burr	1 National Life Dr., Davis Building, 6th Floor Montpelier, VT 05620-0501	June.burr@vermont.gov	
VASARA	Tanya Marshall	Middlesex, VT	Tanya.marshall@vermont.gov	
Green Mountain Care Board – Data Governance Council	Rogger Tubby	Montpelier, VT	Roger.tubby@vermont.gov	
VT Department of Information and Innovation	Casey Cleary	133 State Street 5th Floor Montpelier, VT 05633	Casey.cleary@vermont.gov	
Agency of Education	Brian Townsend	????	Brian.townsend@vermont.gov	
VT Human Resources	Harold Schwartz	????	Harold.schwartz@vermont.gov	
VT Chief Performance Officer	Sue Zeller	109 State Street, Montelie VT	Sue.zeller@vermont.gov	

Appendix H: Data Governance Definition Maturity Model Road Map - Department of Information and Innovation

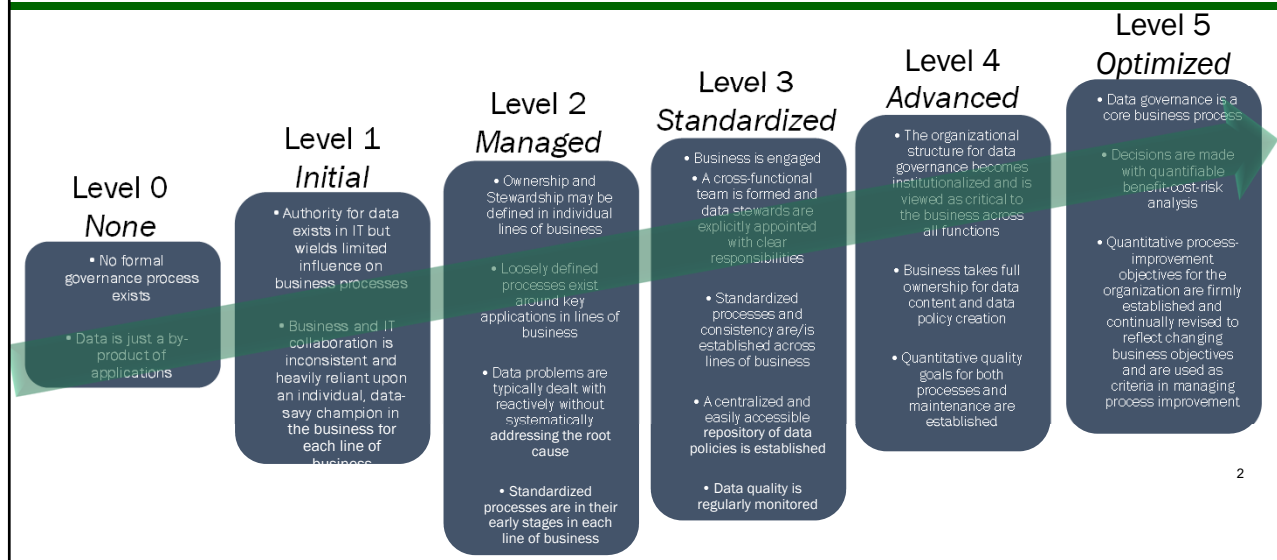





Data Governance

The people, processes, and tools required to create consistent and proper handling of data and understanding of information across an organization, irrespective of any barriers created by organizational structures.

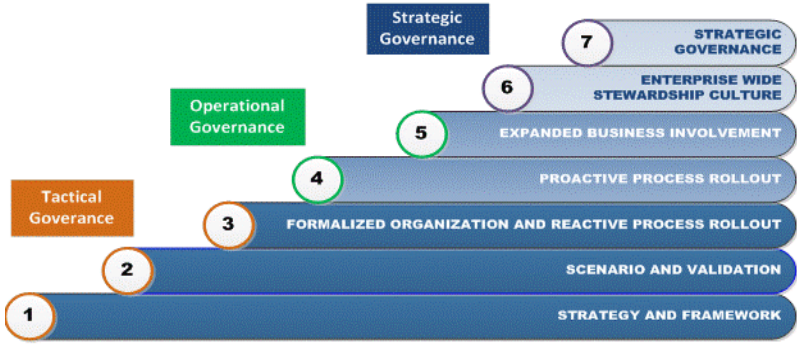
Data Governance Transition Roadmap




Data Governance Partners



- Enterprise / Information Architecture
- Regulatory and Compliance
- Information Security
- Project Management Office
- Audit and Legal



Data Governance: People, Process & Policy



Data Governance

People

Processes

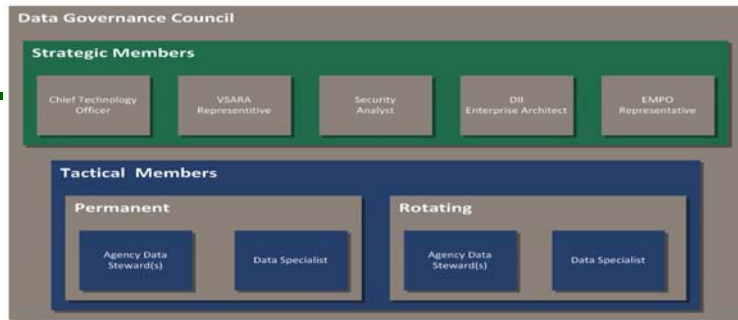
Policy

- Executive sponsorship / Data Champion - business owner of the data
- Data Governance Organization
 - A strong team that consists of corporate, business unit, and IT key stakeholders. Approves and communicates change and defines processes
- Data Stewardship Program - business and IT stewards. Clear roles and responsibilities:
 - Support all data lifecycle activities; business processes, everyday upkeep of data quality, data definitions...

- Recognize that this is a change management project as much as it is a technology project
- Define and communicate change management and data quality processes (use cases):
 - Business and IT together own end-to-end change management and data quality processes and policies.
 - Focus on data governance processes for everyday upkeep of data quality - monitoring, profiling, cleansing, merging, unmerging. Protect MDM data content early.
- Recognize that it's difficult for data stakeholders to agree about what to do. Communication is key to succeeds in data governance.

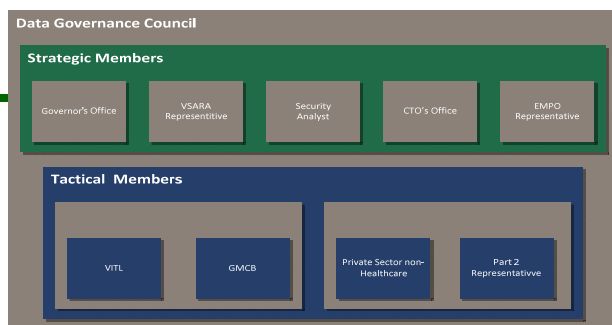
- Policies, standards, and procedures for data management - authorized personnel; shared across department, LOB or even organizational boundaries; measured, and monitored
- Focus on standards, policies and business rules for everyday upkeep of data quality across the organization
- Controls and audit procedures to ensure ongoing compliance
- Measure accuracy of data, standards, policies and processes constantly and communicates those changes across the organization

Data Governance Council Structure and Design



Strategic Governance (Inter-Agency)	Operational and Tactical Governance (Agency / Dept Owned)
Interpretation of business drivers – is the “thing” adding value to business?	Activities that support the day-to-day administration applications to meet the business expectations for the service, Service Level Agreements and fulfill contractual obligations
Adherence to common practices, branding, themes, business cases (capabilities / processes / requirements)	Support for business expectations of service
Roles and Responsibilities	Fulfillment of service level agreements
Meta data / taxonomy – Data Governance	Service transition: change, release and deployment into production
Review policies yearly for compliance to business needs	Change Management
Access / Provisioning policies	Availability
Education – transition, training, support	Service improvements

HIT Data Governance Council Structure and Design



Strategic Governance (Inter-Agency)	Operational and Tactical Governance (Agency / Dept Owned)
Interpretation of business drivers – is the “thing” adding value to business?	Activities that support the day-to-day administration applications to meet the business expectations for the service, Service Level Agreements and fulfill contractual obligations
Adherence to common practices, branding, themes, business cases (capabilities / processes / requirements)	Support for business expectations of service
Roles and Responsibilities	Fulfillment of service level agreements
Meta data / taxonomy – Data Governance	Service transition: change, release and deployment into production
Review policies yearly for compliance to business needs	Change Management
Access / Provisioning policies	Availability
Education – transition, training, support	Service improvements

Data Governance Program – Guiding Principals



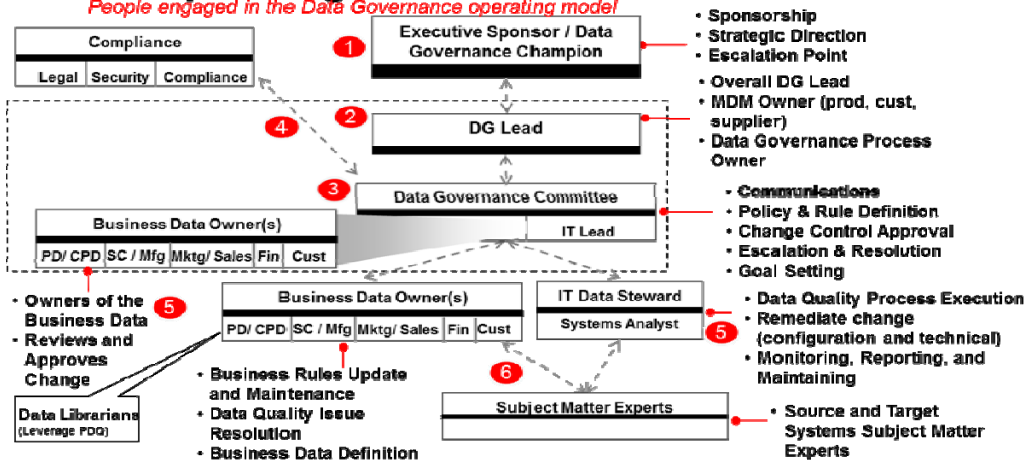
1. **Integrity** -Data Governance participants will practice integrity with their dealings with each other; they will be truthful and forthcoming when discussing drivers, constraints, options, and impacts for data-related decisions.
2. **Transparency** - Data Governance and Stewardship processes will exhibit transparency; it should be clear to all participants and auditors how and when data-related decisions and controls were introduced into the processes.
3. **Auditability** - Data-related decisions, processes, and controls subject to Data Governance will be auditable; they will be accompanied by documentation to support compliance-based and operational auditing requirements.
4. **Accountability** - Data Governance will define accountabilities for cross-functional data-related decisions, processes, and controls.
5. **Stewardship** - Data Governance will define accountabilities for stewardship activities that are the responsibilities of individual contributors, as well as accountabilities for groups of Data Stewards.
6. **Checks-and-Balances** - Data Governance will define accountabilities in a manner that introduces checks-and-balances between business and technology teams as well as between those who create/collect information, those who manage it, those who use it, and those who introduce standards and compliance requirements.
7. **Standardization** - Data Governance will introduce and support standardization of enterprise data.
8. **Change Management** - Data Governance will support proactive and reactive Change Management activities for reference data values and the structure/use of master data and metadata.

The Data Governance Institute



DG Operating Model Framework - Standardized

People engaged in the Data Governance operating model



Enterprise Strategy

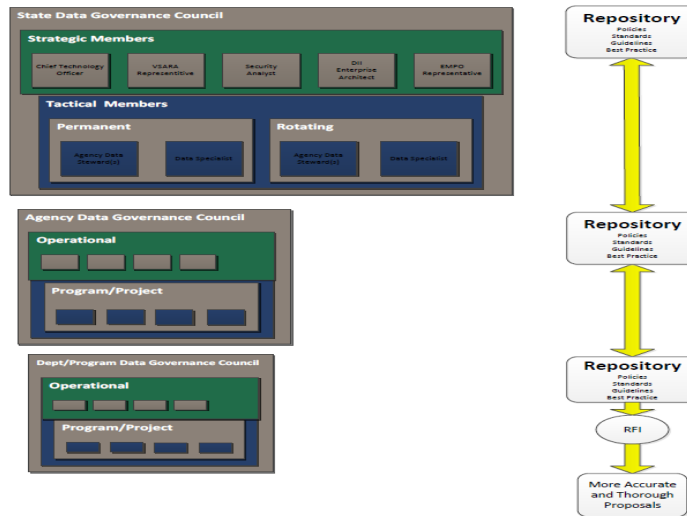


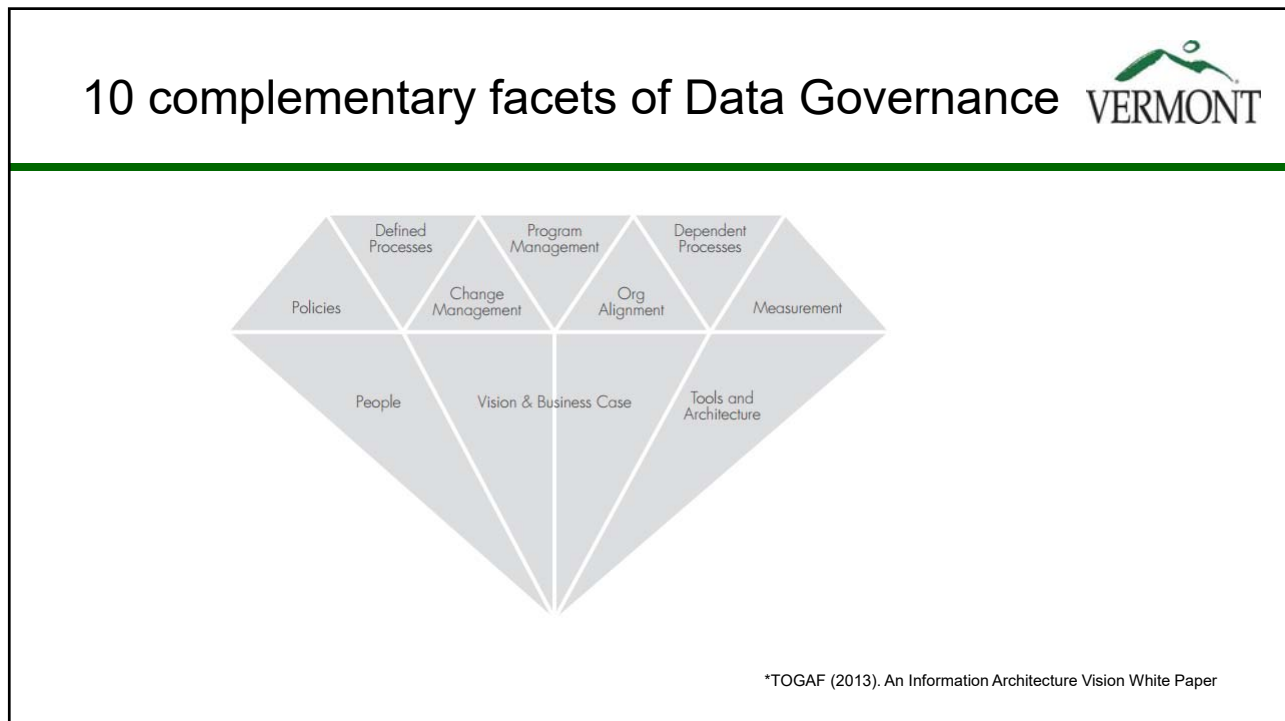
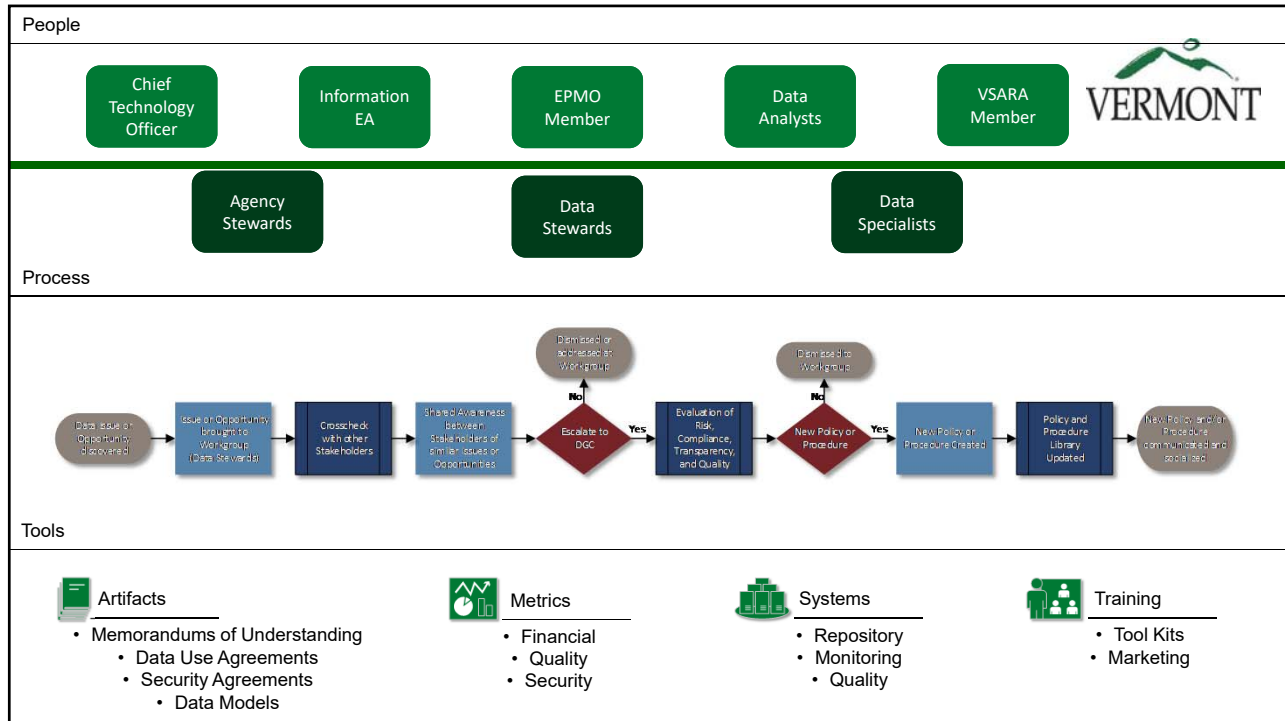
Goal/Objective	Desired Outcome	Measurement	Impact
Standardization	Enterprise wide standards	Adopted by Inter/Intra Agencies and Programs	Improved efficiency
Reusability	Shared & reused data	Adopted as a model by other states ,Agencies and Departments	Reduction of development time
Less Duplication	Less data redundancy	Adopted by Inter/Intra Agencies and Programs	Improved data integrity and reduced errors
Governance	Policies and procedures	Adopted by Inter/Intra Agencies and Programs	Conformance to standards
Cost	Reduced operating expenses	Less operating and maintenance costs	Consolidated maintenance shared operating costs
Shared Services	Interoperability	Adopted by Inter/Intra Agencies and Programs	Improved agility, response times

High Level Structure

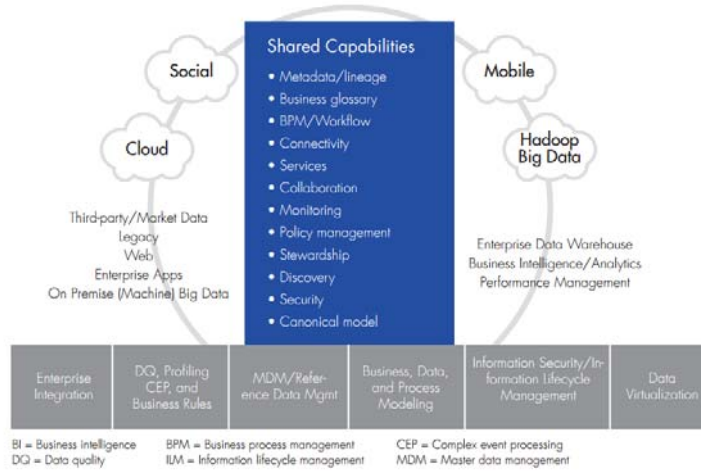


Balance Standardization versus Uniqueness





Architectural Scope of Data Governance



*TOGAF (2013). An Information Architecture Vision White Paper

The Process Stages of Data Governance



*TOGAF (2013). An Information Architecture Vision White Paper

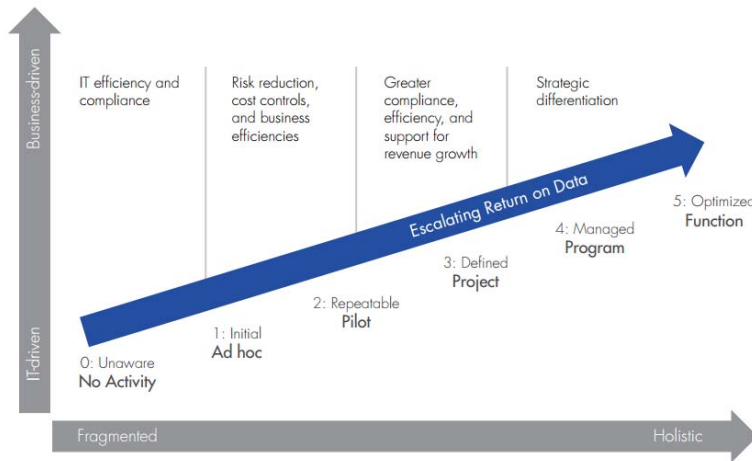
Data Governance Maturity Stage Characteristics



STAGE/TRAIT	0: UNAWARE	1: INITIAL	2: REPEATABLE	3: DEFINED	4: MANAGED	5: OPTIMIZED
Leadership	Minimal focus on data quality or security	Primarily grassroots driven by a few passionate individuals	Still grassroots but moving up to an EA or IT management level	Begins more top-down sponsorship, but primarily senior IT	Data governance program sponsored by business leaders	Top executive/ board-level sponsorship and support
Scope	Data not prioritized in any meaningful, actionable way	Implement ad hoc rules, policies and/or standards as functional requirements into IT project	Documented IT governance and EA standards driving metadata reuse and improved collaboration across IT projects	Adopt competency centers and centers of excellence (e.g. ICC; BI CoE). IT-led, but business involved	Initiated as part of a broader strategic enterprise information management program	Data governance embraced as a self-sustaining core business function managing data as a corporate asset
Measurement	Zero measurement	Measured primarily on success of technology release	Measured primarily on improved IT efficiencies	Measured primarily on operational metrics and SLAs	Data governance lives through multi-phase, multi-year efforts but measured based on success of program	Measured on total impact to the business, not just confined to specific programs or strategies
Managed by	No activity	Ad hoc	Pilot	Project	Program	Function

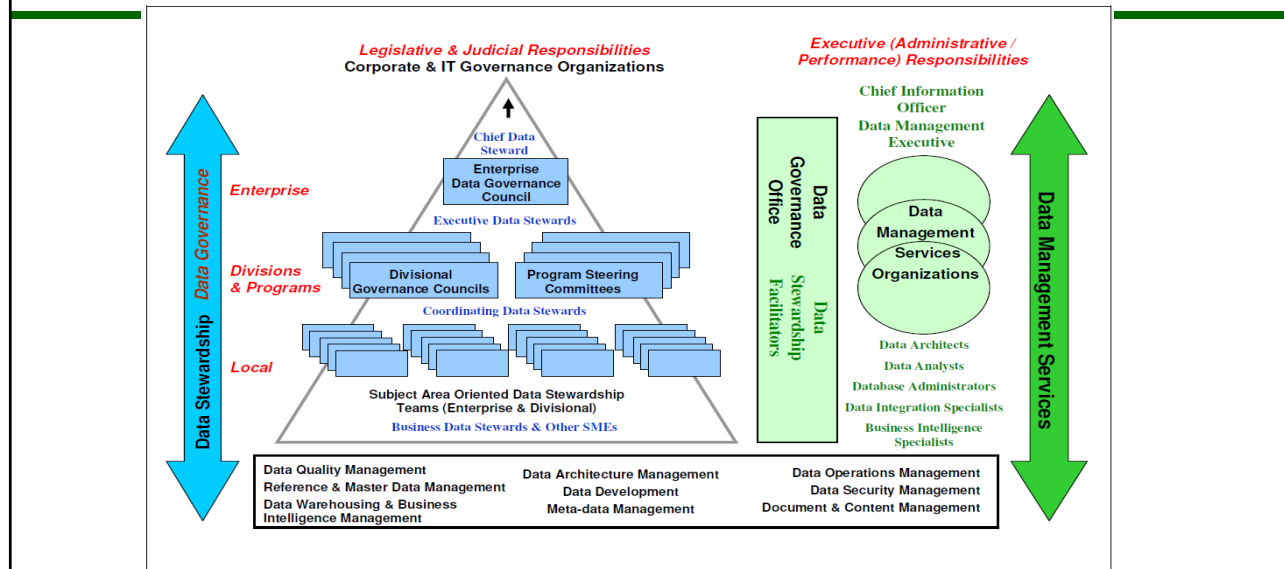
*TOGAF (2013). An Information Architecture Vision White Paper

Stages of Data Governance Maturity



*TOGAF (2013). An Information Architecture Vision White Paper

DGI- Data Management Organizations – Governance, Stewardship, Services



DMBOK - Data Standards and Procedural Guidelines



- Data Modeling and architecture standards, including data naming conventions, definition standards, standard domains, and standard abbreviations.
- Standard business and technical meta-data to be capture, maintained, and integrated.
- Data model management guidelines and procedures.
- Meta-data integration and usage procedures.
- Standards for database recovery and business continuity, database performance, data retention, and external data acquisition .
- Data security standards and procedures
- Reference data management control procedures.
- Match/merge and data cleansing standards and procedures.
- Business intelligence standards and procedures.
- Enterprise content management standards and procedures, including use of enterprise taxonomies, support for legal discovery and document and e-mail retention, electronic signatures, report formatting standards, and report distribution approaches.

Appendix I: Vermont Enterprise Architecture: Framework: Action Plan - Department of Information and Innovation



VT Data Governance Council Action Plan

2016

Prepared By: Casey Cleary, Information Architect
Prepared For: John Hunt, Chief Technology Officer

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Document History

Version	Date	Author(s)	Revision Notes
DRAFT 1	2/22/2016	Casey Cleary, Information Architect - DII	1 st draft

Executive Summary

In 2016, governments, like many complex organizations, stand at a crossroads. Technology has never been more essential to the core operations of organizations. Technology facilitates communications – both internal and with external customers and stakeholders. It collects, houses, and allows access to data that informs decision making, best practice, and organizational transparency. Arguably the most important, technology facilitates and supports modern government.

Useful technology is often simple and intuitive. It is easily understandable, easy to learn and use, and easy for people at all levels of technical proficiency to interact with. As important, it is easy to see the value that the technology brings to a task or operation by adding value, increasing access, enhancing transparency, or using a variety of other measures. This all could be said for the information or data that is being either consumed or generated by the above stated technology.

The Report of the Special Committee acknowledged the importance and need of data in the state by suggesting:

“Create a position of Chief Data Officer responsible to ensure that every unit of State government embraces data as central to operations and decision making and defines “open standards” between government entities and acceptable private sector access to the data.”

IT is central to how employees do their work, how leaders make decisions, how information is made available to the public, and the core data upon which to conduct research and inform evidence based practice and drive data-driven decision making to improve outcomes for all Vermonters¹.

Per the State of Vermont IT Strategic Plan 2015-2019, given the alignment of IT infrastructure and statewide services, the state of Vermont will be positioned for better productivity throughout government. This alignment occurs through thoughtful application of enterprise architecture (EA) and project management principles under the umbrella of Data and Application governance. Done properly, EA drives digital transformation based on the needs and business drivers of the business².

DII uses eight key principles in designing, reviewing and prioritizing work.

1. Leverage successes of others, learning best practices from outside Vermont
2. Leverage shared services and cloud-based IT, taking advantage of IT economies of scale
3. Adapt the Vermont workforce to the evolving needs of state government
4. Apply enterprise architecture principles to drive digital transformation based on business needs
5. Couple IT with business process optimization, to improve overall productivity and customer service
6. Optimize IT investments via sound Project Management
7. Manage data commensurate with risk
8. Incorporate metrics to measure outcomes

¹ Report of the Special Committee on the Utilization of Information Technology in Government Presented to Vermont General Assembly pursuant to 32 V.S.A. §315 Sec. 3 January 15, 2016

² State of Vermont IT Strategic Plan 2015-2019 Information Enabling State Government January 2015

The Action Plan includes:

- A clear vision statement and specific goals designed to help guide the future use and deployment of data governance policies and procedures in State government.
- Identified data needs and opportunities within State government.
- Recommended actions designed to help the State move toward implementation of the vision and goals outlined in this Action Plan.
- Who to engage, when, and with what material.
- Create a business case for the creation of the Vermont Data Governance Council.
- Create, finalize, and publish a Vermont Data Governance Council Charter.
- Create a SharePoint Framework for Data Governance repository and possible workflow.
- Create a Project Plan/WBS to highlight and communicate what activities are considered Day 1 critical path.

Methodology

This Action plan for the State's Data Governance Council was crafted by using existing structures found in state government such as those from the Green Mountain Care Board and the VCGI Enterprise GIS Consortium and abstracted out any program specific documentation and/or processes. This was done to provide a generalized template for the State Data Governance Council to use during the initiation period

- **GMCB Data Governance Council Charter**
- **VCGI Enterprise GIS Consortium Charter**
- **VCGI VT GIS Action Plan - 2016**

On October 15th, 2015, an initial meeting was held to discuss the possibility of creating and executing a State-Wide data governance council. In attendance of the first meeting was a cross-functional representation of all aspects of state government that deal with data. The goal of this meeting and the preceding informal information gathering interviews with key data stakeholders from across state government is to obtain a snapshot of what it out there across the state in regards to data- structured vs. unstructured, who owns it, how mature is the governance process around it, has it had VASARA TAP analysis performed on it, what is the perceived quality, what are its upstream and downstream users, where does "the golden record" live, etc....

A separate workgroup should be formed to address the above question and perform a data inventory of what information is being used across the state. This work will be an input into the State wide data governance councils initial focus and help define the box and scope in which the council will work within versus what should be passed down to the department and agency level.

Action Items for the successful implementation of Data Governance Council:

1. Identify Data Governance Council Members and Key stakeholders
2. Create a value statement for the Council and data governance as a whole
3. Establish goals and success metrics
4. Develop a roadmap on how to meet established goals
5. Acquire support and buy-in from key stakeholders
6. Design a state-wide data governance program that supports meeting the established goals
7. Implement state-wide data governance program administered and managed by Data Governance Council to include the creation of processes involved with governing data
8. Execute on processes involved in monitoring, measuring, and reporting status of data, programs, and projects occurring throughout the state
9. Establish regular Data Governance Council Meetings to ensure the on-going success of the state wide data governance program

Action Items for the successful creation of Data Governance Program:

1. Meet with identified data champions throughout the state to obtain thorough cross section of current or intended data governance practices
2. Gather information on from identified data champions on short and long term goals, current and planned initiatives, and any other activities related to data governance

3. Consolidate best practices found and documented through steps 1 and 2 and abstract out any specificities around agency, department, or initiative
4. Combine abstracted internal best practices with external industry standards and best practices to create state wide data governance program that is agency, department, initiative, and technology agnostic
5. Once high level principals, policies, and mandates are identified, drill down to create processes that provide the Data Governance Council the ability to administer, manage, and support each identified principal, policy, and mandate
6. Identify success metrics for each process to ensure compliance and outcomes are measurable and communicable
7. Dovetail into above Action Item List for the creation of Data Governance Council (step 6)
8. Through the implementation and execution of state wide Data Governance Program and Council, evolve established policies and mandates to ensure current applicability to business, political, and legislative needs

DRAFT

Vision & Goals

Vision Statement: to create, maintain, and ensure the longevity of a State Wide Data Governance Council to create, modify, administer, and assist in the outreach, education, and implementation of common industry standards, best practice, and necessary data governance policies, roles, and activities state wide that are tangible, actionable and measurable.

Goals

- Promote transparency in government and an engaged constituency through improved and enhanced citizen services.
- Provide common and authoritative datasets and services to be shared across agencies, business systems, and all stakeholders inside and outside of state government.
- Empower an efficient and effective workforce by improving and enhancing departmental workflows.
- Support effective cross-departmental information sharing and collaboration.
- Promotes quality and consistency through standardization.
- Implement an agile and standards-based approach for the configuration and provisioning of software applications and information products.
- Establish and maintain a robust State Data governance structure.
- Improve decision making inside and outside of state government.
- Understand Vermonters (single view of citizen)
- Improve overall data quality
- Acquire and utilize citizen insight
- Comply with Regulations
- Reduce data management costs
- Build standard, repeatable data governance processes
- Reduce costs and increase effectiveness through coordination of efforts
- Ensure transparency of data governance processes.

Common Data Governance Needs & Recommended Actions

The Information Architect used the most common themes that arose through the initial round of information gathering through informal interviews with cross-functional data stakeholders.

Need #1: Authoritative Data & Web Services

VTDGC Recommendation #1: Establish a data governance structure to steer the creation, management, and dissemination of “authoritative” datasets and web services. Create and maintain a central data portal where State employees and the public can use to find “authoritative” datasets and web services which they are authorized to access. This will facilitate sharing and collaboration, reduce redundancy and duplication of effort while fostering better decision making through the use of common “authoritative” dataset and web services.

VTDGC Action Item #1:

1. Establish the VTDGC as the State’s data governance body responsible for establishing policies and standards regarding the creation, management, and dissemination of “authoritative dataset” and “authoritative web service”. Dovetail this with other agency’s efforts to foster and support better data governance throughout State government.
2. Develop policies and standards which guide the creation, management, and dissemination of “authoritative dataset” and “authoritative web service”.
3. Define the terms “authoritative dataset” and “authoritative web service”.
4. Craft a "VT Data Management Plan" that identifies authoritative datasets and web services and the "stewards" of those datasets/services.
5. Establish a mechanism for tagging authoritative dataset and web services within VT’s Open Data Portal to promote discovery and use.

Need #2: Enhancing Data & Information Sharing

VTDC Recommendation #2: The VTDGC believes that the existing Socrata platform can help facilitate information sharing. However, it is important to recognize that there are other software solutions available to support information sharing. Software isn’t the only barrier to sharing; institutional “culture” is often the greatest barrier within State government. This is a long-term challenge that requires long-term institutional support to establish and maintain a culture where information sharing is expected and demanded.

VTDC Action Item #2:

1. Develop and promote common data and metadata naming standards within State government in order to simplify data and information sharing.
2. Develop guidelines for information and data sharing between agencies and departments within State government.
3. Implement Recommendations and Action Steps outlined under Need #1, #4, and #6.

Need #3: Open Access to Geospatial, Health and Human Service Data

VTDGC Recommendation #3: The VTDGC believes that some of the State’s datasets and services should be openly available via a central VT Open Data Portal. The VTDGC believes that agencies should be allowed to create their own Open Data Portals, however, they must be required to follow standards and must “federate” with the State’s central VT Open Data Portal.

VTDGC Action Item #3:

1. Establish and implement VT Open Data Portal policies and standards.
2. Build a “federated” VT Open Data Portal, Socrata, and populate it with datasets and web services which they manage.

Need #4: State Wide Data Governance

VTDGC Recommendation #4: The VTDGC believes that the State of Vermont needs to create a data governance structure designed to support the creation, management, and dissemination of “authoritative datasets”. Currently there are cases, where there are multiple agencies maintaining duplicate and inconsistent data due to the lack of proper data governance and oversight.

VTDGC Action Item #4:

1. Refer to the recommendations under VTDGC Action Item #1.

Need #5: Develop a strong Data-Driven Workforce

VTDGC Recommendation #5: The State will be unable to leverage the full benefits of data governance without a strong data-driven workforce. The State’s data professionals and users need to stay current on the latest data methods, trends, and capabilities. The VTDGC believes that a coordinated data-driven workforce development plan would benefit the state by improving efficiency, access, and identify areas where additional training resources need to be offered. However, the VTDGC also believes that agencies and departments should retain the freedom to develop their own individual plans, while identifying training elements which they can coordinate with other agencies via the VTDGC.

VTDGC Action Item #5:

1. Develop and implement a coordinated State Data-Driven Workforce Development Plan to include and define key roles such as data stewards, records officers, and data analysts/models.

Need #6: VTDGC's Roles, Responsibilities, and Resources

VTDGC Recommendation #6: Both the Report of the Special Committee on the Utilization of Information Technology in Government and DII's IT Strategic Plan 2015 – 2019 clear state the need for and role of data governance as a key lynchpin in the continued strategy of information enabling state government. Now the State needs to review and possibly modify or create VTDGC-specific roles and responsibilities. The State also needs to determine if VTDGC is adequately resourced to fulfill its obligations.

VTDGC Action Item #6:

1. Evaluate VTDGC's current roles, responsibilities, and authority. Contrast this to the needs of the VT Data Community. Recommend modifications, as needed, that would help align VTDGC's roles, responsibilities, and authority with the needs of the VT Data Community.
2. Evaluate VTDGC's proposed resource levels (staff and equipment) in light of its responsibilities, and identify any recommended changes.

Need #7: Governance of Vermont's Information and Data

VDGC Recommendation #7: The State of Vermont currently lacks a clear Data Governance structure with clearly defined roles, responsibilities, and authority. The VTDGC believes that the State of Vermont needs to establish a clearly defined State Data Governance framework with clearly defined roles, responsibilities, and authority to influence the use and deployment of data resources in the State of Vermont to maximize the efficient and effective use of this technology.

VTDGC Action Item #7:

1. Establish, Vermont's Data Governance Council as the State's Data and Information steering committee and governing body with the following structure and responsibilities
 - a. Membership structure:
 - i. Voting Members: State government representatives (Executive branch)
 - ii. Non-voting Members: RPC representatives, Municipal representatives, private sector representatives.
 - b. Authority and responsibility to establish and maintain State Data policies, standards, and guidelines.
 - c. Authority and responsibility to steer and advise DII and State agencies regarding their use, deployment, and maintenance of geospatial technology and data.

Attachment A – EGC Member Directory

To Be Updated

VT Center for Geospaitial Information (VCGI)	Steve Sharp	1 National Life Dr. Montpelier, VT 05620	Steve.sharp@vermont.gov	
VT Agency of Commerce and Community Development	David Metraux	1 National Life Dr. Montpelier, VT 05620	david.metraux@vermont.gov	
VT Agency of Human Services	Craig Benson	208 Hurricane Lane, Williston Vt	Craig.benson@vermont.gov	
VT Agency of Natural Resources	Peter Telep	1 National Life Dr., Davis Building, 6th Floor Montpelier, VT 05620-0501	peter.telep@vermont.gov	
VT Agency of Transportation	June Burr	1 National Life Dr., Davis Building, 6th Floor Montpelier, VT 05620-0501	June.burr@vermont.gov	
VASARA	Tanya Marshall	Middlesex, VT	Tanya.marshall@vermont.gov	
Green Mountain Care Board – Data Governance Council	Rogger Tubby	Montpelier, VT	Roger.tubby@vermont.gov	
VT Department of Information and Innovation	Casey Cleary	133 State Street 5th Floor Montpelier, VT 05633	Casey.cleary@vermont.gov	
Agency of Education	Brian Townsend	????	Brian.townsend@vermont.gov	
VT Human Resources	Harold Schwartz	????	Harold.schwartz@vermont.gov	
VT Chief Performance Officer	Sue Zeller	109 State Street, Montelie VT	Sue.zeller@vermont.gov	

Appendix J: Vermont Enterprise Architecture Framework: Data Governance Implementation HIT – Department of Information and Innovation



Vermont Enterprise Architecture Framework (VEAF)

HIT Data Governance Implementation

EA APPROVALS

EA Approving Authority:

<Signature>

<Date>

<Printed Name>

<Position Title>

REVISION HISTORY

Version	Date	Organization/Point of Contact	Description of Changes
1	8/12/2015	Casey Cleary	version 1
2	8/12/2015	John Hunt	Initial Feedback
3	8/13/2015	Casey Cleary	Incorporated John Hunt Feedback
4	8/26/2015	Casey Cleary	Continued refinement
5	11/12/2015	Casey Cleary	Edited for HIT specificity

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1. EXECUTIVE OVERVIEW^[CC1]

The State of Vermont Department of Information and Innovation outlined its Strategic Principles in its strategic plan. It uses these Principles as a reference when creating, evaluating, and implementing statewide strategies. The Strategic Principles of DII are as follows:

- Leverage successes of others, learning best practices from outside Vermont
- Leverage shared services and cloud-based IT, taking advantage of IT economies of scale
- Adapt the Vermont workforce to the evolving needs of state government
- Apply enterprise architecture principles to drive digital transformation based on business needs
- Couple IT with business process optimization, to improve overall productivity and customer service
- Optimize IT investments via sound Project Management
- Manage data commensurate with risk
- Incorporate metrics to measure outcomes

1.1. The Importance of Information and Information Architecture

With information being a common element that spans every aspect of state government, connecting and informing state government and its citizens, its importance cannot be understated. Timely and accurate information is required to meet the needs of Vermonters. Through a combination of people, process, technology, policies, and services, State of Vermont employees strive to meet and exceed the evolving expectations that each Vermonter has of state government. Achieving this requires a complete and accurate 360 degree view of every Vermonter with information given to the right person at the right time.

Information Architecture provides governance to the people, process, and tools required to meet the demand for accurate information that is both readily and easily accessible. Successful Information Architecture implementation requires a formal Data Governance model and in order to create, update, implement, and enforce the policies and procedures required for Health Information Technology Data.

The implementation of an HIT Data Governance Model necessitates a collaboration with stakeholders across all State Agencies. This collaboration will create the Data Governance Council that will be comprised of team members representing all factions both inside and outside State Government that empowered to make decisions regarding the use of Data.

The Department of Information and Innovation is committed to the successful implementation of an Information Architecture and Data Governance that will foster the following:

- Reduction of risk
- Maintaining the alignment between Business and IT
- Driving cultural change
- Add business value to future technology investments

Information Architecture must differ from traditional governance approaches. Information decisions must be made at greater speed, information timing is needed, and there is a tendency for a greater number of

assets and relationships involved - these all contribute to increased complexity, and require a different approach. Effective Data Governance will require a minimum of the following capabilities:

- Access
- Accessibility
- Security
- Standardization
- Semantics
- Generation
- Analytics
- Quality
- Sharability

1.2. Data Governance

The most challenging and misunderstood aspect of Data Governance is the effect that it has and the demand that it makes on both technology and employees. Data Governance requires that HIT stakeholders establish a viable Data Governance Model to champion, educate, and communicate across the State

Some stakeholders may potentially see Data Governance as an impediment. Therefore, it is the responsibility of the Data Governance Council to communicate and encourage the use of tools to document, enforce, and update as many capabilities, processes and policies as possible. Examples of these tools include data dictionaries, business capability and process/data entity matrix, policy management, policy compliance testing, policy enforcement, and applicable metadata and data models.

Below is a list of tasks performed by the HIT – Data Governance Council.

- Overseeing the development and implementation of the data governance program.
- Document and review data governance best practices, roles and responsibilities, communications and awareness plans, and providing a roadmap for the delivery of the data governance program.
- Facilitate meetings regarding data governance status, activities, successes, and issues.
- Developing and continuously delivering data governance educational, awareness, and mentoring materials.
- Defining, recommending, and gaining approval of data governance metrics from the data governance council.
- Ensuring that data standard definitions, procedures, and metrics are in place for maintaining and improving the management of risk, quality, and usability of the enterprise data.
- Managing data incidents including missing or incorrect data reports and data access problems.
- Randomly checking on compliance with data business roles

2. DATA GOVERNANCE ROLES AND RESPONSIBILITIES

Successful Data initiatives require active leadership and acquiring executive sponsorship. This sponsorship empowers newly formed or updated structures with not only the mandate but also the appropriate authority. Successful Data Governance starts from the top down to drive adoption and commitment. Active leadership helps to drive the design of the Data Governance model and once in place, helps support the ongoing maintenance of the Data Governance Model.

A key aspect of Data Governance is the update and creation of new governance structures to define, monitor, and enforce Data policies. The number and names of these structures is less important than the roles and responsibilities they are focused on. Figure 1 below illustrates the Data governance structure.

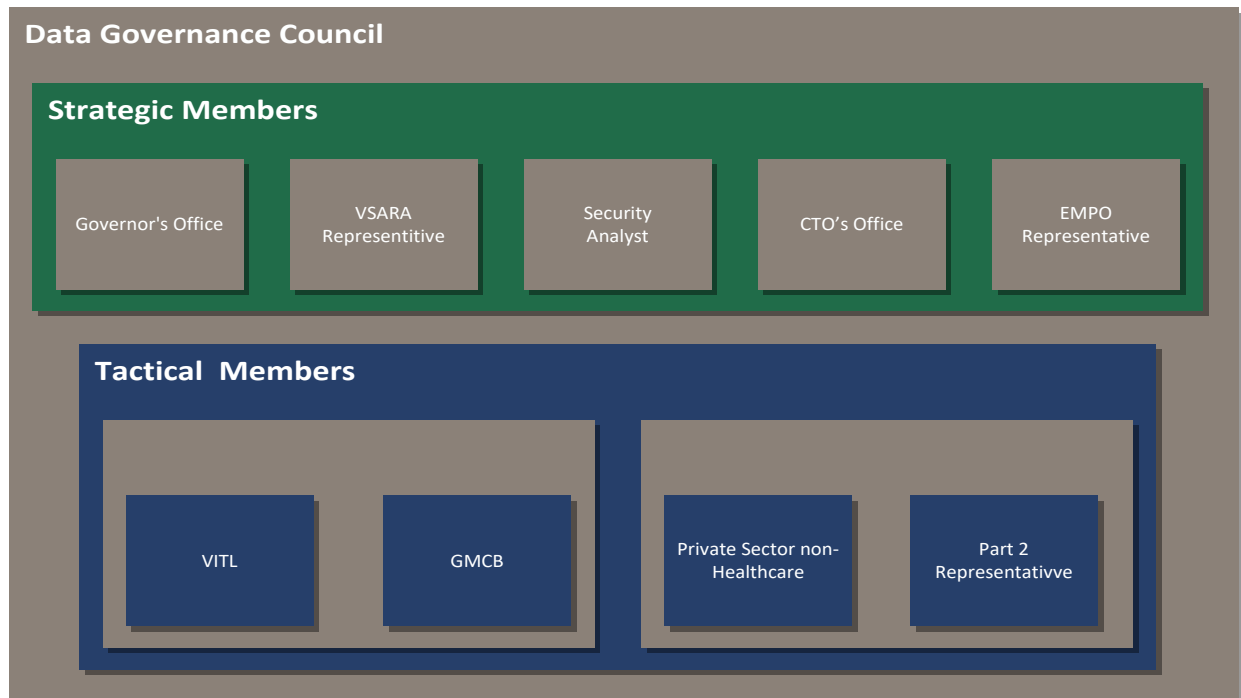


Figure 1 Data Governance Council

Data Governance Council – Strategic Governance (Green)

The HIT Data Governance board constitutes the following roles and responsibilities. The primary role of the board is to oversee, approve compliance definitions, and mitigate any referrals of non-compliance based on the priority of other business factors.

2.1.1. Information Enterprise Architect

The Information Enterprise Architect manages and delivers overall information enterprise architecture, coordinates the Data work stream with other Enterprise Architects and approves directives for safeguarding Data principles and management. They will also ensure that the Data aligns with the State and EA governance model. Any compliance and compliance-based rejections will be reviewed by EA. The Information Enterprise Architect also validates recommendations that are put forth by the State Data Analyst as well as Agency Data Stewards.

2.1.2 Governor's Office

The representative member from the Governor's Office will inform the council on projects in flight that warrant the Council's attention and/or may require additional data specific resources to ensure Data Governance policies and standards are in place and being enforced throughout each data initiative

2.1.3 Security Analyst

Information, by nature, may have distributed architecture as it is required to be accessible across networks outside firewalls making security architecture vitally important. Usually, security protocol must be chosen as a standard and then enforced via Data Governance. This includes security for authentication, authorization, encryption, and nonrepudiation and these considerations falls under the realm of the nominated security analyst

2.1.4 VASARA Member

The representative member from VASARA will inform the council on applicable laws and policies as they relate to Data Governance. They will advise and guide the council in records and information management.

2.2. Data Governance Council – Operational and Tactical Governance (Blue)

The Data Governance Council members listed below are responsible for the operationalization of Data Governance policies and procedures, the creation and maintenance of data artifacts as well as presenting potential policy or procedure changes that stem from project or operational work to the governance board for approval. Additionally, this team will champion Data Governance criticality among their respective agencies and act as a liaison between their agency and the Data Governance Council.

2.2.1. The Data Stewards - VITAL, GMCB, Private Sector Non-Healthcare, Part 2 Rep, ACO Rep, AHS Rep

These positions will work on all the relevant projects and assumes responsibility for creating and updating artifacts, and artifact standardization. This role maintains the artifact repository and has the capability of the submitting artifacts into Governance Systems. These positions are also responsible for standardizing data elements, resolving issues pertaining to data, documenting and communicating the rules and regulations around data, recording and sharing information about changes in data, and assist in the creation of data policy, regulation, and rules. This role is associated with a specific line of business and needs to focus on both the business unit data and have an enterprise perspective. These positions understand the policies around data and data governance and possess a future vision of data integration. They assist in aligning data related activities within their line of business as well as with the state as a whole

3. DATA GOVERNANCE PROCESS

The Governance process has several views that present different aspects of the Governance process. This section delineates the various views and their respective applicable governance process as a checklist.

Table 1 Data Governance Council Outcomes and Responsibilities

Strategic Governance (Inter-Agency)	Operational and Tactical Governance (Agency / Dept Owned)
Interpretation of business drivers – is the “thing” adding value to business?	Activities that support the day-to-day administration applications to meet the business expectations for the service, Service Level Agreements and fulfill contractual obligations
Adherence to common practices, branding, themes, business cases (capabilities / processes / requirements)	Support for business expectations of service
Roles and Responsibilities	Fulfillment of service level agreements
Meta data / taxonomy – Data Governance	Service transition: change, release and deployment into production
Review policies yearly for compliance to business needs	Change Management
Access / Provisioning policies	Availability
Education – transition, training, support	Service improvements

Table 2 Data Governance Activity

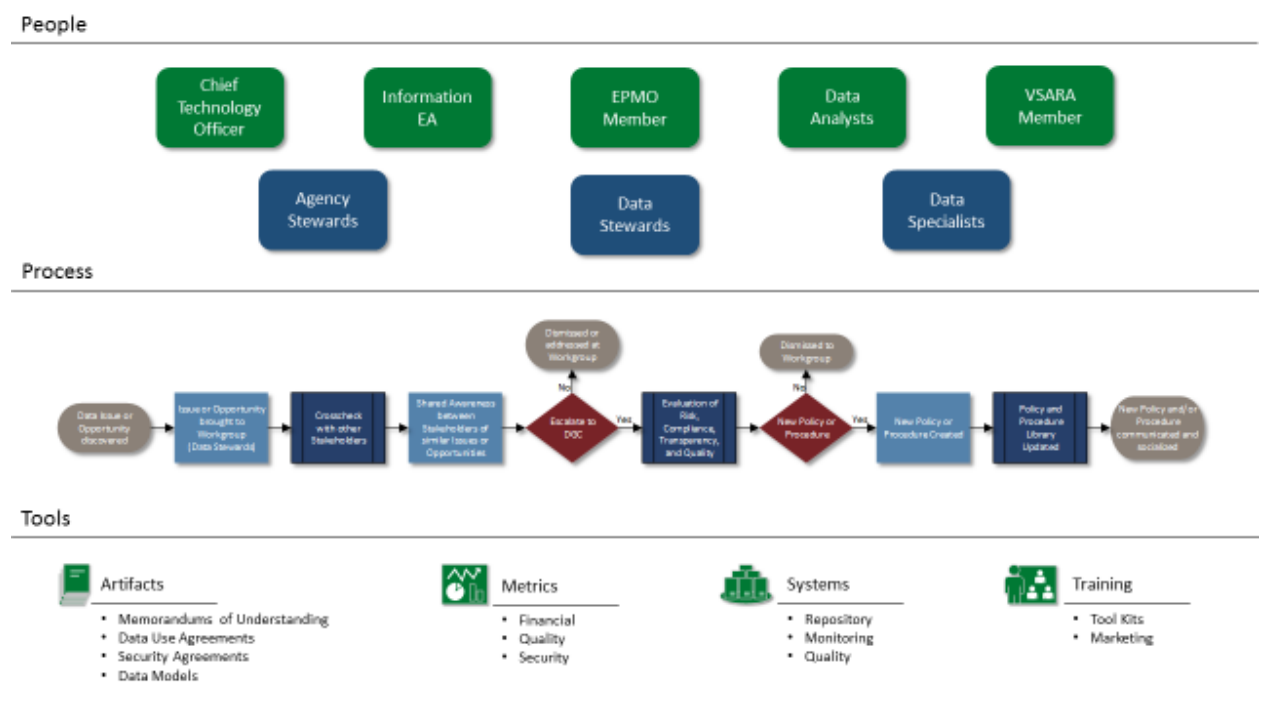
Responsible Party	Data Governance Council
Principle	<p>All projects must undergo a Data Governance review to determine if they comply with existing data governance policies or if their specific data needs necessitate new data governance policy to be evaluated and created.</p> <p>Data models and applicable artifacts produced by the data specialist must be reviewed and validated before the solution may be deployed in production.</p>
Standard	Refer to SoV Information Domain Guidebook for any relevant standards. (Such as Data Development, Deployment, Security, Coding, and Versioning etc.)
Procedure	In each phase of a project, the data needs and implications are documented and evaluated by the Agency Data Steward and the Data Specialist assigned to the project.
Mechanism	Reviews are scheduled and lead by the EA team working with the EPMO. The EA will document the results. This artifact will then be placed in the Data governance library for future reference by the Data Governance Council for oversight and policy adherence.
Metrics	<p>The following quality metric categories are very relevant and can be used as a measure of success:</p> <ul style="list-style-type: none"> • Accuracy of data • Reliability of data • Completeness of data • Appropriateness of data • Timeliness of data • Credibility of data

3.1. Business Architecture and IT Alignment

The State of Vermont is committed having the business drive technology implementation across the State. It is the business’ responsibility to collect their capabilities and processes; these collected processes and capabilities allow the Data Governance Council to determine what data is needed when, by whom, and is delivered in what manner.

The Data Stewards are part of the business and participate at the project level. Each project has an exploration or requirements phase, where the business uses their capabilities and processes to determine their requirements. It is in this phase that the HIT Data Governance Council is able to review these requirements and compare them to existing data governance policies and procedures. If there is a need that may impact existing policies and procedures, the Data Steward can document the need and its potential up and downstream impacts to discuss with the Data Governance Council as a whole.

As projects and/or initiatives are underway, the HIT Data Governance Council will provide an oversight role and assist in any new policies or procedures being implemented. This oversight role is to ensure that standards are being adhered to in regards to data governance but also provides the state the ability to be nimble and address new data concerns/needs as they arise through the various projects.



The strategic members of the State Data Governance Council will focus on the following:

- **Establish a Center of Excellence**
 - Educate non-IT users
 - Drive business value through engagement
- **Establish a Governance Council**
 - Needs diverse business representation
 - Not just IT, but also knowledgeable business users

- Requires executive champion (not the CIO, but someone who is close to business objectives)
- Meet regularly, and track meetings to provide continuity and accountability between meeting
- Determine initial principles and goals
- Dictate policies (no PII data on SharePoint, as an example)
- Review policies yearly for compliance to business needs
- Review benchmarks and metrics
- Track lists of end user issues

While the Operational and Tactical members of the State Data Governance Council will focus on the following:

- **Governance council will establish processes**
 - Processes need to be easy to understand
 - Easy to implement, do not get bogged down in extensive processes
 - Processes may change rapidly based on business needs
- **Develop an education strategy**
 - Teach users based on the standards and policies established
 - Identify and plan for specific user groups
- **Focus on Continuous Improvement**
 - Requirements change rapidly
 - Review Reporting/Auditing regularly
 - Poll end users for feedback
 - Modify policies/standards/processes based on benchmarks/metrics/reporting/feedback

3.2. Solution Review

The Operational and Tactical members of The HIT Data Governance Council, in the Planning phase of a project or initiative, is expected to create a solution-based data governance model; its purpose is to identify the solution's approach and high-level design as it pertains to Data Governance, this includes identifying data models, data dictionaries, impacted business processes, and other information architecture-related documentation.

Upon its completion, the solution based data governance model is reviewed by the HIT Data Governance Council. This gate insures that the proposed solution aligns with the HIT Data Governance Standards, and identifies areas modifications or creation of new data governance policy and procedures may have to be made.

The solution-based data governance model will be assessed based on the following criteria:

- Anticipating and identifying any changes to the existing state data governance model including (But not limited to)
 - Data in Motion
 - Data at Rest
 - Data lifecycle activities
 - Data Definitions

- Policies, standards, and procedures for data management

The HIT Data Governance Council reviews the solution-based data governance model with the goal of ensuring the specific project's requirements adhere to statewide data governance standards and to ensure data governance activities are included in the project development or procurement plan.

When reviewing the solution-based data governance model, the HIT Data Governance Board will:

- Identify and recommend opportunities to conform to existing data governance policies and procedures
- Ensure that the data governance documents follow all information and technical standards
- Assess project risk profile and recommend options to decrease risk
- Validate that business requirements are being met in regards to data governance

Following the solution-based data governance model review, the HIT Data Governance operational and tactical members will update the information architecture document based on any recommendations and present again for review by the HIT Data Governance Board.

This process should continue until the solution-based data governance document is complete.

3.3. Solution Design Review (When Applicable)

Following the approval of the solution-based data governance model, the HIT Data Governance Operational and Tactical members create Solution Design Document that encompasses and addresses the requirements for Data Governance based on templates provided by the HIT Data Governance Council.

The Solution Design Document should:

- Adhere to all policies and standards (Refer to the Information section of the VEAF Manual - Guidebook for Standards and Principles)
- Ensure that all data producer and consumer concerns are addressed, including nonfunctional requirements (NFRs)
- Ensure that the integration testing needs for the data are identified and ensure testing teams are able to perform the necessary tests
- The security design should be assessed as to whether it follows the minimum-security baseline standards (Security Standards Document)

4. DATA SECURITY GOVERNANCE

Information, by nature, may have distributed architecture as it is required to be accessible across networks outside firewalls making security architecture vitally important. Usually, security protocol must be chosen as a standard and then enforced via Data Governance. This includes security for authentication, authorization, encryption, and nonrepudiation. The Security Standards document as listed Appendix A sets these standards.

APPENDIX A: REFERENCE DOCUMENTS

Documentation	Link
EAGOV-025 Encryption Approach	https://inside.vermont.gov/sov/cto/ea/Enterprise%20Governance/EAGOV-025%20Encryption%20Approach.docx
TA-SOAGOV-008 SOA Security Standards	https://inside.vermont.gov/sov/cto/ea/Enterprise%20Strategy/gartner/TA-SOAGOV-008%20SOA%20Security%20Standards.docx
SoV_FTI_Solution_Architecture_v17.0	https://inside.vermont.gov/sov/cto/ea/Technology%20Architecture/Security/SoV_FTI_Solution_Architecture_v17.0.docx
VEAF Manual - Guidebook	https://inside.vermont.gov/sov/cto/ea/Business%20Architecture/VEAF%20-%20Guidebook%20Jan%202014/VEAF%20Manual%20-%20GUIDEBOOK.doc