

Summary of State Governance Models and Health Information Exchange Services



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Contents

1. Introduction.....	3
2. Comparing Vermont and Other States: Governance, Funding and Operations	4
Structure.....	5
Functions.....	5
3. Comparing Vermont and Other States: State HIE Services	9
4. Comparing Vermont and other SIM States	14

1. Introduction

This final report summarizes research and analysis on state models for governance and technical services for health information exchange (HIE) in support of the Vermont Health Care Innovation Project. Funded through the federal State Innovation Model (SIM) program, the state identified priorities and developed operational plans for targeted investments to further develop statewide HIE capabilities, with input from the Health Data Infrastructure (HDI) work group. Simultaneously, the state drafted, and consulted with stakeholders on, an update of the state HIT plan; that draft plan included a number of recommendations focused on governance and priorities for enhanced HIE services.

With these developments as background, the state commissioned research and analysis on other state's HIT models, specifically relating to governance and technical services, to serve as a reference point for Vermont's future plans. This report is based primarily on two sources: (1) review of documents and interviews conducted with key officials in eight states: Colorado, Delaware, Maine, Maryland, Michigan, New York, Rhode Island, and Washington, and (2) review of documents and information provided by federal HIT policy consultants and otherwise available through web search. Interim updates on this research and analysis were provided to the HDI work group through 2016.

There are three major sections in the report comparing Vermont to other states with regard to:

- State Roles and Governance Models to Advance HIE
- State HIE Services (implemented and under development)
- SIM initiatives focused on HDI development

2. Comparing Vermont and Other States: Governance, Funding and Operations

There is significant variation in state HIT roles; according to the report *Evaluation of State HIE Cooperative Program*, these roles can be summarized in three broad categories:

- **Providing statewide leadership and coordination:** The state convenes stakeholders; includes HIE as part of health policy development and delivery system reform; and conducts ongoing state-level needs assessments. ^[1]_[SEP]
- **Developing HIE through or in alignment with Medicaid and social services:** Medicaid delivery system and payment reform creates greater needs for HIE. Medicaid is a major funding partner for HIE, while also serving as a payer and certification or licensing body. ^[1]_[SEP]
- **Creating and maintaining the Health IT Coordinator role:** The Health IT Coordinator can act as a liaison/initiator for ongoing federal-state partnership opportunities to advance HIE. ^[1]_[SEP] This dedicated official identifies health IT/HIE opportunities in the state, and has access to different levers and collaborators to prompt state action (e.g., Medicaid, state insurance, state employer program, state public health department).
- **Driving/sustaining demand for HIE and leveraging existing HIE investments under delivery system reform:** Communicating the value of HIE in conjunction with pre-Stage 3 MU “marketing;” leveraging investments formerly supported by the State HIE Program for delivery system reform; and pursuing HIE-supportive policies (e.g., promote ACOs and other models that leverage technology and potential incentives). ^[1]_[SEP]

Within these broad parameters, states have implemented unique HIE governance models that delineate who will be involved in key strategic and operational decisions, and how the rules of the road will be established and enforced. Governance serves two important functions:

1. The governance model establishes trust among the participants in health information exchange (e.g., payers, providers, consumers) by setting and enforcing common policies and standards; and
2. It serves as a focal point to set strategy and coordinate funding for development of technical services.

¹ Evaluation of the State HIE Cooperative Agreement Program, Final Report. NORC at the University of Chicago, March 2016, p. 7.

Structure: The HIE governance structure varies by state. Several states have a HIT Policy Commission or similar entity that develops and oversees the state HIT strategy or roadmap. The membership typically includes senior leaders from state government and the stakeholder community. Most states have maintained or built on the State HIT Coordinator model originally defined in the State HIE Cooperative Agreements. This role is typically housed within the state health or Medicaid agency, or the Governor’s office. While Medicaid is now a primary funding source for many state HIT/HIE activities, its governance role is also varied; Medicaid can be a leader, a partner with other state agencies and/or a participant in a multi-stakeholder, public-private governance structure.

Functions: State HIE governance models encompass one or more of the following functions:

- Regulations and policy for health information exchange (*Regulation*);
- Prioritization and allocation of resources for HIT initiatives (*Strategy*);
- Management oversight including contracting using federal and state funds (*Administration*);
- Coordination of HIT implementation including focus on standards, adoption and use (*Operations*).

The state’s relationship with the HIE organization(s) is mostly correlated to the state governance focus as relates to strategy and operations (i.e., they are more or less independent based on how directly the state regulates or manages these functions). Each state’s primary functions are listed in the left hand column.

State/Function(s)	Governance Structure, Funding and Operations
<p>Colorado</p> <p>Primary State Functions: -Strategy -Administration -Operations (limited)</p>	<p>Office of eHealth Innovation – State HIT Coordinator in Governor’s office eHealth Commission (advisory group) Medicaid HIT coordinator – oversees Medicaid EHR and MU; IAPD funding; also fiscal agent providing contracting, procurement, administrative support for OeHI SIM funding</p> <p>HIE(s): CoRHIO and Quality Health Network Independent self-governing State contracts with RHIOs for specific activities</p>
<p>Delaware</p> <p>Primary State Functions: -Regulation -Strategy</p>	<p>Delaware Health Care Commission; State HIT Coordinator SIM funding</p> <p>HIE: Delaware Health Information Network (DHIN) Statute and regulations established HIE as a “state instrumentality,” subsequent statute granted them authority as a self-governing entity</p>
<p>Maine</p>	

State/Function(s)	Governance Structure, Funding and Operations
Primary State Functions: -Strategy (limited)	No broad state role SIM funding HIE: Healthinfonet – independent self-governing State members on board State contracts for specific activities
Maryland	
Primary State Functions: -Regulation -Strategy -Administration -Operations	State HIT Coordinator, state policy board housed within Maryland Health Care Commission; Health Services Cost Review Commission driving HIT-related health reform activities State acts as “Utility regulator;” also actively participates in use case development tied to traditional state health functions and health reform Regulations include HIE registration; privacy and security requirements Medicaid IAP and 1115 waiver funding HIE: Chesapeake Regional Information System for Patients (CRISP) Non profit State members on board Strategic and operational partnership to advance state health reform initiatives
Michigan	
Primary State Functions: -Regulation -Strategy -Administration -Operations	State HIT Policy Office and Coordinator in Department of Health and Human Services; State HIT Commission State participates as a data provider and user (“qualified organization”) Medicaid IAPD funding SIM funding HIE: Michigan Health Information Network (MIHIN) Non-profit State reps on board Advisory and operations committees Coordinates efforts through multiple regional HIEs State contracts for specific activities
New York	
Primary State Functions: -Regulation	State HIT Coordinator; Medicaid HIT Coordinator – NYS Department of Health

State/Function(s)	Governance Structure, Funding and Operations
-Strategy -Administration -Operations	Regulations including HIE (QE) certification requirements, contract management and oversight, operational monitoring Five domains for QE certification requirements: Organizational – non profits Operational – “member facing services” Policy – privacy security audits etc Technical – common set of technical capabilities Oversight and enforcement Single source contract with statewide HIE and all QEs (regional) Section 1115 Medicaid waiver funding; Medicaid IAPD mainly focused on MU related activities HIE: New York eHealth Collaborative Coordinates activities among the QEs across the state Two committees: policy, business and operations State contracts for core operations and specific activities
Rhode Island	
Primary State Functions: -Regulation -Strategy -Operations (limited)	State HIT Coordinator in Office of Health and Human Services State regulations; strategic priorities for HIT implementation SIM funding – multi-sector and multi-agency approach to achieve greater degree of coordination and integration HIE: Rhode Island Quality Institute operates CurrentCare State members on board
Washington	
Primary State Functions: -Strategy -Operations (limited)	Health Care Authority lead role State HIT Coordinator State participates as a data provider and user Medicaid IAPD funding SIM funding HIE: OneHealthPort Independent self-governing entity State contracts for specific services

The HDI consulting team assisted the state with development of a new interim HIT governance model that follows on recommendations from the draft updated State HIT Plan. The model focuses on three key issues: (1) establishing the state’s decision-making hierarchy and coordination across agencies; (2) defining and clarifying state functions to support HIT; and (3) engaging stakeholders within state government and across the health care system to participate directly in development of future priorities. These recommendations have been transmitted to the Governor-elect’s transition team for their consideration. A clear governance model is essential to the state’s success in advancing HIT and HIE, so it is important for the new administration to take action as quickly as possible either approving or modifying the proposed model.

3. Comparing Vermont and Other States: State HIE Services

Vermont requested information about the HIE services being developed or offered in other states in order to benchmark Vermont’s portfolio of HIE activities and identify “best practices” from other states on specific topics. The resulting research is summarized below, and demonstrates both the diversity and the progression of HIE development at the state level. As with Vermont, many current projects have been supported using SIM funds.

NOTE: Bold italics indicate promising activities that Vermont may want to consider and conduct additional targeted research as the state’s health reform and HIE strategies continue to unfold.

Colorado	<p>Initial priorities: Master Patient Index, provider directory</p> <p><i>Master data management concept - currently working on requirements, fleshing out use cases, development of RFP; services will support HIE, quality repository and APCD</i></p> <p><i>Personal health record for Medicaid: started with pilot for long term services and supports (community based) population, plan to expand</i></p> <p><i>Regional health information organizations providing support services to practices with focus on additional HIE connections and levels of interoperability to promote care integration between patient center medical homes, long term/post acute care (LTPAC) and behavioral health (BH)</i></p> <p>Other SIM funded activities:</p> <ul style="list-style-type: none"> • Expand broadband capacity • Increase use of telehealth • Establish a quality measures repository
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	<p>Consent management model pilots for “42 CFR Part 2” services (behavioral health and substance use disorders) – initial focus on automation of existing consent process</p>
<p>Delaware</p>	<p>Initial set of core HIE services has ~100% provider participation</p> <ul style="list-style-type: none"> ▪ Lab results delivery for hospitals and physicians ▪ Community health record (CHR) – longitudinal aggregated patient level data ▪ Public health reporting– syndromic surveillance, labs, immunization ▪ Medication history – subscription service, part of CHR ▪ Radiology reports – part of CHR ▪ Image exchange – pilots ▪ Interstate care summary exchange with MD <p>SIM funded activities - common provider score card: providers can view by payer and for full patient panel; starting with claims data, common format – plans to use care summary to populate quality measures</p> <p>Additional new services:</p> <ul style="list-style-type: none"> • Use of HIE data for Medicaid fraud detection • Expand population health features - ordering physician access to all physicians • Health system CMMI grant – High utilizer admission and discharge “watch list”; enroll and disenroll patients in care management programs • New analytics and reporting services – import data into your own tool or if you don’t have a tool DHIN will run reports • “Direct” messaging deployed in BH and LTPAC – limited adoption • By statute, charged with developing state’s APCD
<p>Maine</p>	<p>HIE has established a centralized data repository with EHR and portal access</p> <ul style="list-style-type: none"> • Manage data feeds from all vendors and standardize code sets as part of on boarding process (all hospitals including ambulatory; 80% of primary care; 30 % of specialty care; LTC; connecting BH with SIM \$; VA 1 hospital and 11 clinics) • Monthly usage - 55000 patient records accessed monthly, 45000 notifications

	<ul style="list-style-type: none"> • Public health immunization, cancer registry and syndromic surveillance • Monthly claims data feeds from Medicaid; merging clinical and claims data • Event notification – ADTs from emergency departments, discharge to LTC <p>SIM funding used to develop analytics through data warehouse– predictive modeling for high cost conditions, utilization/readmission</p> <p>Single sign on for prescription drug monitoring program</p> <p><i>Data analytics for ACOs– care management platform; risk indicators; attributed populations; view into data warehouse; present APCD data; peer comparisons</i></p>
Maryland	<p>Data integration, mainly hospitals plus ADT feeds</p> <ul style="list-style-type: none"> • Focus on readmissions, tracking patients: incentives for physician use as part of integrated care models • Working on single sign on <p>Event notification – MPI, matching patient lists from MCOs and ACOs to ADT</p> <p>CRISP reporting and analytics services example – state collects case mix data from hospitals, sends data to CRISP, linked to MPI MRN, geo coding; CRISP produces aggregate reports and hospitals specific reports</p> <p>Public health - immunization query; infant/maternal mortality; HIV out of care</p> <p>Administers PDMP on state’s behalf, interstate queries</p> <p>Piloting image exchange</p> <p>“Integrated care network”: Care plans in query portal Identify high utilizers/high risk patients Loading care manager information into ENS</p>

	<p>Currently administering Medicare claims data reports for hospitals as part of state’s Medicare total cost of care waiver activities.</p>
Michigan	<p>Oversees development of data sharing agreements and provides technical services based on specific use cases</p> <p>ADT; state public health reporting (labs, immunizations)</p> <p>Data matches to create active care relationships</p> <p>Medication reconciliation</p> <p>Master data management: provider directory, MPI/common key</p> <p>SIM: testing data aggregation concept, clinical + claims</p> <p>PCMH all payer claims data – cache and organize for analysis and reporting</p> <p>BH integration:</p> <ul style="list-style-type: none"> Programmatic and data Early strategic involvement of BH plans Consent form complies with 42 CFR <p>LTC:</p> <ul style="list-style-type: none"> BCBS provider incentives to SNFs Continuity of care reports Some providers sending ADTs – link to ACR to track readmissions <p>Moving to electronic consent management</p>
New York	<p>Statewide services include patient record lookup (including MPI), “direct” messaging, results delivery, consent management, alert notifications, and public health reporting</p> <p>Additional “value added” services provided by specific QEs</p> <p>Model projects:</p> <ul style="list-style-type: none"> Rochester RHIO lab data normalization project, imaging exchange Medicaid claims data integration Patient portals including consent Emergency patient locator (NYC emergency preparedness)

	<p>Population risk analytics VA and DOD interoperability</p>
<p>Rhode Island</p>	<p>Bi-directional CCD exchange</p> <p>ED alerts and notifications using “Direct”</p> <p>ADT feed from hospitals linked to patient lists</p> <p>Payer access to HIE</p> <p>SIM: Expanding HIE connectivity to CMHCs and Medicaid care coordination entity</p> <p>Provider directory as basis for establishing relationships between patients, practices and plans; leveraged by other stakeholders and state; consumer portal to locate providers</p> <p>Enhanced data capabilities using existing data</p> <p>Practice transformation</p> <p>Quality measures reporting and feedback system as data infrastructure for VBP</p> <p>APCD</p> <p>Patient engagement work group Human Services Data Warehouse</p>

4. Comparing Vermont and other SIM States

In fall 2016, CMS released the State Innovation Models (SIM) Initiative Evaluation: Model Test Year Two Annual Report.² Vermont was one of the six states included in this evaluation; the others include Arkansas, Maine, Massachusetts, Minnesota, and Oregon. All of these awardees are testing statewide health care innovation plans designed to accelerate system transformation, including strategies for increased use of HIT and HIE.

The report summarizes the states' HIT and data infrastructure activities – that generally reflect Vermont's experience - as follows:

Health IT and data infrastructure: Delivery system transformation requires timely, accurate, and usable data at the provider, system, and state policymaker levels.³ Round 1 Test state activity in this area reflects a multi-level approach—including addressing confidentiality in the transfer of information from provider to provider; pushing out key clinical data in a timely and usable way; creating actionable provider and systems reports, preferably in a format that aligns with other payers; and developing credible data analytics to inform state quality improvement and payment reform initiatives. Key challenges include access to and sharing of behavioral health and substance use data; alignment with provider needs, resources, and workflow; and ensuring that states and stakeholders have confidence in the data being used.⁴

The Round 1 Test states are strengthening their health IT and data infrastructure capacity using five primary strategies: (1) engaging and supporting providers that have not typically been connected to health IT, (2) requiring participating providers to report on data and/or implement health IT, (3) making available patient-level health information to providers and systems to improve care coordination, (4) improving data analytics to support quality improvement and payment reform, and (5) aligning metrics and data infrastructure across payers and initiatives.⁴ Vermont is engaged in many of these strategies, but the latter two areas seem particularly relevant to explore in greater depth as relating to other states' initiatives.

Quality improvement and payment reform:

Minnesota, Arkansas, Oregon, and Maine have all developed comprehensive, provider-specific quality reports. In Minnesota these reports include information on coordination of care, cost utilization, and other metrics. Arkansas releases benchmarking reports annually as part of its EOC payment reform initiative. Oregon and Maine have both developed comparative data reports. Oregon publishes comparative reports on its CCOs and has created a multipayer dashboard using its All-Payer All-Claims (APAC) data. Maine uses reports as a tool

² State Innovation Models (SIM) Initiative Evaluation: Model Test Year Two Annual Report. RTI International, August 2016.

³ SIM Evaluation; p. ES-3.

⁴ SIM Evaluation; p. 32

for quality improvement at the practice level, and reports some measures publicly. Maine's HealthInfoNet is also developing a clinical dashboard that will include predictive risk scores for Medicaid enrollees.⁵

Alignment of Data and Incentives:

Minnesota has established a new workgroup that seeks to align data elements on health status/risk level, total expenditures, and utilization across the reports payers distribute to providers in ACOs, to make them more usable. Arkansas has designed its Advanced Health Information Network portal so providers can view uniform reports across payers. Maine has established practice reports that include multiple payers and uniform measures. Oregon and Maine have dedicated resources to align measures across payers; both states are working to better align measures across Medicaid, state employee health plans, and other payers.⁶

Vermont is focused on payer alignment through the all payer model waiver and HIE services could be leveraged to support that work, specifically regarding integration of claims and clinical data and generation of clinical quality measures through EHRs (eCQM).

The report also identifies common challenges experienced by the SIM states including: confidentiality and privacy of behavioral health and substance use disorder information; incorporating HIT innovations into provider workflow; data validity and completeness; and, provider burden and interoperability challenges.⁷

Vermont's ACO and HIE strategies need to be closely coordinated to address provider workflow issues. In addition, Vermont's current HIE technical model for interoperability and provider/EHR onboarding is costly and cumbersome. The state might want to explore "lighter" models such as Maryland/CRISP and alternative HIE models such as Maine HealthInfoNet to develop a more scalable and less costly approach.

⁵ SIM Evaluation; p. 33

⁶ SIM Evaluation; p. 34

⁷ SIM evaluation; pp. 34-36