# Progress for Vermont's Health Information Exchange

2019 ANNUAL REPORT





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# Vermont Information Technology Leaders, Inc. (VITL)—operator of the Vermont Health Information Exchange (VHIE)—is pleased to present our 2019 annual report.

This past year has been one of tremendous progress in key areas. Most significantly, VITL and the State of Vermont have collaborated to build upon the momentum of recent accomplishments by VITL and continue to work toward fulfilling the goals of the State's Health Information Exchange (HIE) Plan, approved by the Green Mountain Care Board in 2018.

#### Highlights include:

- VITL continued to execute on our strategic plan that focuses on organizational stability, allowing VITL to meet
  its goals, serve as a credible partner to the State, and start important new collaborations that will unlock future
  value in the VHIE for patients and health care organizations.
- VITL and the State of Vermont, with the guidance of the Legislature, collaborated to develop and implement Act 53, which adopts an opt-out consent policy for viewing patient health information through the VHIE.
- VITL, the Blueprint for Health, and OneCare Vermont are participating in the Collaborative Services Project
  under the oversight of the Department of Vermont Health Access (DVHA) to streamline data services required
  to improve healthcare in the state of Vermont.
- VITL continued its efforts on data quality improvement, meeting key milestones.
- In conjunction with the State's Health Information Exchange (HIE) Steering Committee, VITL established Connectivity Criteria approved by the Green Mountain Care Board.
- Under the guidance of VITL's interim CEO, the organization continued work to meet its responsibilities to the State arising out of Act 73 of 2017, launched much-improved governance changes, and established a foundation for greater data quality and patient matching.

The value VITL's services bring to health care in Vermont continues to grow:

- VITL now delivers over 1.4 million laboratory results, radiology reports and other reports annually, directly to provider EHRs.
- VITL now connects and maintains over 1,000 interfaces with participating healthcare organizations. These
  connections allow the transmission of clinical information and processing of over 169 million messages annually,
  allowing meaningful and positive impacts for patients and healthcare organizations.
- VITL provides quality patient clinical data to assist in health care reform efforts to OneCare Vermont, Blueprint for Health, Vermont Department of Health, and Vermont's Medicaid Chronic Care initiative.

As the new leader of VITL, I look forward to continuing to build on the organization's impressive achievements, and to work with the Board of Directors to develop a long-term, sustainable strategic plan. As outlined in this report, we believe we are well-positioned to continue our progress in the coming year. I am excited to have the opportunity to lead this strong, talent-filled organization. VITL looks forward to working with the administration, the Vermont Legislature, and our customers throughout the state in the coming year and beyond.

Sincerely,

Beth Anderson President & CEO, VITL Bruce Bullock, MD VITL Board Chairman

## **BOARD OF DIRECTORS**

Board of Directors as of December 2019



Bruce Bullock, MD Marble Valley



**Joel Benware NMC** 



Michael Del Trecco **VAHHS** 



**Richard Elmore Allscripts** 



Jessa Barnard, Esq. **VT Medical Society** 



Leah Fullem, MHCDS **UVMHN** 



Susan Besio, PhD Retired, Health Policy



Mary Beth Eldredge, MHA, MHCDS **DHMC** 



**Tom Evslin** Retired, NG Advantage



**Kelly Lange BCBS** of VT



Mark Nunlist, MD Retired



**Beth Anderson** VITL CEO

# STANDING COMMITTEES

#### Executive & Governance

Bruce Bullock, MD - Chair Mike Del Trecco Beth Anderson Leah Fullem Kelly Lange

#### **Technology**

Joel Benware – Chair Tom Evslin Mark Nunlist, MD Leah Fullem Beth Anderson

#### **Finance**

Mike Del Trecco - Chair Bruce Bullock, MD Mary Beth Eldridge Susan Besio Beth Anderson

#### **Audit**

Susan Besio - Chair Mike Del Trecco Bruce Bullock, MD Mary Beth Eldridge

### VITL SUMMARY

VITL is an important source of secure, high quality clinical data for health care organizations in Vermont to aid in the delivery of better care for their patients.

During 2019, VITL made significant progress advancing health information technology (HIT) initiatives. Information related to health care treatment, in most cases, is transmitted to the Vermont Health Information Exchange (VHIE), which is managed by VITL. Participating health care organizations can use the VHIE to view aggregated health information about their patients. Stakeholders involved in health care reform efforts such as the Blueprint for Health, the Vermont Department of Health, the Vermont Chronic Care Initiative, and OneCare Vermont, can also extract data to support their programs and patients.

2019 marked an important milestone for Vermont's HIT efforts. As recommended by the State's HIT Plan and its HIE Steering Committee, the Legislature adopted an "optout" consent policy for individual patient data submitted to the VHIE. Act 53 of 2019 set a framework for changing the existing opt-in consent policy to one allowing patientspecific data to be viewed by participating VHIE health care organizations unless the patient opts out. Act 53 specified that the implementation strategy shall include substantial opportunities for public input and required significant groundwork to establish the strategy. The Legislature will review this work in the coming session to ensure that Vermont is ready for this important and necessary change as of the March 1, 2020 effective date.

Under the current opt-in policy, which relies on providers asking a patient for consent at the time of care, Vermont has achieved only a 47% rate of patient consent, even after substantial efforts to educate providers and individuals. When asked, 95% of Vermonters prefer to have their information viewable in the VHIE. Opt-out policies ensure that key patient care benefits can be obtained by providers at the time of patient care and support the analysis of population health trends through the data. VITL expects that the completion of the transition to opt-out consent will have a meaningful and positive impact on the level of data available to Vermont health care organizations through the VHIE, to the benefit of patients and health care reform efforts.

Apart from its efforts to help Vermont's consent policy transition, VITL's achievements in 2019 include a number of key projects:

- Collaboration on the approved State HIE Plan to establish a permanent governance model for oversight of HIE efforts; assist with consent management, data quality, and identity matching; initiate long term, sustainable financial planning for VITL and State HIT efforts; and develop a 2020 plan including a technical roadmap.
- The launch of an important Collaborative Services Project to establish a common "front door" for a statewide Master Patient Index and Terminology Services solution, with Phase One already in progress.
- The initiation of planning for Phase Two of the Collaborative Services Project, with stakeholder due diligence and vendor demonstrations to identify the best solution for a shared data repository that will include the Vermont Clinical Registry and the VHIE.
- Continued positive progress on strengthening its operations and finances, including completion of an annual audit with no significant findings.
- Successful VITL Board reorganization of committees and officers, and a smooth planned transition from an interim CEO to a permanent leader for the organization.

In addition, VITL has met its contractual requirements with the State, including completing and maintaining over 1000 connections (location interfaces with the VHIE) and collecting various health and demographic data for use by health care organizations. VITL annually delivers 1.4 million laboratory results, radiology reports and transcribed reports to providers through messages that are seamlessly delivered from the VHIE directly into their electronic health record (EHR).

# VITL IS PLEASED TO PRESENT THE FOLLOWING KEY **ACCOMPLISHMENTS IN 2019:**

- Continued reduction in the number of duplicate records and the implementation of a new Master Patient Index tool
- Collaboration with other Vermont health programs to share services and streamline data intake
- Expansion and enhancement of the VHIE network to collect, aggregate and exchange data

- Continued improvement of VHIE data quality
- Stakeholder engagement and preparation for the change to the new Consent Model on March 1, 2020
- Collaboration with other Vermont health programs to investigate future shared data warehouse platforms
- Further strengthened the security and availability of the VHIE Network

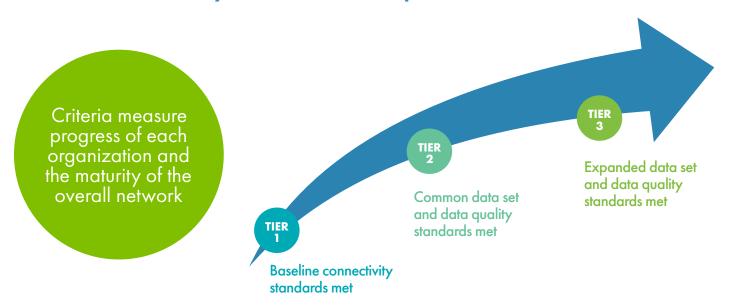
# Improving Data Quality and Terminology

During 2019, VITL worked with healthcare organizations during interface projects to evaluate the data they were contributing to the VHIE against the Connectivity Criteria approved by the GMCB in November 2018.

Connectivity Criteria establishes the conditions for health care organizations to connect to the Vermont Health Information Exchange (VHIE) that will apply for 2020.

- Tier 1 represents the baseline set of data elements necessary to contribute data to the VHIE and includes mostly demographics and textual clinical data.
- Tier 2 represents the critical coded data elements necessary for the basic Patient Centered Medical Home or Accountable Care Organization measures, and is where the focus was this year. For locations not meeting Tier 2, a workplan was developed to lay out the changes needed to achieve Tier 2.
- Tier 3 represents more specific data elements needed to support health reform program requirements.

#### **Connectivity Criteria: New & Replacement Interfaces**



VITL had 28 healthcare locations meet Tier 2 this year, and workplans were created for over 120 locations defining their path to achieve Tier 2. The criteria and workplans proved an effective way to clearly communicate to the healthcare location and their vendor the exact changes that were needed to meet the needs of their programs.

In the second half of the year, VITL worked with a subcommittee of the HIE Steering committee to update the Tier 2 data elements based on experience using the criteria, production data and the program measures, and to clearly define the Tier 3 data elements. The group ensured Tier 3 was aligned with the US Core Data for Interoperability (USCDI) data set from the Office of the National Coordinator for Health Information Technology (ONC).

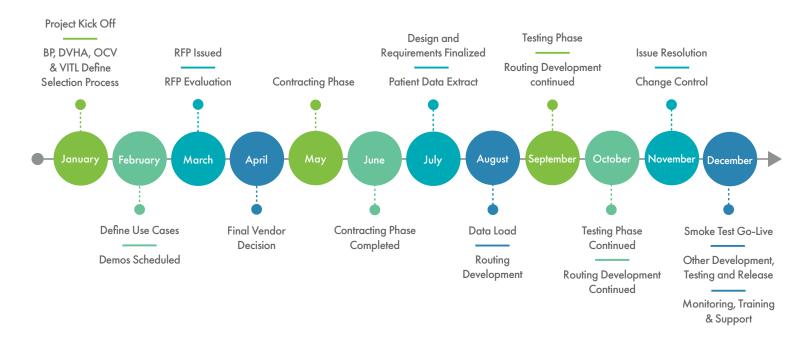
Another way VITL continues to improve data quality and value to clients is with our Meaningful Use consulting work. This service helps healthcare locations with their workflows to meet Meaningful Use objectives and to assist the practices performing Security Risk Assessments.

### Collaborative Services Phase 1

Early in 2019, a new opportunity presented itself to VITL that aligned with the 3 key goals of the HIE Strategic plan. DVHA was approached by multiple programs, including VITL, who were all seeking funding for some of the same tools or applications, and asked VITL and the other programs to investigate a shared approach. VITL partnered with DHVA, Blueprint for Health, and OneCare Vermont over the first 5 months of the year to select shared systems for a Master Patient Index tool, an Interface Engine, and a new Terminology Services Tool. These shared platforms will benefit all 3 organizations and reduce the cost compared to funding multiple purchases and the ongoing maintenance of these tools.

One challenge faced by each organization is the ability to match patient records. It is increasingly more difficult to match patient records across communities. VITL worked to reduce as many duplicates in the existing vendor's system that could be identified, however it was clear to make additional gains that a new Master Patient Index tool was needed. VITL and the other stakeholders went through an RFP process, selected and contracted with Verato, a best of breed referential matching tool. Implementation and testing occurred during the second half of the year, with go-live smoke testing into the production happening in late December. This tool will allow all the stakeholders to achieve the goal of one health record for every person.

#### **MPI timelines for 2019**

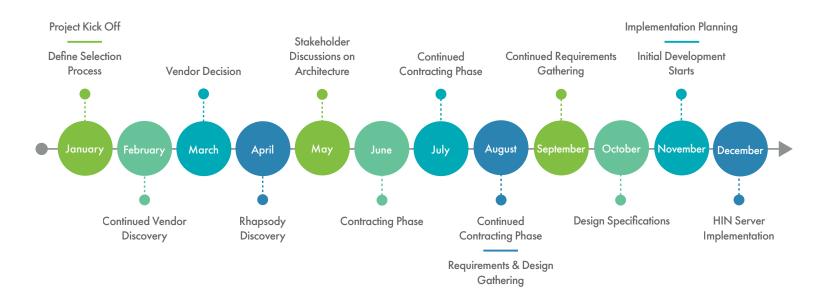


VITL is looking to shed server infrastructure and partnered with the Maine Health Information Exchange, HealthInfoNet, to license and host our Rhapsody Integration Engine and for a replacement Terminology Service called Term Atlas. This was an opportunity to share resources and knowledge with another HIE, while advancing the capabilities of the VHIE. We now have the opportunity to utilize a second external instance of Rhapsody to enable web services in the future. Web services help solve

interoperability issues by allowing different applications a cost effective, efficient way to communicate, exchange and share data. VITL, Blueprint and OneCare Vermont all participated in the selection process of HIN and identified the next set of terminology mapping priorities once the Terminology Service is live. Term Atlas will allow the tagging of sensitive or Part 2 data, which opens the opportunity to develop policies and procedures for collecting and sharing this data in the future.

### Collaborative Services Phase 1

#### **Terminology and Rhapsody Services Timeline**



The last piece of the puzzle this year has been selecting, contracting, and implementing next generation firewalls. These will allow the VHIE to enable web services securely in the future and maintain a high level of security while still giving the VHIE the flexibility needed to route data to a disaster recovery location if the primary data center ever fails.

The combination of these tools are first steps in a larger roadmap to allow the VHIE to accept data from any source, including sensitive or 42 CFR Part 2 data, in multiple formats, and apply consistent patient matching and terminology mappings for all 3 downstream stakeholders, ensuring that the programs have the most complete and consistent data for their analytics programs. These pieces have been put in place in a scalable manner, with an eye towards the future for the potential of more groups or programs to utilize the shared infrastructure.

### Collaborative Services Phase 2 Future Platform

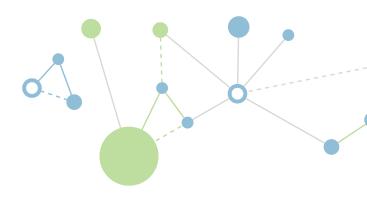
In 2018, as part of VITL's new strategic plan, we began the process of evaluating our point-of-care system, Medicity, and our internally developed Health Data Management (HDM) platform for potential replacement. The interest in evaluating the HDM stemmed from a desire to move away from large, self-developed systems hosted in VITL-owned infrastructure, as upgrading and maintaining the system would have been costly. In addition, we wanted to explore if vendor systems could provide expanded, beneficial capabilities. VITL started researching vendors and developed a detailed Request for Information (RFI). After considering thirty-five vendors, the RFI was sent to fourteen, ten of which provided written responses. This replacement will significantly reduce the burden on VITL's infrastructure and will facilitate the migration of production systems to hosted solutions.

In May 2019 during the Collaborative Services project, the Department of Vermont Health Access (DVHA) became interested in addressing three of the fragmented data repositories of Vermont's health information, which include VITL's HDM, the Blueprint's Vermont Clinical Registry (VCR), and OneCare Vermont's data mart. As VITL provides the data to all three repositories, DVHA asked VITL to lead an effort to consolidate these databases into a single platform. The detailed RFI responses received from the ten vendors in 2018 proved to be valuable resources and jump-started the project.

In September 2019, DVHA found a need to complete migration to the future platform earlier than originally scoped and asked VITL to accelerate the implementation. The goal is to have VCR reporting capability in the new platform by January 2021.

VITL has engaged key healthcare stakeholders within Vermont and created a "core team" to lead the selection of the new platform. Members include individuals from VITL, the Blueprint for Health, OneCare Vermont, DVHA, the Vermont Agency of Digital Services, Vermont Care Partners, Bi-State Primary Care Association, and the Green Mountain Care Board. The final three vendors completed two-day demonstrations in December and are expected to provide written Request for Proposal responses in early 2020. At that point, VITL will make a final selection, execute a contract and work to implement the new system by the January 2021 target.

The stakeholders and the core team have been incredibly engaged and insightful and have developed a thoughtful approach to not only meet the needs of their individual organizations, but for the betterment of Vermont health care. VITL looks forward to continued collaboration well into the future.



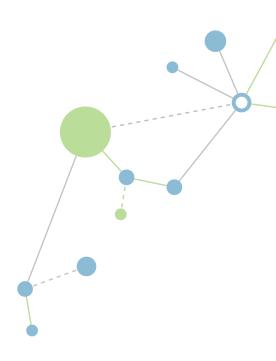
# Protecting Patient Health Information

At VITL, security and patient privacy are our top priorities. To protect the data of Vermonters, we are continually improving our privacy and security policies, procedures, and technical capabilities. VITL remains engaged with several external security firms to complete regular comprehensive vulnerability scans, provide intrusion detection and prevention, perform penetration tests, and actively monitor all our technology systems to stay ahead of the information security curve.

#### In 2019, there have been many enhancements to our security posture. Here are a few highlights:

- Performed quarterly vulnerability scans
- Raised the bar for our security framework
- Worked with the Agency of Digital Services on a technology review and implemented suggestions
- Established a process of managing vendor risk through security assessments
- Implemented secure, offsite backups
- Increased the security of our business systems, including Implementing email encryption, enhancing the protection of VITL's business files, and further securing the employee VPN
- Identified all key business processes through the completion of a business impact analysis
- Began implementing a managed security information event management system

Information security will keep evolving, and as it does, VITL is committed to continuing to enhance its security programs.



# A Change in Vermont's Consent Policy

As recommended by the State's HIT Plan and its HIE Steering Committee, the Legislature adopted an "opt-out" consent policy for individual patient data submitted to the VHIE. In June 2019 Governor Scott approved Act 53, an act relating to informed health care financial decision making and the consent policy for the Vermont Health Information Exchange means that effective March 1, 2020, Vermonters' health information will be viewable in the VHIE unless an individual takes action to hide their records.

Most Vermonters have information in the VHIE, including records of their health and the tests and care they have received from multiple providers. Providers can view information about their patients in the Vermont Health Information Exchange to help inform treatment decisions and provide more coordinated medical care.



VITL is excited to help reduce the burden on Vermont residents and healthcare organizations. In addition to expanding the opportunities for VHIE education and offering easy ways for Vermonters to opt-out of having their information viewable, VITL will support participating health care organizations in the consent collection process and will maintain a record of consent choices for Vermonters.

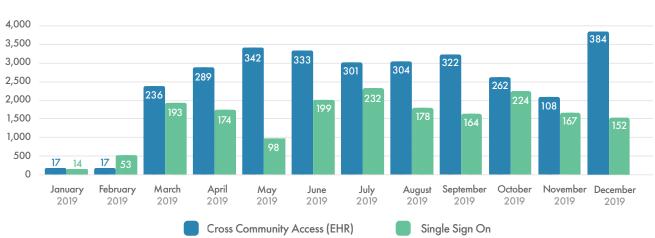
Only the health care professionals involved in a patient's care are authorized to see records in the VHIE. These healthcare providers include doctors, nurses, hospital clinicians, care managers, diagnostic technicians and pharmacists – the same individuals who maintain and view health records in separate systems today. VITL data shows that when asked, 95% of Vermonters want to have their records viewable in the VHIE.

# Implementing Easier Ways to Access Data

VITL seeks to make a patient's health information in the VHIE easily available to providers engaged in their care. VITL facilitates ways to enable providers to access health information via a web-based portal, single sign on through their electronic health record (EHR) or directly within their own EHR systems, thereby reducing the burden of using more than one system.

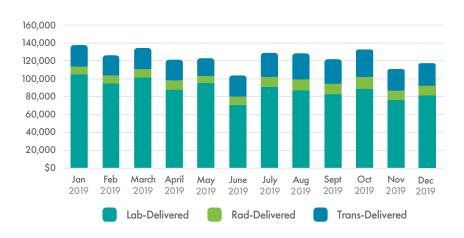
#### **Point of Care: Utilization**





Providers at one Vermont hospital and providers with access to the Veteran's Affairs Virtual Lifetime Electronic Record (VLER) have integrated access to VHIE patient health information within their EHR.

VITL also facilitates the seamless delivery of more than 1.4 million clinical messages in the form of laboratory results, radiology reports and transcribed reports directly into electronic health records throughout Vermont.



## ANNUAL OPERATIONAL STATISTICS



1,490,074

#### PROVIDER RESULTS DELIVERED

The number of electronic clinical messages containing laboratory, radiology and transcribed report results sent from the Vermont Health Information Exchange (VHIE), and delivered seamlessly to provider electronic health records.



47% OF PATIENTS

#### OPT IN TO THE VHIE

The percentage of all Vermont patients who have provided their written permission for treating providers to view their health information via the VHIE.



#### VHIE CONNECTIONS

The number of electronic connections (interfaces) with health care organizations that are currently sending patient information to and from the VHIE.



967.25

#### MEANINGFUL USE/ SECURITY RISK ASSESSMENT HOURS

The number hours dedicated to healthcare organizations to assist with interpreting criteria, improving data quality, and targeting data collection to meet government standards.



169,473,958

#### VHIE MESSAGES SENT

The total number of electronic messages with patient information were transmitted to the VHIE for use at the point of care, and exited the VHIE to other health care partners such as OneCare Vermont, the VT Clinical Registry, the VT Chronic Care Initiative, and the Vermont Department of Health.



#### PATIENT RECORDS ACCESSED

The number of patient records accessed via the VITLAccess provider portal, single sign-on, or cross-community access such as the U.S. Department of Veterans Affairs.



#### PATIENT CONSENT AUDITS

The number of audits performed by VITL to ensure patient privacy, security and appropriate use of the VHIE.



99.5%

#### VHIE AVAILABILITY

The percentage of time that the VHIE was online and available to its users.

# FINANCIAL SUMMARY

Vermont Information Technology Leaders, Inc. is a 501 (c) (3) nonprofit incorporated in the State of Vermont with fiscal years that begin on July 1 and end on June 30 of the subsequent year.

The summary presented here is for the fiscal year that ended on June 30, 2019 and is extracted from VITL's FY19 audited financial statements.

In FY 19, VITL continued to strengthen its financial internal controls along with taking action to reduce its financial footprint by reducing lease costs, insurance and other fixed costs in order to augment VITL's long-term sustainability.

In addition, VITL flattened the leadership structure to reduce cost, and improve communication and efficiency. The result of these actions is that VITL is in a much stronger position and has appropriate financial resources to enable it to conduct its normal course of business.

As in prior years, VITL has undergone a financial audit and our auditors, Gallagher Flynn have issued an unqualified opinion.

VITL's audited financial and other financial data including IRS Form 990 and compliance reports are available on the VITL website at https://www.vitl.net/about/financials.

#### **2019 Audited Financials-Statement of Activities**

Revenue	FY 2019	FY 2018
Federal and state contracts	\$5,044,088	\$5,517,498
Program service fees	\$1,001,546	\$999,116
Other	\$17,638	\$1,383
Total Revenues and Support	\$6,063,272	\$6,517,997
Expenses		
Program	\$3,673,971	\$3,816,475
Supporting-general and administrative	\$1,449,519	\$1,684,923
Total Expenses	\$5,123,490	\$5,501,398
Increase in Net Assets	\$939,782	\$1,016,599
Net Assets - beginning of year	\$2,579,997	\$1,563,398
Net Assets - end of year	\$3,519,779	\$2,579,997

# GOALS FOR 2019 TO 2021



#### STRATEGIC GOAL 1 **IMPROVE DATA QUALITY**

VITL will ensure that data are accurate and useful, resulting in increased value at the point of care and for the purposes of health care reform.



#### STRATEGIC GOAL 2 **EXPAND ACCESSIBILITY** TO DATA

VITL will enable multiple ways for providers to access health records in the Vermont Health Information Exchange and make it easier to securely obtain data.



#### STRATEGIC GOAL 3 **DIVERSIFY REVENUES**

VITL will explore, implement and expand added services that put the organization on a stable financial footing.



#### STRATEGIC GOAL 4 RIDE THE WAVE OF INNOVATION

VITL will seek out and partner with private/ public/nonprofit entities to offer products and services that enhance the delivery of health care.



#### STRATEGIC GOAL 5 **SMART TECHNOLOGY CHOICES**

VITL will purchase or develop technology based on cost, security, stability, adaptation to change, required revenue and understanding of customer needs.



#### STRATEGIC GOAL 6 **BOARD OF DIRECTOR ENGAGEMENT**

The VITL board will be engaged in shaping VITL's mission and direction while fulfilling board governance functions, to ensure the organization is sustainable, has effective leadership and appropriate resources.



#### STRATEGIC GOAL 7 MAINTAIN A SKILLED WORKFORCE

VITL will recruit, train and maintain a highly skilled workforce to operate the Vermont Health Information Exchange and develop new products and services.

# VITL'S MISSION

VITL's mission for the Vermont Health Information Exchange (VHIE) is focused on data, particularly strategies to ensure that accurate and secure data is delivered in the most efficient, effective and useful manner. This means delivering data not only to providers at the point of care, but also to health care organizations, payers and others engaged in reforming the delivery of health care in our state.

VITL'S VISION To seamlessly integrate into the delivery of health care, value-added products and services that enhance the quality, accessibility and affordability of health

care in the State of Vermont.

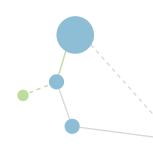
VITL's technological and entrepreneurial skills will be fully utilized, to create the value-added products and services that improve quality and reduce the cost of health care in Vermont.

### 2020 RECOMMENDATIONS



# CONTINUE SUPPORT FOR THE STATEWIDE STRATEGIC HIE PLAN.

The statewide strategic Health Information Exchange (HIE) plan recently approved by the GMCB sets a precedent for a coordinated approach to HIE governance, strategic planning, oversight and evaluation in the coming years. Continued support by the Legislature and the GMCB will ensure the success of all systems involved in the HIE ecosystem, by incorporating national best practices and feedback from key HIE constituents.



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# ACT 53 CHANGED VERMONT'S HIE CONSENT POLICY TO OPT-OUT. CONTINUED SUPPORT FOR EDUCATION AND IMPLEMENTATION IS NEEDED.

Vermont's opt-out consent policy, effective March 1, 2020, fulfills the HIE Steering Committee's vision to ensure the future of our health care system "is supported by consent policies and technologies that allow for simple management of consent preferences to enable transfer of data supporting a person when and where they need care. Consent management is not seen as burdensome, and associated policies and processes are reflective of federal and state law."

VITL and the Department of Vermont Health Access (DVHA) continue to make significant progress to provide education to Vermonters about the VHIE and their choices to have their information viewable, while ensuring patient privacy and reducing the burden on providers. The implementation and education will need to continue long after the effective date of March 1, 2020, to have maximum impact and empower Vermonters to make informed decisions.

In 2020, VITL will develop new policies and procedures to identify and collect patient consent for sensitive protected health information including 42 CFR Part 2 information. A new policy could be developed by using the provisions of the Federal Health Insurance Portability and Accountability Act—or what is commonly known as HIPAA. HIPAA already contains strict privacy rules on sharing health information.

VITL would like to engage appropriate stakeholders to continue these discussions with the intention of creating policies and procedures for collecting and sharing sensitive information.

# 2020 RECOMMENDATIONS

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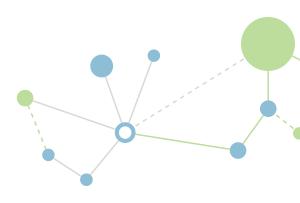
# CONTINUED SUPPORT FOR THE COLLABORATIVE SERVICES PROJECT AND THE STATE'S HEALTH CARE REFORM EFFORTS.

VITL and Collaborative Services project participants have made significant progress toward reducing duplicative systems, improving functionality and implementing a more efficient, high-performing infrastructure.

In service of Vermont residents and stakeholders in the Vermont health care ecosystem, continued support and stakeholder engagement is needed for the aggregation of:

- Clinically Sensitive and 42 CFR Part 2 data
- Social Determinants of Health data
- Claims data
- Advanced Directives

VITL is excited to support and ensure that valuable health information can be shared across the health care continuum. VITL recognizes the need to support all health care stakeholders for the benefit of Vermont residents and to support health care reform efforts, including the transition to the all-payer model.







Vermont Information Technology Leaders
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