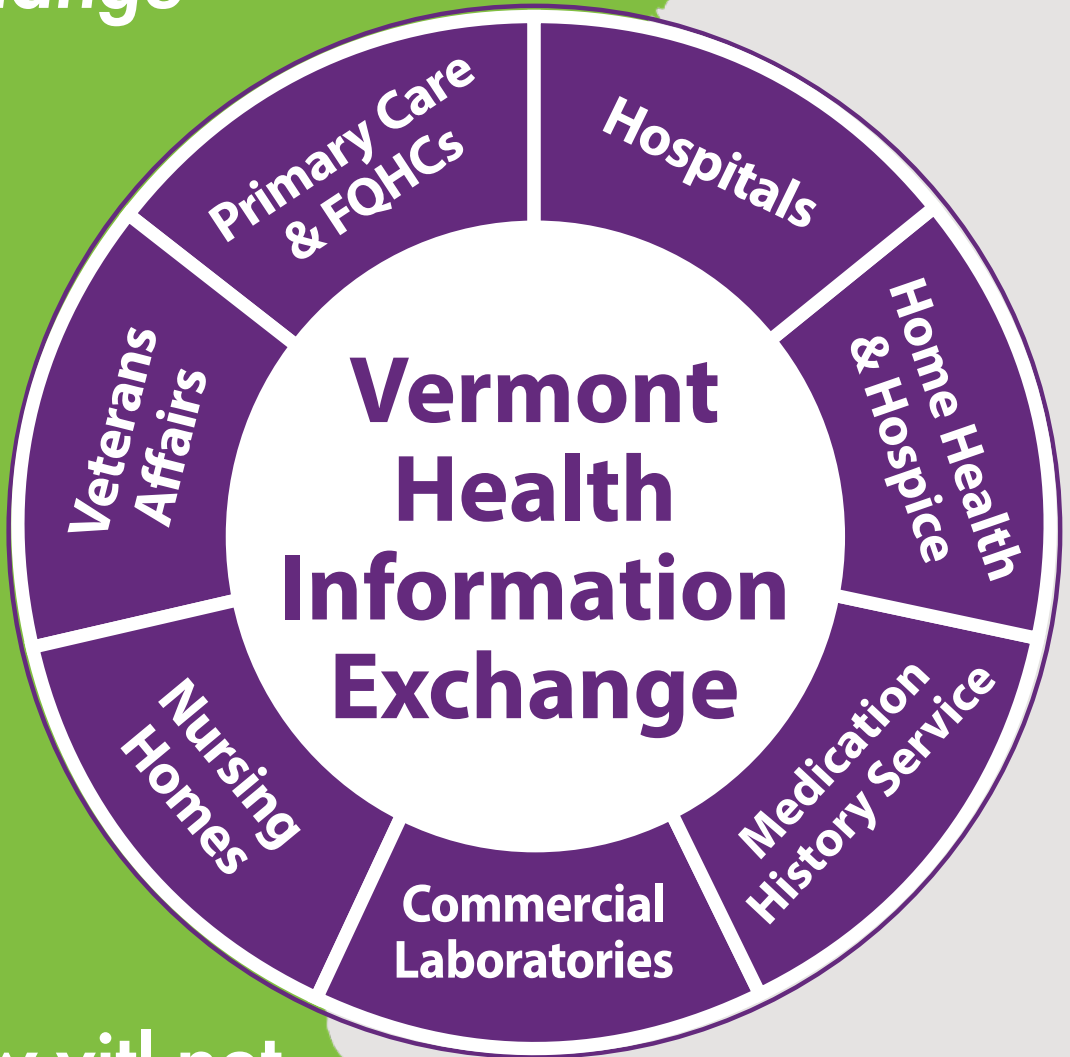




2018

Annual Report

*Progress for Vermont's
Health Information
Exchange*



www.vitl.net

Table of Contents

| | |
|-----------|--------------------------------------|
| 3 | Executive Letter |
| 4 | Board of Directors |
| 5 | VITL Summary |
| 6 | Accomplishments and Progress |
| 9 | Annual Operational Statistics |
| 10 | Financial Summary |
| 11 | Goals for 2019 to 2021 |
| 12 | 2019 Recommendations |

Executive Letter

Vermont Information Technology Leaders, Inc. (VITL)—operator of the Vermont Health Information Exchange (VHIE)—is pleased to present our 2018 annual report. This past year has been one of tremendous, much-needed progress in key areas. Most significantly, VITL and the State of Vermont have addressed the recommendations made by the Act 73 report, issued at the end of 2017. We are well-positioned for success through these efforts.

Highlights include:

- VITL established a strategic plan that focuses on organizational stability, allowing VITL to regain credibility and look ahead to future opportunities.
- VITL developed ways to make it easier for providers to access and view information from the VHIE through their own electronic health record (EHR). Providers now have a choice in accessing clinical information on their patients through their EHR or via the existing web-based provider portal, VITLAccess.
- VITL continued its efforts on data quality improvement, meeting key milestones.
- VITL implemented a technology road map.
- In conjunction with the State's Health Information Exchange (HIE) Steering Committee, VITL established Connectivity Criteria approved by the Green Mountain Care Board.
- VITL bylaws and board membership criteria were updated, and new board members and a new committee structure were approved.
- VITL conducted a review of its financial operations, finalized its FY 2018 financial audit report, and significantly reduced its budget going forward.
- VITL's FY 2019 budget has been approved by the Green Mountain Care Board.

In addition, we continued our progress in these fundamental areas:

- VITL delivers over 1.3 million lab results, radiology reports and other reports annually, directly to provider EHRs.
- VITL connects to and maintains over 1,000 interfaces with providers, sending patient clinical data to and from those providers and processing over 139 million data messages annually.
- 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 outlined below, we plan to continue our progress in the coming year. A more robust partnership with the State through its now-approved Health Information Technology (HIT) Plan has tremendously aided VITL's efforts. Looking forward, VITL and the State's health care reform efforts will be aided by further strategic planning, oversight and evaluation through the State's HIE governance structure; revising the State's consent policy to permit easier patient participation; and stabilizing the State's HIT Fund. VITL looks forward to working with the administration, the Vermont Legislature, and our customers throughout the state in the coming year and beyond.

Sincerely,



Michael K. Smith
Interim President & CEO, VITL



Bruce Bullock, MD
Chair, VITL Board of Directors

Board of Directors

- Board of directors as of the September 2018 annual meeting -



Bruce Bullock MD
Marble Valley



Amy Putnam
NMC



Joel Benware
NMC



Michael Del Trecco
VAHHS



Todd Moore
OneCare Vermont



Richard Elmore
Allscripts



Jessa Barnard Esq.
VT Medical Society



Richard Slusky
Retired, GMCB



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



Michael K. Smith
VITL Interim CEO

Standing Committees

Executive & Governance

- Chair - Bruce Bullock MD
- Mike Del Trecco
- Todd Moore
- Michael Smith

Finance

- Chair - Mike Del Trecco
- Bruce Bullock MD
- Amy Putnam
- Richard Slusky
- Michael Smith

Technology

- Chair - Joel Benware
- Tom Evslin
- Leah Fullem
- Mark Nunlist MD

Audit

- Chair - Amy Putnam
- Bruce Bullock MD
- Mike Del Trecco
- Mary Beth Eldredge
- Richard Slusky

VITL Summary

VITL is an important source of protected, high quality clinical data for health care providers in Vermont. During 2018, VITL heeded the recommendations of *Act 73: Section 15, Health Information Technology Report*, passed by the Vermont Legislature in 2017. The Act commissioned a comprehensive review and subsequent report of the State of Vermont's (SoV) health information technology (health IT) initiatives, which included a review of VITL as the operator of the Vermont Health Information Exchange (VHIE).

A framework was established by the Legislature in 2018 with the passage of *Act 187: An act relating to health information technology and health information exchange*, to make improvements in the areas identified by the Act 73 report. The framework guides the SoV and VITL toward implementing the Act 73 recommendations. Per Act 187, the Green Mountain Care Board (GMCB) and the Legislature are kept apprised of progress made with VITL's business and technical operations, and the planning, management and oversight of the VHIE. VITL is pleased to report that the requirements of Act 187 were met.

VITL's achievements in meeting the mandates includes:

- A completed and updated workplan to assist the General Assembly in evaluating the success or failure of the SoV and VITL's work.
- VITL and the SoV submitted timely progress updates to the General Assembly and the GMCB on implementing Act 73 recommendations.
- A third-party evaluation illustrated that the SoV and VITL have either completed or are making sufficient progress on Act 73 recommendations.
- VITL completed its operating and finance review.

VITL has been successful in connecting over 1000 locations (interfaces) and collecting various health and demographic data. VITL annually delivers 1.3 million lab results, radiology reports and transcribed notes through messages that are delivered from the VHIE directly into a provider's electronic health record (EHR). VITL also provides specific, stratified and needed health data in a reliable and timely format to such entities as OneCare Vermont, the Blueprint for Health, the Vermont Chronic Care Initiative, and the private event notification service PatientPing.

Today, VITL's budget is \$1 million less than just two fiscal years ago, and the 2020 fiscal year budget will

reduce state funding by another \$500,000. VITL has reduced expenses mainly through staff reductions.

As VITL looks toward the future, it has developed a three-phase strategic plan that addresses many of the concerns from policy makers and stakeholders.

Phase 1: Stabilizing Operations

VITL has created financial and operational stability by:

- Committing to a lean, more focused organization.
- Developing a three-year budget plan, and gaining approval of its FY 2019 budget from the GMCB.
- Improving lines of communication between state officials and legislative leadership, and listening to the needs and challenges of the health care community in Vermont.

Phase 2: Reestablish Credibility

VITL has several performance measures that were met. First, a legislatively mandated workplan was developed, with regular progress updates provided to the GMCB and the Legislature.

Next, the organization went through an evaluation to ensure enough progress was made since the initial Act 73 report. VITL was very pleased to receive a positive third-party evaluation.

Phase 3: Adjusting to the Future

Nationally, the mission and responsibilities of HIEs are on the verge of change because of market forces, evolving technology and customer needs. VITL must change too, to be a productive partner in health care and health care reform efforts here in Vermont.

Either through consortiums or through individual efforts, and with encouragement from the federal government, individual EHR systems are becoming more adept at interconnectivity, allowing easier sharing of patient data. Inevitably, there will be challenges in moving toward complete EHR integration, as well as concerns regarding the reliability and robustness of the information that can be shared: with time it is likely that these challenges will be met.

VITL recognizes that data for analytics and quality measurement will be key needs to be fulfilled in the future, rather than simply data sharing.

Accomplishments and Progress

Guided by the Act 73 report, VITL took steps in 2018 to refresh its oversight, staffing, and focus on the core mission of the Vermont Health Information Exchange (VHIE).

VITL and the Department of Vermont Health Access (DVHA) established a joint advisory committee and a workplan, which was adopted by the VITL board and submitted to the Legislature and the Green Mountain Care Board (GMCB) in May. The workplan contained specific objectives that were incorporated into VITL's contractual commitments with the State for the remainder of 2018.

Progress updates were submitted to the Legislature and GMCB bi-monthly, beginning in May and ending in January of 2019. In early October, HealthTech Solutions, the authors of the Act 73 evaluation report, delivered

a subsequent evaluation report which illustrated that VITL completed or was making sufficient progress on all items evaluated.

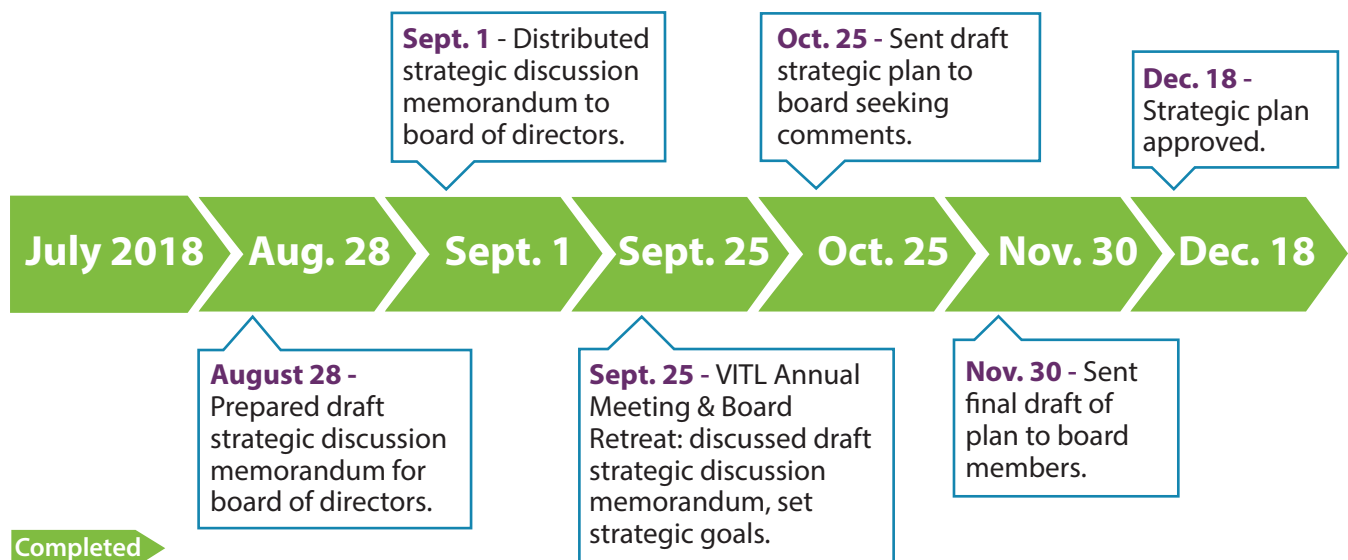
VITL is pleased to present the following key accomplishments in 2018:

- Development of a VITL strategic plan.
- Improvement of VHIE data quality and terminology services.
- Easier ways for providers to access VHIE data.
- Reduction in the number of duplicate records in the VHIE.
- Expansion and enhancement of the VHIE network to collect, aggregate and exchange data.
- Ensured the security and availability of the VHIE network.

Improving Governance and Strategic Planning

A key recommendation of the Act 73 report involved refreshing VITL's governance to ensure it was aligned with the needs of the organization and its customers, including the State of Vermont. VITL undertook these changes to ensure that its board has technical and user expertise, along with the organizational and financial

leadership necessary to lead VITL in the coming years. VITL also developed a strategic plan, described in the timeline below, to position itself for the next phase of health care reform in Vermont: supporting quality and improved patient outcomes, as providers transition from the traditional fee-for-service payment model.



Accomplishments and Progress

Improving Data Quality and Terminology

One of the primary objectives of the VHIE is the integration, aggregation and communication of diverse health care information from disparate sources.

As data from different systems are exchanged and used outside its originating system, it is imperative to maintain the original meaning of the data. The volume and variety of data introduces challenges for any HIE, registry, or reporting system attempting to interpret and use information. The underlying challenge is that data documented by health care providers, including laboratories, clinics, pharmacies and hospitals, often lacks a common *technical language* that enables the data to be shared and understood.

Using standard terminologies can provide the technical language that enables the data to have meaning outside its originating system. A terminology service can standardize the data to a common terminology, including national and international code systems and value sets, enriching the data with context and meaning.

When data are translated in a universal and consistent way, it becomes easy to aggregate in a meaningful

way. This ensures data are reliable for use within and between other systems engaged in health information exchange like Vermont's own HIE.

The benefits of standardizing VHIE data for consistency, meaningfulness and interoperability include:

- The ability to reuse data between a variety of systems without losing its integrity or meaning.
- Data that are comparable between patient populations and/or reporting systems.
- Data that are useful for comparing patient populations, providers, clinical groupings, etc.
- Identification of patients of interest based on risk score, clinical conditions, etc.
- Consistency with data so reports are reproducible.

During 2018, VITL expanded the use of its terminology service by integrating the engine into the VHIE architecture, for automated use during real-time message processing. An evaluation performed at the completion of this effort revealed a 20 percent average improvement in the data quality of eight common lab tests, contributed by 33 health care practices.

Data Quality and Terminology Improvement Timeline

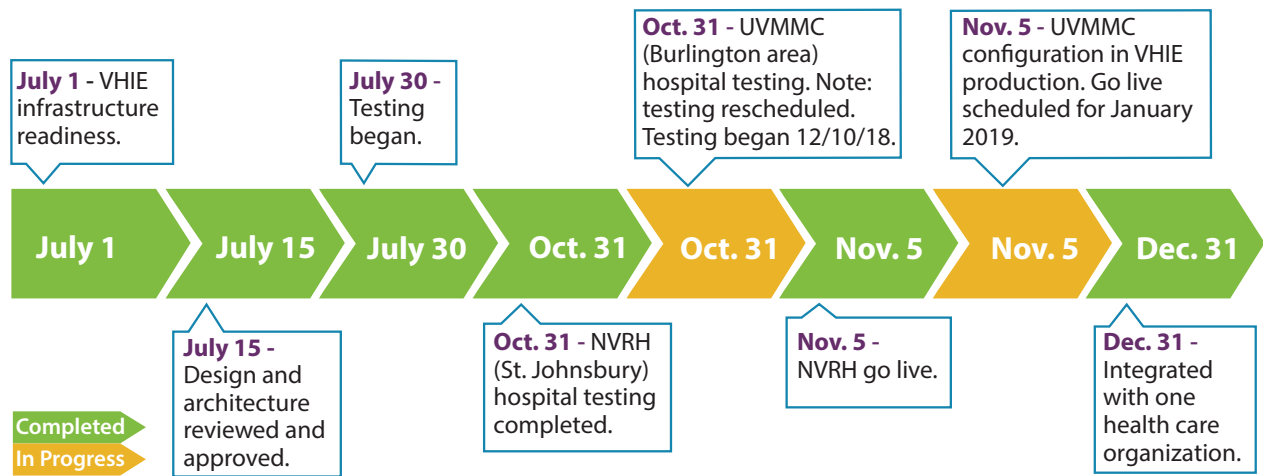
| July - August 2018 | September - October 2018 | November - December 2018 |
|--|--|---|
| <p>July - Project initiated.</p> | <p>Sept. 6 - Selected health care organization (HCO) and key terminology.</p> | <p>Dec. 1 - Data quality impact report delivered to SoV.</p> |
| <p>August 15 - Plan sent to the State of Vermont (SoV).</p> | <p>Sept. 24 - HCO engagement meetings held.</p> | <p>Dec. 4 - Go live.</p> |
| <p>August 29 - Plan approved by SoV.</p> | <p>Oct. 11 - Testing completed.</p> | <p>Dec. 6 - Client attestation. *In progress.</p> |

Accomplishments and Progress

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 developed ways to enable providers to access health data directly within their EHR systems, thereby reducing the burden of using more than one system and allowing providers to rely on a system with which

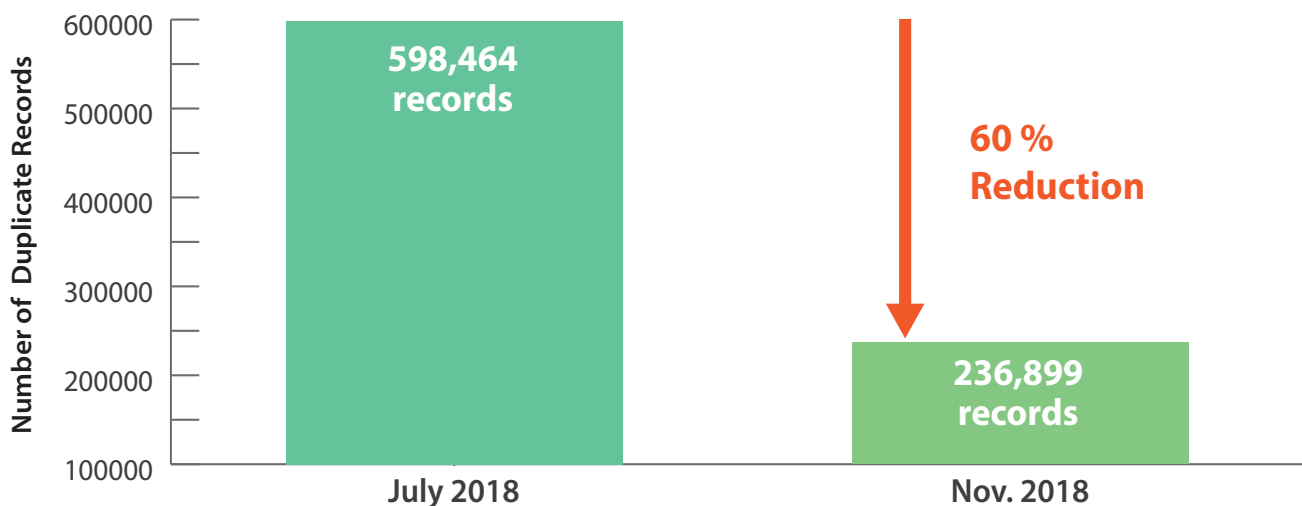
they are familiar. In 2018, providers at one Vermont hospital and any provider in the nation with access to the Veteran's Affairs Virtual Lifetime Electronic Record (VLER), have integrated access to VHIE patient health data within their EHR.



Number of Duplicate Patient Records Reduced

Identity matching is challenging given the frequency with which key patient demographics change, such as a patient's name, address or even gender. In addition, data contributed to the VHIE from different sources

provides a challenge in matching patients to their records. VITL expended resources to match patient records from all sources within the VHIE and reduce the amount of known duplicate records by 60 percent.



Annual Operational Statistics

PROVIDER RESULTS DELIVERY

1,362,787

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

VHIE CONNECTIVITY

1062

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

PERCENT OF PATIENTS OPTING IN TO THE VHIE

39%

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

VHIE MESSAGE VOLUME

139,756,514

The total number of electronic messages with patient information 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, PatientPing, and the Vermont Department of Health.

MEANINGFUL USE/ SECURITY RISK CONSULTS

132

The number of consultations to assist health care organizations with interpreting criteria, make appropriate workflow changes, and assist with targeted data collection to meet government standards.

PATIENT RECORDS ACCESSED

37,043

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

877

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

VHIE AVAILABILITY

99.7%

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, 2018, and is extracted from VITL's FY18 audited financial statements.

The Act 73 report recommended that VITL undertake an operational audit of its financial policies and procedures. This past September, the operational audit of VITL was completed by KPMG, a recognized international audit and consulting firm. The audit report concluded with 12 observations ranging from those with a high potential for a control gap (2), those with a medium potential (6), and those with a low potential (4).

Many of these observations are typical for a small organization like VITL, such as segregation of duties, financial sustainability, and operational

redundancy. Presently, VITL has completed eight of the recommendations from KPMG and the remaining four are on-going.

In FY18, VITL received revenue primarily from state and federal contracts, with the remaining amount coming from services fees. This is a significant change in funding vehicles from prior years where grant agreements with the state and federal government were the principal source of funding. Because of this change, VITL was not required to have a Single Audit (A-133) conducted for FY18. As usual, VITL has undergone a financial audit and the auditors have issued an unqualified opinion.

Therefore, readers will notice that the format between the FY17 and FY18 annual report financial summaries are different. Detailed FY18 and archived financial statements—including IRS Form 990 and compliance reports—will be made available on the VITL website at <https://www.vitl.net/about/financials>.

FY18 Audited Financials - Statement of Activities

| | 2018 | 2017 |
|--|--------------------|--------------------|
| Revenue | | |
| Federal and state grants and contracts | \$5,517,498 | \$5,731,661 |
| Program service fees | \$999,116 | \$1,194,640 |
| Conference fees | - | \$208,218 |
| Other | \$1,383 | \$43 |
| Total Revenues and Support | \$6,517,997 | \$7,134,562 |
| Expenses | | |
| Program | \$3,816,475 | \$4,842,279 |
| Supporting-general and administrative | \$1,684,923 | \$2,065,178 |
| Total Expenses | \$5,501,398 | \$6,907,457 |
| Increase in Net Assets | \$1,016,599 | \$227,105 |
| Net Assets - beginning of year | \$1,563,398 | \$1,336,293 |
| Net Assets - end of year | \$2,579,997 | \$1,563,398 |

Goals for 2019 to 2021

| | | | |
|--|--|--|--|
| <p>GOAL 1</p>  | <p>STRATEGIC GOAL 1: IMPROVE DATA QUALITY</p> <p>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.</p> | <p>GOAL 2</p>  | <p>STRATEGIC GOAL 2: EXPAND ACCESSIBILITY TO DATA</p> <p>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.</p> |
| <p>GOAL 3</p>  | <p>STRATEGIC GOAL 3: DIVERSIFY REVENUES</p> <p>VITL will explore, implement and expand added services that put the organization on a stable financial footing.</p> | <p>GOAL 4</p>  | <p>STRATEGIC GOAL 4: RIDE THE WAVE OF INNOVATION</p> <p>VITL will seek out and partner with private/public/nonprofit entities to offer products and services that enhance the delivery of health care.</p> |
| <p>GOAL 5</p>  | <p>STRATEGIC GOAL 5: SMART TECHNOLOGY CHOICES</p> <p>VITL will purchase or develop technology based on cost, security, stability, adaptation to change, required revenue and understanding of customer needs.</p> | <p>GOAL 6</p>  | <p>STRATEGIC GOAL 6: MAINTAIN A SKILLED WORKFORCE</p> <p>VITL will recruit, train and maintain a highly skilled workforce to operate the Vermont Health Information Exchange and develop new products and services.</p> |
| <p>GOAL 7</p>  | <p>STRATEGIC GOAL 7: BOARD OF DIRECTOR ENGAGEMENT</p> <p>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.</p> | <p>VISION</p>  | <p>VITL'S VISION</p> <p>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.</p> |

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 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.

2019 Recommendations

1. Continue support for the statewide strategic HIE plan.

The statewide strategic Health Information Exchange (HIE) plan recently approved by the GACB 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 GACB will ensure the success of all systems involved in the HIE ecosystem, by incorporating national best practices and feedback from key HIE constituents.

2. Vermont's consent policy needs to change to lessen the burden on providers and patients, while ensuring patient privacy.

The HIE Steering Committee has established the following vision in the area of consent management: 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."

Currently Vermont's *opt-in* (consent to share health information) policy does not fulfill the committee's vision. In fact, the *opt-in* process is seen as burdensome within our current health care system where many Vermonters aren't even asked for consent. Currently, only 39 percent of Vermonters have agreed to have their health records accessible to all treating providers under Vermont's policy of *opt-in*. Vermont's consent policy needs to change to lessen the burden on providers and patients while ensuring patient privacy.

A new policy could be developed by using the provisions of the 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.

There is another alternative as well: many states have an *opt-out* provision where a patient can opt not to be in the health information exchange (in Vermont's case in the VHIE) but the default policy would be that medical records would be included in the VHIE where they could be accessed by treating providers.

VITL would support movement to either policy, although HIPAA would be the preferred policy.

3. Move the HIT fund sunset provision from an annual event to a three-year event.

Currently, the continuation of the Health Information Technology (HIT) Fund has an annual sunset provision. This creates instability in funding decisions, especially in technology that requires the selection, purchase and implementation often over multiple years.

Understandably, the Legislature wishes to have accountability in its funding decisions. However, oversight can be achieved by annual reviews and a sunset provision every three years instead of annually.