

Vermont Care Network and the State of Vermont: A Shared Data Repository for Community-Based Behavioral Health Providers

By Sarah Kinsler, MPH*

IN BRIEF

The State of Vermont, federal Health Resources and Services Administration, and Vermont Care Network, a statewide provider network, partnered to build a data repository for Vermont's Designated Mental Health Agencies and Specialized Service Agencies. The data repository stores clinical information and provides analytics tools necessary for organization-specific and system-wide continuous quality improvement and business case development. This case study, based on interviews with project partners,¹ describes key factors considered in developing the Vermont Care Network data repository that can inform similar efforts in states across the country.

When Vermont was awarded its \$45 million State Innovation Models (SIM) grant from the Center for Medicare & Medicaid Innovation (CMMI)² in 2013, it proposed three goals: (1) implement innovative payment models; (2) support provider transformation and quality improvement; and (3) enhance health information technology (HIT) for providers throughout the state.³ Vermont recognized that successful health system transformation was contingent on provider readiness for reform, and knew that HIT and health information exchange were particular challenges — as well as expensive problems to fix. As Georgia Maheras, Vermont's former SIM Project Director and Deputy Director of Health Care Reform, put it, "Information, when conveyed to the right people in a coherent way is essential for creating a more sustainable, value-based health care system."⁴

Why Invest in Readiness for Mental Health, Substance Use Disorder, and Developmental Disability Providers?

Vermont also recognized that mental health, substance use disorder, and developmental disability services in the state were ripe for reform. A significant portion of these services are provided by 16 Designated Agencies (DAs) and Specialized Service Agencies (SSAs) — non-profit community agencies contracted by Vermont's Department of Mental Health and Department of Disabilities, Aging, and Independent Living in each region of the state.⁵ DAs and SSAs serve a population with diverse and

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complex needs, including approximately 2,400 Vermonters with serious and persistent mental illness, and approximately 85 percent of clients are Medicaid beneficiaries.⁶

As in most states, the vast majority of Vermont’s mental health, substance use disorder, and developmental disability services are funded by the Medicaid agency and other Agency of Human Services departments, through a complex combination of billing reimbursements plus dozens of contracts and grants, each with their own reporting requirements, management systems, and performance incentives. The State of Vermont paid DAs and SSAs \$371 million in State Fiscal Year 2016, representing approximately 90 percent of the DAs’ and SSAs’ total budgets.⁷ While this spending for behavioral health and developmental disabilities services represents about 10 percent of the Agency of Human Services budget and requires significant resources to manage,⁸ it has not kept up with inflation over the past decade.⁹

All of these factors made strengthening the DAs and SSAs a high priority for the state in the context of Vermont’s broader payment reform goals. However, a 2014 gap analysis funded by the SIM grant showed that HIT — including clinical and financial information collection, data quality, and analytics — was a barrier that limited the DAs’ and SSAs’ ability to undertake care transformation activities or consider participating in payment reforms.¹⁰ DAs and SSAs, like most mental health, substance use disorder, and disability services providers, had been excluded from receiving HITECH funds to invest in HIT under the American Recovery and Reinvestment Act (ARRA),^{11,12} and the federal regulation known as 42 CFR Part 2¹³ can complicate health information exchange for substance use disorder treatment providers. Investments in DA and SSA HIT infrastructure were needed to support these organizations in providing needed care in their communities, enable the State of Vermont to engage the DAs and SSAs in value-based purchasing, and allow the state to streamline DA and SSA payment to reduce provider reporting and the government’s monitoring burden.

What is the VCN Data Repository?

The VCN data repository collects clinical data and service delivery data for behavioral health, substance use disorder, and developmental disability services. Once loaded into the repository in a structured format, data can be cleaned, aggregated, and analyzed. This allows users to support clinical quality improvement, track performance measures, and identify best practices.

The Vermont Care Network Data Repository

In 2014, Vermont’s SIM project was approached by Vermont Care Network, the statewide provider association for the DAs and SSAs, with a proposal to build a shared 42 CFR Part 2-compliant data repository for its members.¹⁴ The proposed effort would serve multiple functions:

- Enable **clinical quality improvement** to support care. While most DAs/SSAs had electronic health record (EHR) systems prior to implementation of the data repository, their ability to collect and report on meaningful clinical data varied. The data repository would allow individual agencies to analyze their performance for improvement, as well allow Vermont Care Network to compare

performance across DAs and SSAs and identify high performers and best practices.

- Provide **analytics** for DAs and SSAs individually, and as a system. Given the limited abilities of many DAs' and SSAs' existing EHRs, this would allow DAs and SSAs to more fully examine their performance individually and in comparison to their peers. In addition, the data repository would allow DAs and SSAs to examine aggregate data from across their system even though they cannot share mental health and substance use disorder data through Vermont's statewide health information exchange under 42 CFR Part 2.¹⁵
- Support **State of Vermont oversight and policymaking**. The proposed data repository would improve the quality of the data the state received and reduce the need for resource-intensive manual data sharing. This would improve data availability and accuracy for policymaking, as well as ease the state's contract management burden.

Vermont Care Network saw this project as a way to gain much needed data and analytics capacity to support improvements to quality of care and to support DAs and SSAs in participating in Vermont's payment and delivery system reforms. Beyond supporting the DAs' and SSAs' relationships with state agencies, this would also support them in developing and presenting a strong business case to other potential partners and funders, including private payers, accountable care organizations (ACOs), grantmakers, and Vermont's legislature.¹⁶

The State of Vermont saw the data repository as a strategic investment in shared capacity for a key provider sector that would both strengthen the DAs and SSAs, and support state payment and delivery system reform goals. In addition, the DAs and SSAs were willing partners, and the size of the DA and SSA network offered opportunities for economies of scale. Furthermore, support from DA- and SSA-embedded IT staff suggested that this project could succeed and provide a model for other provider types, for example long-term services and supports providers.

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Lessons: Data Repository Implementation

With approximately \$1.2 million from the State of Vermont and an additional \$200,000 from the federal Health Resources and Services Administration (HRSA) Office of Rural Health Policy Network Development, Vermont Care Network set out to identify a contractor. In September 2015, Vermont Care Network selected the National Opinion Research Center (NORC) to build the data repository after a competitive bid process,¹⁷ and the data warehouse was developed, populated, and tested in successive phases; the project is largely wrapped up as of December 2017.

The near-final product is cloud-based and accessible to all Vermont Care Network member agencies; the data repository user interface provides each DA and SSA with an individualized dashboard, custom reports that stratify by sub-population, and aggregated data for all member agencies (**Exhibit 1**).¹⁸ Meanwhile, Vermont Care Network receives system-wide data, reports, and analytics that can be used to support system-wide quality improvement, identification and spread of best practices, and grant writing and reporting. While the data repository remains segregated from Vermont’s statewide health information exchange, there is potential to connect the two systems in the future if federal privacy rules (42 CFR Part 2) change.

Exhibit 1: Vermont Care Network Data Repository Products

 DAs and SSAs receive:	 Vermont Care Network receives:	 State of Vermont receives:
<ul style="list-style-type: none"> ■ Individualized dashboards ■ Custom reports of agency-specific data ■ Aggregated data for all member agencies ■ Automated data submission to state partners 	<ul style="list-style-type: none"> ■ Performance data for each member agency ■ Aggregated data across all member agencies ■ Custom reports (individual and aggregated) 	<ul style="list-style-type: none"> ■ Automated data collection for some required metrics from all DAs and SSAs

The success of the data repository has required significant behind-the-scenes work on policies and procedures and on improving the quality of DAs’ and SSAs’ data:

- **Governance:** A Data Repository Governance Committee met every two weeks for much of the project, and developed the project’s structure, policies around data sharing, and processes for handling data requests both from member agencies and outside entities. One of the most challenging non-technical elements of the project was developing consensus on a data dictionary — a tool that identifies the data elements included in the project, defines each data element, and specifies instructions for inputting structured data. While many participants were hesitant to abandon agency-specific data elements or data input methods, common definitions are essential for analysis — a lesson Vermont had learned years before through its Blueprint for Health patient-centered medical home effort.¹⁹
- **Data Quality:** Vermont Care Network, with support from the State of Vermont, implemented workflow supports to improve the quality of data entered into agency EHRs. Even so, project leadership found that agencies’ need for workflow improvement supports greatly exceeded expectations, and doubled the budget for this piece of the project. An unexpectedly helpful feature of the data repository was inclusion of data quality metrics in agency-specific dashboards, which allow agency staff to identify issues, troubleshoot, and modify processes to improve data quality.

Project leadership also identified organization-wide buy-in — including agency executives, providers, and staff — as a critical success factor. Providers were initially hesitant to invest time in workflow

changes, data input, or reviewing reports. Vermont Care Network addressed this issue head-on by developing a communication plan and traveling around the state to engage clinicians and agency leadership; the organization also appointed a former DA Chief Information Officer to lead the technical effort, which increased DA and SSA trust in the project. Training on how to access data, generate reports, and make changes based on data has built capacity within each agency to use the data repository to support clinical, operational, and financial activities.

Looking Ahead

For the DAs and SSAs, the process of collaborating with Vermont Care Network and one another on the data repository project has increased their willingness to engage in shared HIT projects to meet clinical and operational needs as well as their willingness to accept standardization to support their goals. In the midst of the data repository project, the EHR vendor for seven DAs changed hands. This turn of events created an impetus for the DAs to consider purchase of a shared EHR, with support from Vermont Care Network.²⁰ While the quality of EHR systems for behavioral health providers, like many other non-HITECH providers, has historically been weak, the DAs predict that together they will be able to purchase a more customized product to better meet their needs. Rather than build a Request for Proposals (RFP) for an EHR vendor that solely described technical specifications, Vermont Care Network focused on their members' needs in the context of payment reform, integrated care, and clinical data sharing. The RFP received 16 responses, and the DAs and SSAs are now deciding whether to work together to procure a common core system.

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On the state side, Vermont's dedication to transparency and documentation has ensured that the lessons from this project are collected and shared. This will support realistic planning and smooth implementation for future HIT projects with private-sector providers.

Conclusion

In seeking to invest in health information technology for behavioral health providers, the State of Vermont has built important capacity for quality improvement and financial reporting in this provider sector, while also strengthening provider accountability for state funds. The Vermont Care Network data repository project has given Vermont's Designated and Specialized Service Agencies new access to their own clinical

Learn More

- [Vermont Care Network Data Repository web page](#)
- [Vermont Health Care Innovation Project \(SIM Grant\) website](#)

and financial data — and with this, a stronger foundation to participate in Vermont’s payment and delivery system reforms.

ABOUT THE CENTER FOR HEALTH CARE STRATEGIES

The Center for Health Care Strategies (CHCS) is a nonprofit policy center dedicated to improving the health of low-income Americans. It works with state and federal agencies, health plans, providers, and community-based organizations to develop innovative programs that better serve people with complex and high-cost health care needs. To learn more, visit www.chcs.org.

ENDNOTES

- ¹ This case study is based on interviews with Georgia Maheras, former State of Vermont SIM Project Director and Deputy Director of Health Care Reform, September 13, 2017; and Simone Rueschemeyer, Executive Director, Vermont Care Network, and Ken Gingras, Health Information Technology Director, Vermont Care Partners, October 13, 2017.
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- ³ State of Vermont. State Innovation Model Final Report. October 31, 2017. Available at: http://healthcareinnovation.vermont.gov/sites/vhcup/files/documents/PP3%20Annual%20Report_FINAL%2010-26-2017.pdf. Accessed October 30, 2017.
- ⁴ Interview with Georgia Maheras, former State of Vermont SIM Project Director and Deputy Director of Health Care Reform, September 13, 2017.
- ⁵ Vermont Department of Mental Health. Designated Agencies [website]. Available at: <http://mentalhealth.vermont.gov/providers/designated-agencies>. Accessed October 8, 2017. For a map of Vermont's Designated Mental Health Agencies, visit: <http://mentalhealth.vermont.gov/individuals/designated-agencies>.
- ⁶ Interview with Ken Gingras, Health Information Technology Director, Vermont Care Network, November 17, 2017.
- ⁷ Vermont Care Partners. Vermont Care Partners and Designated Agency Testimony to the House Appropriations Committee. Available at: <http://legislature.vermont.gov/assets/Documents/2018/WorkGroups/House%20Appropriations/FY2018%20State%20Budget/Public%20and%20Advocate%20Testimony%20on%20FY2018%20Budget/W~Julie%20Tessler.%20VT%20Council%20of%20Developmental%20and%20Mental%20Health%20Services~FY2018%20Budget%20-%20Advocates%20Hearing~2-28-2017.pdf>. Published February 2017. Accessed October 15, 2017.
- ⁸ Vermont Agency of Human Services. AHS FY2017 Budget Summary. Available at: <http://humanservices.vermont.gov/ahs-2017-budget/ahs-fy17-ups-downs.pdf/view>. Accessed October 15, 2017.
- ⁹ Vermont Care Partners. Vermont's Designated and Specialized Service Agency System – A Workforce at Risk. Available at: [https://vermontcarepartners.org/pdf/files/139_VCP%20workforce%20white%20paper020516s%20\(2\).pdf](https://vermontcarepartners.org/pdf/files/139_VCP%20workforce%20white%20paper020516s%20(2).pdf). Published February 2016. Accessed October 13, 2017.
- ¹⁰ HIS Professionals. DLTSS Information Technology Assessment. Available at: <http://healthcareinnovation.vermont.gov/sites/vhcup/files/documents/HLTSS%20Information%20Technology%20Project%20Assessment%20-%20October%202015.pdf>. Published October 2015. Accessed October 4, 2017.
- ¹¹ Office of the National Coordinator for Health Information Technology (HIT). Policymaking, Regulation, & Strategy – Behavioral Health [website]. <https://www.healthit.gov/policy-researchers-implementers/behavioral-health>. Accessed October 8, 2017. Last Updated May 19, 2014.
- ¹² New federal guidance issued in 2016 allows states to use enhanced Medicaid matching dollars to support connecting HITECH-eligible providers to non-eligible providers, including behavioral health providers. For more information, see: Center for Medicaid and CHIP Services (CMCS). State Medicaid Directors Letter #16-003, RE: Availability of HITECH Administrative Matching Funds to Help Professionals and Hospitals Eligible for Medicaid EHR Incentive Payments Connect to Other Medicaid Providers. February 29, 2016. Available at: <https://www.medicaid.gov/federal-policy-guidance/downloads/smd16003.pdf>. Accessed October 8, 2017.
- ¹³ Confidentiality of Alcohol and Drug Abuse Patient Records, 42 CFR Part 2.

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¹⁴ Vermont Care Network. Information Technology Request for Proposals: Vermont Care Network Data Repository Solution. Available at: <http://ac1950af3ceefebf780-5a080c52246e50dbf3394147fb757de2.r62.cf1.rackcdn.com/03/7116575ab0e7e3703bf396a86f1c7845.pdf?id=359946>. Published March 2, 2015. Accessed October 5, 2017.

¹⁵ Confidentiality of Alcohol and Drug Abuse Patient Records, 42 CFR Part 2.

¹⁶ Vermont Care Network. Information Technology Request for Proposals: Vermont Care Network Data Repository Solution.

¹⁷ Ibid.

¹⁸ Vermont Care Network. VCN Data Repository Final Report.

¹⁹ State of Vermont. Blueprint for Health [website]. Available at: <http://blueprintforhealth.vermont.gov/>. Accessed November 7, 2017.

²⁰ Vermont Care Partners. Unified EHR Project [website]. https://vermontcarepartners.org/single_initiative.php?id=17. Accessed October 15, 2017. SSAs procured a shared EHR with funding from Vermont's SIM grant, with implementation in mid-2016.