VITL
VERMONT INFORMATION TECHNOLOGY LEADERS, INC.

Transforming Health Care Through Technology
Annual Report 2015
Contents

3 Executive Summary
4 Board of Directors
5 The Vermont Health Information Exchange
9 Point of Care Services
13 Improving the Quality of Health Care Data
16 VITL Summit ‘15
17 Financial Summary
18 Operational Statistics
19 Our 2016 Commitments
Executive Summary

January 15, 2016

Vermont Information Technology Leaders, Inc. (VITL)—the operator of the Vermont Health Information Exchange (VHIE)—is pleased to provide this 2015 annual report which meets our obligations under 18 V.S.A. §9352(e).

VITL was formed ten years ago based on a vision shared by health care stakeholders across the state, and realized through legislative action and funding from the State of Vermont. Today, the vision of improving health outcomes in our state by making clinical data available in a secure manner is a reality. Vermont patients, treating providers, and the initiatives designed to reform the health care delivery system are benefiting on a daily basis from VITL’s capabilities.

In 2015 VITL delivered value in the following ways:

- Vermont patients who gave their consent can expect treating providers who use VITLAccess to view their statewide medical information.
- Using VITLAccess, Vermont providers can now make more informed and more cost-effective clinical decisions.
- Vermont’s accountable care organizations now use data from the VHIE to perform analytics, and to track progress of their performance measures.
- The Blueprint for Health is improving the quality and effectiveness of care delivered at patient centered medical homes using data supplied by the VHIE.
- As a result of working with VITL, Vermont Care Partners has improved the quality of data collected by their member agencies.
- The Vermont Department of Health is receiving electronic immunization data from providers across the state using VITL’s new data management and reporting capabilities.
- Network security is being enhanced to meet the standards of the National Institute of Standards and Technology (NIST), the highest level of security requirements that exist in the health care industry.
- The quality of clinical data in the VHIE is being continuously improved by working with contributing organizations, by utilizing our new data management infrastructure at the network level, and by providing data quality score cards to contributing organizations.

We are immensely proud of VITL’s progress and achievements in 2015. We also recognize that there is much more work ahead in developing the clinical data infrastructure to meet the growing needs of Vermont’s health care system, and to continue providing value for Vermonters.

John K. Evans, MHA, FACHE  
VITL President and CEO

M. Beatrice Grause RN, J.D.  
Chair, VITL Board of Directors
Board of Directors

Executive/Governance
- Bea Grause, Chair
- Don George, Vice Chair
- Andrea Dinneen, Secretary
- Amy Putnam, Treasurer
- John K. Evans

Finance
- Amy Putnam, Chair
- Bea Grause
- Patrick Flood
- Paul Harrington
- Simone Rueschemeyer
- John K. Evans

Provider Advisory
- Diana Barnard MD
- Rick Barnett PsyD
- Bruce Bullock MD, Co-chair
- Mark Burke MD, FACC
- Rebecca Jones MD
- Kyrstina Laychak RN
- Kate McIntosh MD, Co-chair
- Andrea Regan MD
- Martha Stitelman MD
- Deborah Wachtel NP, MPH, MS
- Norman Ward MD

Standing Committees

Technology
- Andrea Dinneen, Chair
- Richard Elmore
- Joel Benware
- Jerry Ford
- John K. Evans

Transforming Health Care Through Technology
Operational Summary

The Vermont Health Information Exchange (VHIE) — with its depth and breadth of connections around the state—is a clinical data network built to deliver valuable services to providers and provider networks across the state.

Today, the VHIE securely receives clinical data from all 14 Vermont hospitals, Dartmouth-Hitchcock Medical Center, all of Vermont’s 11 Federally Qualified Health Centers, 120 other primary and specialty care locations, five member agencies of the VNAs of Vermont, and three commercial laboratories.

The clinical data are then made available to health care providers and organizations in meaningful ways to improve health care outcomes for Vermonters. Examples include:

- 97 health care locations receive timely and accurate laboratory results directly into their electronic health record (EHR) systems from the hospitals and commercial labs that generate them, ensuring primary care providers have the latest patient information.

- The Vermont Department of Health receives electronic immunization reports from 121 health care locations around the state, improving the efficiency and accuracy of the Vermont Immunization Registry.

- Two Vermont accountable care organizations (networks of providers who have joined together to reduce the per-patient cost of health care) rely on VITL to collect clinical data to meet their commitment to improve patient outcomes.

- In support of the Vermont Blueprint for Health, the VHIE collects information for the Blueprint clinical registry, which in turn is used to manage chronic diseases in Vermont.

### Interface Count by Organization

<table>
<thead>
<tr>
<th>Organization</th>
<th>Data Contributors</th>
<th>Data Receivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Lab</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Home Health Agency</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Long Term Care</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Designated Agency</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Hospital</td>
<td>95</td>
<td>3</td>
</tr>
<tr>
<td>Specialty Care</td>
<td>62</td>
<td>64</td>
</tr>
<tr>
<td>FQHC</td>
<td>87</td>
<td>93</td>
</tr>
<tr>
<td>Primary Care</td>
<td>195</td>
<td>93</td>
</tr>
</tbody>
</table>

VITL 2015 Annual Report
VHIE New Data Contributors

Early in 2015 a project with Southwestern Vermont Medical Center (SVMC) completed VITL’s goal of connecting all of Vermont’s hospitals to the VHIE. An innovative team work model was used during this project that brought together SVMC, their EHR vendor, VITL and VITL’s HIE vendor to successfully expedited completion.

“These additional connections deliver data and reporting abilities that will enhance the provider-patient care relationship in the Bennington service area, and across the state.”

Rich Ogilvie, Chief Information Officer
Southwestern Vermont Medical Center

VITL now receives immunization reports, laboratory results, encounter reports, radiology results, and other transcribed reports from SVMC. Other hospital projects included the completion of additional interfaces with Brattleboro Memorial Hospital (pathology results) and Northwestern Medical Center (radiology and transcribed results and pathology results).

The Vermont Department of Health and VITL continued to work together to connect facilities that provide vaccines to the Vermont Immunization Registry. Seventy-one new immunization interfaces came online in 2015, bringing to 121 the total number of sites that can report immunizations directly from their electronic health record system.

“VITL’s connections to the Vermont Immunization Registry are making it possible for providers to meet their requirements to provide immunization data electronically.”

Tracy Dolan, Deputy Commissioner
Vermont Department of Health

Continuity of Care Documents

A Continuity of Care Document (CCD) contains a summary of valuable medical information about a patient who may need to transition from one care setting to another, such as from a hospital to long-term care facility. A CCD does not contain a patient’s entire medical record, but does include important clinical information that providers need for making informed care decisions. This information is also used by the Blueprint for Health and accountable care organizations to determine if they are meeting their goals for better care.

During 2015 VITL doubled the number of health care organizations contributing CCDs to the VHIE, including home health agencies, hospitals and primary care practices.

Cumulative Interface Count by Calendar Year

![Cumulative Interface Count by Calendar Year](image-url)

Transforming Health Care Through Technology
Data Receivers

The VHIE delivers certain types of information (lab results, radiology reports and transcribed reports) directly to providers’ electronic health record systems.

During 2015 VITL added lab results delivery connections to one nursing home (Derby Green), three locations of Northeast Kingdom Human Services, 15 locations of Northern Counties Health Center (FQHC), Mountain Health Center (FQHC), and six independent primary care providers.

Transcribed report and radiology report connections were added for 15 locations of Northern Counties Health Center (an FQHC) and five independent primary care providers.

Data Management & Reporting

VITL has completed the development of a clinical data warehouse that captures information messages coming in to the VHIE in a manner suitable for analytics. The warehouse takes advantage of the connections and interfaces already established with data sources (hospitals, primary care, etc.) and collects incoming messages into a dataset that can be utilized for a variety of clinical analysis purposes.

A unique capability of the clinical data warehouse is the ability to parse a CCDs into unique data elements. This parsing capability can now extract important elements, such as blood pressure or cholesterol levels, into a regular structure to dramatically improve analytics.

VITL is using the clinical data warehouse to create the datasets necessary for ACO analytics, replacing a data message passing infrastructure that operated through 2014 and much of 2015.

“An ACO at its nature has to recognize the interconnectedness of the health care delivery network. And, the key to an interconnected health care system is to understand what happens to a patient in all these points of care, so that we know the totality of what the patient needs.”

Todd Moore, CEO
OneCare Vermont

These datasets—or data marts as they are often called—provide more complete information to OneCare Vermont for their Medicaid, Medicare and commercially insured beneficiaries.

VITL is employing the same data warehousing technique to create a data mart for Community Health Accountable Care (CHAC) Medicaid beneficiaries.
Security Enhancements

VITL is always working to maintain the highest level of security for data in the VHIE and to protect it against cyberattacks. VITL currently meets all of the security requirements of the Health Insurance Portability and Accountability Act (HIPAA) and is working to reach a higher standard defined by the National Institute of Standards and Technology (NIST).

NIST 800-53 Revision 4 defines a set of security and privacy controls for information systems and organizations which need to protect their assets from an ever increasing and diverse set of cyberattacks.

In 2015, VITL engaged an independent security consulting firm to assess VITL's position against the NIST security framework. The comprehensive review confirmed that VITL is fully HIPAA compliant and is moving toward the more rigorous NIST security compliance.

VITL's security policies are available at: https://www.vitl.net/about/vitl-policies

eHealth Exchange Compliance

The VHIE became eHealth Exchange Compliant on October 1, 2015, giving VITL the technical capability to connect with other health networks that are part of the Sequoia Project. Now Vermont providers will be able to query other networks for patient information. This makes it possible for VITL to access health records from the US Department of Defense Military Health System and the Veterans Affairs health care system.

VITL will also be able to connect with other state and regional HIE's to access patient records in the future. For example, VITL may be able to query patient records in Florida for Vermonters who are seasonal residents of that state.

“Cyber threats are evolving rapidly and we must continually review and improve our procedures to keep the personal health information that resides in the Vermont Health Information Exchange secure.”

Michael Gagnon, Chief Technology Officer
VITL

The eHealth Exchange

A rapidly growing network for securely sharing health information

Shared Trust Framework

Common Standards, Specifications & Policies
Real transformation is occurring at the point of care with VITLAccess, the secure statewide provider portal. VITLAccess allows clinicians to securely access a patient’s medical information from other providers across the state. This longitudinal view of clinical data helps providers better understand a patient’s medical history, and may prevent an unnecessary or repeated test. The portal is available 24 hours a day, seven days a week, and can be accessed anywhere there is Internet service.

The information that is available through the VHIE is collected and indexed using a statewide master patient index. The information is then made available, with patient consent, to providers who are treating a patient. Over 96 percent of the more than 48,000 people who received care at a participating Vermont provider have given their consent. This rate is consistent with other health information exchanges in the U.S.

Over 1,900 health care providers across 13 of the 14 Vermont Health Service Areas are actively using VITLAccess, and have obtained medical information for more than 23,000 patients. The 100 organizations whose providers are using the service represent a wide range of care settings, and demonstrate the importance of sharing information as a patient makes a transition from one care setting to another.

Dr. Leslie Lockridge, an independent hematologist/oncologist in Newport, VT realized that he had been provided an incorrect diagnosis on a patient’s referral. By viewing the patient’s pathology report through VITLAccess, Dr. Lockridge quickly discovered the correct diagnosis and began the proper therapy. Timely access to this information proved to be crucial in providing the right treatment for this patient, as well as reducing emotional stress and financial costs.
VITLAccess: A Reliable Source of Health Information

Providers can view patient data through VITLAccess, even if their organization is not contributing data to the VHIE. This allows providers to gain access to critical information contributed by other health care organizations.

Providers from across the care continuum who are tapping into the VHIE include Federally Qualified Health Centers, chiropractors, member agencies of the VNAs of Vermont, designated mental health agencies, nursing homes, dental facilities, naturopathic clinics, homeopathic clinics, pediatric eye care and physical therapists.

For example, Paula Ducharme, RN and nursing director at Derby Green Nursing Home, recently recounted a situation with a resident who had no family member or other decision maker to rely on. In this case Ducharme turned to VITLAccess, and by comparing the information provided by the resident with patient data found there, Ducharme was able to confirm that the resident was having cognitive issues. That allowed Ducharme to alert the resident’s physician, who then made adjustments to their medications.

“[VITLAccess] ... provides a lot of information on your residents. It helps you to better understand the person as a whole, not just the main reason why they came to your facility.”

Paula Ducharme RN, Nursing Director
Derby Green Nursing Home

In this case Ducharme turned to VITLAccess, and by comparing the information provided by the resident with patient data found there, Ducharme was able to confirm that the resident was having cognitive issues. That allowed Ducharme to alert the resident’s physician, who then made adjustments to their medications.

“When we have a workers’ comp claim, we have to look at everything in their medical history. [VITLAccess] saves me 15 minutes on every single patient.”

Mindy Starr, Occupational Health Nurse Practitioner, NEK Hematology Oncology

Every minute counts at a busy provider practice or hospital. VITL recognized the time saving benefits of improving the patient consent workflow, and is working with the information technology teams at four hospitals to improve this process.

Once the consent workflow project is complete, providers at these hospitals will be able to record patient consent preferences in their own electronic health record (EHR) system, as they are documenting other patient information. These consent indicators will then be sent electronically from the hospitals’ EHRs to VITL.
VITLDirect

Southwestern Vermont Medical Center and The University of Vermont Medical Center (UVMMC) have joined Northeastern Vermont Medical Center and Northwestern Medical Center in the use of VITLDirect, a secure messaging system providers can use to send patient information directly to one another.

Medicity, the software vendor that provides VITLDirect, is accredited by DirectTrust as a Health Information Service Provider (HISP) and meets all of the mandatory criteria of the Electronic Healthcare Network Accreditation Commission (EHNAC). This means that clinical data shared through VITLDirect meets the transition of care requirements for Meaningful Use Stage 2.

Three of the four hospitals are using VITLDirect as their own primary solution to meet their requirements for transitions of care. Additionally, The University of Vermont Medical Center is working with VITL to deploy VITLDirect at post-acute facilities such as nursing homes and residential rehabilitation centers, where patients often go for recovery after a hospital stay.

To date, Green Mountain Nursing Home, Wake Robin, and the Vermont Department of Corrections are utilizing VITLDirect to share information with UVMMC.

Event Notification Service

An important element of well-managed transitions of care is the ability for all members of a care team to receive notifications as a patient moves between various care settings. The patient’s medical home should be aware of all events related to their treatment. All admission facilities should be notified of special instructions related to the care of that patient.

In November, PatientPing, Inc. and VITL signed a definitive agreement to accelerate the availability of PatientPing’s event notification services to providers in Vermont. Utilizing connections already in place with hospitals, primary care facilities and specialty care facilities, VITL will create a gateway to forward all of the admission, discharge and transfer (ADT) notifications received in the VHIE to PatientPing.

In turn, PatientPing will offer subscription-based services to providers that allow them to receive notification of ADT events for their patients.

Hospitals and other facilities that routinely admit patients, such as nursing homes, and need information about a patient’s care team or visit history, can subscribe to another PatientPing service to receive these guidelines from an insurer or an accountable care organization.
Meaningful Use Consulting

The Centers for Medicare and Medicaid Services Electronic Health Record Meaningful Use Program has paid out over $95 million to 3,516 Vermont providers through November 30, 2015. Since its inception in 2011, the program has provided monetary incentives to eligible professionals, eligible hospitals and critical access hospitals to adopt and use electronic health records (EHR).

Many Vermont providers who participate in the EHR Incentive Program rely on the consulting expertise of VITL to assist in navigating the complex meaningful use guidelines.

At Clara Martin Center, Melanie Gidney, director of quality assurance and systems improvement, and Deborah Hawley, information systems manager, have been working with VITL to prepare for Modified Stage 2 attestation in 2016. The Center provides a comprehensive array of mental health and substance abuse services to the Greater Upper Valley region of Vermont, and has one eligible provider under the program.

VITL eHealth Specialist Suzanne McEachron met regularly with the staff at Clara Martin Center, helping to develop and execute a plan to meet the program requirements.

“At Suzanne’s expertise with the meaningful use program and familiarity with how designated agencies operate helped us to focus on what really needed to be done. Her responsiveness, even when on vacation has helped us to be ready for Modified Stage 2 in 2016.”

Deborah Hawley, Information Systems Manager, Clara Martin Center

Northwestern Counseling & Support Services (NCSS), a nonprofit human services agency serving Franklin and Grand Isle Counties of Vermont, is also moving toward attestation. Karen Martell, manager of health information and billing at NCSS lead weekly MU task force meetings that were facilitated by McEachron, to get their four providers ready to attest in 2016.

“We were almost paralyzed by the huge task of getting ready for meaningful use. VITL helped us break the process down into manageable and understandable steps.”

Karen Martell, Manager of Health Information and Billing, NCSS

Achieving Meaningful Use
Stage 2
Eligible Professional Criteria

1. Improve Quality, Safety and Efficiency

2. Engage Patients and Families

3. Improve Care Coordination

4. Improve Public and Population Health

5. Ensure Privacy & Security for Personal Health Information

Stage 2 intends to increase health information exchange between providers, and promote patient engagement by giving patients secure online access to their health information.
Why Data Quality Is Important

Data quality—a measure of the usefulness of data for their intended task, and data volume—the amount of data available for analysis—are strongly related to one another. Lots of meaningless data will not yield any useful analysis. Neither will high quality data that only covers a fraction of the group of patients you are interested in.

There are three questions that serve as a sort of litmus test for data quality:

- Are the data captured completely?
- Are the data captured accurately?
- Are the data consistently captured?

Using immunizations as an example, high quality immunization data for a group of patients exists when all of the information about an immunization (type of vaccine, date administered, lot number, and location) is captured accurately (with no misspellings) for all of the patients in a study group.

Attention to detail and efficient office procedures are important factors in achieving high quality data. The quality of data can be improved at the point where it is collected (at the source), within the VHIE network, and by the organizations that receive data quality score cards back from VITL.

The three projects described on the next two pages help to illustrate the circular nature of data quality and VITL’s current, or planned role in each of these aspects of improving data quality.

Data Quality at the Source

- The Vermont Care Network project established a foundation for good data quality at member organizations.
- VITL and the Blueprint for Health continued their collaboration to improve data quality at primary care locations across the state.

Data Quality In the Network

- The ACO data quality project ensured that sufficient data are available for ACO performance measurements.
- The capability to extract important clinical data from clinical care summary documents has been developed.

Data Quality Score Cards

- Internal status reports have been developed to complete these projects.
- In the future, data quality score cards will be available to VHIE contributing organizations.
The project consisted of two phases. During the first phase, VITL consultants conducted a current state analysis to understand how each of the VCN member agencies are structured. By conducting interviews at each agency, the consultants were able to assess each agency’s ability to capture data in an electronic health record system in a complete, accurate and consistent manner.

In addition, the workflow at each agency was assessed to determine how well it supports accurate data collection, and to identify opportunities for improvement. In order to ensure consistent data collection across all of the member agencies, VITL developed a data dictionary—the information that describes the data being collected and the manner in which it will be collected—for the project.

After VITL consultants understood the member agency’s current capabilities and practices, they conducted a data gap analysis to thoroughly document where the gaps were between an agency’s current data collection capabilities, and the desired state for an agency.

### Vermont Care Network Data Quality Project

The 16 nonprofit community-based agencies that provide services to Vermonters affected with mental health conditions, developmental disabilities, and substance use disorders work together in a network known as Vermont Care Partners (a collaboration between Vermont Care Network (VCN) and the Vermont Council of Developmental and Mental Health Services). VCN agencies collaborate on health IT projects that benefit all member agencies. One such project, the VCN Data Quality Project, relied on three VITL consultants to develop and implement best practices for data quality.

VITL completed this project for nine designated mental health agencies and one specialized services agency with funding available in 2015. At the time of this annual report, a funding proposal to extend this project for the remaining member agencies was under consideration by the Vermont Health Care Innovation Project.

“To this project has given us the tools and a road map to implement systematic changes across our member agencies to more accurately, completely and consistently collect information that improves care for our clients.”

*Simone Rueschemeyer, Executive Director
Vermont Care Network*

### Blueprint for Health Data Quality Improvements

VITL and the Vermont Blueprint for Health continue their longstanding partnership in utilizing the VHIE to ensure high quality clinical data is available to the Blueprint program. VITL assisted 17 Blueprint primary care practices in the development of CCD interfaces to the VHIE, and worked together with them to ensure best practices for data collection are followed.

During 2015 VITL reached an agreement to act as a subcontractor for the Blueprint for Health Clinical Data Registry migration. Under this agreement, VITL will deploy a hosted server environment to house the code and clinical data in the registry as it is migrated from the previous vendor to a new vendor.

Once the Blueprint for Health Clinical Data Registry is operational, VITL will provide ongoing maintenance and support for the hosted environment.

“VITL is an incredibly important strategic partner to the Blueprint program. The vision of a continuously improving health system depends on having timely and accurate data, and our teams have developed the ability to collect high quality data from medical record systems all across the state. VITL has helped to make this a reality in Vermont.”

*Craig Jones MD, Director
Vermont Blueprint for Health*
Vermont ACO Data Quality

Vermont’s three accountable care organizations (ACOs) depend on the VHIE to collect the data they use to meet wellness objectives for a group of patients known as beneficiaries. Clinical data are used to analyze trends, and to measure the effectiveness of care provided by ACO network participants.

Data must be collected for a sufficient number of patients in order to draw accurate conclusions on which to build and refine care delivery models to meet the ACO performance measures. During 2015, VITL worked with the three ACO’s to increase the number of beneficiaries for which data are being collected to 64 percent, meeting the target that had been set in late 2014.

This ACO gap remediation project was funded under the State Innovation Model (SIM) grant administered by the Vermont Health Care Innovation Project. The project focused on adding new interfaces to bring more clinical data from ACO network participating providers to the VHIE.

Fifty four new demographic, immunization and care summary interfaces were completed as part of this project, which drastically improved the completeness of data being gathered for the ACO’s.

In addition to the interface projects, VITL worked with contributing organizations to ensure that data was being sent properly. And, within the network, VITL developed techniques to extract the data used for clinical measurements from CCDs.

“It has been said that the ACO movement across the country is really a data driven revolution. We must engage with patients in new and exciting ways. We need to bring in patients who may not identify themselves as being sick and needful of outreach, for prevention of chronic illness and treatment of conditions that we can favorably impact.

We need to have information to target those interventions.”

Norman Ward MD, Chief Medical Officer
OneCare Vermont

Progression of ACO Patient Data Capture
The annual Summit is one of the largest opportunities in the New England region for professionals and consumers to gather, in order to learn and share knowledge about advances in health information technology. Summit 2015 was held on September 30 and October 1 in Burlington, Vermont, the ninth year VITL has hosted this regional health IT event.

Several changes instituted this year helped to provide interesting content while maintaining familiarity with previous years. The program on day one was expanded to include three two-hour concurrent sessions, bringing larger crowds to those sessions. Two new tracks were added on day two on patient engagement and health IT entrepreneurism.

The highlight of the conference was the presentation by keynote speaker Dr. Shahram Ebadollahi, IBM Watson Health vice president and chief science officer. The cognitive computer IBM Watson rose to fame after its triumph on the television quiz show Jeopardy. IBM announced its new Watson Health business unit in April 2015 to help patients, physicians, researchers and insurers use data to achieve better health and wellness. As the head of innovations Dr. Ebadollahi oversees development, solutions, and partnerships for IBM Watson Health.

As the chief science officer, he has global responsibility for IBM’s direction in the area of health informatics as well as the innovation strategy for IBM Watson Health. In his keynote, Dr. Ebadollahi shared a vision for a connected health system and the role played by cognitive systems such as Watson.

Presentations from all of the Summit sessions are available in PDF format and video of selected sessions are available on the VITL website at https://www.vitl.net/vitl-summit

“Coordination [of care] cannot be pushed by technology … technology is only an enabler. The role of technology is to surface who needs to do what at every given step of this process—of this care plan for this person—and also the analytics and insight that could enable each of those agents of care delivery.”

Shahram Ebadollahi Ph.D., Vice President & Chief Science Officer, IBM Watson Health

Several changes instituted this year helped to provide interesting content while maintaining familiarity with previous years. The program on day one was expanded to include three two-hour concurrent sessions, bringing larger crowds to those sessions. Two new tracks were added on day two on patient engagement and health IT entrepreneurism.

The highlight of the conference was the presentation by keynote speaker Dr. Shahram Ebadollahi, IBM Watson Health vice president and chief science officer. The cognitive computer IBM Watson rose to fame after its triumph on the television quiz show Jeopardy. IBM announced its new Watson Health business unit in April 2015 to help patients, physicians, researchers and insurers use data to achieve better health and wellness. As the head of innovations Dr. Ebadollahi oversees development, solutions, and partnerships for IBM Watson Health.

As the chief science officer, he has global responsibility for IBM’s direction in the area of health informatics as well as the innovation strategy for IBM Watson Health. In his keynote, Dr. Ebadollahi shared a vision for a connected health system and the role played by cognitive systems such as Watson.

Presentations from all of the Summit sessions are available in PDF format and video of selected sessions are available on the VITL website at https://www.vitl.net/vitl-summit

“Coordination [of care] cannot be pushed by technology … technology is only an enabler. The role of technology is to surface who needs to do what at every given step of this process—of this care plan for this person—and also the analytics and insight that could enable each of those agents of care delivery.”

Shahram Ebadollahi Ph.D., Vice President & Chief Science Officer, IBM Watson Health

Several changes instituted this year helped to provide interesting content while maintaining familiarity with previous years. The program on day one was expanded to include three two-hour concurrent sessions, bringing larger crowds to those sessions. Two new tracks were added on day two on patient engagement and health IT entrepreneurism.

The highlight of the conference was the presentation by keynote speaker Dr. Shahram Ebadollahi, IBM Watson Health vice president and chief science officer. The cognitive computer IBM Watson rose to fame after its triumph on the television quiz show Jeopardy. IBM announced its new Watson Health business unit in April 2015 to help patients, physicians, researchers and insurers use data to achieve better health and wellness. As the head of innovations Dr. Ebadollahi oversees development, solutions, and partnerships for IBM Watson Health.

As the chief science officer, he has global responsibility for IBM’s direction in the area of health informatics as well as the innovation strategy for IBM Watson Health. In his keynote, Dr. Ebadollahi shared a vision for a connected health system and the role played by cognitive systems such as Watson.

Presentations from all of the Summit sessions are available in PDF format and video of selected sessions are available on the VITL website at https://www.vitl.net/vitl-summit

“Coordination [of care] cannot be pushed by technology … technology is only an enabler. The role of technology is to surface who needs to do what at every given step of this process—of this care plan for this person—and also the analytics and insight that could enable each of those agents of care delivery.”

Shahram Ebadollahi Ph.D., Vice President & Chief Science Officer, IBM Watson Health

Several changes instituted this year helped to provide interesting content while maintaining familiarity with previous years. The program on day one was expanded to include three two-hour concurrent sessions, bringing larger crowds to those sessions. Two new tracks were added on day two on patient engagement and health IT entrepreneurism.

The highlight of the conference was the presentation by keynote speaker Dr. Shahram Ebadollahi, IBM Watson Health vice president and chief science officer. The cognitive computer IBM Watson rose to fame after its triumph on the television quiz show Jeopardy. IBM announced its new Watson Health business unit in April 2015 to help patients, physicians, researchers and insurers use data to achieve better health and wellness. As the head of innovations Dr. Ebadollahi oversees development, solutions, and partnerships for IBM Watson Health.

As the chief science officer, he has global responsibility for IBM’s direction in the area of health informatics as well as the innovation strategy for IBM Watson Health. In his keynote, Dr. Ebadollahi shared a vision for a connected health system and the role played by cognitive systems such as Watson.

Presentations from all of the Summit sessions are available in PDF format and video of selected sessions are available on the VITL website at https://www.vitl.net/vitl-summit
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 of each year and end on June 30 of the subsequent year.

The financial summaries presented here are for the fiscal year that ended on June 30, 2015 and are extracted from VITL’s audited financial statements. VITL receives revenue primarily from state and federal grants, with the remainder from service revenue, as well as attendance and sponsorship fees from the annual VITL Summit.

For Fiscal Year 2015, total revenue amounted to $7,615,872.

### Support and Revenue (FY2015)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal and State Grants</td>
<td>$7,191,304</td>
</tr>
<tr>
<td>Service Revenue</td>
<td>$363,453</td>
</tr>
<tr>
<td>Conference Revenue</td>
<td>$59,970</td>
</tr>
<tr>
<td>Interest Income</td>
<td>$1,145</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$7,615,872</strong></td>
</tr>
</tbody>
</table>

### Expenditures (FY2015)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Services</td>
<td>$6,087,343</td>
</tr>
<tr>
<td>General &amp; Administrative</td>
<td>$1,174,037</td>
</tr>
<tr>
<td>Health Care Reform Efforts</td>
<td>$30,651</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$7,292,031</strong></td>
</tr>
</tbody>
</table>

Federal grant funding (including grants passed through the Vermont Department of Vermont Health Access) and direct state grant funding for Fiscal Year 2015 was as follows:

### Grantor

- **Passed through the Department of Vermont Health Access:**
  - Affordable Care Act (ACA) State Innovation Models
    - Pass Through Number: 03410-1275-14
    - CFDA Number: 93.624
    - Federal Funding: $1,985,508
  - Medical Assistance Program
    - Pass Through Number: 03410-256-15
    - CFDA Number: 93.778
    - Federal Funding: $2,499,612
  - **TOTAL Federal Funding:** $4,485,120

* Catalog of Federal Domestic Assistance
## Operational Statistics

### Interface Statistics: Total number of clinical message interfaces to the VHIE = 721

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care organizations</td>
<td>288</td>
</tr>
<tr>
<td>Federally Qualified Health Centers (FQHC)</td>
<td>180</td>
</tr>
<tr>
<td>Specialty care organizations</td>
<td>126</td>
</tr>
<tr>
<td>Hospitals</td>
<td>98</td>
</tr>
<tr>
<td>Mental health designated agencies</td>
<td>13</td>
</tr>
<tr>
<td>Long term care (nursing homes)</td>
<td>7</td>
</tr>
<tr>
<td>Visiting Nurse Associations (including home health and hospice agencies)</td>
<td>6</td>
</tr>
<tr>
<td>Commercial laboratories</td>
<td>3</td>
</tr>
</tbody>
</table>

### VHIE Clinical Message Statistics: Total number of messages received = 60,409,594

<table>
<thead>
<tr>
<th>Message Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient demographic messages</td>
<td>44,705,638</td>
</tr>
<tr>
<td>Laboratory, pathology, radiology or transcribed report messages</td>
<td>14,127,842</td>
</tr>
<tr>
<td>Continuity of care messages</td>
<td>1,013,828</td>
</tr>
<tr>
<td>Immunization messages</td>
<td>539,051</td>
</tr>
<tr>
<td>Laboratory order messages</td>
<td>23,235</td>
</tr>
</tbody>
</table>

### VITLAccess Subscriber Statistics

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of health care locations using VITLAccess</td>
<td>100</td>
</tr>
<tr>
<td>Number of authorized users of VITLAccess</td>
<td>1,932</td>
</tr>
<tr>
<td>Number of patient data queries performed using VITLAccess</td>
<td>162,359</td>
</tr>
<tr>
<td>Number of unique patient records accessed</td>
<td>23,313</td>
</tr>
</tbody>
</table>

### Consumer Consent Statistics

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of consumers who gave consent for provider access to information in the VHIE</td>
<td>48,432</td>
</tr>
<tr>
<td>Number of consumers who have declined to give consent for provider access to information</td>
<td>2,004</td>
</tr>
</tbody>
</table>

### VITLDirect Subscriber Statistics

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of organizations using VITLDirect</td>
<td>9</td>
</tr>
<tr>
<td>Number of VITLDirect user IDs</td>
<td>79</td>
</tr>
</tbody>
</table>

### VITL Audit Statistics

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of law enforcement requests for access to the VHIE</td>
<td>0</td>
</tr>
<tr>
<td>Number of emergency patient access audits performed</td>
<td>150</td>
</tr>
<tr>
<td>Number of events arising from emergency patient access audits</td>
<td>4</td>
</tr>
<tr>
<td>Number of findings arising from emergency patient access audits</td>
<td>0</td>
</tr>
<tr>
<td>Number of patient consent audits performed</td>
<td>0</td>
</tr>
<tr>
<td>Number of consumer requests for audit of access to their patient information in the VHIE</td>
<td>2</td>
</tr>
<tr>
<td>Number of consumer requests for a copy of their patient information in the VHIE</td>
<td>2</td>
</tr>
</tbody>
</table>
Our 2016 Commitments

Improving care coordination by deploying an event notification system.

Increasing VITLAccess use by current subscribers, while adding new subscribers.

Adding new types of clinical and social data and new sources to the VHIE.

Improving the completeness, accuracy and consistency of data in the VHIE.