



Vermont

Evaluation of Health Information Technology Activities

Final Report
November 10, 2017



EXECUTIVE SUMMARY AND RECOMMENDATIONS

I. EXECUTIVE SUMMARY

Act 73 of 2017 required the Secretaries of Administration and Health and Human Services to conduct a comprehensive review of the State's Health-IT Fund established by 32 V.S.A. § 10301, Health Information Technology (HIT) Plan established by 18 V.S.A. § 9351, and Vermont Information Technology Leaders (VITL) administered pursuant to 18 V.S.A. § 9352. The Department of Vermont Health Access (DVHA) procured an independent third-party evaluator to lead the study, HealthTech Solutions (HTS). HTS was selected following a competitive procurement process and brought in a team of experts in Health Information Exchange (HIE) technologies, relevant legal issues, operations, and research. The team conducted close to 90 stakeholder interviews, examined other state HIE structures for comparison to Vermont, and reviewed current literature on the topic. This report sets forth HTS's findings and recommendations in fulfillment of Act 73's mandate.

HIE is the transmission of healthcare related data among facilities, health information organizations, and government agencies according to national standards. HIE is often used as shorthand for programs, tools, and investments that help aggregate and exchange claims and clinical data to improve healthcare. HIE is widely thought to have the potential to allow healthcare providers, payers, and policymakers to measure and understand the impact and efficacy of clinical choices and healthcare reform efforts. Healthcare providers rely on HIE. State and federal healthcare reform efforts assume that HIE systems function and add critical value to the care delivery system.

The study comes at an important time in healthcare reform in Vermont. Reform efforts, including the Vermont All-Payer Accountable Care Organization Model, assume that providers, payers, and Accountable Care Organizations (ACOs) will use data to understand program impacts to increase quality and reduce costs. HIE is meant to be the backbone of that data. Given this critical moment, the study aimed to compare both the current state of HIE nationally, and Vermont's own stated goals and processes, to its actual performance, providing policymakers and stakeholders with a lucid view of the present and a roadmap for the future.

The Findings

In summary, the report highlights four key findings:

HIE is expensive and difficult for all states. Vermont is facing HIE challenges, but it is not alone. Around the nation, many public HIEs have failed or consolidated as they struggle with limitations in technology and challenges with developing sustainability models. Despite adversity, there are many public/private partnership models that are evolving and functioning today to meet the demands of individual providers and the healthcare system at large.

HIE systems are essential. Aggregated clinical data is central to understanding the impact of population-wide reforms, such as the All-Payer Model. And the exchange and aggregation of clinical data through a central hub makes clinical data available to providers at the bedside, which supports informed, quality decision-making for patients. Providers must also exchange clinical data to meet federal requirements to receive full Medicare reimbursement. Therefore, despite difficulties in execution, it is no surprise that 92 percent of stakeholders HTS interviewed in Vermont indicated that the state needs to continue Vermont's HIE efforts. HIE is foundational to good healthcare and successful system reform that impacts both health and the costs of care.

Vermont is not organized in a way that increases its chances for success. Currently, no group or organization is solely responsible for the execution of HIE activities in the state, and there is no state-wide strategic plan guiding time constrained HIE investments. VITL is the main operator of Vermont's HIE system (VHIE), and although the state is the main funder of VITL, the relationship between the two is weak. This governance model and lack of strategic plan, coupled with a Board of Directors that appears to be deferential to VITL leadership, gives a high degree of autonomy to VITL with limited accountability. Better governance and planning is attainable - other states have successfully developed governance and oversight models, which Vermont could replicate.

Stakeholders lack confidence and there is clear room for improvement. Based upon responses to structured interviews, many stakeholders have lost confidence in VITL as an organization. VITL is currently seeking to provide a new set of high-value services, yet they have not met their foundational core service obligations. In the VHIE, there are issues with the number of Vermonters whose data is available, the quality of data exchanged, and the usability of provider tools.

Historically, providers have not been charged a fee to use the VHIE. The interviews indicate that it would be difficult to convince providers to pay for VITL's services without seeing it vastly improved. Because federal investments fueling this work are scheduled to end in September 2021, it is critical to achieve a sustainability model that relies on both public and private participation.

In summary, the study finds that both health reform needs and stakeholder interviews support the view that HIE is essential. The governance and structure of Vermont's HIE initiatives must evolve to meet the ever-growing need to integrate systems and services that support improving the quality of healthcare delivery.

Recommendations

HTS recommends that Vermont address the issues identified in order to have a high performing HIE. These recommendations are based on success factors exhibited by other states. HTS urges Vermont to go back to the basics, develop HIE governance, create and execute upon a HIT planning process, link financial investment to performance, and better leverage the State's relationship with VITL. Specifically, HTS recommends that Vermont take the following steps:

- Implement an effective governance model;
- Develop and manage to a strong HIE strategic plan;
- Transparently tie program goals to financial decisions;
- Define outcomes and performance measures for all HIE investments;
- Make HIE operations accountable to all customers, including the state;
- Create an HIE Board of Directors consisting of a mix of stakeholders including subject matter experts and users;
- Ensure that the HIE operator is focused and delivers upon its core mission:
 - Connecting all patient data to the system,
 - Matching patients to records in the HIE,
 - Producing high-quality data, and
 - Ensuring ease of use of data to support quality care and health system measurement.

The State and the HIE have ambitious and forward-looking goals; however, these basic elements of HIE ought to be in place to maximize both the chances of success and ensure the proper stewardship of public dollars.

HTS provides detail on the findings and recommendations in the following full report.

II. RECOMMENDATIONS

Health Information Technology and the exchange of healthcare data touch every Vermonter's life. Patients, providers, hospitals, the VHIE, state government, and those working on healthcare reform all rely on HIT/HIE. Federal and state imperatives require the exchange of health information and they also assume that the HIE systems function appropriately. Additionally, there was consensus amongst many interviewees and stakeholders that HIT/HIE is critical to Vermont's healthcare reform efforts and therefore must continue to improve. To that end, the following recommendations are offered.

A. Recommendations for Overall Structure and Effective Governance of HIT/HIE Efforts in VT

1. HIT/HIE Governance Committee

Establish an effective across-the-board governance model led by a Governance Committee (such as the State of Michigan model¹) which is charged with developing broad HIT/HIE policies and Vermont's HIT/HIE strategic direction; drafting and approving Vermont's HIT Plan; ensuring that the various components and HIT/HIE systems and efforts tie back up to the state's strategic HIT Plan; and prioritizing and coordinating activities that align with and support healthcare transformation efforts in Vermont. The Governance Committee needs to create trust and ensure that entities that are involved with HIT/HIE activities are accountable for their roles and responsibilities, and that a primary goal of these activities is to improve secure access to healthcare data that is of high quality which can be used to improve health outcomes while keeping costs down.

An effective model would be an HIT/HIE Governance Committee comprised of 12-14 members, consisting of public (e.g., DVHA, GMCB, AoA, Digital Services, Health Care Reform, Office of the Healthcare Advocate, Department of Health, Legislature), private (hospitals, providers, payers, medical associations), and consumers/patients.

- To ensure the Committee has adequate administrative support, the Committee should be administratively attached to a state entity. DVHA is a logical choice as it is the state's Medicaid agency that oversees the Meaningful Use Program and other Medicaid programs that provide significant HIT/HIE funding. Current state functions such as contract oversight would remain with the relevant state entity.
- The Committee would be assisted by permanent and temporary subgroups, such as finance, technology, and clinical, formed to work on specific activities.
- A Data Governance Subcommittee comprised of Committee members and subject matter experts would draft a data governance policy for Vermont for the full Governance Committee to review, seek input, and approve.
- A Legal and Policy Subcommittee comprised of Committee members, subject matter experts, and lawyers would address and draft an ownership and control of healthcare data policy, and

¹ See Section B for a description of the Michigan model.

recommendations under Vermont's opt-in consent law for improving the amount of patient data accessible in the VHIE, for the full Governance Committee to review, seek input, approve, and if legislation is required, submit draft legislation for the Vermont Assembly to consider.

2. HIT Plan

The Committee would be responsible for the development, oversight, and approval of a new HIT Plan (and annual updates). The new HIT Plan must be performance-based and traceable to state strategic direction with a commitment by the state to follow and meet the HIT Plan goals and objectives. An HIT Plan subcommittee consisting of several Committee members and the chairs of the subcommittees would be responsible for overseeing the annual updates.

The HIT Plan, among other topics, should:

- Establish ground rules for the HIT Plan process that actively engages stakeholders giving opportunities to provide input during the HIT Plan process and on draft HIT Plans.
- Complete an inventory of existing and projected sources of funds to help guide priorities. For example, the federal Meaningful Use Payment Program for healthcare providers is available through September 30, 2021. Consider activities that meet requirements for this program because for every \$1 the state spends, it receives \$9 in Federal funds. A 90/10 match rate.
- Continue the HIT Fund at its current level and continue the current source. The HIT Plan should establish a more formal process of setting funding and prioritizing projects based on efficient and effective use of public and private resources. Annual updates to the HIT Plan should review the level and source of funding to ensure needs are being met without overly burdening those who provide fees used to source the Fund.
- Clearly define the relationships among the major HIT/HIE initiatives in Vermont such as the CMS Waiver, Accountable Care Organization Model, Blueprint and identify roles and responsibilities for future activities under the HIT Plan.
- Define accountability standards and ensure HIT/HIE programs operate in a transparent manner.
- More clearly define the role of the VHIE and identify priorities for the VITL Board of Directors whose focus needs to be on overseeing the operations of the VHIE including meeting core services (see recommendations below for VHIE Governance and Performance).
- Given the federal program which required states to designate an HIE has ended, evaluate the need for VITL to continue to be statutorily designated as the state's HIE.
- Include mechanisms that require ongoing review, evaluation, and continuous improvement of HIT/HIE initiatives.
- Include education and outreach plans for HIT/HIE initiatives including the VHIE.

B. Recommendations for VHIE Governance and Performance

1. To provide high-value services such as alerts to providers when their patients go to the emergency room or are discharged from a hospital, the VHIE must ensure that it meets core services obligations. The VHIE should focus on improving core services before it seeks to implement high-value services. The following activities should be done on parallel tracks:
 - Work collaboratively with the state and other stakeholders to develop and implement mechanisms to increase the number of Vermonters who consent to have their data viewable in the VHIE.
 - For the patients who have already provided consent, expend resources to match the patients with their records.
 - Implement easier ways to access and use the data in the VHIE that do not burden providers and facilitate healthcare reform measures.
 - Improve the quality of the data in the VHIE by making sure that records are accurate and complete.
2. As the primary source of VHIE funding, the state should direct that state funds (including the remaining funding under the July 1, 2017 - June 30, 2018 contract with DVHA) be used to improve core services and tie contractual payments to specific deliverables and timelines. For example, by a certain date, determine an attainable increase in the percentage of Vermonters who have consented to having their data viewed in the VHIE.
3. Continue/increase recent push to hold VITL accountable for contractual obligations and tie all payments to defined deliverables. For the July 1, 2018 - June 30, 2019 contract, continue to involve state agency counsel at the beginning of negotiations; add more delivery-based conditions for meeting core services with financial and legal consequences for not meeting deliverables; meet reporting and corrective action recommendations contained in this Evaluation Report, and consider incentives if VITL exceeds performance or completes activities under budget.
4. For the HIT Meaningful Use Program funding, require VHIE to report on the current status of each project including the amount of funds spent. For projects not completed by the projected due date, require VHIE to explain why and provide an expected date of completion.
5. The role of the VITL Board should be to oversee the operations of the VHIE and make sure that VITL follows and meets its roles and responsibilities under the HIT Plan. To that end, the state should transform the VITL Board Membership to include users or potential users of VHIE with technical expertise and emphasize the role of the VITL Board is to have a focus on operations, meeting core services, and use priority use cases identified during the HIT Plan development to drive technical decision making.
6. Fill the state's VITL Board slot with an individual who has technical, business, policy, and/or government experience; credibility and trust of public and private leaders; and who can put in the effort needed.
7. Require VITL to submit its annual report through the Governance Committee and include an assessment of progress in implementing HIT in Vermont and recommendations for additional

funding and legislation as required under Vermont law.

8. Based on VHIE activities identified in the new HIT Plan, develop a VHIE strategic plan that defines the services that should be provided, a sustainability plan, technological approaches to services such as the use of modular systems, and based on responses to interview questions, the VHIE either providing an integrated view within VITL Access or dropping the focus on it.
9. In 2018, the state should conduct a performance/operational audit of VITL to determine effectiveness of internal financial controls, management policies, and practices. The audit plan should include compliance objectives relating to provisions of law, regulation, and contracts and grant agreements. In its next contract with VITL, the state should require VITL to correct all findings and take necessary actions to follow and meet the recommendations, as a condition for payment.
10. Require VITL to submit a corrective action plan to address the findings on VHIE's security controls, including a description of how findings will be corrected with a detailed implementation plan and timeline.
11. Require VITL to conduct an annual security assessment of the VHIE to evaluate if the security controls in place adequately cover the transmission, processing, and storage of the State of Vermont's data within the VHIE systems.
12. Require VITL to review all policies on an annual basis, and publicly post all policies, Board meeting agendas, minutes, and handouts on its website, and ensure that the most current version of policies are posted.
13. VITL White Papers and other self-assessments should be developed by an independent 3rd party and/or peer reviewed and should be built on existing literature using established methodologies before public dissemination.

C. Financial Recommendations for the VHIE

Financial recommendations are inseparable from governance and performance. The recommendations to address governance through the creation of a new board which will develop the HIT Plan and oversee disbursements and projects paid for by the HIT Fund and federal monies will form a cohesive set of compensating controls which will address accountability, transparency, and oversight of the VHIE. The following financial recommendations supplement the governance recommendations:

1. Evaluate whether the contract relationship with VITL ensures that Federal Uniform Guidance §200.330 and Vermont's Agency of Administration Bulletin 5 are complied with in terms of both the form and substance of sub-recipient agreements and, if necessary, implement changes to ensure compliance.
2. Adopt financial reporting and transparency best practices from HIEs in other states, including publicly available detailed financial statements. Require VITL to itemize income sources by specific grant type, contract, and program service; itemize expenses including contract services. An example of a sound public annual report is the Nebraska Health Information Initiative.
3. The review of the SFY14 - SFY16 period revealed a number of recurring or similar audit findings pertaining to the effectiveness of internal controls. The VITL board should establish an Audit Committee consisting of only members who are not employed by VITL or VITL's chosen audit firm. The Committee should use the National Council of Nonprofits and American Institute of CPAs (AICPA) Audit Committee Toolkits included as Appendix N as a framework for the Audit Committee.
4. The state should require the VITL Board to pursue more detailed annual financial reporting to ensure public accountability and transparency.

III. CONCLUSION

The state of Vermont, and indeed the nation, has witnessed an explosion of health information technology in the past 10 years that continues to evolve. The one thing that Vermont cannot do, is to do nothing. The governance and structure of Vermont's HIT/HIE initiatives no longer meet the ever-growing need to integrate systems and services that come with healthcare reform and the ability to improve the quality of healthcare delivery. Vermont is truly at a crossroad and has the opportunity to once again be a national leader in health IT. The first step must be an HIT Plan process that is owned by the state and which delivers a comprehensive yet manageable HIT Plan that not only guides the future, but one which Vermont remains committed to and diligently follows through on.