
Inventory and Analysis of Existing Vermont Health Data

Final Report

Prepared for: Vermont Health Care Innovation Project
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1. Introduction

1.1. Background

The Vermont Health Care Innovation Project's (VHCIP) 31-member Health Data Infrastructure (HDI) Work Group is responsible for providing funding and policy recommendations regarding the health information system and infrastructure necessary to support a high performing health care system. HDI's activities support the development of clinical, claims, and survey data systems to support alternative payment models. VHCIP is making strategic investments in clinical data systems to allow for passive quality measurement – reducing provider burden while ensuring accountability for health care quality – and to support real-time decision-making for clinicians. VHCIP is also working to strengthen Vermont's data infrastructure to support interoperability of claims and clinical data and predictive analytics.

One area that HDI Work Group wanted to better understand is the diversity of health data that is available in Vermont. Vermont does not currently have a health data or information repository or portal. Knowing where to find and access data for understanding the Vermont health landscape has been difficult. This project was initiated to provide a comprehensive health information data inventory that includes information from Vermont's disparate health information sources including formats, content, usage, and data collection methods. The purpose of the project is to provide the work group and others with a comprehensive and easily accessible health data inventory and to provide recommendations for health dataset and data systems improvement based on findings resulting from the project effort.

1.2. Project Scope

While the goal of a Vermont Health Data Inventory is a unified data source for health care data, this project is just the first step in moving toward that goal. A unified data source would provide a gateway or portal to the diverse health data in Vermont. This includes many kinds of health related data: the all-payer claims dataset; health expenditures; clinical datasets; survey data; vital records; and epidemiologic data. It is the intent that this initial inventory project will inform this goal.

There were two specific tasks included in this scope of work:

1. Task 1: Data Source Discovery
This task included identifying as many health data sets and data systems in Vermont as possible and creating a searchable web accessible inventory. This included working with other existing data inventory efforts and incorporating others work into this inventory.
2. Task 2: Detailed Inventory of High Priority Datasets

This task entailed prioritizing the datasets identified and conducting a detailed inventory of these datasets. The detailed inventory gathered additional information on organizational structure of the data, organizational costs, and documentation and metadata.

The deliverables of this scope of work included a final web searchable repository, findings, and recommendations for moving Vermont toward a comprehensive health data inventory. These recommendations are included in this report.

1.3. Formation of Steering Committee

A project steering committee was established at the start of the project and was assigned the following roles:

1. Provide input regarding priority data sources and datasets.
2. Provide input regarding critical data elements to capture in the data inventory.
3. Provide input on critical functionality for the Health Data Inventory Web Portal.
4. Provide feedback on potential web portal formats for the Health Data Inventory Web Portal.

The steering committee consisted of the following individuals:

1. Larry Sandage - HIE Program Manager
2. Sarah Kinsler - VHCIP Health Policy Analyst
3. Peggy Brozicevic - VDH Research and Statistics Chief
4. Heather Skeels - BiState Primary Care Associate Project Manager
5. Craig Benson - AHS Director of Data Services
6. Bard Hill - DAIL Information and Data Director
7. Jeff Ross - DVHA Data Management and Analysis Director
8. Ena Backus - GMCB Deputy Executive Director
9. Steve Maier - HCR/HIT Integration Manager
10. Simone Rueschemeyer - Vermont Care Network Executive Director
11. Mike DelTrecco - VAHHS Vice President of Finance
12. Zach Sullivan – GMCB Health Policy Analyst

In addition to gathering input from the steering committee throughout the project and through individual interviews, the committee met twice in January and in April 2015.

2.

Data Source Discovery

The project team began the data source discovery process by brainstorming a list of primary health data organizations and their key data sources (Appendix A); defining what types of data and data attributes needed to be collected; creating a repository for conducting the inventory; web searching all the relevant possible sources on the web; and interviewing or emailing data source contacts to collect additional information.

2.1.

Scope of Data Source Discovery

The team worked to identify key attributes to include in the initial inventory. In order to keep this phase manageable, the attributes were split into required attributes and then desired but optional attributes. The required attributes included:

- Dataset or Application Name
- Description
- Website for Information about the Data or a Link to the Data
- Organization or Agency that Owns the Data
- Data Steward Contact Name/Email/Phone
- Years Available
- Documentation Status: full current documentation, documented but not current, no documentation , not applicable
- Dataset Availability to Public: no access, aggregate report format only, aggregate digital format, public access with data use agreement, research data use agreement, record level data available
- Is Dataset Important to Payment and Delivery System Reform?

The desired/optional attributes included:

- Source Dataset: Is there another source of data that this data is generated from?
- Format that the Data is Stored or Managed: SQL Server, MS Access, MS Excel, Other DB Format, Unknown
- In What Format is the Data Available? No access/publication, Web Application – Restricted Access, Web Application – Public Access, MS Access, MS Excel, CSV, Report

-
- Data User / Audience: Legislators, Advocates, Policy makers, Practitioners, Public
 - Type of Data: Claim, Clinical, Coverage, Employee Benefits, Employment and Wages, Financial, Income, Inspection, Licensing, Occupancy/Days, Population, Provider Information, Reference, Services Provided, Surveillance, Survey, Utilization, Workforce
 - Use Restriction Details
 - Special Request Possible, Contact and Cost Information

Once the scope of the data collection was established, a web accessible database was required to add the information.

2.2.

Establish Web Accessible Data Repository

In order to capture all of the information captured in the initial data source discovery, Stone developed a web accessible database using an on-line database application builder called Knack (<https://www.knackhq.com/>). Using the Knack application builder, a Health Data Inventory Database was designed to store health data organization and agency information, datasets of interest and appropriate contact information, and example health data portals. The dataset attributes defined in section 2.1 above were included in the database design. Logins were created to allow data owners to add new data or edit existing data. Stone provided all steering committee members with a login and steering committee members were asked to review the information in the database.

2.3.

Web Research of Health Organization Web Sites

Stone conducted extensive web research and identified health datasets and data sources and entered them into the Knack Health Data Inventory Database.

The Vermont Department of Health website table of contents was downloaded from the VDH website and imported into the Knack database. Each of these web links were reviewed for possible datasets and appropriate records were entered into the Knack database. Other AHS Department and Division websites were reviewed including Department of Children and Families, Department of Disabilities, Aging and Independent Living (DAIL), Department of Corrections, and Department of Mental Health. For a complete list of organizations and agencies included please see Appendix B.

This provided a starting point for contacting data owners and conducting interviews.

2.4.

Interviews and Direct Correspondence

In addition to the web searches and email correspondences conducted, the project team interviewed many data stewards to gather information on organization datasets and data systems. Interviews started with the steering committee and additional interviews and correspondence were made based on steering committee

feedback. The table below lists interviews held with key data stewards (not all correspondence is captured in the table below).

Table 1. Interviews conducted during data source discovery.

Name	Organization	Date
Heidi Klein	VDH	1/29/2015 & 3/20/15
Dick Lavery	DAIL	2/24/2015
Zack Sullivan	GMCB	3/4/2015
Simone Rueschemeyer	VCN	3/10/2015
Ken Gingras	VCN	3/10/15
Rich McCoy	VDH	3/12/2015
Mike DelTrece	VAHHS	3/18/2015
Heidi Klein	VDH	1/29/15 & 3/20/2015
Peggy Brozicevic	VDH	3/24/2015
Steve Maier	DVHA	3/30/2015
Jeff Ross	DVHA	4/2/2015
Craig Benson	AHS	4/3/2015
Rob Lowe	AHS	4/6/2015
Tim Tremblay	Vermont Blueprint for Health	4/7/2015
Lynn Raymond-Empey	VCCU	4/8/2015
Catherine Fulton	VPQHC	4/8/2015
Dian Kahn	GMCB	4/13/2015
Heather Skeels	BiState	4/15/2015
Alicia Cooper and Richard Slusky	DVHA	4/23/2015
Mike Gagnon	VITL	5/18/2015

2.5.

Coordination with Other Inventory Projects

At the start of the project, it was identified that there were several other ongoing projects with similar objectives sponsored by the State of Vermont. In order to minimize requests of State of Vermont staff, Stone coordinated efforts with other projects.

2.5.1. AHS Application Portfolio Project

The Vermont Agency of Human Services (AHS) has a full-time Application Portfolio Management Director. Stone worked with Rob Lowe at AHS to integrate their database inventory of AHS applications into the Health Data Inventory. The AHS application portfolio project is an ongoing project and at the time Stone received their database, they were still awaiting information from the Department of Health.

AHS provided Stone with an export from their Access database containing the following attributes:

- Application name
- Application status
- Number of licenses
- Business owner
- Vendor - implementation
- Business programs supported
- In-house development/M&O
- DBMS
- Integrated data feeds
- Developer documentation
- Data model
- Application full name
- Divisions served
- Additional general notes
- Business lead
- Business description
- Business goal
- Technical description
- Integrated systems
- Architectural diagrams
- User manual

The contents of the AHS portfolio were reviewed and relevant and complete records were imported to the VHCIP Data inventory. Many of the portfolio dataset records included incomplete and were not imported to the Knack Health Data Inventory.

2.5.2. MMIS Project – Specialized Project Program (SSP)

Stone worked with the MMIS Project contractor, Pacific Health Policy Group, to coordinate data inventory efforts. Stone received their inventory of SSP Data Reporting Systems and cross-referenced the inventory with the VHCIP Data Inventory. This SSP inventory included the following information for data systems:

- Data system or Reporting System Name
- Description of Data System
- Agency and Division or Program
- Agency contact
- Functions

This list was cross referenced and data systems were added to the VHCIP Health Data Inventory.

2.6.

Initial Data Inventory Summary

In total we inventoried 256 databases, data reports, and systems. They came from 30 different organizations and 37 departments. Over 139 unique individual contacts are in the data inventory.

A summary listing of all inventory items is contained in Appendix C.

Table 2 contains information about whether the data is available to the public. Table 3 contains the inventory summary by Type of Data Collected. Table 4 contains the inventory summary by Data Output Formats.

Table 2. Is the dataset available to the public?

	Count	%
Aggregate data only	52	20%
With Public Use Agreement	5	2%
No	140	55%
Research data use agreement possible	2	1%
Unknown/Uncertain	47	18%
Yes	10	4%
Total	256	100%

*Table 3. Type of Data**

	Count	%
Claim	12	6%
Clinical	50	25%
Coverage	8	4%
Employee Benefits	1	0%
Employment and Wages	11	5%
Financial	45	22%
Income	4	2%
Inspection	6	3%
Licensing	10	5%
Occupancy/Days	2	1%
Population	54	27%
Provider Information	19	9%
Reference	4	2%
Services Provided	38	19%
Surveillance	8	4%
Survey	37	18%
Utilization	10	5%
Workforce	12	6%
Youth	26	13%
Unknown	49	24%
Total	203	100%

*Table 4. Data Output Format **

	Count	%
No Access / No Publication	6	2%
SQL Server	1	0%
Web Application - Public	17	6%
Web Application - Restricted Access	17	6%
MS Excel	9	3%
Report (PDF, Word)	39	15%
Other db format	1	0%
CSV - Comma Separated Text File	9	3%
Unknown	168	63%
Total	267	100%

* More than 1 Data Type Possible

* More than 1 Data Output Format Possible

3.

Detailed Inventory

The detailed inventory phase of the project included development of prioritization criteria, prioritization of the initial datasets, identification of the highest priority datasets, and a collecting detailed dataset information. The steering committee decided what constituted a priority.

3.1.

Dataset Prioritization

The project scope of work stated that the general prioritization of datasets should start with claims, then clinical, and lastly survey data and be potentially useful for payment and delivery system reform.

The following additional factors were considered when prioritizing datasets:

1. Availability: Datasets available by download or request are more desirable than data fully restricted by law.
2. Data Content: Datasets available at the “raw” record level are more desirable than aggregate data.
3. Focus: The list of priority datasets should contain at least 1 dataset where the focus is:
 - i. Clinical data
 - ii. Payment data
 - iii. Populations / denominator
 1. Counts
 2. Characteristics
 3. Determinants
 - b. Lower priority
 - i. Disease-specific
 - ii. Other single-purpose
4. Comprehensive: Higher priority datasets will represent all Vermont residents or all Vermont providers, as opposed to a subset. Vermont residents or providers could be represented by a sample.
5. Time: Data that is collected on an ongoing basis or over multiple years is preferable to those datasets that represent a snap shot in time.
6. Metadata: Fully documented datasets will be prioritized higher than those datasets lacking documentation.

The project team reviewed the data inventory and identified 30 datasets of potential interest for including in the detailed inventory. The steering committee was invited to review the 30 datasets and evaluate them based

on the above criteria. A Google spreadsheet was created and the criteria for each of the datasets were scored on a 1 to 3 scale where 1 was a low ranking and 3 was a high ranking. The individual criteria rankings were summed in order to identify those datasets with the highest overall ranking.

3.2.

High Priority Datasets

The result of the prioritization is shown in the Table 2 below. Late in the project, it was determined that DocSite should also be included in the detailed inventory as the application is being taken over by Vermont Blueprint for Health.

Table 5. Prioritization of Datasets

PRIORITIZATION OF DATASETS													
1 = Low Ranking, 2 = Mid Ranking, 3 = High Ranking, ? = Unknown													
	Organization/Agency	Dataset name	Does the dataset serve multiple purposes ?	In MMIS Inventory? / Priority?	Category: Financial, Clinical, Workforce, Determinant, Population	Related to Payment Reform	Availability by Download or Request	Data Content - Record Level vs Aggregate	Broad focus - not single purpose	Comprehensive - All population rather than subset	Fully documented	Ongoing collection or multiple years	RANKING SUM
1	Department of Health (AHS)	Vermont Uniform Hospital Discharge Data Set (VUHDDS) Public Use Files	Y	N	C	2	3	3	3	2	3	3	19
2	Division of Health Surveillance	Immunization Registry - IMR			C	3	2	3	3	3	2	3	19
3	VITL - VT HIE Network	VHIE/Medicity	Y	N	C	3	1	3	3	2	2	3	17
4	Division of Health Surveillance	Vital Records	Y	Y/2	C	2	1	3	2	3	3	3	17
5	Department of Health (AHS)	Behavioral Risk Factor Surveillance System (BRFSS) and Youth Risk Behavior Survey	Y	N	CD	2	2	2	3	2	3	3	17
6	Green Mountain Care Board (GMCB)	VHCURES	Y	N	CFp	3	2	3	3	2	2	3	18
7	AHS/DVHA - Blueprint for Health Program	Blueprint for Health Analytics Dataset	Y	N	CFW	3	1	3	3	3	2	2	17
8	Department of Financial Regulation	Household Health Insurance Survey (VHHIS)	Y	N	D,p	2	3	3	3	3	3	3	20
9	Green Mountain Care Board (GMCB)	Expenditure Analysis	Y	N	F	3	3	2	1	3	3	3	18
10	Green Mountain Care Board (GMCB)	Hospital Budget Data	Y	N	F	3	3	2	2	2	2	3	17
11	Secretary of State - Office of Professional Regulation	Vermont Professional License Database / Online Lookup	Y	N	W	3	3	3	2	2	3	3	19
12	AHS/DVHA - Blueprint for Health Program	Blueprint for Health Practice and Provider Database (Portal)	Y	N	W	3	2	3	2	2	3	3	18
13	Division of Health Surveillance	Health Care Provider Surveys	Y	N	W	2	3	1	2	3	3	3	17
These fell out based on lower ranking													
14	AHS/DVHA - Blueprint for Health Program	DocSite Clinical Data Repository	Y	Y/2	C	3	1	2	3	2	3	2	16
15	AHS/DVHA - Blueprint for Health Program	Medical Assistance Provider Incentive Repository - MAPIR	maybe	N	W	3	1	3	2	2	3	2	16
18	Department of Labor	Vermont Employment and Wage Data	y	N	WD	2	3	1	2	3	2	3	16
19	Bi-State Primary Care Association	SAFTINet	Y potential	N	C	2	1	3	3	2	1	2	14
20	AHS/DVHA - Blueprint for Health Program	CAHPS Patient Experience Survey	N		P	2	2	1	1	2	3	1	12
22	Department of Education	Drop out and high school completion rates	Y	N	D	2	3	1	2	2	3	3	16
23	Department of Education	Lunch Free and Reduced Eligibility Reports	Y	N	D	2	3	1	2	2	3	3	16
24	Department of Education	Post Secondary Enrollment	Y	N	D	2	3	1	2	2	3	3	16
26	Department of Health (AHS)	Youth Risk Behavior Survey	Y		CD	2	3	1	3	3	3	3	18
27	Department of Health (AHS)	Healthy Vermonters 2020	Y			2	3	1	3	3	3	3	18
28	Department of Vermont Health Access (AHS DVHA)	MMIS	Y		C	3	2	3	3	1	3	3	18

3.3.

High Priority Dataset Detailed Inventory

An additional set of questions was developed that built on the initial dataset inventory. A detailed inventory form was created in the Knack database and all high priority dataset owners were contacted and/or interviewed and asked to complete the detailed inventory for their datasets. The complete detailed inventory is provided in Appendix D.

Seven of the 16 datasets included in the detailed inventory are Vermont Department of Health (VDH) datasets (counting vital records as 1 although each of the vital records systems are recorded separately); three are from the Blueprint for Health; three from the Green Mountain Care Board (GMCB); two are VITL datasets; and one dataset from the Vermont Secretary of State.

The following sections highlight some of the findings from the detailed inventory. The datasets are listed in the order of priority as determined in section 3.2. Note that the vital records data is listed 3 times; once for each of the separate systems.

3.4.

Availability and Documentation

Table 6 summarizes when data has been collected, if it is available, how it is available, what types of restrictions there are, and the status of the documentation or metadata. One of the most important findings of the project is how little documentation is available on most datasets, even the highest priority datasets.

Only half of the 16 datasets have complete or nearly complete documentation. Vital records is the only dataset with no documentation at all. Documentation that is available, is available in a variety of formats but in general is made available with the data.

The data output formats of these datasets vary widely and include report PDF format, MS Excel or CSV (text) format, or via web application. The most accessible format for most of the available datasets is in PDF report format (9 of 16 datasets). Six of the 16 datasets are available via either a website digital download or a web application but primarily at an aggregate level. The Vermont Uniform Hospital Discharge Dataset (VUHDDS) data, the Household Health Insurance Survey (VHHIS) data, and the Licensure data are available for download at the record level (deidentified). Another four datasets are available digitally by request.

Table 6. Summary of Availability and Documentation for High Priority Datasets

Dataset name	Organization	Years collected	Is the dataset available to the public?	Data output format	Type of Use Restriction	Metadata	Metadata Format
Vermont Uniform Hospital Discharge Data Set (VUHDDS)	VDH	2002-2012 (ongoing)	Record level data available (deidentified)	CSV Text via website download	HIPAA	Complete	Packaged with data
Immunization Registry - IMR	VDH	2004 - present (ongoing)	Individuals may request personal record; Aggregate data otherwise	PDF Data briefs; Summary data upon request; Restricted web application	HIPAA, State Statute	Complete	Data Dictionary; User Manual; IMR Limitations Document
VHIE/Medcity - Clinical Dataset - Outlook	VITL	2010 - present (ongoing)	Data available to public with data use agreement	Restricted web application	HIPAA	Incomplete	Packaged with data
Vital Records - Birth (EBRS)	VDH	1980 - present (ongoing)	Certificates; De-identified record level medical info	certificates; aggregate through VDH Instant Atlas App; Annual report	HIPAA, VT laws	Available from CDC National Center for Health Statistics	NA
Vital Records - Death (EDRS)	VDH	1985 - present (ongoing)	Certificates; Record level except SSN		HIPAA, VT laws	Available from CDC National Center for Health Statistics	NA
Vital Records - (Marriage, Divorce, Civil Unions, Dissolutions, ITOPs, and Fetal Deaths)	VDH	Marriages and Divorces: 1989 - present (ongoing); Civil Unions 2000 - 2009; Dissolutions 2001 - present (ongoing); ITOPs and Fetal Deaths 1989 - present	Certificates and record level except confidentials; ITOPs and Fetal Deaths: aggregate data only	Certificates; Annual reports and summary data on request	VT laws	None	NA
Behavioral Risk Factor Surveillance System (BRFSS)	VDH	1990-2013 (ongoing)	Aggregate data only, report format	Web Application - Public at CDC	Record Level Data is "de-identified"	Yes: Code Book; Data User Notes	Electronic
VHCURES	GMCB	2007 - present (ongoing)	Data Use Agreement	NR	Agency DUA, HIPAA	Incomplete	NA
Blueprint for Health Analytics Dataset	Blueprint / DVHA	2007 - present (ongoing)	No access to data	Report (PDF, Word)	Agency DUA, Agency	Incomplete	NA
Household Health Insurance Survey (VHHIS)	VDH	2005, 2008, 2009, 2012, 2014, ongoing	Aggregate data only, report format	CSV Text by website download, Report (PDF, Word)	Agency restriction, HIPAA	Incomplete	Available by Download, Packaged with data
Expenditure Analysis	GMCB	1992-present (ongoing)	Aggregate data only, digital format	MS Excel, Report (PDF, Word)	None	Needs review	Hard copy available
Hospital Budget Data	GMCB	1988 - present (ongoing)	Aggregate data only, digital format	MS Excel, Report (PDF, Word)	None	Complete	On disk, file available
Vermont Professional License Database	Office of Prof. Reg. Secretary of State	2009 - present (ongoing)	Record level for public	Web Inquiry	None	Complete	On Web
Blueprint for Health Practice and Provider Database (Portal)	Blueprint / DVHA	2014 - present (ongoing)	No access to data	Web Application - Restricted Access	Agency restriction, Other federal restriction	Complete	Hard copy available
Health Care Provider Surveys	VDH	select years between 1979 and 2012	Aggregate data only, report format	SAS or MS Excel by request, Report (PDF, Word)	Agency restriction	Incomplete	Available by Download, Packaged with data
VHIE Analytical Dataset	VITL	2010- present (ongoing)	No public access to data; Data Use Agreement	DB	HIPAA	Incomplete	NA
DocSite Clinical Data Repository	Blueprint / DVHA	2010 - present (ongoing)	No public access to data (Providers only)	Reports (Providers only)	HIPAA	Incomplete	NA
Youth Risk Behavior Survey	VDH	every 2 years since 1993 (ongoing)	Yes, record level data available to public	Web Application - Public, Report (PDF, Word)	Agency restriction, HIPAA	Complete	On disk, file available

NR=No Response, NA = Not applicable, DUA = Data use agreement

3.5.

Operational Cost Comparison

Data owners were asked to provide operational cost and funding information on the high priority datasets. Some respondents included the FTE costs in their operational costs, while others did not. This detailed information is provided where it is available. Table 7 provides the operational costs of the high priority datasets.

Acquisition costs were difficult to capture since the systems for collecting data are often used by the contractor collecting the data (i.e. Household Health Insurance Survey (VHHIS) and Youth Risk Behavior Survey (YRBS)). Yearly operational and management costs were somewhat easier to capture. Of the 16 priority datasets, 11 of them cost over \$100,000 in annual operation and maintenance costs and 5 of these 11 have costs over \$1,000,000. Only the GMCB Expenditure Analysis dataset, Hospital Budget dataset, and Blueprint's Practice and Provider Database application have annual costs under \$50,000.

The Immunization Registry, VDH Healthcare Provider Surveys, and the Youth Risk Behavior Survey all receive 90% or greater of their funding from Federal funds. While the Household Health Insurance Survey receives 100% of its funding from the state of Vermont, followed by the vital records system at 66%.

VITL's VHIE, the Immunization Registry, the Vital Records systems, and the Blueprint's Practice and Provider database application all require 5 or more FTEs to maintain the system and/or data.

Table 7. Operational Cost comparison of high priority datasets

Dataset Name	Organization	Acquisition Cost	Operations and Management Cost*	FTE	Funding -% Federal	Funding: % State	Funding: % Private	Funding: % Other
Vermont Uniform Hospital Discharge Data Set (VUHDDS) Public Use Files	VDH	NR (Need to request from GMCB)	VDH portion \$125,000 (includes 1 FTE) / GMCB costs not included	1	67%	33%	0%	0%
Immunization Registry - IMR	VDH	\$3,500,000 over 5 years	\$1,200,000 (\$232,000 subcontract; \$968,000 7.4 FTE)	7.4	95%	5%	0%	0%
VHIE/Medicity - Clinical Dataset	VITL	\$ 25,000,000	\$5,000,000	>5	50%	40%	10%	0%
Vital Records - Birth (EBRS)	VDH	\$ 2,500,000	\$75,000 (excluding FTE)	8.5 for Vital Records Program	35%	65%	0%	0%
Vital Records - Death (EDRS)	VDH	\$ 4,000,000	\$150,000 (excluding FTE)		35%	65%	0%	0%
Vital Records - (Marriage, Divorce, Civil Unions, Dissolutions, ITOPs, and Fetal Deaths)	VDH	\$ 100,000	\$25,000 (excluding FTE)		35%	65%	0%	0%
Behavioral Risk Factor Surveillance System (BRFSS)	VDH	\$10,000-\$50,000	\$497,000 (\$287,000 subcontract; \$210,000 1.5 FTE)	2	65%	35%	0%	0%
VHCURES	GMCB	NR	NR	NR	67%	13%	20%	0%
Blueprint for Health Analytics Dataset	Blueprint / DVHA	NA	\$1,000,000 (subcontract)	NA	66% (HIT Fund)	44% (HIT Fund)	0%	0%
Household Health Insurance Survey (VHHIS)	VDH	~\$5,000	\$441,000 (\$300,000 subcontract; \$141,000 FTE)	1	0%	100%	0%	0%
Expenditure Analysis	GMCB	\$107,000	\$31,000	2	60%	13%	20%	7% Global Commitment (Matched Medicaid Funds)
Hospital Budget Data	GMCB	\$107,000	\$31,000	3	60%	40%	0%	0%
Vermont Professional License Database	Office of Prof. Reg, Secretary of State	\$600,000	\$120,000	NR	0%	0%	0%	0%
Blueprint for Health Practice and Provider Database (Portal)	Blueprint / DVHA	\$112,000	\$20,000 (hosting and security testing)	>5	66% (HIT Fund)	44% (HIT Fund)	0%	0%
Health Care Provider Surveys (Census)	VDH	\$24,500	\$278,000 (\$267,500 for 2.25 FTE)	2.25	90%	10%	0%	0%
VHIE Analytical Dataset	VITL	\$2,000,000	\$1,000,000	3	50%	40%	10%	0%
DocSite Clinical Data Repository	Blueprint / DVHA	\$1,000,000	\$1,500,000	NA	66% (HIT Fund)	44% (HIT Fund)	0%	0%
Youth Risk Behavior Survey	VDH	System is maintained by contractor for data management	\$128,000 (\$68,000 subcontract; \$60,000 FTE)	1	95%	5%	0%	0%

NR = No response, NA = Not available *Some responses include FTE costs and others do not, detailed info provided when available

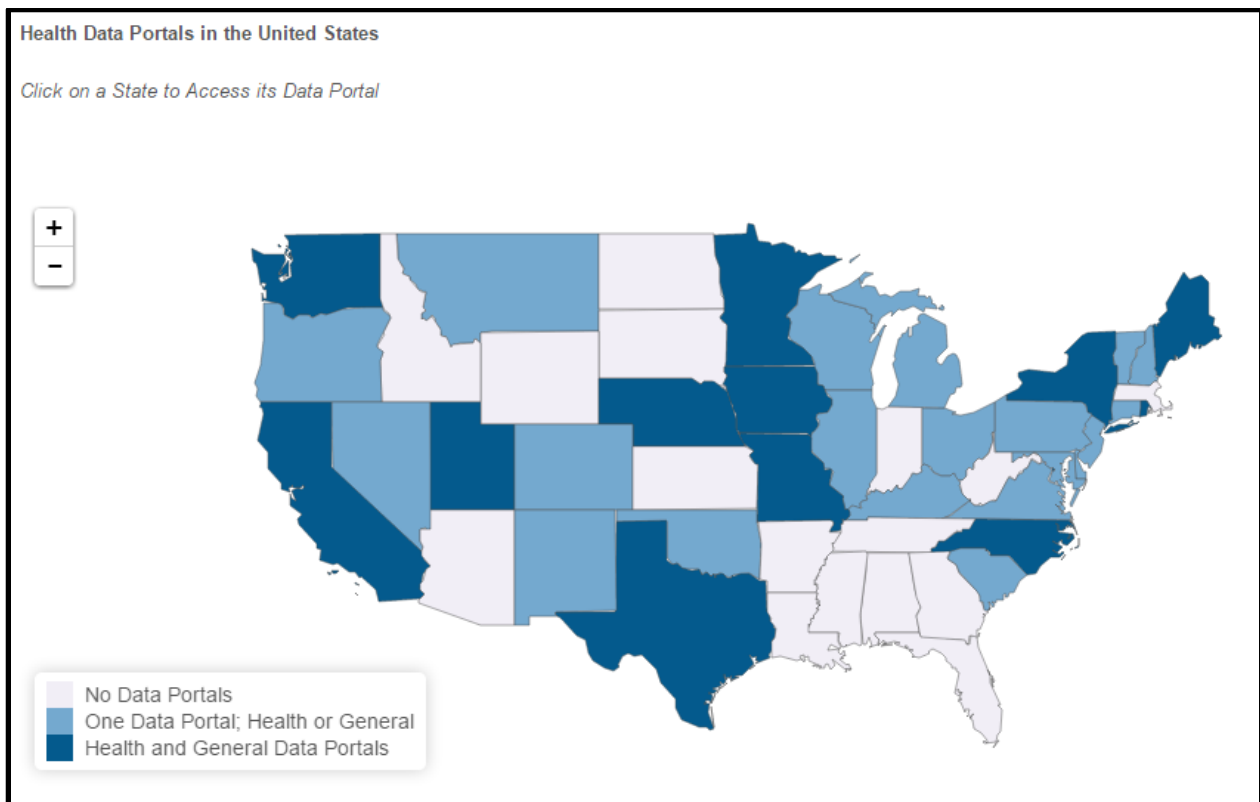
4. Data Portal Options

In addition to providing this initial Health Data Inventory effort in a web accessible, searchable format, the project team was tasked with researching existing options and providing recommendations for the future of a Vermont Health Data Inventory Portal.

4.1. Review of Existing Health Data Portals

Stone reviewed existing State Health data portals and general data portals in order to evaluate which type of systems are used and to determine what may be appropriate for the State of Vermont. This information was captured in an interactive map displaying which states maintain health data portals and general data portals and imported to the Knack Health Data Inventory Application. This link <https://stone.knackhq.com/health-inventory#examplehealthdataportals/> provides access directly to each state's portal.

Figure 1. Interactive map displaying health data portals in the United States.



Stone researched and compared the different state health data portal solutions.

Approximately 30 states have a web-based data portal with general state data and/or health data. In reviewing the different options used in other states it became clear that there are few options. Many states are using a commercial product call Socrata. Socrata is a privately held software company that provides a cloud-based solution to creating an open data portal for an annual license fee. Other states and the Federal government are using an open source version of this call CKAN. While CKAN may take somewhat more upfront development time, benefits include easier configuration.

4.2.

Vermont Health Data Portal Options

In 2014, Vermont's Department of Information and Innovation (DII) purchased a 5 year license for Socrata and launched a small pilot project to develop an Open Data Portal. The portal is now available to agencies to host public data. The current portal contains the default settings and has not been configured based on Vermont's needs.

DII added a "Health" category at the request of this project in November 2015, but additional configuration to capture dataset attributes currently in the Knack Health Data Inventory is not currently possible. The Health Data Inventory created for this project will be imported as a single dataset to Vermont's Open Data Portal. In addition, individual datasets will be selected for inclusion in the Open Data Portal in a downloadable format once approval is obtained from data owners.

The success of Vermont's Open Data Portal will require an organized initiative to move the state toward an open data infrastructure and mindset. This initiative will need to include resources and staffing for maintaining a health data inventory and publicly available health datasets. Vermont should continue to evaluate the best solution to an Open Data Portal while it focuses on how to move Vermont's health data organizations to a more open data framework.

5.

Recommendations and Summary Findings

During the course of the data collection, interviews, and meetings with Work Group members, there was universal interest in improving the collection, management and access to health data. The idea of a shared health information system, network, or repository was not a common interest on the part of the individuals interviewed. We found that there was focused interest primarily on an individual's data stewardship responsibilities. The project team has developed the following recommendations and finding based on our assessment of what we found in compiling the inventory and in talking to the many participants in the Vermont health data community. Our recommendations are broken out into three areas: *organizational; system; and data quality, documentation, and analytics.*

5.1.

Organizational Recommendations

1. Vermont needs enabling legislation and policies to support health data collaboration, accessibility, and adoption of data standards.
 - There are many overlapping systems and data collection efforts without overall standards for coding systems or field names.
2. Vermont needs a single health data organization responsible for overseeing/coordinating health data systems; development of data standards; and information technology.
 - There is no overarching organizational responsibility for the coordinating/overseeing health data collection, harmonization, transparency, and access to Vermont's health data and information.
 - There are many related but un-coordinated data collection efforts. Examples include BRFSS and VHHIS; VHDDS and VHCURES;
 - There are numerous single purpose databases that have been developed using the software that the dataset's data manager is most comfortable with.
 - Some data systems focus on care provided in Vermont, regardless of patient residence while others focus on care received by Vermonters, regardless of location of providers. The first type includes primarily clinical data, while the second type includes primarily financial. These sources should be integrated.
3. Management of new, large, overarching data systems should be managed or coordinated with adequate staffing and expertise.

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- One reason VHCURES 2.0 Project was put on hold because an independent consultant review determined that there was insufficient staff to oversee and manage the new contract.
 - The Vermont Auditor's April 2015 Report *Vermont Health Connect Future Improvement Contingent on Successful System Development Project* found that "The State's IT governance and project management approach to the original VHC project has been identified as a contributing factor to the system's subsequent shortcomings. Specifically, an August 2014 IT assessment concluded that (1) the State lacked project ownership and CGI lacked accountability due at least in part to weaknesses in the project's governance structure and processes and (2) project management processes did not align with industry best practices and were insufficient or ineffective." P.15
4. There is reluctance to shift to new and unknown systems because adequate staffing and expertise is not always available. Vermont Health Data Professionals and Health Program Managers should attend national health information conferences on an annual basis.
 - The National Health Datapalooza and the Esri Health and Human Services GIS Conference are excellent conferences that provide a wealth of information and networking opportunities. Attendance at these conferences would be beneficial for State data managers and IT professionals.

5.2. System Recommendations

5. Vermont should consider teaming with other states in the development of new large/complex data systems.
 - The State's experiences with VHCURES 2.0 and Vermont Health Connect point to a need investigating collaboration/teaming with other states/partners to not only take advantage of potential cost savings, but also address the need for additional specialized staff resources which are difficult to find and retain.
6. The focus of health data systems should be to support end user needs— the public, the providers, the payers, or state staff members.
 - A tremendous amount of effort is put in specifications for acquiring technology and software with insufficient focus on end users. Creating large information systems that do not include simple data extraction tools is very expensive. For example, getting data extracts from VHCURES requires the contractor to run special queries to get subset data tables. This was issue was going to be addressed in VHCURES V.2.
 - New health information systems are in development and legacy information systems are now being replaced without the full emphasis on end users—this includes government, health providers, and the public.
7. Health data and information systems need to be holistic, harmonized and comparable across and within organizations.

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- Many siloed efforts at developing new health information systems (MMIS, Mental Health, etc.).
 - The VHCURES and Hospital Discharge Dataset are not integrated. The ability to link these sources would be valuable in several ways, including data validation (ability to match records, comparison of key field values such as payer, diagnosis, and DRG) and supplementing VHCURES to gain a more complete picture of Vermont hospital activities (VHCURES does not include self-pay or care provided to non-residents).
 - Many Vermont health data sets are currently stored in spreadsheets. Generally, these are snapshots, and risk increased data corruption and poor quality control.
8. If Vermont chooses to use Socrata software as the repository for the Health Data Portal, Vermont Department of Information and Innovation (DII) will need to modify and customize it to make detailed access to health data information available to the public. The other option would be to borrow and adopt the open source Federal HealthData.gov's CKAN version for a state portal.
- DII has purchased a five-year license to Socrata, a commercial software for the State's solution for a statewide data portal for all state data and information (<https://data.vermont.gov/>). Currently there is limited State use of Socrata and limited guidance for its use. It is in need of customization in order to include more information about available data and to be truly useful as a data portal
 - The Knack database (<https://stone.knackhq.com/health-inventory>) used to inventory the health data for this project contains many more data fields than are currently available in the Vermont DII Socrata offering. Socrata needs to be modified if it is to a useful data portal.
9. Vermont should develop a requirement that State Health Organizations enter and keep up to date information of their data records and systems.
- The initial guidance on Socrata does not require state organizations to post their databases or reports onto the site or maintain the information listed on the site.

5.3.

Data Quality, Documentation, and Analytics Recommendations

10. Building Quality Control into all data systems is essential function to ensure that the analyses that result from the use of the data is credible.
- There is limited quality control on major health data sources. For example, while there are numerous edits on VHCURES data, substantial data issues remain. Some payers (Blue Cross, Medicaid) are sufficiently skeptical of VHCURES that they provided data directly to the state for calculation of ACO shared savings performance. Specific examples of issues include claims with paid dates prior to service dates, coding of secondary payments, missing provider names in Medicare data, and inability to unify individuals into provider groups. There is no mechanism to discuss data issues with providers.
11. There has to be a state mandate to maintain systems/reporting/documentation.

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- There are few standards related to global practices related to data compilation, storage, and metadata.
12. Vermont should adopt common codes for critical elements of each health database, including Health Provider ID, Patient ID, Geography, Addresses, etc.
- Each health data organization (government and private) has developed their own method for coding of standard information. A consistent coding system would make matching or linking of system data easier.
13. All health data sets, both source and derived, need complete metadata defined using a common set of metadata standards.
- Very few datasets and datasets referenced in reports have complete metadata.
 - Few datasets have any metadata.
14. Consistent with privacy requirements, health data should be open, available, and downloadable in a single searchable data repository.
- Examples:
 - We completed a survey of all 50 states and found a number of states with systems that have open, available, and downloadable data:
 - HealthData.gov - <http://www.healthdata.gov/> - This is the open data portal of the U.S Health and Human Services Agency, developed using CKAN an open source platform. The data available on this website is downloadable, machine readable, and accessible to application developers through an application programming interface (API).
 - CHHS Open Data - <https://chhs.data.ca.gov/> - The open data portal for the California Health and Human Services agency was developed with Socrata. (New York uses the same platform - <https://health.data.ny.gov/>)
 - RI Data Hub – <http://ridatahub.org/>- Rhode Island is an example of a small state making their data publicly available. They have developed their portal with the open source platform “Weave” developed by the Open Indicators Consortium.
 - CO Medical Price Compare- <https://www.comedprice.org> – Colorado has developed an interface to query the CO All Payer Claims Database. The goal of the website is to provide “transparent price, quality, cost of care, and utilization information across Colorado.” (<https://www.comedprice.org>).
 - Census Bureau – www.Census.gov – The Census Bureau has an extensive web site that employs various applications for accessing data.
 - Data that is available in Vermont is most often available only in reports in PDF format.
 - Data that should be publicly available is often not available in any format.
 - Existing tools are siloed individual applications with data that cannot be easily combined with data from other tools (for example, Health Vermonters 2020 tool).

15. Simple Universal Database Tools are needed to extract, analyze and combine critical clinical and claims datasets

- Extraction from these datasets is generally done on an ad-hoc basis and matching is done over and over again
- Data request are now costly both in time and human resource demands.
- Data formats provided are not always usable without further manipulation.

16. Vermont should embrace GIS technology as an enabling and analytical tool for better spatial understanding of clinical, population, and financial health data.

- There is very limited use of GIS Technology to improve spatial understanding and analyses of the existing data resources.

17. Products that are the result of using extracts from the state's large databases, such as VHCURES, are not generally accessible. There is no clearinghouse to make this information available.

- GMCB manages the list of Data Use Agreements for the use of VHCURES data. The list of users indicates the purpose that they are using the data. There is no repository or requirement that the state have the results of these efforts.

Appendix A: Initial Brainstorming of Organizations and Data Sources

Appendix B: Organizations Included in Vermont Health Data Inventory

Agency or Organization (Agency Department or Division Name when appropriate)	Dataset Count
Agency of Human Services	4
AHS Division of Rate setting / Division of Rate setting	1
America's Health Rankings, United Health Group	1
Bi-State Primary Care Association	1
Blue Cross Blue Shield of Vermont	1
Center for Disease Control (CDC) (Federal)	6
Centers for Medicare and Medicaid Services (CMS)	7
Community Health Accountable Care	1
Department for Children and Families (DCF)	22
Department for Children and Families (DCF) / Economic Services	2
Department of Corrections (AHS)	1
Department of Disabilities, Aging and Independent Living (DAIL)	15
Department of Disabilities, Aging and Independent Living (DAIL) / Business Office	2
Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging Services	13
Department of Disabilities, Aging and Independent Living (DAIL) / Division of Licensing & Protection	5
Department of Education	3
Department of Financial Regulation	1
Department of Health (AHS)	24
Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	16
Department of Health (AHS) / Division of Environmental Health	4
Department of Health (AHS) / Division of Health Promotion and Disease Prevention	4
Department of Health (AHS) / Division of Health Surveillance	29
Department of Health (AHS) / Division of Maternal and Child Health	6
Department of Health (AHS) / Medical Practice Board	1

Agency or Organization (Agency Department or Division Name when appropriate)	Dataset Count
Department of Labor	2
Department of Mental Health	17
Department of Taxes	1
Department of Vermont Health Access (AHS DVHA)	22
Department of Vermont Health Access (DVHA) / Blueprint for Health Program	14
Green Mountain Care Board (GMCB)	8
Health Resources and Services Administration (HRSA)	1
MVP	1
Robert Wood Johnson Foundation	1
Secretary of State - Office of Professional Regulation	2
US Department of Health and Human Services Health Resources and Services Administration	1
US Health Resources and Services Administration	1
UVM - AHEC	2
UVM's Vermont Child Health Improvement Program (VCHIP)	1
Vermont Coalition for Clinics for the Uninsured (VCCU)	4
Vermont Recovery Network	1
VITL - VT HIE Network	4
VNAs of Vermont Member Agencies	1
VPQHC	1
Washington County Mental Health Services (WCMHS)	1

Appendix C: Summary of Initial Data Inventory

#	Organization/Agency	Dataset name	Contact Name	Contact email	Is the dataset available to the public?	Type of Data
1	Agency of Human Services /	Results Scorecard	Roessle, Dru	dru.roessle@vermont.gov	No access to data	Employment and WagesPopulationFinancial
2	Agency of Human Services /	Outcomes of Well-Being for Vermonters (Act 186 - Agency of Human Ser	Drusilla Roessle	dru.roessle@state.vt.us	Aggregate data only	PopulationClinical
3	Agency of Human Services /	Agency of Human Services Indicators 2012-2015	Drusilla Roessle	dru.roessle@state.vt.us	Aggregate data only	Population
4	AHS Division of Ratesetting / Division of Ratesetting	Nursing Home Rate Setting Data	Kathleen Denette	kathleen.denette@state.vt.us	No access to data	Financial
5	America's Health Rankings, United Health Group /	America's Health Rankings, United Health Foundation			Aggregate data only	Population
6	Bi-State Primary Care Association /	SAFTINet	Heather Skeels	hskeels@bistatepca.org	No access to data	Clinical
7	Blue Cross Blue Shield of Vermont /	In-Network Provider Directory			No access to data	Provider Information
8	Center for Disease Control (CDC) (Federal) /	National Healthcare Safety Network	Catherine Fulton	catherinef@vpqhc.org	Aggregate data only, report format	Clinical
9	Center for Disease Control (CDC) (Federal) /	National Immunization Survey			Aggregate data only	Survey
10	Center for Disease Control (CDC) (Federal) /	Community Health Status Indicators (CHSI 2015)			Aggregate data only	Population
11	Center for Disease Control (CDC) (Federal) /	Health Indicators Warehouse			Aggregate data only	Population
12	Center for Disease Control (CDC) (Federal) /	CDC Diabetes County Atlas			Aggregate data only	Population
13	Center for Disease Control (CDC) (Federal) /	CDC Wonder			Aggregate data only	Population
14	Centers for Medicare and Medicaid Services (CMS) /	NPI (National Provider Identifier)			No	Provider Information
15	Centers for Medicare and Medicaid Services (CMS) /	Provider of Service			No	Provider Information
16	Centers for Medicare and Medicaid Services (CMS) /	Medicare Enrollment Data			Aggregate data only, report format	Coverage
17	Centers for Medicare and Medicaid Services (CMS) /	Medicare Fee Schedules			Yes	Financial
18	Centers for Medicare and Medicaid Services (CMS) /	Medicare Cost Reports			Aggregate data only, report format	Financial
19	Centers for Medicare and Medicaid Services (CMS) /	State Health Care Expenditure Data by Provider Location			No	Financial
20	Centers for Medicare and Medicaid Services (CMS) /	State Health Care Expenditure Data by Residence			No	Financial
21	Community Health Accountable Care /	CHAC ACO Data	Heather Skeels	hskeels@bistatepca.org	No access to data	ClinicalClaim
22	Department for Children and Families (DCF) /	Youth Assessment Screening Instrument	Lindy Boudreau	lindy.boudreau@vermont.gov	No access to data	Youth
23	Department for Children and Families (DCF) /	DCF Tracker [Excel]	Sean Brown	sean.brown@vermont.gov	No access to data	Utilization
24	Department for Children and Families (DCF) /	Social Services Management Information System	Margo Bryce	margo.bryce@vermont.gov	No access to data	Youth
25	Department for Children and Families (DCF) /	SNAP QCS	Carpenter, Sally	sally.carpenter@vermont.gov	No access to data	Utilization
26	Department for Children and Families (DCF) /	SA/MH Data Collection [Access]	White, Karolyn	karolyn.white@vermont.gov	No access to data	Services ProvidedOccupancy/DaysClinical
27	Department for Children and Families (DCF) /	Reach Up Excel Set [Excel]	Oalican, Erin	erin.oalican@vermont.gov	No access to data	WorkforceFinancial
28	Department for Children and Families (DCF) /	Reach Up Case Notes [Word]	Oalican, Erin	erin.oalican@state.vt.us	No access to data	YouthServices ProvidedClinical
29	Department for Children and Families (DCF) /	Manual Notice Tool	Pare, Janet	jaent.pare@state.vt.us	No access to data	Services Provided
30	Department for Children and Families (DCF) /	ININ [DCF-FSD]	Dianne Jabar	dianne.jabar@state.vt.us	No access to data	Youth
31	Department for Children and Families (DCF) /	Info On My Case	Jennifer Lyford	jennifer.lyford@state.vt.us	No access to data	Services Provided
32	Department for Children and Families (DCF) /	FSDNET	Cindy Walcott	cindy.walcott@state.vt.us	No access to data	InspectionYouthServices Provided
33	Department for Children and Families (DCF) /	FSD Report Server	Margo Bryce	margo.bryce@state.vt.us	No access to data	YouthUtilizationServices ProvidedClinical
34	Department for Children and Families (DCF) /	EZPay4Kids	Christine Cassel	christine.cassel@state.vt.us	No access to data	YouthFinancial
35	Department for Children and Families (DCF) /	ESD Notices	Pam Dalley	pam.dalley@state.vt.us	No access to data	Unknown
36	Department for Children and Families (DCF) /	ESD Fraud DB [Access]	Donna Hosking	donna.hosking@state.vt.us	No access to data	InspectionFinancial
37	Department for Children and Families (DCF) /	EBTEdge [DCF]	DiMatteo, Richard	richard.dimatteo@state.vt.us	No access to data	Unknown
38	Department for Children and Families (DCF) /	Iron Data	McCormack, Jack	jack.mccormack@state.vt.us	No access to data	Financial
39	Department for Children and Families (DCF) /	CIS [Access]	Garbarino, Karen	karen.garbarino@state.vt.us	No access to data	Youth
40	Department for Children and Families (DCF) /	Bright Futures Information System	Garbarino, Karen	karen.garbarino@state.vt.us	No access to data	WorkforceEmployment and WagesLicensing
41	Department for Children and Families (DCF) /	Automated Forms Generation	Cassel, Christine	christine.cassel@state.vt.us	No access to data	Unknown
42	Department for Children and Families (DCF) /	ACCESS			No access to data	WorkforceIncomeFinancial
43	Department for Children and Families (DCF) / Economic Services	Health Care : Number of eligible recipients in VT by county, Disenrollment Report by Mont			Aggregate data only	Coverage
44	Department for Children and Families (DCF) / Economic Services	Reach Up Monthly Report by District Office: Number of families, recipients, and total benefit amoun			Aggregate data only	Services Provided
45	Department of Corrections (AHS) /	Prisoner Electronic Health Records (ERMA)	Dr. Dolores Burrou	dee.burroughs-biron@state.vt.us	No access to data	Services ProvidedClinicalClaim
46	Department of Disabilities, Aging and Independent Living (DAIL) /	Workers Comp	James Smith	james.smith@vermont.gov	No access to data	WorkforceEmployment and Wages
47	Department of Disabilities, Aging and Independent Living (DAIL) /	Ticket to Work Reimbursement Tracker	James Smith	james.smith@vermont.gov	No access to data	Financial
48	Department of Disabilities, Aging and Independent Living (DAIL) /	Supported Employment	Jennie Masterson	jennie.masterson@vermont.gov	No access to data	WorkforceEmployment and Wages
49	Department of Disabilities, Aging and Independent Living (DAIL) /	Social Security Database	Wells, Susan	susan.wells@vermont.gov	No access to data	Services Provided
50	Department of Disabilities, Aging and Independent Living (DAIL) /	Representative Payee Management	Dupuis, Chris	chris.dupuis@vermont.gov	No access to data	IncomeFinancial
51	Department of Disabilities, Aging and Independent Living (DAIL) /	NATADS	Fulcher, Amber	amber.fulcher@state.vt.us	No access to data	Services Provided
52	Department of Disabilities, Aging and Independent Living (DAIL) /	Monthly Service Report (DDSD view)	June Bascom	june.bascom@state.vt.us	No access to data	Population
53	Department of Disabilities, Aging and Independent Living (DAIL) /	JOBS	Bart Keinath	bart.keinath@state.vt.us	No access to data	YouthWorkforce
54	Department of Disabilities, Aging and Independent Living (DAIL) /	Individual Plan for Employment	Mike Goldberg	mike.goldberg@state.vt.us	No access to data	Workforce
55	Department of Disabilities, Aging and Independent Living (DAIL) /	Housing [Excel]	Tammi Provenche	tammi.provencher@state.vt.us	No access to data	Inspection
56	Department of Disabilities, Aging and Independent Living (DAIL) /	Client Tracking Tool (CWS)	Porter, Alice	alice.porter@state.vt.us	No access to data	WorkforceEmployment and Wages
57	Department of Disabilities, Aging and Independent Living (DAIL) /	BOND Operations Data System	Burt, Peter	peter.burt@state.vt.us	No access to data	WorkforceIncomeEmployment and Wages
58	Department of Disabilities, Aging and Independent Living (DAIL) /	Vermont Work Incentives Initiative (VWII)	Smith, James	james.smith@state.vt.us	No access to data	Services ProvidedEmployment and Wages
59	Department of Disabilities, Aging and Independent Living (DAIL) /	Assistive Technology for All	Fulcher, Amber	amber.fulcher@state.vt.us	No access to data	ReferenceServices Provided
60	Department of Disabilities, Aging and Independent Living (DAIL) /	Aspen Suite [ACO/ACTS/ASEQ/QIS]	Wehmeyer, Tamr	tammy.wehmeyer@state.vt.us	No access to data	InspectionSurvey
61	Department of Disabilities, Aging and Independent Living (DAIL) / Business Office	Spreadsheets tracking approved services/costs for Developmental Servic	Jim Euber		No access to data	Unknown
62	Department of Disabilities, Aging and Independent Living (DAIL) / Business Office	Home health agency financial and service reports	Bill Kelly		No access to data	Services ProvidedFinancial

#	Organization/Agency	Dataset name	Contact Name	Contact email	Is the dataset available to the public?	Type of Data
63	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	Vermont Interagency White Paper on Autism Spectrum Disorders -Report NA				Population
64	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	OMNIA Interviewer For Consumer Assessments	Dick Laverty			Unknown
65	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	LTC Consumer Satisfaction Survey	Bard Hill			Survey
66	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	Vermont Adult Day Provider Reports	Kathy Rainville		Aggregate data only, report format	Financial
67	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	ADS Moderate Needs Group Allocation to Utilization Tracking	Megan Tierney-Ward, Dale Brooks			Provider Information
68	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	DAIL-DDAS Service Codes and Rates	Megan Tierney-Ward, Tara Grenier			Financial
69	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	SURVEY OF ADULTS RECEIVING DEVELOPMENTAL DISABILITIES SERVICES	June Bascom			Services Provided
70	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	Harmony SAMS (includes OMNIA and HAR; produces annual federal SPR	Bouthillette, John john.bouthillette@state.vt.us		No access to data	Services ProvidedPopulation
71	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	Traumatic Brain Injury Program - Harmony SAMS	Andre Courcelle			UnknownPopulationClinical
72	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	Quality review data	Chris O'Neill			Unknown
73	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	Critical Incident Reporting	Camille George (D camille.george@state.vt.us			Unknown
74	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	Flexible Family Funding participant spreadsheet	Camille George			UnknownFinancial
75	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Disability and Aging	Developmental Services participant 'master list	June Bascom			Unknown
76	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Licensing & Protecti	Standard Survey and Investigation Results - DLP Registry	Clayton Clark			LicensingProvider Information
77	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Licensing & Protecti	Provider (Nursing Home, Home Health, Other Residential Facilities) Licen	Clayton Clark		Aggregate data only, report format	LicensingProvider Information
78	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Licensing & Protecti	Harmony APS (Adult Protective Services) dataset	Clayton Clark			PopulationClinical
79	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Licensing & Protecti	Home Health Agency Outcome and Assessment Information Set (OASIS)	CMS; SOV contact Clayton Clark			Clinical
80	Department of Disabilities, Aging and Independent Living (DAIL) / Division of Licensing & Protecti	Nursing Home Minimum Dataset (MDS)	CMS; SOV contact Clayton Clark			InspectionLicensing
81	Department of Education /	Dropout & High School Completion			Aggregate data only	YouthPopulation
82	Department of Education /	Enrollment Report			Yes, record level data available	YouthPopulation
83	Department of Education /	Free and Reduced Eligibility Reports			Aggregate data only	YouthPopulation
84	Department of Health (AHS) /	Core Survey on Alcohol and Drug Use	Amy Livingston alivingston@pire.org		Data available to public with data use agreement	YouthSurvey
85	Department of Health (AHS) /	Basic Screening Survey (Dental)	Robin Miller robin.n.miller@vermont.gov		Data available to public with data use agreement	Survey
86	Department of Health (AHS) /	Food Processor	Malai Holland malai.holland@state.vt.us		No access to data	Services Provided
87	Department of Health (AHS) /	WIC Appointments Pro scheduling software	Lisa Fitzgerald lisa.fitzgerald@state.vt.us		No access to data	Unknown
88	Department of Health (AHS) /	Parents as Teachers	John Burley john.burley@state.vt.us		No access to data	Youth
89	Department of Health (AHS) /	Healthy Vermonters 2020 Performance Dashboard			Aggregate data only	Population
90	Department of Health (AHS) /	Healthy Vermonters 2020 Map and Trends Atlas			Aggregate data only	Population
91	Department of Health (AHS) /	Minority Health Data Pages			No	Population
92	Department of Health (AHS) /	Vermont Environment Public Health Tracking Program (EPHT)	David Grass		Aggregate data only	Population
93	Department of Health (AHS) /	VMAP Access Database and CAREWare			Unknown/Uncertain	Population
94	Department of Health (AHS) /	Refugee Health data system	Susan Schoenfeld		Unknown/Uncertain	Clinical
95	Department of Health (AHS) /	Vermont's Statewide Report on Kindergarten Readiness	Manuela Fonseca manuela.fonseca@state.vt.us			SurveyPopulation
96	Department of Health (AHS) /	Tooth Tutor Program	Robin Miller robin.n.miller@state.vt.us		Yes	Population
97	Department of Health (AHS) /	Vermont Electronic Death Registration System (EDRS)				Clinical
98	Department of Health (AHS) /	HIV Name-Based Reporting				PopulationClinical
99	Department of Health (AHS) /	Breastfeeding Friendly Employers			Yes, record level data available	Employment and Wages
100	Department of Health (AHS) /	VT Licensed Health Care Professionals Data Repository				WorkforceSurveyLicensing
101	Department of Health (AHS) /	Vermont Young Adult Survey	Amy Livingston alivingston@pire.org		Aggregate data only	YouthSurvey
102	Department of Health (AHS) /	PRAMS via CPONDER CDC query tool	John Davy		Research data use agreement possible	Survey
103	Department of Health (AHS) /	Healthy Vermonters 2020			No	Population
104	Department of Health (AHS) /	Youth Health Survey				YouthSurveyPopulation
105	Department of Health (AHS) /	Pregnancy Risk Assessment Monitoring System (PRAMS)	John Davy		Aggregate data only	SurveyPopulation
106	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Counselor Licensure			Yes, record level data available	Licensing
107	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Substance Abuse Counselor Licensure	Jerri Brouillette jerri.brouillette@state.vt.us		No access to data	Licensing
108	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Recovery Centers/Recovery Support Services	Evan Smith evan.smith@state.vt.us		No access to data	Unknown
109	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Halfway and Transitional Housing	Jackie Corbally jackie.corbally@state.vt.us		No access to data	Unknown
110	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Adolescent Treatment Enhancement Project	Amy Danielson amy.danielson@state.vt.us		No access to data	Youth
111	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Public Inebriate Program	Jackie Corbally jackie.corbally@state.vt.us		No access to data	Unknown
112	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Project CRASH	Jerri Brouillette jerri.brouillette@state.vt.us		No access to data	Services Provided
113	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Public Inebriate Program	Jackie Corbally		No access to data	Unknown
114	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Screening, Brief Intervention, Referral to Treatment (SBIRT)	Erin O'Keefe		No access to data	Services ProvidedClinical
115	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Project Rocking Horse	Patty Baroudi		No access to data	Unknown
116	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	SATIS - Substance Abuse Treatment Information System	Anne Van Donsel			PopulationClinical
117	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Vermont Prescription Monitoring System (VPMS)	Meika DiPietro		No access to data	UnknownServices Provided
118	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Student Assistance Program Data and Reports	Kelly LaMonda/ Amy Danielson		Aggregate data only	YouthServices Provided
119	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	National Survey on Drug Use and Health Vermont Data				SurveyPopulation
120	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	New Directions Evaluation Documents				YouthSurvey
121	Department of Health (AHS) / Division of Alcohol and Drug Abuse Programs (ADAP)	Vermont Treatment Data				Population
122	Department of Health (AHS) / Division of Environmental Health	School Environmental Health (Envision)	David Grass david.grass@state.vt.us		Aggregate data only	Survey
123	Department of Health (AHS) / Division of Environmental Health	Vermont Lead Database	Michael Sullivan		No access to data	Population
124	Department of Health (AHS) / Division of Environmental Health	Lead Poisoning Reports				Services Provided

#	Organization/Agency	Dataset name	Contact Name	Contact email	Is the dataset available to the public?	Type of Data
125	Department of Health (AHS) / Division of Environmental Health	Food and Lodging Inspection Report	Elisabeth Wirsing	elisabeth.wirsing@state.vt.us		Inspection
126	Department of Health (AHS) / Division of Health Promotion and Disease Preventior	Ladies First MMIS	Nicole Lukas	nicole.lukas@vermont.gov	No access to data	Provider InformationClaim
127	Department of Health (AHS) / Division of Health Promotion and Disease Preventior	Ladies First Clinical Tracking	Nicole Lukas	nicole.lukas@vermont.gov	No access to data	Clinical
128	Department of Health (AHS) / Division of Health Promotion and Disease Preventior	Ladies First Billing	Nicole Lukas	nicole.lukas@vermont.gov	No access to data	Claim
129	Department of Health (AHS) / Division of Health Promotion and Disease Preventior	Ladies First	Nicole Lukas	nicole.lukas@state.vt.us	No access to data	Coverage
130	Department of Health (AHS) / Division of Health Surveillance	Vital Records - All Systems	Cindy Hooley	cindy.hooley@vermont.gov		Clinical
131	Department of Health (AHS) / Division of Health Surveillance	Vital Records - (Marriage, Divorce, Other)	Cindy Hooley	cindy.hooley@vermont.gov	Data (deidentified) available to public with data use agreement	
132	Department of Health (AHS) / Division of Health Surveillance	Vital Records - Death (EDRS)	Cindy Hooley	cindy.hooley@vermont.gov	Record level data available to public	Clinical
133	Department of Health (AHS) / Division of Health Surveillance	Vital Records - Birth (EBRS)	Cindy Hooley	cindy.hooley@vermont.gov	Data available to public with data use agreement	Clinical
134	Department of Health (AHS) / Division of Health Surveillance	Electronic Birth Registration System (EBRS)			No access to data	Population
135	Department of Health (AHS) / Division of Health Surveillance	Health Laboratory Services - Private Well Drinking Water Test Services	Mary Celotti	mary.celotti@state.vt.us	No access to data	Surveillance
136	Department of Health (AHS) / Division of Health Surveillance	Birth Defects Registry	Brennan Martin	brennan.martin@state.vt.us	Aggregate data only	PopulationClinical
137	Department of Health (AHS) / Division of Health Surveillance	VT Medication Assistance Program	Robyn Airoldi		No access to data	Financial
138	Department of Health (AHS) / Division of Health Surveillance	Vermont Tick Tracker			No access to data	Surveillance
139	Department of Health (AHS) / Division of Health Surveillance	West Nile Virus Data (ArboNet)	Erica Berl		No access to data	Unknown
140	Department of Health (AHS) / Division of Health Surveillance	Tuberculosis Data	Laura Ann Nicolai		No access to data	Services ProvidedPopulationClinical
141	Department of Health (AHS) / Division of Health Surveillance	Rabies (human exposures to animal cases)	Robert H. Johnson		No access to data	Clinical
142	Department of Health (AHS) / Division of Health Surveillance	Lyme Disease Data	Erica Berl		Aggregate data only	Surveillance
143	Department of Health (AHS) / Division of Health Surveillance	Healthcare Associated Infections (HAI)	Carol Wood-Koob		No access to data	Clinical
144	Department of Health (AHS) / Division of Health Surveillance	BioSense	Bradley Tompkins		No access to data	Surveillance
145	Department of Health (AHS) / Division of Health Surveillance	STDMIS - STD surveillance dataset	Daniel Daltry		No access to data	Clinical
146	Department of Health (AHS) / Division of Health Surveillance	Infectious Disease Outbreak Database	Laura Ann Nicolai		Aggregate data only	Clinical
147	Department of Health (AHS) / Division of Health Surveillance	Electronic HIV/AIDS Reporting System (eHARS)	Alex Goode			Population
148	Department of Health (AHS) / Division of Health Surveillance	EARS (Early Aberration Reporting System)	Bradley Tompkins			Services ProvidedClinical
149	Department of Health (AHS) / Division of Health Surveillance	Vermont MONAHRQ database	Terri Hata	teri.hata@state.vt.us	Yes	SurveyServices ProvidedFinancial
150	Department of Health (AHS) / Division of Health Surveillance	Hospital Quality Ratings and Statistics	Terri Hata			Survey
151	Department of Health (AHS) / Division of Health Surveillance	Asthma Surveillance	Maria Roemhildt,	maria.roemhildt@state.vt.us		Surveillance
152	Department of Health (AHS) / Division of Health Surveillance	HIV Surveillance	Daniel Daltry			Population
153	Department of Health (AHS) / Division of Health Surveillance	Vermont Cancer Registry	Ali Johnson	ali.johnson@state.vt.us	No access to data	Population
154	Department of Health (AHS) / Division of Health Surveillance	Vermont Uniform Hospital Discharge Data Set (VUHDDS) Public Use File	Barbara Carroll	barbara.carroll@vermont.gov	Record level data available to public	SurveillanceUtilizationServices ProvidedClinical
155	Department of Health (AHS) / Division of Health Surveillance	Household Health Insurance Survey (VHHIS)	Jessie Hammond	jessie.hammond@vermont.gov	De-identified aggregate data are available to the public	SurveyCoverage
156	Department of Health (AHS) / Division of Health Surveillance	Hospital Report Card Web Tool	Teri Hata	teri.hata@state.vt.us		SurveyServices ProvidedFinancial
157	Department of Health (AHS) / Division of Health Surveillance	Pediatric Nutrition Surveillance			Aggregate data only	YouthSurveyPopulation
158	Department of Health (AHS) / Division of Health Surveillance	Youth Risk Behavior Survey	Kristen Murray	kristen.murray@vermont.gov	Data (deidentified) available to public with data use agreement	YouthSurveyPopulation
159	Department of Health (AHS) / Division of Health Surveillance	Vermont Advance Directives Registry (VADR)	Ashley Goodrich		No access to data	Unknown
160	Department of Health (AHS) / Division of Health Surveillance	Immunization Registry - IMR	Bridget Ahrens	briget.ahrens@vermont.gov	Yes, record level data available to public	Clinical
161	Department of Health (AHS) / Division of Health Surveillance	Asthma Call Back Survey (ACBS)	Jessie Hammond	jessie.hammond@state.vt.us		SurveyPopulation
162	Department of Health (AHS) / Division of Health Surveillance	Behavioral Risk Factor Surveillance System (BRFSS)	Jessie Hammond	jessie.hammond@vermont.gov	De-identified dataset is available to the public on the internet	SurveyPopulation
163	Department of Health (AHS) / Division of Health Surveillance	Adult Tobacco Survey	Rhonda Williams			SurveyPopulation
164	Department of Health (AHS) / Division of Health Surveillance	Health Care Provider Surveys (Census)	Moshe Braner	moshe.braner@state.vt.us	Data available to researchers with data use agreement	WorkforceSurveyProvider Information
165	Department of Health (AHS) / Division of Maternal and Child Health	SIDS,SUID	Sally Kerschner	sally.kerschner@state.vt.us	No access to data	Clinical
166	Department of Health (AHS) / Division of Maternal and Child Health	Early Hearing Detection and Intervention (EHDI)	Linda Hazard	linda.hazard@state.vt.us	No access to data	Youth
167	Department of Health (AHS) / Division of Maternal and Child Health	Personal Care / Children With Special Health Needs (CSHN)	Jennifer Garabedian	jennifer.garabedian@state.vt.us	No access to data	Clinical
168	Department of Health (AHS) / Division of Maternal and Child Health	WIC MIS/EBT Ceres Application	Donna Bister	donna.bister@state.vt.us		Services ProvidedPopulationFinancial
169	Department of Health (AHS) / Division of Maternal and Child Health	Critical Congenital Heart Disease Newborn Screening	Cindy Ingham			PopulationClinical
170	Department of Health (AHS) / Division of Maternal and Child Health	Newborn Hearing Screening	Cindy Ingham			Youth
171	Department of Health (AHS) / Medical Practice Board	Medical Practice Board Licensing System (CAVU)	Karen LaFond	karen.lafond@state.vt.us	No access to data	WorkforceProvider Information
172	Department of Labor /	Vermont Employment and Wage Data			No	Employment and Wages
173	Department of Labor /	Employer Benefits Survey	Mat Barewicz	matthew.barewicz@state.vt.us		SurveyEmployee Benefits
174	Department of Mental Health /	Special Services Requests and Payment Log [Excel]	Aimee Ziter	aimee.ziter@vermont.gov	No access to data	Services ProvidedClinicalFinancial
175	Department of Mental Health /	RPM [DMH]	Hammerl, Michelle	michelle.hammerl@vermont.gov	No access to data	Financial
176	Department of Mental Health /	Provider Electronic Solutions	McSherry, Cara	cara.mcsherry@state.vt.us	No access to data	Financial
177	Department of Mental Health /	Monthly Service Report Data Load	Jessica Whitaker	jessica.whitaker@state.vt.us	No access to data	Financial
178	Department of Mental Health /	Mental Health Services	Jessica Whitaker	jessica.whitaker@state.vt.us	No access to data	Services ProvidedFinancial
179	Department of Mental Health /	KidsWin	Laurel Omland	laurel.omland@state.vt.us	No access to data	Services Provided
180	Department of Mental Health /	Family Specific Respite Request Data [Excel]	Tyler Blouin	tyler.blouin@state.vt.us	No access to data	YouthServices ProvidedFinancial
181	Department of Mental Health /	Event Reporting [Excel]	Emma Harrigan	emma.harrigan@state.vt.us	No access to data	Clinical
182	Department of Mental Health /	EIP Data [Excel]	Emma Harrigan	emma.harrigan@state.vt.us	No access to data	Clinical
183	Department of Mental Health /	ECT Data [Excel]	Emma Harrigan	emma.harrigan@state.vt.us	No access to data	Clinical
184	Department of Mental Health /	Designated Agency Financial Load	Snyder, Bill	bill.snyder@state.vt.us	No access to data	Financial
185	Department of Mental Health /	CRC [Excel] (Case Review Committee Data for Youth Placed in Residential Treatment Centers)	MackKinnon, Jessie	jessie.mackkinnon@state.vt.us	No access to data	YouthPopulation
186	Department of Mental Health /	Children's Commitments [Excel]	Snyder, Bill	bill.snyder@state.vt.us	No access to data	Youth

#	Organization/Agency	Dataset name	Contact Name	Contact email	Is the dataset available to the public?	Type of Data
187	Department of Mental Health /	Performance Indicator Project Reports	Tyler Blouin	tyler.blouin@state.vt.us	Aggregate data only	SurveyServices ProvidedOccupancy/DaysPopulation
188	Department of Mental Health /	Inpatient Mental Health and Addiction Services Provided To Vermont Re	Tyler Blouin	tyler.blouin@state.vt.us	Aggregate data only	Utilization
189	Department of Mental Health /	Evaluation of Child and Adolescent Mental Health Programs By Young Pe	Emma Harrigan	emma.harrigan@state.vt.us		Services Provided
190	Department of Mental Health /	Consumer Evaluation of Community Rehabilitation and Treatment Progr	Emma Harrigan	emma.harrigan@state.vt.us		Utilization
191	Department of Taxes /	Vermont Personal Income Tax Returns by Town and Income Class			Aggregate data only	Income
192	Department of Vermont Health Access (AHS DVHA) /	EVHA [Business Objects]	HP Enterprise Services		No access to data	
193	Department of Vermont Health Access (AHS DVHA) /	Vermont Health Connect	Robert Skowronsk	robert.skowronski@vermont.gov	No access to data	Coverage
194	Department of Vermont Health Access (AHS DVHA) /	Verisk Health	Walter Ochs	walter.ochs@vermont.gov	No access to data	PopulationClinical
195	Department of Vermont Health Access (AHS DVHA) /	TPL System	Debbie Austin	debbie.austin@vermont.gov	No access to data	Financial
196	Department of Vermont Health Access (AHS DVHA) /	RxClaim	Hogue, Nancy	nancy.hogue@vermont.gov	No access to data	Claim
197	Department of Vermont Health Access (AHS DVHA) /	Provider Suspension DB [Access]	Miles, Leanne	leanne.miles@state.vt.us	No access to data	LicensingProvider Information
198	Department of Vermont Health Access (AHS DVHA) /	PI/SURS DB [Access]	Miles, Leanne	leanne.miles@state.vt.us	No access to data	Financial
199	Department of Vermont Health Access (AHS DVHA) /	MITA SSA Database [Access]	Kutt, Bekah	bekah.kutt@state.vt.us	No access to data	Services Provided
200	Department of Vermont Health Access (AHS DVHA) /	McKesson InterQual	Daljit Clark	daljit.clark@state.vt.us	No access to data	ReferenceClinical
201	Department of Vermont Health Access (AHS DVHA) /	Fair Hearing DB (DVHA) [Access]	Dani DeLong	dani.delong@state.vt.us	No access to data	Unknown
202	Department of Vermont Health Access (AHS DVHA) /	EncoderPro	Leanne Miles	leanne.miles@state.vt.us	No access to data	Reference
203	Department of Vermont Health Access (AHS DVHA) /	DVHA Detox Inpatient/SA Residential Programs	Mitchell, Megan	megan.mitchell@state.vt.us	No access to data	UtilizationServices ProvidedClinicalFinancial
204	Department of Vermont Health Access (AHS DVHA) /	DVHA Children Inpatient [Excel]	Mitchell, Megan	megan.mitchell@state.vt.us	No access to data	UtilizationServices ProvidedClinicalFinancial
205	Department of Vermont Health Access (AHS DVHA) /	DVHA Check Log	Walker, David	david.walker@state.vt.us	No access to data	Financial
206	Department of Vermont Health Access (AHS DVHA) /	DVHA Adult Inpatient [Excel]	Mitchell, Megan	megan.mitchell@state.vt.us	No access to data	Services ProvidedClinicalFinancial
207	Department of Vermont Health Access (AHS DVHA) /	7104 Request DB [Access]	Frazer, Dylan	dylan.frazer@state.vt.us	No access to data	Unknown
208	Department of Vermont Health Access (AHS DVHA) /	APS C3	Girling, Eileen	eileen.girling@state.vt.us	No access to data	UtilizationServices Provided
209	Department of Vermont Health Access (AHS DVHA) /	Third Party Liability (TPL) Case and Transactions Management Web Site	Debbie Austin	debbie.austin@state.vt.us	No access to data	Unknown
210	Department of Vermont Health Access (AHS DVHA) /	Prescription Drug Plan (PDP) Case Management Web Site	Lisa Carpenter	lisa.carpenter@state.vt.us	No access to data	Unknown
211	Department of Vermont Health Access (AHS DVHA) /	Provider Electronic Solutions Software			No access to data	Unknown
212	Department of Vermont Health Access (AHS DVHA) /	Vermont Active Medicaid Providers			No access to data	Provider Information
213	Department of Vermont Health Access (AHS DVHA) /	MMIS	Collins, Lori	lori.collins@state.vt.us	No access to data	CoverageFinancialClaim
214	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	CY2013 VT Medicaid EHRIP Annual Report	Casey O'Hara	casey.ohara@vermont.gov	Aggregate data only	Financial
215	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	Providers who have received a VT Medicaid EHR Incentive Payment	Casey O'Hara	casey.ohara@vermont.gov	Yes, record level data available	Provider InformationFinancial
216	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	PIEmatrix	Terricciano, Richa	richard.terricciano@state.vt.us	No access to data	Financial
217	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	Mr Ed [Access]	Kendall, Heather; Casey O'Hara		Aggregate data only	Financial
218	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	Community Health Networks Survey	Tim Tremblay	timothy.tremblay@state.vt.us	Aggregate data only	Survey
219	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	CAHPS Patient Experience Survey	Jenney Samuelson	jenney.samuelson@state.vt.us	Aggregate data only	Survey
220	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	DocSite Clinical Data Repository	Tim Tremblay	timothy.tremblay@vermont.gov	No access to data	Clinical
221	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	Blueprint for Health Analytics Dataset	Tim Tremblay	timothy.tremblay@state.vt.us	No access to data	ClinicalClaim
222	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	Blueprint for Health Practice Profiles	Tim Tremblay	timothy.tremblay@state.vt.us	No access to data	SurveyClinicalClaim
223	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	Blueprint for Health Hospital Service Area Profiles	Tim Tremblay	timothy.tremblay@state.vt.us	Aggregate data only	SurveyClinicalClaim
224	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	Blueprint for Health Reports And Analytics Webpage	Tim Tremblay	timothy.tremblay@state.vt.us	Aggregate data only	Services Provided
225	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	Blueprint for Health Practice and Provider Database (Portal)	Tim Tremblay	timothy.tremblay@state.vt.us	No access to data	Provider Information
226	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	Blueprint for Health Website	Jen Le	jennifer.le@state.vt.us	Aggregate data only	Unknown
227	Department of Vermont Health Access (DVHA) / Blueprint for Health Program	Medical Assistance Provider Incentive Repository - MAPIF	Casey O'Hara	casey.ohara@state.vt.us	No access to data	Services ProvidedProvider InformationFinancial
228	Green Mountain Care Board (GMCB) /	VUHDDS Research Data Set	David Regan	david.regan@vermont.gov	Research data use agreement possible	
229	Green Mountain Care Board (GMCB) /	Annual Statement Supplement Report (ASSR)	Mike Davis	mike.davis@vermont.gov	No access to data	CoverageFinancial
230	Green Mountain Care Board (GMCB) /	VHCURES Analytical Extracts - Truven	David Regan	david.regan@vermont.gov	No access to data	Claim
231	Green Mountain Care Board (GMCB) /	Data Use Agreements to VHCURES	David Regan	david.regan@vermont.gov	No access to data	Reference
232	Green Mountain Care Board (GMCB) /	Dashboard 2.0	Susan Barrett	susan.barrett@state.vt.us	Aggregate data only	SurveillancePopulationFinancial
233	Green Mountain Care Board (GMCB) /	Hospital Budget Data	Mike Davis	mike.davis@state.vt.us	Aggregate data only, digital format	UtilizationFinancial
234	Green Mountain Care Board (GMCB) /	VHCURES	Susan Barrett		Data available to public with data use agreement	PopulationProvider InformationClaim
235	Green Mountain Care Board (GMCB) /	Expenditure Analysis	Mike Davis	mike.davis@vermont.gov	Aggregate data only, digital format	UtilizationPopulationProvider InformationFinancialClaim
236	Health Resources and Services Administration (HRSA) /	Area Health Resource File				PopulationProvider InformationFinancial
237	MVP /	MVP Provider Directory	Lou McLaren	lmclaren@mvphealthcare.com	Data available to public with data use agreement	
238	Robert Wood Johnson Foundation /	County Health Rankings			No access to data	Population
239	Secretary of State - Office of Professional Regulation /	Vermont Professional License Database	Christopher WInte	chris.winters@sec.state.vt.us	Yes, record level data available to public	Licensing
240	Secretary of State - Office of Professional Regulation /	Vermont Secretary of State Conduct Decisions			Yes, record level data available	Licensing
241	US Department of Health and Human Services Health Resources and Services Administration /	HRSA Health Provider Shortage Areas			Aggregate data only	Provider Information
242	US Health Resources and Services Administration /	Uniform Data System - UDS			Aggregate data only	UtilizationServices ProvidedPopulationClinicalFinancial
243	UVM - AHEC /	Board of Nursing Relicensure Survey Reports			Aggregate data only	SurveyEmployment and WagesProvider Information
244	UVM - AHEC /	Vermont Primary Care Workforce Reports			Aggregate data only	SurveyEmployment and Wages
245	UVM's Vermont Child Health Improvement Program (VCHIP) /	Consumer Assessment of Healthcare Providers and Systems (CAHPS)				Survey
246	Vermont Coalition for Clinics for the Uninsured (VCCU) /	VCCU Financial Source Data	Lynn Raymond-Err	vccu@comcast.net	Aggregate data only	Financial
247	Vermont Coalition for Clinics for the Uninsured (VCCU) /	VCCU Patient Surveys	Lynn Raymond-Err	vccu@comcast.net	Aggregate data only	SurveyCoverage
248	Vermont Coalition for Clinics for the Uninsured (VCCU) /	VCCU Client Interaction Data	Lynn Raymond-Err	vccu@comcast.net	Aggregate data only	Clinical

#	Organization/Agency	Dataset name	Contact Name	Contact email	Is the dataset available to the public?	Type of Data
249	Vermont Coalition for Clinics for the Uninsured (VCCU) /	VCCU Demographic Data	Lynn Raymond-Err	vccu@comcast.net	Aggregate data only	Survey
250	Vermont Recovery Network /	Vermont Recovery Network Participant Surveys	Mark Ames	vtrecoverynetwork@gmail.com	Yes	Survey
251	VITL - VT HIE Network /	VHIE Analytical Dataset	Mike Gagnon	mgagnon@vitl.net	No access to data	Clinical
252	VITL - VT HIE Network /	VITLDirect			No access to data	Clinical
253	VITL - VT HIE Network /	VITLAccess			No access to data	Clinical
254	VITL - VT HIE Network /	VHIE/Medicity - Clinical Dataset	Mike Gagnon		Data available to public with data use agreement	Clinical
255	VNAs of Vermont Member Agencies /	McKesson Home Health Data	Arsi Namdar	namdar@vnacares.org	No access to data	
256	VPQHC /	Patient Safety Surveillance and Improvement System (PSSIS)	Deb Wilcox	deb.wilcox@state.vt.us	No access to data	SurveillanceClinical
257	Washington County Mental Health Services (WCMHS) /	Washington County Mental Health Crisis Services Scorecard			No	SurveyServices ProvidedPopulation

Appendix D: Complete Detailed Inventory

High Priority Dataset Detailed Inventory

Vermont Uniform Hospital Discharge Data Set (VUHDDS) Public Use Files

1. Responsible Organization:

Organization/Agency Department of Health (AHS) / Division of Health Surveillance
Organization Collecting or Managing VAHHS /
Contact Name Barbara Carroll
Contact Email barbara.carroll@vermont.gov
Contact phone (802) 865-7704

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

3. Content

Description The Public Use Files are derived from the Vermont Uniform Hospital Discharge Data Set (VUHDDS). With the Public Use Files, data users can generate their own reports about the use of the Vermont hospitals by residents and non-residents.

Years Collected 2002-2012 (ongoing)

Source Dataset VUHDDS Research Data Set

Data Collection Method Clinical Record

Type of Data Surveillance, Utilization, Services Provided, Clinical

4. Operations: Cost

Acquisition Cost \$0

Operations and Management Cost \$125,000

FTE 1

Source of Funding: %Federal %State %Private %Other
67 33 0 0

4. Operations: Storage

Data StorageFormat Other DB Format

Data Storage Location In-House Server

Database Size 1 GB - 50 GB

5. Access and Governance

Is the dataset available to the public? Record level data available (deidentified)

Type of Use Restriction HIPAA

Use Restriction Details VDH creates record-level, limited public use files and posts them to VUHDDS and VDH web sites. These are de-identified datasets.

Data Output format CSV Text via website download

Vermont Uniform Hospital Discharge Data Set (VUHDDS) Public Use Files

6. Metadata

Metadata Status: Complete

Metadata Format: Packaged with data

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

NR

Immunization Registry - IMR

1. Responsible Organization:

Organization/Agency	Department of Health (AHS) / Division of Health Surveillance
Organization Collecting or Managing	Department of Health (AHS) / Division of Health Surveillance
Contact Name	Bridget Ahrens
Contact Email	briget.ahrens@vermont.gov
Contact phone	(802) 951-4094

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

The Vermont Immunization Registry (IMR) is a confidential, computerized system for maintaining immunization records. It tracks the dates of immunizations given, prints reports for parents/schools, and provides guidance for timing of vaccine administration

3. Content

Description	Sec. 8. 18 V.S.A. § 1129 Vermont State Law Regarding Immunization Registry>>§ 1129. IMMUNIZATION REGISTRY >(a)A health care provider shall report to the Department all data regarding immunizations of adults and of children under 18 years of age within
Years Collected	2004 - present (ongoing)
Source Dataset	NA
Data Collection Method	Registry
Type of Data	Clinical

4. Operations: Cost

Acquisition Cost	\$3,500,000 over 5 years
Operations and Management Cost	\$1,200,000 (\$232,000 subcontract; \$968,000 7.4 FTE)
FTE	7.4
Source of Funding:	%Federal %State %Private %Other
	95 5 0% 0%

4. Operations: Storage

Data StorageFormat	SQL Server
Data Storage Location	In-House Cloud
Database Size	1 - 100 MB

5. Access and Governance

Is the dataset available to the public?	Individuals may request personal record; Aggregate data otherwise
Type of Use Restriction	Agency restriction, HIPAA

Immunization Registry - IMR

Use Restriction Details a. Agency data use agreement, other agency restriction, HIPAA, federal restriction, other?. The Immunization Registry contains protected health information, and is limited by both HIPAA, and VT law. We also follow the protocol for Data Release established

Data Output format PDF Data briefs; Summary data upon request; Restricted web application

6. Metadata

Metadata Status: Complete

Metadata Format Data Dictionary; User Manual; IMR Limitations Document

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

NR

VHIE/Medicity - Clinical Dataset

1. Responsible Organization:

Organization/Agency VITL - VT HIE Network /
Organization Collecting or Managing VITL - VT HIE Network /
Contact Name Mike Gagnon
Contact Email mgagnon@vitl.net
Contact phone

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

Yes.

3. Content

Description clinical data including demographic, lab, radiology, transcribed reports, care summaries and some immunization
Years Collected 2010 - present (ongoing)
Source Dataset VHIE/Medicity - Clinical Dataset
Data Collection Method Clinical Record
Type of Data Clinical

4. Operations: Cost

Acquisition Cost \$25,000,000
Operations and Management Cost \$5,000,000
FTE >5
Source of Funding: %Federal %State %Private %Other
50 40 10 0%

4. Operations: Storage

Data StorageFormat SQL Server
Data Storage Location Contractor Cloud
Database Size > 50 GB

5. Access and Governance

Is the dataset available to the public? Data available to public with data use agreement
Type of Use Restriction HIPAA
Use Restriction Details
Data Output format Restricted web application

6. Metadata

Metadata Status: Incomplete
Metadata Format Packaged with data

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

NR

Vital Records - Birth (EBRS)

1. Responsible Organization:

Organization/Agency	Department of Health (AHS) / Division of Health Surveillance
Organization Collecting or Managing	Department of Health (AHS) / Division of Health Surveillance
Contact Name	Cindy Hooley
Contact Email	cindy.hooley@vermont.gov
Contact phone	(802) 651-1636

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

Statutory requirements for vital events to be reported to Department of Health and for the Department to track events and to prepare annual report.

3. Content

Description	When a birth occurs, the physician, midwife, or other birth attendant is required to complete a birth certificate and file it with the town clerk in the town of birth within 5 days. For hospital births, it is usually the medical records staff who complete
Years Collected	1980 - present (ongoing)
Source Dataset	NA
Data Collection Method	Provider, Registry
Type of Data	Demographic, clinical

4. Operations: Cost

Acquisition Cost	\$2,500,000
Operations and Management Cost	\$75,000 (excluding FTE)
FTE	8.5 (shared with among all Vital Records)
Source of Funding:	%Federal %State %Private %Other
	35 65 0 0

4. Operations: Storage

Data StorageFormat	SQL Server
Data Storage Location	Contractor Cloud
Database Size	NA

5. Access and Governance

Is the dataset available to the public?	Certificates; De-identified record level medical info
Type of Use Restriction	HIPAA, Other
Use Restriction Details	Vital Records data release is governed by HIPAA (such as the medical information) and VT law (such as public records statutes and vital records statutes). Please refer to 18 VSA, the chapter on Vital Records. . . Births can

Vital Records - Birth (EBRS)

only be released at record lev

Data Output format certificates; aggregate through VDH Instant Atlas App; Annual report

6. Metadata

Metadata Status: Available
from CDC
National
Center for
Health
Statistics

Metadata Format NA

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

NR

Vital Records - Death (EDRS)

1. Responsible Organization:

Organization/Agency	Department of Health (AHS) / Division of Health Surveillance
Organization Collecting or Managing	Department of Health (AHS) / Division of Health Surveillance
Contact Name	Cindy Hooley
Contact Email	cindy.hooley@vermont.gov
Contact phone	(802) 651-1636

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

Statutory requirements for vital events to be reported to Department of Health and for the Department to track events and to prepare annual report.

3. Content

Description	Although a physician, physician assistant, or advanced practice registered nurse is responsible for filing the death certificate, the job may be, and often is, delegated to the funeral director. Most of the information needed to complete the death certifi
Years Collected	1985 - present (ongoing)
Source Dataset	NA
Data Collection Method	Provider
Type of Data	Demographic, cause of death information

4. Operations: Cost

Acquisition Cost	\$4,000,000
Operations and Management Cost	\$150,000(excluding FTE)
FTE	8.5 (shared with among all Vital Records)
Source of Funding:	%Federal %State %Private %Other
	35 65 0 0

4. Operations: Storage

Data StorageFormat	SQL Server
Data Storage Location	Contractor Server
Database Size	NA

5. Access and Governance

Is the dataset available to the public?	Cerificates; Record level except SSN
Type of Use Restriction	HIPAA, Other
Use Restriction Details	Vital Records data release is governed by HIPAA (such as the medical information) and VT law (such as public records statutes and vital records statutes). Please refer to 18 VSA, the chapter on Vital Records. There are

Vital Records - Death (EDRS)

sections discussing release of cert

Data Output format certificates; aggregate through VDH Instant Atlas App; Annual report

6. Metadata

Metadata Status: Available
from CDC
National
Center for
Health
Statistics

Metadata Format NA

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

NR

Vital Records - (Marriage, Divorce, Civil Unions, Dissolutions, ITOPs, and Fetal Deaths)

1. Responsible Organization:

Organization/Agency	Department of Health (AHS) / Division of Health Surveillance
Organization Collecting or Managing	Department of Health (AHS) / Division of Health Surveillance
Contact Name	Cindy Hooley
Contact Email	cindy.hooley@vermont.gov
Contact phone	(802) 651-1636

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

Statutory requirements for vital events to be reported to Department of Health and for the Department to track events and to prepare annual report.

3. Content

Description	Statewide vital registration in Vermont began in 1857, when the General Assembly passed legislation requiring towns to report all births, marriages, and deaths to the Secretary of State. Prior to that time, some towns kept such records in order to resolve
Years Collected	Marriages and Divorces:1989 - present (ongoing);Civil Unions 2000 - 2009; Dissolutions 2001-present (ongoing); ITOPs and Fetal Deaths 1989 - present
Source Dataset	NA
Data Collection Method	Registry
Type of Data	Population, Demographic, medical (ITOPs and Fetal Deaths only)

4. Operations: Cost

Acquisition Cost	\$100,000
Operations and Management Cost	\$25,000(excluding FTE)
FTE	8.5 (shared with among all Vital Records)
Source of Funding:	%Federal %State %Private %Other
	35 65 0 0

4. Operations: Storage

Data StorageFormat	MS Access
Data Storage Location	In-House PC
Database Size	NA

5. Access and Governance

Is the dataset available to the public? Certificates and record level except confidentials; ITOPs and Fetal Deaths: aggregate data only

Vital Records - (Marriage, Divorce, Civil Unions, Dissolutions, ITOPs, and Fetal Deaths)

Type of Use Restriction Other

Use Restriction Details Refer to 18 V.S.A. § 5222(d). Vital Records data release is governed by HIPAA (such as the medical information) and VT law (such as public records statutes and vital records statutes). Please refer to 18 V.S.A., the chapter on Vital Records. There are secti

Data Output format Certificates;Annual reports and summary data on request

6. Metadata

Metadata Status: None

Metadata Format NA

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

NR

Behavioral Risk Factor Surveillance System (BRFSS)

1. Responsible Organization:

Organization/Agency	Department of Health (AHS) / Division of Health Surveillance
Organization Collecting or Managing	Department of Health (AHS) / Division of Health Surveillance
Contact Name	Jessie Hammond
Contact Email	jessie.hammond@vermont.gov
Contact phone	(802) 863-7663

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

3. Content

Description	Vermont tracks risk behaviors using a telephone survey of adults called the Behavioral Risk Factor Surveillance Survey (BRFSS). The results are used to plan, support, and evaluate health promotion and disease prevention programs. These are used to track D
Years Collected	1990-2013 (ongoing)
Source Dataset	NA
Data Collection Method	Survey
Type of Data	Survey, Population

4. Operations: Cost

Acquisition Cost	\$10,000 - \$50,000
Operations and Management Cost	\$497,000 (\$287,000 subcontract; \$210,000 1.5 FTE)
FTE	2
Source of Funding:	%Federal %State %Private %Other
	65 35 0 0

4. Operations: Storage

Data StorageFormat	Other DB Format
Data Storage Location	In-House Server
Database Size	100 MB - 1 GB

5. Access and Governance

Is the dataset available to the public?	Aggregate data only, report format
Type of Use Restriction	Agency Data Use Agreement, Agency restriction, Other
Use Restriction Details	The BRFSS data contains protected health information, and is limited by HIPAA. We also follow the protocol for Data Release established by the Division of Health Surveillance in the VT Department of Health. . b. Details regarding restriction. The BRF

Behavioral Risk Factor Surveillance System (BRFSS)

Data Output format Web Application – Public at CDC

6. Metadata

Metadata Status: Yes: Code
Book; Data
User Notes

Metadata Format Electronic

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

NR

VHCURES

1. Responsible Organization:

Organization/Agency	Green Mountain Care Board (GMCB) /
Organization Collecting or Managing	OnPoint Health /
Contact Name	Susan Barrett
Contact Email	susan.barrett@state.vt.us
Contact phone	(802) 828-2177

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

Yes: <http://legislature.vermont.gov/statutes/section/18/221/09410> requires the GMCB to create a "unified health care database"

3. Content

Description	Claims, membership, and provider data for commercial plans, self-insured, Medicaid, and Medicare (limited to certain users)
Years Collected	2007 - present (ongoing)
Source Dataset	NA
Data Collection Method	Claim
Type of Data	Population, Provider Information, Claim

4. Operations: Cost

Acquisition Cost	NR			
Operations and Management Cost	NR			
FTE	NR			
Source of Funding:	%Federal	%State	%Private	%Other
	67	13	20	0%

4. Operations: Storage

Data StorageFormat	MS Access
Data Storage Location	Contractor Server
Database Size	> 50 GB

5. Access and Governance

Is the dataset available to the public?	Data Use Agreement
Type of Use Restriction	Agency Data Use Agreement, HIPAA
Use Restriction Details	Potential users must be approved by the Data Governance Council and complete a data use agreement.
Data Output format	NR

6. Metadata

Metadata Status:	Incomplete
Metadata Format	NA

VHCURES

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

NR

Blueprint for Health Analytics Dataset

1. Responsible Organization:

Organization/Agency	Department of Vermont Health Access (DVHA) / Blueprint for Health Program
Organization Collecting or Managing	OnPoint Health /
Contact Name	Tim Tremblay
Contact Email	timothy.tremblay@state.vt.us
Contact phone	(802) 654-8923

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

The Blueprint program itself has a legislative mandate and this data supports that program.

3. Content

Description	Blueprint analytics dataset, managed by Onpoint Health Data, combining claims (VHCURES), clinical (Docsite), and survey data. Contains a specialized Medicare claims dataset authorized under the Medicare Multi-payer Advanced Primary Care Practice (MAPCP)
Years Collected	2007 - present (ongoing)
Source Dataset	DocSite Clinical Data RepositoryVHCURES
Data Collection Method	Clinical RecordClaim
Type of Data	Clinical, Claim

4. Operations: Cost

Acquisition Cost	NR
Operations and Management Cost	\$1,000,000 (subcontract)
FTE	NR
Source of Funding:	%Federal %State %Private %Other
	66% (HIT Fund) 44% (HIT Fund) 0% 0%

4. Operations: Storage

Data StorageFormat	SQL Server
Data Storage Location	Contractor Server
Database Size	1 GB - 50 GB

5. Access and Governance

Is the dataset available to the public?	No access to data
Type of Use Restriction	Agency restriction, HIPAA, Other, Other federal restriction
Use Restriction Details	Same use restriction that applies to VHCURES and the clinical dataset
Data Output format	Report (PDF, Word)

6. Metadata

Metadata Status: Incomplete

Blueprint for Health Analytics Dataset

Metadata Format NA

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

NR

Household Health Insurance Survey (VHHIS)

1. Responsible Organization:

Organization/Agency	Department of Health (AHS) / Division of Health Surveillance
Organization Collecting or Managing	Department of Health (AHS) / Division of Health Surveillance
Contact Name	Jessie Hammond
Contact Email	jessie.hammond@vermont.gov
Contact phone	(802) 863-7663

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

18 V.S.A. § 9410 is a legislative mandate related to VHHIS. This was amended during the 2015 legislative session to say that at least every three years, the Commissioner of Health is required to submit to the general assembly a recommendation for conducti

3. Content

Description	Periodic household surveys of Vermont residents to accurately measure the uninsured rate and coverage sources for insured residents and also collects information on relevant demographic, income, and employment characteristics. The surveys support informat
Years Collected	2005, 2008, 2009, 2012, 2014, ongoing
Source Dataset	Household Health Insurance Survey (VHHIS)
Data Collection Method	Survey
Type of Data	Survey, Coverage

4. Operations: Cost

Acquisition Cost	~\$5,000
Operations and Management Cost	\$441,000 (\$300,000 subcontract;\$14 1,000 FTE)
FTE	1
Source of Funding:	%Federal %State %Private %Other
	0% 100 0% 0%

4. Operations: Storage

Data StorageFormat	Other DB Format
Data Storage Location	In-House Server
Database Size	<1 MB

5. Access and Governance

Is the dataset available to the public?	Aggregate data only, report format
Type of Use Restriction	Agency restriction, HIPAA
Use Restriction Details	VHHIS data contains protected health information, and is limited by HIPAA. We also follow the protocol for Data Release established by the Division of Health Surveillance in the VT Department of Health.

Household Health Insurance Survey (VHHIS)

Data Output format CSV Text by website download, Report (PDF, Word)

6. Metadata

Metadata Status: Incomplete

Metadata Format Available by Download,
Packaged with data

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

NR

Expenditure Analysis

1. Responsible Organization:

Organization/Agency	Green Mountain Care Board (GMCB) /
Organization Collecting or Managing	Green Mountain Care Board (GMCB) /
Contact Name	Mike Davis
Contact Email	mike.davis@vermont.gov
Contact phone	(802) 828-2989

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

statute reference 18 V.S.A. § 9375a

3. Content

Description	source of Vermont health care spending. The Vermont Health Care Expenditure Analysis presents two separate reports 1) health care spending for services delivered in Vermont; and 2) for services provided to Vermont residents within Vermont and in other
Years Collected	1992-present (ongoing)
Source Dataset	VUHDDS Research Data Set Annual Statement Supplement Report (ASSR) VHCURES Analytical Extracts - Truven Workers Comp Nursing Home Rate Setting Data Hospital Budget Data State Health Care Expenditure Data by Provider Location State Health Care Expenditure
Data Collection Method	Provider Claim Survey
Type of Data	Utilization, Population, Provider Information, Financial, Claim

4. Operations: Cost

Acquisition Cost	\$107,000
Operations and Management Cost	\$31,000
FTE	2
Source of Funding:	%Federal %State %Private %Other
	60% 13% 20% 7% Global Commitment (Matched Medicaid Funds)

4. Operations: Storage

Data Storage Format	SQL Server
Data Storage Location	Contractor Cloud
Database Size	1 - 100 MB

5. Access and Governance

Is the dataset available to the public?	Aggregate data only, digital format
Type of Use Restriction	None
Use Restriction Details	na

Expenditure Analysis

Data Output format MS Excel, Report (PDF, Word)

6. Metadata

Metadata Status: Needs review

Metadata Format Hard copy available

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

Various - see Annual reports for graphs, charts, schedules, and narrative describing data.. Metadata - in process

Hospital Budget Data

1. Responsible Organization:

Organization/Agency	Green Mountain Care Board (GMCB) /
Organization Collecting or Managing	Green Mountain Care Board (GMCB) /
Contact Name	Mike Davis
Contact Email	mike.davis@state.vt.us
Contact phone	(802) 828-2989

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

Yes - see statute reference 18 V.S.A. § 9451-9457

3. Content

Description	Detailed revenue, expenditure, utilization, capital and balance sheet data for Vermont's 14 non-profit community hospitals. >>Hospitals login to dashboard to enter information>Trying to make dashboard available to GMCB and public>Public: Act 53 link
Years Collected	1988 - present (ongoing)
Source Dataset	Hospital Budget DataVermont Uniform Hospital Discharge Data Set (VUHDDS) Public Use Files
Data Collection Method	Provider
Type of Data	Utilization, Financial

4. Operations: Cost

Acquisition Cost	\$107,000
Operations and Management Cost	\$31,000
FTE	3
Source of Funding:	%Federal %State %Private %Other
	60% 40% 0% 0%

4. Operations: Storage

Data StorageFormat	SQL Server
Data Storage Location	Contractor Cloud
Database Size	100 MB - 1 GB

5. Access and Governance

Is the dataset available to the public?	Aggregate data only, digital format
Type of Use Restriction	None
Use Restriction Details	na. Data set no easily available to public. Summary info and reports available.
Data Output format	MS Excel, Report (PDF, Word)

6. Metadata

Metadata Status:	Complete
Metadata Format	On disk, file available

Hospital Budget Data

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

There is an annual summary of the 14 hospitals data. Reports and special analyses available. Individual report of each hospital available. Meta data available including operations process. .

Vermont Professional License Database

1. Responsible Organization:

Organization/Agency	Secretary of State - Office of Professional Regulation /
Organization Collecting or Managing	Secretary of State - Office of Professional Regulation /
Contact Name	Christopher WInters
Contact Email	chris.winters@sec.state.vt.us
Contact phone	(802) 828-2124

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

3 V.S.A. § 123, in particular, collecting data on professions and maintaining a register of licensees (sub (5) and (6)). § 123. Duties of Office. (a) The Office shall provide administrative, secretarial, financial, investigatory, inspection, and legal se

3. Content

Description	This lookup serves as primary source verification of education, training and examination history, which has been performed as part of the licensure process. With this search you can find licensing and disciplinary information about any of our current or		
Years Collected	2009 -present (ongoing)		
Source Dataset	Vermont Professional License Database		
Data Collection Method	Provider		
Type of Data	Licensing		

4. Operations: Cost

Acquisition Cost	\$600,000			
Operations and Management Cost	\$120,000			
FTE	NR			
Source of Funding:	%Federal	%State	%Private	%Other
	0	0		

4. Operations: Storage

Data StorageFormat	SQL Server
Data Storage Location	Contractor Cloud
Database Size	> 50 GB

5. Access and Governance

Is the dataset available to the public?	Record level for public
Type of Use Restriction	None
Use Restriction Details	
Data Output format	Web Inquiry

6. Metadata

Metadata Status:	Complete
Metadata Format	On Web

Vermont Professional License Database

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

information about licensees can, and in some cases is, being used to identify the location and extent of the health care workforce in Vermont and can be useful in allocating resources and/or incentivizing growth or movement to underserved areas. Discipli

Blueprint for Health Practice and Provider Database (Portal)

1. Responsible Organization:

Organization/Agency	Department of Vermont Health Access (DVHA) / Blueprint for Health Program
Organization Collecting or Managing	Department of Vermont Health Access (DVHA) / Blueprint for Health Program
Contact Name	Tim Tremblay
Contact Email	timothy.tremblay@state.vt.us
Contact phone	(802) 654-8923

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

The mandate is for the Blueprint program itself. Legislative made for the Blueprint.

3. Content

Description	Web database application of Blueprint practice, provider, and Community Health Team staffing information. Contains National Committee for Quality Assurance (NCQA) assessment scores for nationally-recognized Patient-Centered Medical Home (PCMH) practices
Years Collected	2014 - present (ongoing)
Source Dataset	NA
Data Collection Method	Provider
Type of Data	Provider Information

4. Operations: Cost

Acquisition Cost	\$122,000
Operations and Management Cost	\$20,000 (hosting and security testing)
FTE	>5
Source of Funding:	%Federal %State %Private %Other
	66% (HIT Fund) 44% (HIT Fund) 0% 0%

4. Operations: Storage

Data StorageFormat	SQL Server
Data Storage Location	Contractor Cloud
Database Size	100 MB - 1 GB

5. Access and Governance

Is the dataset available to the public?	No access to data
Type of Use Restriction	Agency restriction, Other federal restriction
Use Restriction Details	
Data Output format	Web Application - Restricted Access

6. Metadata

Blueprint for Health Practice and Provider Database (Portal)

Metadata Status: Complete

Metadata Format: Hard copy available

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

critical component of what Blueprint is doing for Vermont's health care reform efforts in terms of quality measures and health outcomes

Health Care Provider Surveys (Census)

1. Responsible Organization:

Organization/Agency	Department of Health (AHS) / Division of Health Surveillance
Organization Collecting or Managing	Department of Health (AHS) / Division of Health Surveillance
Contact Name	Moshe Braner
Contact Email	moshe.braner@state.vt.us
Contact phone	(802) 865-7703

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

3. Content

Description	The health of Vermonters depends, in part, on access to health care. The Vermont Department of Health therefore needs to measure the supply of health care providers, including their distribution by geography and specialty. These data are used as the bas
Years Collected	select years between 1979 and 2012
Source Dataset	Health Care Provider Surveys (Census)
Data Collection Method	Survey
Type of Data	Workforce, Survey, Provider Information

4. Operations: Cost

Acquisition Cost	\$24,500
Operations and Management Cost	\$278,000 (\$267,500 for 2.25 FTE)
FTE	2
Source of Funding:	%Federal %State %Private %Other
	90 10

4. Operations: Storage

Data StorageFormat	Other DB Format
Data Storage Location	In-House Server
Database Size	100 MB - 1 GB

5. Access and Governance

Is the dataset available to the public?	Aggregate data only, report format
Type of Use Restriction	Agency restriction
Use Restriction Details	summaries available on VDH website
Data Output format	SAS or MS Excel by request, Report (PDF, Word)

6. Metadata

Health Care Provider Surveys (Census)

Metadata Status: Incomplete

Metadata Format Available by Download,
Packaged with data

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

Stone Recommendations: The data from these surveys should be made available in Socrata. The following are options:

1)Add each Statistical Summary PDF should be added as a record in Socrata 2)Aggregated data sets from the survey should be added to Socrata

VHIE Analytical Dataset

1. Responsible Organization:

Organization/Agency VITL - VT HIE Network /
Organization Collecting or Managing VITL - VT HIE Network /
Contact Name Mike Gagnon
Contact Email mgagnon@vitl.net
Contact phone

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

Yes we are legislatively designated to run the exclusive statewide HIE.

3. Content

Description Clinical data for internal analytical use.
Years Collected 2010- present (ongoing)
Source Dataset VHIE Analytical Dataset
Data Collection Method Clinical Record
Type of Data Clinical

4. Operations: Cost

Acquisition Cost \$2,000,000
Operations and Management Cost \$1,000,000
FTE 3
Source of Funding: %Federal %State %Private %Other
50 40 10

4. Operations: Storage

Data StorageFormat SQL Server
Data Storage Location In-House Server
Database Size > 50 GB

5. Access and Governance

Is the dataset available to the public? No public access to data; Data Use Agreement
Type of Use Restriction HIPAA, Other
Use Restriction Details Data can only be shared by the agreement of the source organization or with patient consent.
Data Output format DB

6. Metadata

Metadata Status: Incomplete
Metadata Format NA

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

Clinical data is one of the keys to healthcare reform.

DocSite Clinical Data Repository

1. Responsible Organization:

Organization/Agency	Department of Vermont Health Access (DVHA) / Blueprint for Health Program
Organization Collecting or Managing	Department of Vermont Health Access (DVHA) / Blueprint for Health Program
Contact Name	Tim Tremblay
Contact Email	timothy.tremblay@vermont.gov
Contact phone	(802) 654-8923

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

Part of the Blueprint's mandate.

3. Content

Description	Clinical data repository, hosted in the Covisint Docsite software platform. Data is populated from Electronic Health Record systems via messaging from the Vermont Health Information Exchange and flat file transfers, as well as from direct data entry via w
Years Collected	2010 - present (ongoing)
Source Dataset	VHIE/Medicity - Clinical Dataset
Data Collection Method	ProviderClinical Record
Type of Data	Clinical

4. Operations: Cost

Acquisition Cost	\$1,000,000
Operations and Management Cost	\$1,500,000
FTE	NR
Source of Funding:	%Federal %State %Private %Other
	66 44 0 0

4. Operations: Storage

Data StorageFormat	SQL Server
Data Storage Location	Contractor Server
Database Size	NA

5. Access and Governance

Is the dataset available to the public?	No public access to data (Providers only)
Type of Use Restriction	HIPAA
Use Restriction Details	
Data Output format	Reports (Providers only)

6. Metadata

Metadata Status:	Incomplete
Metadata Format	NA

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

DocSite Clinical Data Repository

Documentation not available to public

Youth Risk Behavior Survey

1. Responsible Organization:

Organization/Agency	Department of Health (AHS) / Division of Health Surveillance
Organization Collecting or Managing	Department of Health (AHS) / Division of Health Surveillance
Contact Name	Kristen Murray
Contact Email	kristen.murray@vermont.gov
Contact phone	(802) 863-7276

2. Purpose: Is there a Legislative or Administrative Mandate? Explain

3. Content

Description	Every two years since 1993, the Department of Health's Division of Alcohol and Drug Abuse Programs, and the Department of Education's Coordinated School Health Programs have sponsored the Vermont Youth Risk Behavior Survey (YRBS). The YRBS measures the pr
Years Collected	every 2 years since 1993
Source Dataset	NA
Data Collection Method	Survey
Type of Data	Youth, Survey, Population

4. Operations: Cost

Acquisition Cost	System is maintained by contractor for data management
Operations and Management Cost	\$128,000 (\$68,000 subcontract; \$60,000 FTE)
FTE	1
Source of Funding:	%Federal %State %Private %Other
	95 5 0 0

4. Operations: Storage

Data StorageFormat	Other DB Format
Data Storage Location	In-House Server
Database Size	1 - 100 MB

5. Access and Governance

Is the dataset available to the public?	Yes, record level data available`to public
Type of Use Restriction	Agency restriction
Use Restriction Details	We also follow the protocol for Data Release established by the Division of

Youth Risk Behavior Survey

Health Surveillance in the VT Department of Health. . YRBS record level data that are de-identified are available to the public via the CDC website. Those wanting additional vari

Data Output format Web Application - Public, Report (PDF, Word)

6. Metadata

Metadata Status: Complete

Metadata Format On disk, file available

7. Suggestions on ways these data do or can support Vermont's health care reform efforts

There is extensive data available from the YRBS in the form of reports and through the healthy vermonters Atlas. Data are aggregated at the district, county, and HSA level. The online Atlas has an "Export" button but the link does not work. Despite the we