VERMONT INFORMATION TECHNOLOGY LEADERS

January 2009 Progress Report

Our vision is for a healthier Vermont, where shared health information is a critical tool for improving the overall performance of the health care system. The health care community will work together to achieve new efficiencies through the use of information technology in order to deliver better overall value and care to our citizens.

-- Vermont Health Information Technology Plan Vision Statement

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January 1, 2009

Vermont General Assembly
Secretary of Administration
Commissioner, Dept. of Information and Innovation
Commissioner, Dept. of Banking, Insurance, Securities & Health Care Admin.
Director of the Office of Vermont Health Access

Dear Legislators and Administration Officials:

Enclosed please find the Vermont Information Technology Leaders, Inc. (VITL) Annual Progress Report through January 1, 2009.

There were a number of significant achievements by VITL in 2008. A pilot project of the Clinical Transformation Program was successfully launched to assist 18 FTE clinicians with EHR adoption and workflow redesign, ensuring that EHRs are deployed for maximum benefit in improving patient outcomes and efficiency. The development work accomplished during the pilot will enable VITL to ramp up its EHR implementation grant programs financed by the Health IT Fund in 2009.

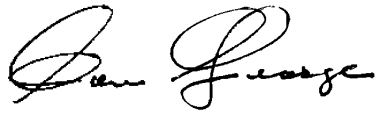
In 2008, VITL launched its EHR Connectivity Service to enable hospitals to deliver electronic test results directly to physician EHRs. This service is critical for physicians implementing EHRs, and it lays the foundation for bi-directional health information exchange, which VITL expects to deploy in 2009.

Another highlight of 2008 was the progress made in providing data services to the Vermont Blueprint for Health chronic care initiative. Interfaces were put into service enabling physicians in St. Johnsbury and Burlington to send data to the DocSite clinical information system, which they will use to improve care of patients with chronic conditions. VITL will continue its development efforts in 2009 so that clinicians in several more Vermont communities can begin using the system.

VITL's staff and advisors undertook in 2008 a project to revise and update the Vermont Health Information Technology Plan, first published in July 2007. This included a six-month process to solicit input from health care providers and consumers regarding development of privacy and security policies for the Vermont health information exchange network. In December 2008, the U.S. Department of Health and Human Services, through its Office of Civil Rights, issued a guidance document to implement the National Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information. VITL's Board of Directors, staff and legal counsel are currently analyzing these guidelines in the context of HIPAA, federal and state law, and VITL operations. The results of this analysis will be included in the update to the Vermont Health Information Technology Plan, which VITL expects to have completed by the end of March.

VITL board members and advisors put in hundreds, if not thousands, of volunteer hours in 2008 working on governance and finance issues, privacy and security policy development, and updating the Vermont Health Information Technology Plan. We would like to personally thank them for their devotion and willingness to share their expertise. VITL also thanks the General Assembly and the Administration for its support, and we look forward to your continued support as we make additional progress in 2009.

Respectfully submitted,



Don George
Chair, VITL Board of Directors

Gregory Farnum
VITL President

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1. Introduction

Vermont Information Technology Leaders, Inc. (VITL), is a non-profit, public-private partnership. VITL's 501(c)(3) status is pending with the Internal Revenue Service. VITL was incorporated as a not-for-profit Vermont corporation on July 22, 2005, and is funded in part with an annual grant from the Vermont General Assembly. VITL is a multi-stakeholder organization formed by a broad base of health care providers, payers, employers, consumers, and state agencies. These various constituencies are represented by volunteers who serve on VITL's board of directors, its two board-level advisory committees, and other advisory groups.

VITL has been charged by the General Assembly [V.S.A. Title 22, Chapter 15, § 903] with the task of writing the Vermont Health Information Technology Plan (VHITP). At the General Assembly's direction, VITL is designated in the plan to operate the exclusive statewide health information exchange network. VITL conducts health information technology pilot projects, and operates several long-term programs financed by the Vermont Health IT Fund and federal grants. The programs' primary objectives are to facilitate the adoption of electronic health records systems (EHRs), improve the quality and efficiency of patient care through clinical transformation in physician offices, control health care costs, and foster health information exchange (HIE) among health care provider organizations. VITL has a five-year contract with the Vermont Department of Health to provide data services to support the Blueprint for Health Initiative and other public health programs.

VITL's prime contractor is GE Healthcare, which operates a secure data center in South Burlington, Vt. Under VITL's direction, GE Healthcare develops interfaces between its data center and physician practices with EHRs, as well as hospitals and other health care facilities. GE Healthcare hosts the components of the Vermont health information exchange in its data center, and provides project management services. VITL also contracts with HLN Consulting, LLC, for technical, planning and policy assistance.

The efforts of VITL are coordinated with other state and federal initiatives, including the National Health Information Network (NHIN) of the federal Office of the National Coordinator for Health Information Technology, the national eHealth Initiative, the Vermont Blueprint for Health, and the Vermont Health Care Reform initiative. VITL's work helps to facilitate communication among Vermont's privacy and health information technology experts and creates the foundation for future health information technology collaboration.

2. Vermont Health IT Fund

In the FY2009 Appropriations bill, the Legislature created the Vermont Health IT Fund for use by VITL and state entities to advance health information technology. The revenue for the fund is 0.199 percent of all health care claims paid by Vermont insurers or a fee determined by BISHCA based on the insurer's market share.

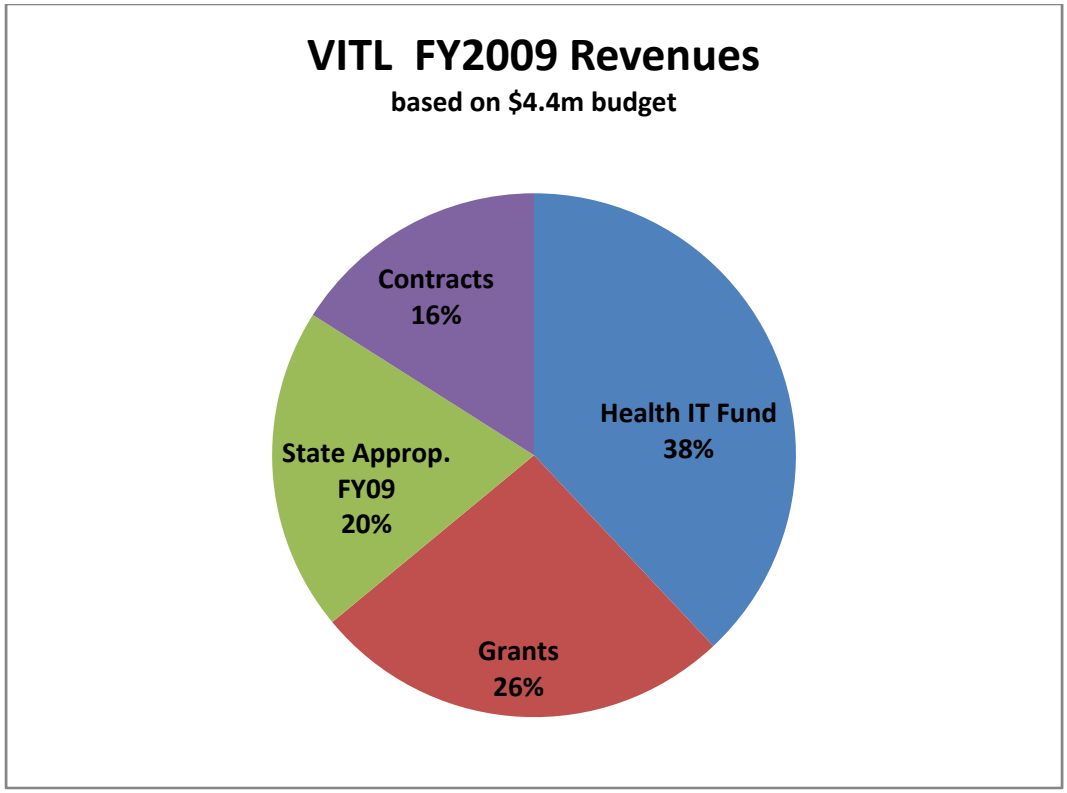
> **8 VSA 4089k:** *(a) Quarterly, beginning October 1, 2008, each health insurer shall pay a fee into the health IT-fund established in section 10301 of Title 32. The health insurer may choose either of the following fee options:*
>
> *(1) 0.199 of one percent of all health care claims paid by the health insurer for its Vermont members in the previous fiscal quarter, or*
>
> *(2) an annual fee payable quarterly, to be calculated on or before August 1, 2008 and on or before August 1 of each succeeding year by the department of banking, insurance, securities, and health care administration, or by an agent retained by the department, in consultation with the secretary of administration, based on the proportion which the health insurer's total annual health care claims for the most recent four quarters of data available to the department bears to the total health care claims for all health insurers for the most recent four quarters of data available to the department, multiplied by the total fee revenue which would be raised if all health insurers chose the fee option established in subdivision (1) of this subsection.*

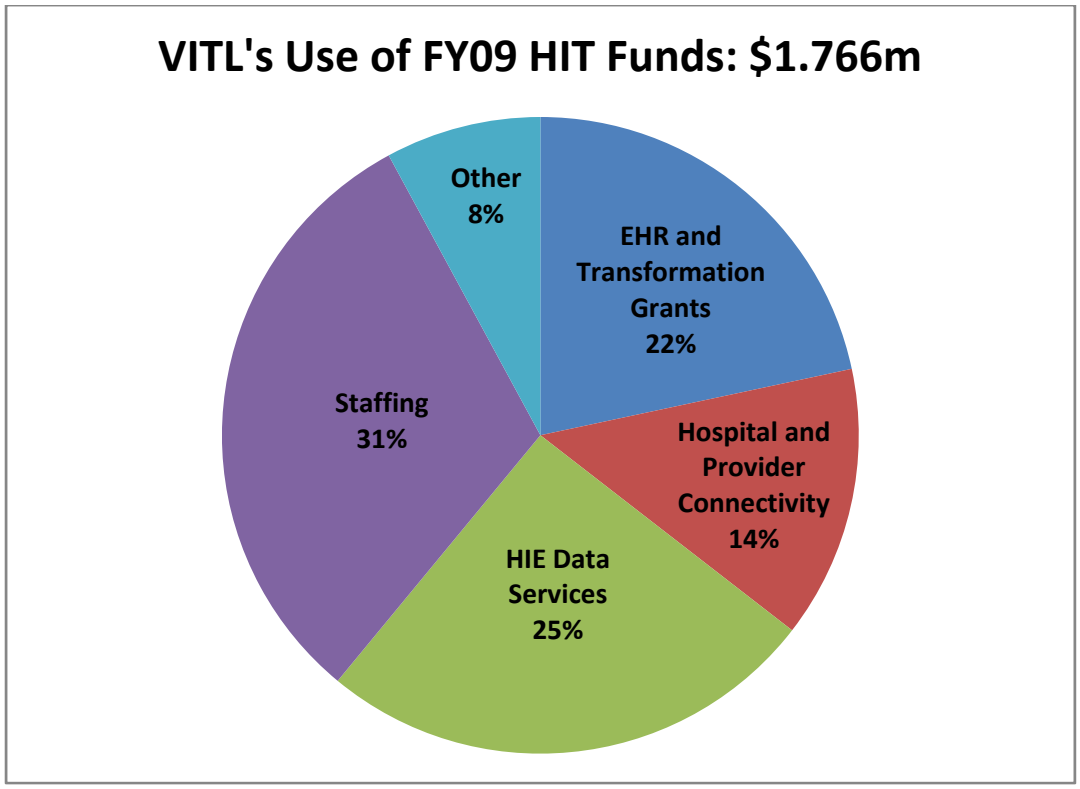
The Vermont Health IT Fund is administered by the Secretary of Administration and is to be used for the advancement of medical health care information technology programs and initiatives such as those outlined in the Vermont Health Information Technology Plan administered by VITL.

> **32 VSA 10301:** *The fund shall be used for the development of programs and initiatives sponsored by VITL and state entities designed to promote and improve health care information technology, including:*
>
> *(1) a program to provide electronic health information systems and practice management systems for primary care practitioners in Vermont;*
>
> *(2) financial support for VITL to build and operate the health information exchange network;*
>
> *(3) implementation of the Blueprint for Health information technology initiatives and the advanced medical home project; and*
>
> *(4) consulting services for installation, integration, and clinical process re-engineering relating to the utilization of healthcare information technology such as electronic medical records.*

In September 2008, VITL submitted an application to the Secretary of Administration for $2.84 million. During discussion of the proposed legislation in the General Assembly last year, the Joint Fiscal Office estimated the fund would generate revenues of $2.97 million for FY2009 and $32 million over 7 years. In Appendix 1 is an analysis by JFO done in the fall of 2008 detailing the reasons why the fund is now estimated to generate $1.7 million for FY2009. VITL has adjusted its work plan for FY2009 to reflect the reduced funding.

The work plan for the remainder of FY2009 includes providing grants to independent primary care practices to fund clinical transformation, EHR acquisition, and implementation for 10 provider FTEs in up to four practices. Lab results interfaces will be developed with six hospitals. A specialist connectivity assessment will be conducted to determine needs. Development work will be done on an interface to enable physician EHRs to send data to the Vermont Immunization Registry. All of these are deliverables in a Health IT Fund grant contract that VITL has signed with the Department of Information and Innovation. The charts below show the sources of VITL's revenues and how Health IT Fund money will be spent in FY2009.





3. Clinical Transformation Program

VITL's charge of facilitating the adoption and use of EHRs and HIE extends to ensuring that all EHRs deployed through VITL programs are used to their maximum benefit. The Clinical Transformation Program was created to achieve this goal. Through the Health IT Fund established by the Vermont General Assembly, primary care practices may receive a transformation grant to subsidize the direct costs of software, hardware, and training. These grants also cover a portion of the indirect costs associated with EHR deployment, including consultative support for workflow redesign, implementation preparation, contract review, and budgeting assistance. Any practice receiving a grant must comply with VITL's privacy and security policies, follow recommendations for connectivity standards, choose products that are compliant with specified functional components, and demonstrate effective use of the system using pre-defined criteria.

VITL recognizes that technology alone cannot resolve the challenges a practice faces in trying to provide quality care while maintaining financial viability. Applying technology without first addressing fundamental workflow issues is often the root cause of implementation failures. The philosophy of VITL's Clinical Transformation Program is that clinical process improvement knowledge and skills must be mastered prior to, or in conjunction with, adding the technology layer. Installing information technology without practice redesign will only enable "bad" care to be delivered faster, not necessarily better. The technology, in the form of electronic health records and electronic health information exchange, is best added to an efficient system to achieve desired quality of care and return on investment.

3.1 Pilot Program

A pilot of the Clinical Transformation Program was launched in early 2008 with the award of grants to five independent primary care practices. The $1 million pilot was funded with voluntary contributions from Blue Cross Blue Shield of Vermont, CIGNA, MVP Health Care, the Office of Vermont Health Access (OVHA), and the Community Grant Foundation of the Vermont Association of Hospitals and Health Systems.

More than 30 applications for grants were received from independent primary care practices in Vermont. A selection committee reviewed the applications and nominated grant recipients based on a number of criteria, including the percentage of patients who are Medicaid beneficiaries. Under the pilot project, grants of up to $45,000 per provider FTE were made to each practice. Practices were expected to pay up to 25 percent of the cost. The initial round of grants covered 18 FTE clinicians. The five grant recipients were:

- Bennington Family Practice, Bennington
- Brookside Pediatrics & Adolescent Medicine, Bennington
- Mount Anthony Primary Care, Bennington
- Northern Tier Center for Health, Richford
- Mad River Integrative Medicine, Waitsfield

Due to factors beyond VITL's control, Mad River Integrative Medicine had to drop out of the pilot project in mid-2008 when the practice closed.

The first pilot site to go-live was Mount Anthony Primary Care, which began using the Allscripts TouchWorks EHR in early May. Richford Health Center was the second active site, going live with its GE Centricity EHR on Oct. 28. Bennington Family Practice went live in Jan. 2009. Brookside Pediatrics in Bennington has signed a vendor contract and implementation planning is underway, with a go-live expected in early 2009. A total of 82,000 patients per year will benefit from the EHRs at the pilot sites.

Under the pilot, practices receiving grants are expected to:

- Participate in the Vermont health information exchange.
- Implement VITL's privacy and consent policies and procedures.
- Comply with VITL's information security practices and procedures.
- Participate in the state's Blueprint for Health Initiative or at least one chronic care management initiative.
- Attend VITL-sponsored education programs related to implementation.
- Track and report at least one quality improvement metric related to EHR deployment.
- Establish baseline productivity data, track and report changes in provider productivity following EHR deployment.
- One year after implementation, demonstrate use of the following functional components:
  -- E-prescribing
  -- Lab and imaging results and orders (if ordering available at time of implementation)
  -- Clinical messaging
  -- Chronic care management and population reporting
- Serve as a resource to other VT providers implementing EHRs.

3.2 Pre-Screened EHR Product List

To be eligible for a grant, practices must also agree to select an EHR from VITL's Pre-Screened EHR Product List. VITL developed the list to simplify the selection process for physician practices, enabling them to implement a high-quality EHR system in a shorter period of time. Practices receiving grants were able to take advantage of favorable pricing that VITL negotiated with the vendors on the list. The Pre-Screened EHR Product List was announced in January 2008, after a panel of expert advisors reviewed and scored the 27 vendor responses to VITL's request for information. Vendor finances were independently reviewed by a financial expert.

The products chosen for the Pre-Screened EHR Product List were:

- Allscripts HealthMatics
- Allscripts TouchWorks
- eClinicalWorks
- GE Healthcare Centricity EMR
- McKesson Practice Partner
- NextGen EMR

The six products on the list are certified by the Certification Commission for Healthcare Information Technology (CCHIT) and have met VITL's criteria in functionality, service and support, technology, the vendor's vision for the future, and the company's ability to execute that vision.

3.3 Additional grants

With the availability of financing from the state Health IT Fund, VITL is moving ahead with making grants in the remainder of FY2009 to additional practices with a total of 10 FTE providers. A call for applications for FY2010 grants is expected to be issued in the third quarter of FY2009.

4. EHR Connectivity Service

When a physician switches from paper medical records to an electronic health records system, one of the first things he or she asks about is the availability of electronic data. For primary care physicians in particular, there is a high volume of information that must be incorporated into the medical record – lab test results, radiology exam reports, hospital discharge summaries, emergency department visit reports, notes from specialists, etc. If this data is not available electronically from its sources, the physician office staff must scan paper reports into the EHR. This is time consuming, inefficient, and results in a lack of discrete data in the EHR's database. That in turn means the system is not being used to its fullest potential to improve patient care.

To meet the demand for electronic data, VITL has developed its EHR Connectivity Service. Data from hospitals and other sources is routed through the VITL data center to the EHR. Lab test results and other data are transmitted in real-time to the physician's EHR in-box. The physician reviews the incoming data and then decides whether to accept it into the patient's electronic medical record.

In 2008, VITL worked with three hospitals to develop the first set of interfaces for the EHR Connectivity Service. A lab results interface with Northwestern Medical Center in St. Albans went live on Sept. 16, sending lab values directly into the EHRs of physician practices that subscribe to the service. Two Franklin County practices with a total of nine clinicians are currently using the service. Interfaces between VITL and Southwestern Vermont Medical Center in Bennington went live in January 2009. More than 53,000 lab results were delivered via the interfaces by the end of Jan. 2009. Development of a lab results interface with Rutland Regional Medical Center is nearing completion, with go-live expected in February 2009. Also in 2009, VITL plans to develop interfaces with three additional hospitals, including Fletcher Allen Health Care and Brattleboro Memorial Hospital.

Physicians using VITL's EHR Connectivity Service report that often they receive lab test results via the interfaces on the same day the test was ordered, a major improvement over the next day service they received with paper reports. They see the results in their EHR immediately, rather than having to wait for staff to sort through stacks of paper. With electronic data fed into the EHR, test results are no longer missing from the chart, which was a persistent problem when results were received on paper. Physicians say that receiving results electronically helps speed up treatment, which in turn increases patient satisfaction.

"It is allowing the lab results to come through really as soon as they are done at the lab, they come directly into our computer. Often we will have those results the very same day," said Toby Sadkin, MD, of St. Albans Primary Care, the first practice to use the results messaging service.

VITL has negotiated a contract with Primary Care Health Partners, the state's largest independent primary care practice, to use the EHR Connectivity Service to receive results from hospitals into its EHR, which is used by approximately 50 clinicians. In addition, all of the physician practices receiving clinical transformation grants from VITL are expected to use the EHR Connectivity Service. The service's annual subscription fee is included in the grant. In 2009, VITL will market the EHR Connectivity Service to other physician practices. VITL plans to add radiology reports to the service, as well as expand it to include the capability for physicians to place test orders electronically.

5. Health Information Exchange

The EHR Connectivity Service is largely meant to send data from hospitals and other data sources to physician EHRs. It forms the foundation for the launch of a service which will allow for health information to be exchanged bi-directionally between health care organizations. The interfaces and other infrastructure investments made for the EHR Connectivity Service will continue to be used when the upgrade is made to two-way communication with the deployment of the Vermont health information exchange.

VITL's health information exchange is ready to use and was demonstrated at the VITL Summit, held at the Killington Grand Hotel in September. Vendors of different EHR systems showed attendees how data can follow patients as they travel between primary care physicians, specialists, and hospitals. Two scenarios were used (emergency treatment and follow-up care for a heart attack, and management of diabetes) to illustrate how patient care is improved and outcomes are better when data can be shared between clinicians in different organizations.

Within the EHR, the clinician clicks on a button or tab to see which documents for a consenting patient are available from other health care organizations participating in the exchange. The documents are shown in a list, which includes a short description of the document's contents and the date it was created or updated. When the clinician clicks on one of the documents, it opens immediately on the computer screen. If the clinician wishes, data from other organizations can be imported to the EHR, making it part of the patient's electronic medical record.

Viewing and importing data from other EHR systems is facilitated by VITL's health information exchange because of compliance with national standards adopted by the Health Information Technology Standards Panel (HITSP). Major EHR vendors have also adopted the same standards. That means data can be exchanged between different EHR systems without having to develop customized interfaces, thereby speeding up deployment and lowering costs.

5.1 Privacy and Security Policies

VITL plans to deploy the health information exchange in one or more Vermont communities during 2009, after operational privacy and security policies are adopted by the VITL Board of Directors. That action is expected in early 2009.

In April 2008, VITL undertook a six-month process to solicit input from health care providers and consumers regarding development of privacy and security policies for the Vermont health information exchange network. A set of policies was drafted and circulated for comment in the fall of 2008. In December 2008, the U.S. Department of Health and Human Services, through its Office of Civil Rights, issued a guidance document to implement the National Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information. VITL's Board, staff and legal counsel are currently analyzing these guidelines in the context of HIPAA, federal and state law, and VITL operations. The results of this analysis will be included in the update to the Vermont Health Information Technology Plan, which VITL expects to have completed by the end of March.

6. Medication History Service

More than 85,000 patients in Vermont hospital emergency departments have participated in VITL's Medication History Service since its inception in April 2007. If a patient gives permission for his or her medication history to be accessed, VITL's system generates a list of the patient's prescription medications paid by insurers within the last six months. Data on prescription drug claims is obtained from pharmacy benefit managers participating in the national SureScripts-RxHub network.

The benefits of VITL's Medication History Service include:

- Patients don't have to struggle to remember all the medications they are taking, when asked by emergency department clinicians for their medication list.
- A more complete and accurate medication history is immediately available, which assists in speedy diagnosis and treatment.
- Clinicians do not have to spend time calling pharmacies to compile lists of patient medications.

- Fewer adverse drug events caused by newly-prescribed medications interacting with existing medications that patients forgot to tell clinicians about.
- Physicians can determine if patients are taking multiple doses of the same drug, if they are taking drugs that possibly could interact with each other, or if they are skipping medications that they should be taking for their conditions.

VITL's Medication History Service is considered by SureScripts-RxHub, a national pharmacy claims data network, to have the highest success rate in the country for matching inquiries and delivering data. All four of Vermont's major payers – Blue Cross Blue Shield of Vermont, MVP Health Care, CIGNA, and Vermont Medicaid – have agreed to participate in VITL's Medication History Service and make their pharmacy claims data available. Because of this high level of cooperation, on average 75 percent of the inquiries sent from participating hospital emergency departments are matched and data is returned for clinicians to use when making treatment decisions.

Another measure of success is the patient opt-in rate. On average, more than 95 percent of emergency department patients agree to have their medication history data accessed.

The two pilot sites for the Medication History Service were RRMC and Northeastern Vermont Regional Hospital. Those hospitals continued to participate in the service after the pilot concluded in late 2007. In 2008, a third site was added: Brattleboro Memorial Hospital in Brattleboro.

VITL has conducted a marketing campaign to attract other hospitals to participate in the Medication History Service. While some have expressed interest in the concept, the cost of the service is a considerable barrier for hospitals. The model used for this program is that hospitals subscribing to the service pay for the costs. VITL has priced the service as low as possible, but the fees are still more than most hospitals are willing to accept.

7. Support of Public Health and the Blueprint for Health Initiative

One of VITL's core objectives is to help public health agencies leverage health information technology and Vermont's health information exchange investments. In 2008, a large amount of work was done to achieve this objective, culminating in the successful go-live of the Blueprint for Health's Web-Based Clinical Information System, known as DocSite.

7.1 Web-Based Clinical Information System

In the system, data for consenting patients from sources such as hospital labs and physician EHRs is transmitted via secure interfaces to a clinical data repository at VITL's data center, hosted by GE Healthcare in South Burlington. VITL's master person index technology uses demographic information to accurately match various records for the same person. Data is then transmitted to the DocSite application, which allows clinicians and members of the Blueprint's Community Care Team to run analytical reports to determine if there are opportunities to improve preventive care or chronic disease management, such as diabetes and hypertension.

Seven physician practice sites in the St. Johnsbury area are initially participating in the Blueprint's integrated medical home pilot project. Interfaces between the first of those practices and VITL's data center went live in early December 2008. As of late December, the DocSite application was being tested, with the expectation that clinicians will be using the clinical information system within a few weeks. Two physician practices in the Burlington area are also currently using the system and, in 2009, physicians in the Bennington area will begin to use it as well, all as part of the medical home pilot project. Three additional communities, including one based around Mt. Ascutney Hospital in Windsor, are slated to become DocSite users in 2009. As of the end of Jan. 2009, a total of 795,000 Blueprint transactions had been processed, and there were 309,000 patients registered.

7.2 Immunization Registry

Another public health project being undertaken by VITL is the development of interfaces that allow physicians to send immunization data from their EHRs to the Vermont Immunization Registry.

Submission of both childhood and adult immunization information to the Vermont Department of Health is required by Vermont law and consistent with Centers for Disease Control and Prevention recommendations. The Vermont Immunization Registry collects and stores immunization information from across the state and provides complete immunization histories to practitioners.

The main features of the Vermont Immunization Registry include demographic information and a consolidated immunization history for each patient, a vaccine forecaster to determine when immunizations are due, reminder/recall and reporting features, and vaccine inventory management capabilities. Over time, it is expected that the Vermont Immunization Registry will grow to contain a lifelong record of immunizations. Currently, immunization data is submitted by practitioners to the registry through a web-based user interface. Some practitioners submit flat-text files which are processed by Vermont Department of Health staff in conjunction with PHS, Inc., a vendor hired by the department to assist with file delivery and transformation.

The Immunization Registry Interface project involves developing a computer interface to enable the submission of data about immunizations given at physician practices to the Vermont Immunization Registry. Rather than using the web-based user interface, which requires practices to input data manually, the Immunization Registry Interface will enable data to be transmitted from a physician practice electronic health records system to the Vermont Immunization Registry, via the Vermont health information exchange. This direct transmission of data from the physician practice system to the Vermont Department of Health's registry will save time, increase efficiency, and lower costs.

Building an interface to enable data submission from electronic health records systems is the first phase of the project, and will be completed in 2009. The second phase of the project in 2010 will enable clinicians to query the registry remotely to determine if a patient has already been immunized, thus increasing compliance with recommended immunization schedules.

8. Electronic Prescribing

As part of H.887, the health care reform bill passed during the 2008 session, the Legislature required that VITL and the Health Care Reform Commission conduct a planning and feasibility study to determine the impact of enacting a statewide electronic prescribing program.

In response to this requirement, VITL and the Health Care Reform Commission conducted a search for a consulting firm knowledgeable in electronic prescribing to do the study and make recommendations for a Vermont-based program. Two firms were identified and submitted proposals. Point-of-Care Partners, which manages a successful electronic prescribing program in southeastern Michigan, was selected to do the study.

Two principles in Point-of-Care Partners made a site visit to Vermont in early August to meet with representatives of physicians, pharmacists, and the Vermont Medicaid program. During their two-day visit they also met with VITL's attorney Anne Cramer to learn about state laws affecting privacy and prescribing. After the site visit, outreach was conducted by telephone to a number of other stakeholders, including the major health plans serving Vermont.

As the study continued, two webinars were held to update stakeholders about progress and to solicit feedback. In the second webinar, two potential models for a statewide electronic prescribing program were presented to stakeholders and comments were received. After the second webinar, a hybrid model and a supporting budget were developed for recommendation to the Health Care Reform Commission. A final report has been completed by Point-of-Care Partners for delivery to the Health Care Reform Commission and other members of the Legislature under separate cover.

If the recommended program is approved with adequate funding, VITL is prepared to begin development work as soon as possible, with the goal of being able to launch the incentive program in mid-2009. A rapid development process and launch is critical, in order to help Vermont physicians position themselves to receive bonus payments that Medicare will begin issuing in 2009 for physicians who meet certain requirements for electronic prescribing.

9. Vermont Health Information Technology Plan Update

In approving the Vermont Health Information Technology Plan, the General Assembly in JRH44 of the 2008 session directed VITL to submit an updated plan in two specific areas:

- State and national privacy and security policies and procedures to reflect industry best practices;
- Interoperability standards to reflect nationally-accepted industry best practices relating to the exchange of data.

9.1 Privacy and Security

In April 2008, VITL launched an effort to engage consumers and health care professionals in an effort to develop privacy and security policies for the health information exchange. With the assistance of Mike

Berry of HLN Consulting, LLC, and attorney Anne Cramer of the firm Primmer Piper Eggleston & Cramer, PC, VITL held a series of six monthly meetings in Montpelier with a broad range of stakeholders. Regular participants included representatives of:

- Vermont Chapter of the American Civil Liberties Union
- Vermont Health Care Ombudsman's Office
- Vermont Agency of Human Services
- Community of Vermont Elders
- Vermont Protection and Advocacy
- Vermont Center for Independent Living
- Vermont Psychiatric Survivors
- Fletcher Allen Health Care
- Rutland Regional Medical Center
- The HowardCenter
- Vermont Department of Health
- Bi-State Primary Care Association
- Vermont Psychiatric Association
- BISHCA
- Lewis Creek Systems, LLC (data security experts)

VITL's staff and consultants educated attendees at these meetings about current state and federal laws regarding protection of health care information. Participants also learned about EHRs and health information exchange, including the benefits that they produce, and the current limitations of the technology. VITL's staff and consultants elicited feedback and listened to consumer concerns about privacy protection in an electronic environment. They also listened to the concerns from health care professionals about the administrative burden of compliance with policies and procedures.

After hearing from participants, VITL staff and consultants developed a set of six draft policies for the Vermont health information exchange network. These drafts were then circulated to meeting participants, as well as a larger mailing list of interested parties. Comments were accepted for 30 days after publication, and then VITL staff and consultants revised the policies to address as many comments as possible. The revised policies were circulated and a conference call was held to determine if any concerns were not addressed.

The six draft policies were submitted to the VITL Board of Directors at its November 2008 meeting. The board elected to name a subgroup to review the policies and make recommendations for revisions. As of late December, the subgroup was continuing its work to review the draft policies. Also in December 2008, the U.S. Department of Health and Human Services, through its Office of Civil Rights, issued a guidance document to implement the National Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information. VITL's Board, staff and legal counsel are currently analyzing these guidelines in the context of HIPAA, federal and state law, and VITL operations. The results of this analysis will be included in the update to the Vermont Health Information Technology Plan, which VITL expects to have completed by the end of March.

9.2 Other VHITP Chapters

While the process to develop privacy and security policies was progressing, work also proceeded to update other parts of the Vermont Health Information Technology Plan. Monthly meetings were held with a group of advisors to discuss revisions to the original plan. VITL staff and consultants were assigned chapters to revise and update. They include: Vision and Core Objectives; Financing; Health Care Reform; Outreach and Education; Practice Transformation; and Standards. The updated VHITP chapters will be provided to the General Assembly under separate cover by the end of March.

10. Health Information Security and Privacy Collaboration

In 2008, VITL continued its involvement in the Health Information Security and Privacy Collaboration (HISPC), along with 42 other states and territories. The purpose of this federally-sponsored collaborative has been to assess variations in HIE policy and law across the states in order to promote interoperability while preserving the necessary privacy and security requirements set by local communities.

VITL has participated in all three phases of the HISPC project, which began in June 2006. The current third phase, which began in April 2008, involved the creation of seven multi-state collaborative projects focused on consent, privacy, consumer engagement, provider education, standards, and interorganizational agreements. VITL is a contributing member of one of two consent collaboratives and also participates in cross-collaborative activities. VITL's involvement in HISPC has allowed Vermont to play a role in national privacy and security activities, and has also provided funding opportunities to further privacy and security-related work on existing HIE projects within the state.

11. VITL Governance

In the Spring of 2008, VITL undertook a review of its governance structure. At the time, VITL's Board of Directors consisted of 21 members. VITL President Greg Farnum and board members realized that the organization was shifting from start-up mode to a long-term operational mode. The governance review was necessary to ensure that VITL's committees, advisory groups, and Board of Directors are structured so that the organization is able to move forward quickly and remains successful in the long run.

A Governance Committee was formed and met frequently over a five-month period. Input was received from a number of stakeholders, including the secretary of the Agency of Administration and legislative leaders. The Governance Committee's work initially focused on proposing a set of bylaws changes which reduced the size of the VITL board and defined the number of board members that can be drawn from various stakeholder groups.

On Aug. 29, 2008, a new set of bylaws was adopted, setting the total number of directors at not less than nine and not more than 11. Of those directors:

- At least two but not more than four must be either a health care provider, an employee of a health care provider, or employed by an association representing health care providers.
- At least one of those directors must be employed by a Vermont hospital or be an employee of the Vermont Association of Hospitals and Health Systems.

- One of the seats reserved for health care providers must be occupied by a practicing Vermont physician or an employee of the Vermont Medical Society. In case the seat is occupied by a Vermont Medical Society employee, an additional director shall be a practicing Vermont physician and the number of health care providers who may directors is increased to a maximum of five.
- At least one director, but no more than two, must be employed by a health insurer.
- At least one director must be from the non-health private business sector.
- One director is appointed by the governor of Vermont.
- One director is appointed by the legislative leadership.
- One director is a representative of a consumer group.
- No more than three directors can be employees of the State of Vermont.

Standing committees under the new bylaws are the Executive Committee, the Finance Committee, and the Governance and Nominating Committee. In addition, a Practitioner Advisory Committee and a Consumer Advisory Committee were created by the bylaws change. Each of the advisory committees is chaired by a member of the VITL Board of Directors, who shall periodically report on the committee's activities to the full board. The Practitioners Advisory Committee is meeting monthly, while the Consumer Advisory Committee is expected to begin meeting in early 2009.

With the bylaws adoption process completed, the members of the Governance Committee turned their attention to nominating candidates for the seats on the recomposed board. A slate of candidates was put forward and approved at the corporation's annual meeting, held Sept. 17, 2008.

The VITL Board of Directors elected on Sept. 17, 2008 is as follows:

Health Care Providers
Paul Harrington (Treasurer)
Executive Vice President
Vermont Medical Society

Andrea Lott
CIO, Vice President Information Services
Northeastern Vermont Regional Hospital

Chuck Podesta
Chief Information Officer
Fletcher Allen Health Care

Bea Grause (Secretary)
President and CEO
Vermont Association of Hospitals and Health Systems

Health Plans
Don George (Chair)
Interim CEO
Blue Cross Blue Shield of Vermont

Business Community
Lisa Ventriss (Vice Chair)
President
Vermont Business Roundtable

Physicians
Paul Reiss, MD
Vermont Academy of Family Physicians

Consumer Representative
Gertrude M. Hodge

Legislative Appointee
James Hester
Director
Commission on Healthcare Reform

Governor's Appointee
Craig Jones, MD
Blueprint for Health Executive Director
State of Vermont

Open Seat
Judy Higgins

12. Outreach and Education

In 2008, VITL increased its efforts to reach out to health care practitioners and the general public to educate them about VITL's programs and services, as well as the benefits of EHRs and health information exchange.

The annual VITL Summit continues to be an important mechanism for reaching out to physicians, practice administrators, hospital executives, and health information technology managers. The 2008 VITL Summit attracted a sold-out attendance of more than 175, as well as a full exhibit hall of 16 vendors.

Attendees at the Sept. 25 VITL Summit conference learned how EHRs have improved patient care in physician practices, heard from participants in VITL's Clinical Transformation Program, and received an overview of the Clinical Microsystems method of process improvement. Physicians leading the Blueprint for Health Initiative discussed the effort to improve the management of chronic conditions, and demonstrated the DocSite clinical analysis tool. The keynote address was given by Nancy Lorenzi, PhD, a leading researcher in using health information technology to improve patient outcomes. In her comments, Dr. Lorenzi praised the effort in Vermont, saying it has all the essential elements for success. A video of Dr. Lorenzi's keynote address, as well as other presentation materials, are available on VITL's website. A DVD is also available from VITL.

Two educational videos were completed during the year and are available for viewing on the VITL website. One video features testimonials from physicians who have adopted EHRs. The other demonstrates how data is shared via the Vermont health information exchange. These videos will be made available on DVD, and be included in presentations made by VITL staff.

VITL hired a director of outreach and business development in 2008. He has been contacting physician practices across the state to determine which ones have already adopted EHRs, and which would be

willing to implement the technology in the future. He also makes presentations on health information technology and VITL's programs to groups of health care professionals, business people, and consumers.

VITL exhibited at several events in 2008, including the Vermont Business and Industry Expo, the largest business trade show held in the state which attracts thousands of business professionals. Other exhibits were: a health care reform conference held by Blue Cross Blue Shield of Vermont; the annual meeting of the Vermont Medical Society; the annual meeting of the Vermont Association of Hospitals and Health Systems; the annual meeting of the Vermont State Nurses Association; the annual educational conference of the Bi-State Primary Care Association; and the VITL Summit annual educational conference.

VITL's quarterly newsletter expanded publication during 2008 to include a print edition as well as the previous online version. The print edition is mailed to approximately 1,000 physicians and other interested parties, while there are more than 200 people signed up to be notified when the electronic version is posted on the VITL website. The newsletter was renamed *Vermont e-Health*, to better reflect the broad scope of activity in Vermont in this area. Coverage has been increased to include stories about a wide range e-health projects. The newsletter is available on VITL's website www.vitl.net.

News media coverage plays an important role in educating consumers about the benefits of EHRs and health information exchange. In 2008, news stories included a front-page article in the *Sunday Times Argus and Rutland Herald* about the benefits of health information exchange. The *Rutland Herald* published a second article about physician support for the state's Health IT Fund. Several articles on VITL's programs appeared in the national trade press in 2008, helping to further establish Vermont's reputation as one of the leaders in the use of information technology in health care reform. (Links to selected articles are in Appendix 2.) Public relations efforts will continue in 2009, particularly as more physician practices participating in VITL's grant programs go live with their new EHRs and consumers can be alerted through the media to the improvement of patient care in their communities.

With the anticipated adoption of privacy and security policies, and the forthcoming deployment of the Vermont health information exchange, VITL plans to intensify its education efforts in 2009. VITL will continue to make presentations to business-oriented groups such as the Rotary and the Chamber of Commerce to make business leaders aware of the value of EHRs and health information exchange, and inform them of progress being made with funding from the Health IT Fund. VITL will also seek out opportunities to educate consumers about health information exchange and the privacy and security policies, by exhibiting at health fairs and offering to make presentations to community groups.

13. New England Telehealth Consortium

VITL has taken a leadership position in the effort to develop a dedicated broadband network for health care providers in Vermont, New Hampshire, and Maine. VITL President Greg Farnum is a member of the NETC board of directors. The fiber optic network developed by NETC will offer superior speed, reliability, and security, as it will be separate from the public Internet. The network is being funded by a $25 million grant from the Federal Communications Commission. In 2008, VITL coordinated the sign-up of 64 Vermont sites planning to participate in the NETC. The organizations include all of the state's hospitals, all of the federally qualified health centers in Vermont, many of Vermont's designated mental health

agencies, and other sites such as the University of Vermont. There are more than 500 sites planning to participate in the three states. Design work on the network is expected to begin in 2009.

14. CCHIT Certification

In 2008, VITL completed an application for health information exchange certification by the Certification Commission for Health Information Technology (CCHIT). The first stage of the application verifies security practices for the VITL HIE. A later stage will test VITL's ability to transmit standards-based electronic messages. VITL was one of three HIEs participating in the pilot test of the new certification program, and is one of the first HIEs in the country to submit an application for certification. If VITL receives certification, it will further assure health care providers and consumers that VITL has met stringent security and technology standards.

15. Quality Improvement Collaborative

To help physician practices with EHRs make process improvements, VITL is co-sponsoring a Quality Improvement Collaborative with a health information technology track. The eight-month program, organized by the Vermont Program for Quality in Health Care, was launched in October 2008 and will conclude in May 2009.

In the collaborative, clinical teams work on issues that address practice and system improvements. They gather for daylong face-to-face meetings several times during the eight-month period to discuss issues and share successes. Clinical teams focus on topics that lead to measurable improvements for their patients and improve workplace morale and efficiency, such as decreasing wait times, practice standardization, and maximizing roles and responsibilities.

Practices that already have an EMR and wish to maximize patient centeredness through health information technology were encouraged to participate. VITL staff and resources are available during the collaborative for over-the-shoulder coaching to participating teams.

16. Statistical Snapshot of VITL Projects

- Medication Histories Delivered: 85,000 from April 2007-Jan. 2009
- Blueprint Transactions: 795,000 to date
- Lab Results Delivered: 53,000 from Sept. 2008-Jan. 2009
- Pilot Site EMRs: 82,000 Patient Visits a Year
- Patient Demographics Registrations: 309,000 to date

17. Status of VITL Projects

VITL: Status of Major Projects (as of January 9, 2009)								
	Project	**Target Market**	**Prospects**	**Statement of Work Completed**	**Signed contract with Client**	**System Dev. and Implement**	**Kickoff**	**Go Live**
1	Medication History	Hospitals	5	3	3	3	3	3
2	EHR Pilots	Primary care	4	4	4	4	4	3
3	EHR 2nd group	Primary care	4	4				
4	Lab Results	Practices	13	10	10	9	8	2
5	Lab Orders	Practices	12					
6	Clinical Summary	Practices	7					
7	Blueprint	Practices	6	4	4	4	4	3
8	Immunization	Practices	9	1				
		Total	**60**	**26**	**21**	**20**	**19**	**11**

	Additional Major Projects	**Date Started**	**Completed or Target Date**	**Status**
9	Vermont Health Information Technology Plan	Fall 2006	Summer 2007	Approved by General Assembly
10	Update to Plan	Summer 2008	March 2009	In process
11	Privacy and Security Policies and Procedures	Summer 2008	March 2009	In process

18. Conclusion and 2009 Outlook

VITL made substantial progress in 2008, launching several projects that involve collaborating with physician practices and hospitals across Vermont.

- From Bennington to Richford, VITL is working with physicians to transform their clinical practices and implement electronic health records systems.
- In half a dozen communities, VITL is building interfaces to hospitals and physician practices so that lab test results and other data can be transmitted securely in real time.
- In St. Johnsbury and Burlington, clinicians are using the Blueprint for Health's web-based clinical information system, which is powered by VITL's interfaces and data center.
- In Rutland, St. Johnsbury, and Brattleboro, hospital emergency department patients benefit from clinicians being able to access their prescription medication history through VITL's data center.
- Practices from around Vermont are learning how to improve patient care using health information technology in a quality improvement collaborative, co-sponsored by VITL.

VITL will expand participation in its existing programs during 2009. The number of practices involved in the Clinical Transformation Program will continue to increase as new grants are made using financing provided by the Vermont Health IT Fund. The number of clinicians subscribing to VITL's EHR Connectivity Service will grow quickly as five new hospitals go live and begin transmitting data through VITL's data center. Practices in several additional communities will begin using the Blueprint for Health's clinical information system in 2009, enabling clinicians to improve the management of chronic conditions. VITL's program to support public health will also expand in scope with the addition of interfaces enabling reporting of immunization data in real-time from EHRs to the Vermont Immunization Registry.

Two new programs are expected to be launched by VITL in 2009. A multi-year program to promote electronic prescribing and incentivize physicians to adopt the technology will kick-off, so that more Vermonters can benefit from the increased convenience and greater patient safety that e-prescribing provides. VITL also plans to initiate bi-directional health information exchange in at least one community, enabling clinicians to share data (with patient permission), thus improving the quality of health care and helping to control the rate of growth in health care expenditures by reducing the need to duplicate tests.

Appendix 1: JFO Issue Brief on Health IT Fund

Vermont Legislative Joint Fiscal Office

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ISSUE BRIEF

November 21, 2008
Prepared by Nolan Langweil

Health IT-Fund
First Quarter Update

The Health IT-Fund was established pursuant Act 192 of 2008. It stated that in the fund shall be deposited: 1) revenues from the Health Care Information Technology Reinvestment Fee, 2) contributions from the Office of Vermont Health Access (OVHA), and 3) proceeds from grants, donations, contributions, taxes, and any other sources of revenues. Revenues for this quarter have come in below projections creating a significant shortfall in the fund which is likely to compound each quarter. The purpose of this memo is to identify some of the potential reasons why revenues came in below initial projections.

The Health Care Information Technology Reinvestment fee
The reinvestment fee is a fee of 0.199% of health care claims paid by health insurers on behalf of their Vermont members. The fee which began October 1, 2008 is paid quarterly based on the previous quarter.

For the last three quarters of FY09 it was estimated the reinvestment fee would bring in $780,000, $850,000, and $850,000 respectively for a total of $2.47 million for the fiscal year.[1] However, the second quarter revenue, which was the first quarter in which the fee was collected, brought in $498,000. The variance between the projection and the actual revenues may be a combination of several factors, including but not limited to:

Collection issues: Fees were received by 51 carriers as of November 17, 2008. However, at this time it is not quite known how many carriers should be submitting fees. This is partially because many carriers offer products that are not subject to the reinvestment fee. Moreover, it expected that some fees will trickle in late. For instance, recently one pharmacy benefits manager (PBM) reportedly contacted the Administration because they had only just learned that they were subject to the fee. The administration is working with the Department of Information and Innovations (DII) on more efficiently identifying which companies should be paying the fee. In the meantime, while the initial estimate took collection rate into consideration, the actual collection is lower than projected (although we do not yet know what the current collection rate is as percentage). As some of the implementation kinks are worked out, the collection rate

[1] The 2nd quarter of FY09 was the first quarter the reinvestment fee was collected.

should increase though what that will mean in terms of additional revenue collected is not known at this time.

Trends in growth rates: The assessment projection was based on claims data provided by BISHCA. However, at the time, only claims data through 2006 are available. As such, claims data was trended forwarded to estimate claims for 2009 and forward to determine how much revenue the fee would generate. The projection model projected an average annual growth of 8%, which is a reasonable estimate given the trends in health care spending based on available data. For instance, private health insurance spending grew at 8% from 2005 to 2006.[2] The average annual growth in health spending in Vermont from 2003 to 2006 was 7.8% and the average annual growth for the 10 year period between 1996 and 2006 was 8.6%.[3] That being said, early indication are that growth in health care spending between 2006 and 2007 were below the indicated trend although we won't know for sure until BISHCA releases it's 2007 Health Care Expenditure Analysis. There have also been recent newspaper articles indicating that health care utilization is down as a result of the economic downturn. Reportedly many people are forgoing doctor's appointments, treatment and needed prescriptions as a result of increased cost sharing, simple belt tightening, and other reasons. Again, we won't know for sure until we see the data.

Claims data: The initial estimates were based on private health insurance claims data for all sectors (i.e. hospital, dental, nursing homes, etc.), with the exclusion of administrative cost. However, exclusions added later as the legislation progressed were not later reflected in the initial estimates. As such, dental, long term care, and workers compensation claims were not backed out of the estimate.[4] This may account for as much as $80,000 of the discrepancy.

New Fee: As was the dilemma with the employer assessment, being a new fee, there was little experience from which to build an estimate. As such, the estimate was based assumptions using the best information and data available at the time. After several quarters of fees come in, it will be easier to adjust future estimates based on actual revenues.

Office of Vermont Health Access (OVHA)

OVHA was to contribute a total of $500,000 to the Health IT-Fund in FY09. OVHA contributed $100,000 this quarter. However, as a result of the economic downturn, the Administration has indicated that the other $400,000 may be a likely target of future rescissions.

Conclusion

Given these and other potential variables, it can be expected that future quarters will likely also see revenues below the initial projections compounding the shortfall over time. This will likely have a significant fiscal impact on VITL and the health IT initiatives the Health IT-Fund was created to support.

[2] BISCHA, 2006 Vermont Health Care Expenditure Analysis & Three year Forecast, released January 2008.
[3] Determined using BISHCA data.
[4] All claims paid under a comprehensive medical insurance

Appendix 2: Selected News Articles

Sunday Times-Argus, Oct. 19, 2008: Vermont HIE Poised to Provide Gains

Rutland Herald, Oct. 1, 2008: Doctors, State Officials Support Seven-Year Initiative

Government Health IT, Sept. 26, 2008: Vermont to Rate EMR Impact

NHIN Watch, Sept. 18, 2008: Vermont HIE Operator Elects New Directors

Government Health IT, July 14, 2008: Vermont Trust Fund Aims at Physicians' EHR Adoption

Health Data Management, July 9, 2008: Vermont HIE Includes EHR Testing