

# HIE Work Group Meeting

Agenda 6-24-15

***VT Health Care Innovation Project  
HIE Work Group Meeting Agenda***

**Wednesday, June 24, 2015; 9:00 – 11:00am  
Vermont State College, Conference Room 101, Montpelier, VT  
Call-In Number: 1-877-273-4202; Passcode 2252454**

<b>Item #</b>	<b>Time Frame</b>	<b>Topic</b>	<b>Presenter</b>	<b>Relevant Attachments</b>	<b>Action Needed</b>
1	9:00-9:05	Welcome and Introductions	Brian Otley		
2	9:05-9:10	Review and Acceptance of May 20 <sup>th</sup> Meeting Minutes	Brian Otley	Attachment 2: HIE Work Group Minutes	Approval of minutes
3	9:10-9:35	Telehealth Strategic Plan	Karen Bell/JBS	Attachment 3a: Telehealth Strategy Presentation  Attachment 3b: Report to the HIE/HIT Work Group on a Statewide Telehealth Strategy and Pilot Projects	Approval of telehealth strategy
4	9:35-10:20	DLTSS Assessment Report Review	Beth Waldman/Bailit	Attachment 4: LTSS Information Technology Assessment 6-24-15	
5	10:20-10:25	Public Comment	Brian Otley		
6	10:25-10:30	Next Steps, Wrap-Up and Future Meeting Schedule	Brian Otley		

# Attachment 2

5-20-2015 HIE Minutes



# *VT Health Care Innovation Project Health Information Exchange Work Group Meeting Minutes*

## **Pending Work Group Approval**

Date of meeting: Thursday, May 20, 2015 1:00 pm – 3:00 pm, DVHA Large Conference Room, 312 Hurricane Lane, Williston, VT

Agenda Item	Discussion	Next Steps
<b>1. Welcome and Introductions</b>	Simone Rueschemeyer called the meeting to order at 1:05 pm. A roll call attendance was taken and a quorum was present.	
<b>2. Review and Approval of the April 30<sup>th</sup> minutes</b>	Sue Aranoff moved to approve the minutes by exception and Eileen Underwood seconded. Heather Skeels abstained. The motion passed.	
<b>3. SCÛP Project Resource Request</b>	<p>Larry Sandage presented information on the Shared Care Plans &amp; Universal Transfer Protocol (SCÛP) Project (Attachment 3).</p> <ul style="list-style-type: none"> <li>- The goal of this phase is not to build anything brand new but to build on existing technology to complete the project.</li> <li>- Recommendation that the business requirement checkpoint should come before the funding checkpoint.</li> <li>- Request to see a member of the VITL team to be added to the project team.</li> <li>- Timeline is condensed for business requirements in order to have enough time to build the solution in the future.</li> <li>- St. Johnsbury and Bennington will be the first provider communities- then they will validate with additional provider communities.</li> </ul>	<b>Project leads are Larry Sandage and Erin Flynn with VHCIP.</b>

Agenda Item	Discussion	Next Steps
	<ul style="list-style-type: none"> <li>- Shared Care Plans and UTPs though different, will utilize similar data- the project team is focused on making sure these are aligned.</li> <li>- The project will recruit a Business Analyst through the Project Management Services with Agency of Human Services.</li> <li>- The Subject matter expert to be assigned is a clinician and has extensive experience with transitions of care in other States.</li> <li>- Work group members are welcome to volunteer to assist with gathering the business requirements.</li> <li>- Target date for recommendations will be August/September timeframe.</li> <li>- Concerns about adding more reporting requirements for providers. The goal is to create efficiencies when sharing data and plans of care.</li> </ul> <p>Sue Aranoff moved to approve the request and Steve Maier seconded. It was noted that the work group has jurisdiction over funding remaining in the amount of \$4 million. A roll call vote was taken.</p> <p>Greg Robinson voted with a caveat that if the timeline is extended it would not increase the cost of the project.</p> <p>The motion passed unanimously.</p>	
<b>4. DLSS Assessment report review</b>	<p>This agenda item will be presented at the next meeting.</p>	
<b>5. VITL – ACO Project</b>	<p>Carolyn Stone from VITL presented the SIM ACO Project Status Summary (Attachment 5).</p> <ul style="list-style-type: none"> <li>- The event notification system has encountered the following issues with their contractors working on this project: can't link to the Master Patient Index (MPI), can't do consent, did not have an interactive way of managing the lists. This has extended the timeline.</li> <li>- The pilot program is currently based on the ACOs beneficiary population. Eventually this is intended to be a State-wide system.</li> <li>- VITL has been working diligently with the ACOs to make sure all the information and requirements have been considered.</li> <li>- Three pilot sites have been identified which will help identify what data feeds to put alerts on. Sites are varied to see which work flows will work with the different practices.</li> <li>- The practice can decide how to receive the notifications as well as frequency- this can be based on type of</li> </ul>	

Agenda Item	Discussion	Next Steps
	<p>event.</p> <ul style="list-style-type: none"> <li>- VXU refers to immunizations.</li> <li>- Gap remediation efforts are not directly related to VITL Access- this is data that is going to NNEACC. That data is being used for quality measure reporting.</li> <li>- “Organizations Capable” are those working with VITL on interface projects. 42 is the target # of organizations and the target date is the end of this calendar year.</li> <li>- ONC is taking a stance against data blocking and working with states to identify ways to increase interoperability with data vendors. <ul style="list-style-type: none"> <li>o Work that has been done at the ACO level can be extrapolated to a larger scale across the State.</li> </ul> </li> </ul>	<p><b>Mike Gagnon will share the data blocking article with the work group.</b></p>
<p><b>6. Year 2 Work plan review and Prioritization</b></p>	<p>The VCHIP Core Team is in the process of reviewing the year 2 milestones for the entire SIM grant which may affect the HIE work plan. The group agreed to discuss the work plan at the next meeting once there is more information on the overall year 2 milestones.</p>	
<p><b>6. Public Comment</b></p>	<p>Stone Environmental is still looking for feedback from the work group on their work which was presented at the April meeting. They are working on completing the final reports- if the group has any more feedback they should share as soon as possible.</p>	
<p><b>6. Public Comment, Next Steps, Wrap Up and Future Meeting Schedule</b></p>	<p><b>Next Meeting:</b> Wednesday, June 24 2015; 9:00-11:00 am, Vermont State College, 575 Stonecutters Way, Conference Room 101, Montpelier.</p>	

# VHCIP HIE Work Group Member List

Roll Call: **5/20/2015**

*Motion to approve minutes by exception: sue Aruff 10 Eileen Underwood 20*

*sue Aruff 10 Steve Maier 20 motion to approve the SCIP resource request*

Member		Member Alternate		Minutes	SCUP Request	Organization
First Name	Last Name	First Name	Last Name			
Susan	Aranoff ✓	Tela	Torrey		Y	AHS - DAIL
Joel	Benware					Northwestern Medical Center
Richard	Boes					DII
Jonathan	Bowley ✓	Jack	Donnelly			Community Health Center of Burlington
Shelia	Burnham ✓				Y	Vermont Health Care Association
Mike	DelTrecco					Vermont Association of Hospital and Health Systems
Ken	Gingras ✓	Julie	Tessler ✓		Y	Vermont Care Network
Leah	Fullem	Greg	Robinson ✓		Y	OneCare Vermont
Daniel	Galdenzi	Kelly	Lange ✓			Blue Cross Blue Shield of Vermont
Joyce	Gallimore	Kate	Simmons			CHAC
Paul	Harrington					Vermont Medical Society
Kathleen	Hentcy					AHS - DMH
Lucas	Herring ✓				Y	AHS - DOC
Kevin	Kelley					CHSLV
Kaili	Kuiper ✓	Julia	Shaw		Y	VLA/Health Care Advocate Project
Steven	Maier ✓	Jennifer	Egelhof		Y	AHS - DVHA
Arsi	Namdar ✓				Y	Visiting Nurse Association of Chittenden and Grand Isle Counties
Brian	Otley ✓				Y	Green Mountain Power
Darin	Prail ✓	Dan	Smith		Y	AHS - Central Office
Amy	Putnam ✓				Y	DA - Northwest Counseling and Support Services
Paul	Reiss					Accountable Care Coalition of the Green Mountains
Sandy	Rousse	Peter	Cobb			Central Vermont Home Health and Hospice
Simone	Rueschemeyer ✓	Ken	Gingras		Y	Vermont Care Network
Heather	Skeels ✓	Kate	Simmons	A	Y	Bi-State Primary Care
Richard	Slusky	Pat	Jones			GMCB
Chris	Smith	Lou	McLaren ✓		Y	MVP Health Care
Sean	Uiterwyk ✓	Mark	Nunlist		Y	White River Family Practice
Eileen	Underwood ✓				Y	AHS - VDH
	28		15			

# VHCIP HIE Work Group Participant List

Attendance:

5/20/2015

C	Chair
IC	Interim Chair
M	Member
MA	Member Alternate
A	Assistant
S	VHCIP Staff/Consultant
X	Interested Party

First Name	Last Name		Organization	HIE
Susan	Aranoff	<i>hvc</i>	AHS - DAIL	S/M
Joanne	Arey		White River Family Practice	A
Ena	Backus		GMCB	X
Susan	Barrett		GMCB	X
Anna	Bassford		GMCB	A
Joel	Benware		Northwestern Medical Center	M
Richard	Boes		DII	M
Jonathan	Bowley		Community Health Center of Burlington	M
Jon	Brown	<i>hvc</i>		X
Martha	Buck		Vermont Association of Hospital and Health Systems	A
Shelia	Burnham	<i>phone</i>	Vermont Health Care Association	M
Narath	Carlile			X
Peter	Cobb		VNAs of Vermont	M
Amy	Coonradt		AHS - DVHA	S
Alicia	Cooper		AHS - DVHA	S
Diane	Cummings		AHS - Central Office	S/MA



Becky-Jo	Cyr		AHS - Central Office - IFS	X
Mike	DeiTrecco		Vermont Association of Hospital and Health Systems	M
Jack	Donnelly		Community Health Center of Burlington	MA
Jennifer	Egelhof		AHS - DVHA	MA
Nick	Emlen		DA - Vermont Council of Developmental and Mental Health Serv	M
Gabe	Epstein	here	AHS - DAIL	S
Karl	Finison		OnPoint	X
Erin	Flynn		AHS - DVHA	S
Paul	Forlenza		Centerboard Consultingt, LLC	X
Leah	Fuller		OneCare Vermont	M
Michael	Gagnon	here	Vermont Information Technology Leaders	X
Daniel	Galdenzi		Blue Cross Blue Shield of Vermont	M
Joyce	Gallimore		Bi-State Primary Care/CHAC	M
Lucie	Garand		Downs Rachlin Martin PLLC	X
Christine	Geiler		GMCB	S
Al	Gobeille		GMCB	X
Stuart	Graves		WCMHS	X
Ken	Gingras	phone	Vermont Care Network	MA
Bryan	Hallett		GMCB	S
Paul	Harrington		Vermont Medical Society	M
Kathleen	Hentcy		AHS - DMH	M
Lucas	Herring	phone	AHS - DOC	M
Jay	Hughes		Medicity	X
Craig	Jones		AHS - DVHA - Blueprint	X
Pat	Jones		GMCB	S/MA
Joelle	Judge	here	UMASS	S
Kevin	Kelley		CHSLV	M
Sarah	Kinsler			S
Kaili	Kuiper	phone	VLA/Health Care Advocate Project	M
Kelly	Lange		Blue Cross Blue Shield of Vermont	MA
Charlie	Leadbetter		BerryDunn	X
Georgia	Maheras		AOA	S
Steven	Maier	here	AHS - DVHA	S/M
Nancy	Marinelli	here	AHS - DAIL	X

Mike	Maslack			X
James	Mauro		Blue Cross Blue Shield of Vermont	X
Lee	McKenna		OneCare Vermont	
Lou	McLaren	here	MVP Health Care	MA
Jessica	Mendizabal	here	AHS - DVHA	S
Todd	Moore		OneCare Vermont	X
Stacey	Murdock		GMCB	X
Arsi	Namdar	phone	Visiting Nurse Association of Chittenden and Grand Isle Counties	M
Mark	Nunlist		White River Family Practice	MA
Miki	Olszewski		AHS - DVHA - Blueprint	X
Brian	Otley	here	Green Mountain Power	C/M
Annie	Paumgarten	here	GMCB	S
Kate	Pierce		North Country Hospital	X
Luann	Poirer		AHS - DVHA	S
Darin	Prail	phone	AHS - Central Office	M
Amy	Putnam	phone	DA - Northwest Counseling and Support Services	M
David	Regan		BerryDunn	X
Paul	Reiss		Accountable Care Coalition of the Green Mountains	M
Greg	Robinson	phone	OneCare Vermont	MA
Sandy	Rousse		Central Vermont Home Health and Hospice	M
<del>Beth</del>	<del>Rowley</del>		AHS - DCF	X
Simone	Rueschemeyer	here	Vermont Care Network	C/M
Tawnya	Safer		OneCare Vermont	
Larry	Sandage	here	AHS - DVHA	S
<del>Ken</del>	<del>Schatz</del>		AHS - DCF	X
Julia	Shaw		VLA/Health Care Advocate Project	MA
Kate	Simmons		Bi-State Primary Care/CHAC	MA
Heather	Skeels	here	Bi-State Primary Care	M
Richard	Slusky		GMCB	S/M
Chris	Smith		MVP Health Care	M
Kara	Suter		AHS - DVHA	S
Richard	Terricciano			X
Julie	Tessler		DA - Vermont Council of Developmental and Mental Health Services	MA
Bob	Thorn		DA - Counseling Services of Addison County	X
Tela	Torrey		AHS - DAIL	MA

Matt	Tryhorne		Northern Tier Center for Health	X
Win	Turner			X
Sean	Uiterwyk	phone	White River Family Practice	M
Eileen	Underwood	here	AHS - VDH	M
Beth	Waldman		SOV Consultant - Bailit-Health Purchasing	S
Julie	Wasserman	here	AHS - Central Office	S
Richard	Wasserman, MD, MPH		University of Vermont - College of Medicine	X
David	Wennberg		New England Accountable Care Collaborative	X
Spenser	Wepler	here	GMCB	S
Kendall	West			X
Bob	West			X
James	Westrich		AHS - DVHA	S
Bradley	Wilhelm		AHS - DVHA	S
Cecelia	Wu		AHS - DVHA	S
Gary	Zigmann		Vermont Association of Hospital and Health Systems	X
				98

Mike Hall - here

Carolyn Stone - VITL - here

# Attachment 3a

## Telehealth Strategy Presentation

# VERMONT'S TELEHEALTH STRATEGY

Karen M Bell, MD, MMS

JBS International, Inc.

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# Today's Objective

1. Focused review of previous presentation and distributed document with emphasis on updates and changes
2. Your comments and feedback:
  - Definition of Telehealth
  - Principles and Elements of the Strategy
  - The Proposed Telehealth Strategy
  - Approach to the RFP process

# Approach

- Work collaboratively with multiple stakeholders – Steering Committee – to develop definitions and principles, and to inform the process
- Conduct state and national environmental scans – current technologies, programs, uses, evaluation metrics, barriers, and opportunities
- Identify opportunities to better meet the needs of the population in VT for telehealth services consistent with the goals of health reform
- Develop recommendations for pilot projects that could scale to benefit the entire state

# Telehealth Steering Committee

Judy Amour, Terry Rabinowitz MD	UVM Medical Center
Peter Cobb	Vermont VNA
Nancy Eldridge, Kim Fitzgerald	Cathedral Square/SASH
Amber Fulcher	DAIL
Stuart Graves MD	Physician
Danielle Louder/Andrew Solomon	NE Telehealth Resource Ctr
Sarah Kinsler	DVHA
Steven Meier	DVHA
Sandy McDowell	VITL
Melissa Miles	BiState Primary Care Association
Sarah Pletcher, MD	Dartmouth Center for Telehealth
Simone Reuschemeyer	Vermont Care Partners
Beth Tanzman	Blueprint for Health
Michael Wehner	UVM Medical Center Telehealth



# Definition

Telehealth is the HIPAA compliant use of health information exchanged from one site to another via electronic communications to improve a person's health and wellbeing.

Telehealth includes a growing variety of applications and services using two-way video, email, smart phones, wireless tools and other forms of telecommunications technology.

# Telehealth Technologies

- **Interactive Audio Visual** – Mature, key market “bridge” players for clinician to clinician consultation and patient to clinician in health care settings. Moving towards cloud based solutions.
- **Store and Forward** – Technology also mature, ideal for certain situations (derm, path, radiology, ophth) but not generally reimbursed.
- **E-visits** – Skype-like, downloadable, HIPAA compliant, cloud-based, secure applications to providing care virtually using multiple devices and licensing agreements. Multiple vendors now in market. Transmission can be wireless or broadband.
- **Remote monitoring** – Multiple technologies in use and becoming more mature. Note that standards exist for interoperability with EHRs but many manufacturers do not incorporate.
- **Secure messaging** – Embedded in Meaningful Use-compliant EHRs.
- **Wearables** – Immature market, consumers driving development and use of hundreds of unregulated products and services.

# Principles/Goals of the Strategy

- **Patient centered** – Care that is needed, when and where it is needed, to improve health, wellbeing, and outcomes of treatment.
- **Addresses access issues** – Areas with **limited clinical access** – geographic or service (wait times) and **personal access limitations** (i.e., disability, lack of transportation).
- Builds on and **aligns with existing programs** and efforts.
- **Aligns with health reform** programs and initiatives (e.g., the accountable care environment).
- Establishes a set of **consistent outcome measures** (across multiple programs) that include both short- and long-term options.
- **Uses data standards** that support secure and ready exchange of health information.

# Telehealth in VT: Overview

- No overarching planning body to coordinate programs
- Little program evaluation
- Significant investment in primarily stationary equipment – hospitals, federally-qualified health centers (FQHCs), Designated Mental Health Agencies, State (in Dept. of Education)
  - Primarily supports administrative efficiency and education
  - Limited patient use – primarily for behavioral health (specifically, telepsychiatry)
  - Used by a few skilled nursing facilities to communicate with ERs about possible transfers
  - Significant capacity for increased use
- Strong remote monitoring program through VTVNA
- A number of small pilots in progress
  - Telederm with AADerm free app (UVMMC)
  - Telecheck (Vermont Care Partners)
  - Remote monitoring for CHF Medicaid patients by
  - Remote monitoring in FQHCs
  - NNE Planned Parenthood e-visit (started May, 2015)

# National Survey Participants: Statewide Programs

- Arizona – Academic Medical Center (AMC)
- Colorado – state entity (SIM grant)
- Georgia – not-for-profit organization
- Southern Illinois – AMC
- Mississippi – AMC
- Missouri – AMC
- Nebraska – hospital system
- New Mexico – AMC
- Utah – non-AMC university

# National State Survey Overview

- Driven by access issues
- Consistent set of barriers
- Mostly AV interactive with patient or clinician-to-clinician
- Few/unique approaches to evaluation
- Diverse array of populations served
- Moving away from bridge equipment
- Expanding interest at each site – spurred by threshold phenomenon, policy changes, newer technologies, and national growth

# Common Barriers

- Clinician Engagement/Interest
- Lack of Reimbursement
- Licensure Across State Lines
- Broadband Access
- Implementation Resources

# Strategy Elements

- A comprehensive and inclusive definition of telehealth
- A set of guiding principles that characterize the goals of the strategy, particularly
- Support for Vermont's health reform efforts
- Strong emphasis on providing care in situations of personal limitations as well as geographic and service limitations
- Formation of a coordinating entity



# Strategy Elements

- Migration away from the stationary AV equipment that is becoming obsolete, to more flexible, HIPAA-compliant, cloud-based applications that can be easily downloaded to a cell phone, tablet, or desktop computer
- Approaches to updating Parity Law to achieve alignment among at least local payers with respect to reimbursement for telehealth services
- Availability of technical assistance as telehealth becomes part of physician/clinician workflow
- Consideration of how Vermont would join the Federation of State Medical Boards Compact and Nurse Licensure Compact if a decision is made to do so

# PROPOSED TELEHEALTH STRATEGY FOR VERMONT



# **I. Create an entity, either within state government or free standing, to act as a coordination body to support further expansion of telehealth services that promote patient-centered care.**

- A.** Develop timelines and measures of success for the Strategic Plan, based on available resources, expertise, and experience.
- B.** Engage stakeholders, coordinate implementation of, and monitor the Telehealth Strategic Plan.
- C.** Monitor the state and national telehealth environment.
- D.** Advocate, track, and promulgate policy changes.
- E.** Leverage purchase of products and services.
- F.** Create and monitor outcome measures that demonstrate value.
- G.** Coordinate telehealth-related activity in programs throughout the state.
- H.** Further prioritize areas where services can expand.
- I.** Maintain a website where all information related to telehealth in the State of Vermont is readily and easily accessible.

## II. Assure that state policies will support all aspects of telehealth that align with the goals of health reform and maintain a patient-centered approach to care

- A. Review and update policies related to the use of telehealth by physicians, nurses, pharmacists, and other health professionals both within and outside Vermont.
  - Analyze implications of Compacts
  - Promulgate guidelines
- B. Conduct a review and update the 2012 Act Relating to Telehealth to achieve a consistent reimbursement infrastructure across Medicaid and commercial payers upon completion of the VHCIP-supported telehealth pilots.
  - Educate providers re: current state laws re: telehealth
  - Generate and track outcome measures
  - Engage/inform lawmakers re: value of telehealth services

### **III. Ensure that telehealth technologies incorporate interoperability and security standards such that data and information can flow through Vermont's health information exchange either directly or through provider electronic medical record systems**

- A.** Certified equipment where eligible
- B.** HIPAA-compliant equipment with security standards
- C.** Conversion to cloud-based technology
- D.** Monitor broadband and wireless access
- E.** Analyze cost/benefit of subsidizing wire/less broadband plans for high risk patients

## **IV. Make resources available to engage clinician interest in the use of telehealth products and services, and to provide support for the effective and efficient implementation of those products and services**

- A.** Conduct pilot projects that include resources for clinician support
  
- B.** Conduct pilot projects that demonstrate cost savings associated with the use of telehealth so that either state or multi-payer funding will support training as well as care.

# PILOT PROJECTS



# Earlier Options – No Longer Specified

1. Expand use of current interactive AV network
2. Demonstrate value of a store and forward option, such as telederm
3. E-visits (using HIPAA-compliant software)
4. ECHO (Extension for Community Health Outcomes)
5. Use of remote monitoring for Medicaid patients for conditions more prevalent in that population than CHF



# Open to any VT-based organization

- **Project aligns with the statewide telehealth strategy**
- **Project aligns with the strategy's principles**
- **Project coordinates with other telehealth efforts in Vermont**
- **Organization has sufficient resources to design and manage the project**
- **Implementation and maintenance costs are clearly defined**
- **Technology costs are leveraged**
- **Recruitment of participants is well defined and supported**
- **Organization has a plan to measure outcomes**
- **Project is sustainable after conclusion of the pilot**
- **Project is scalable**

# The RFP Process

Short turnaround time.

- Release mid-July
- Due early August
- Tentative selection date September 1

RFP currently in development with response templates to expedite proposal development and evaluation

# Conclusion

- **Telehealth is the future** – investors, policy makers, providers, payers all coming on board
- **The future is now** – health reform demands improved access, care coordination, care integration, and patient engagement – success of which depends on telehealth technologies
- **Multiple issues need resolution in concert** – maturity of technology, cost of investment, reimbursement, licensure, workflow, access to broadband/wireless plans
- **Vermont's telehealth strategy and pilot projects** will form a strong foundation for meeting the needs of its citizens for more effective and efficient care

# Thank you for Comments

- Definition of telehealth
- Principles and Elements of the Strategy
- The Proposed Telehealth Strategy
- RFP Process

# Attachment 3b

Report to the HIE/HIT Work  
Group on a Statewide Telehealth  
Strategy and Pilot Projects

# A Report to the Vermont Health Care Innovation Project HIE/HIT Work Group on a Statewide Telehealth Strategy and Pilot Projects

## I. Background

On February 21, 2013, Vermont was notified that it was one of six states to be awarded first round State Innovation Model (SIM) testing grants to implement its statewide plan for health reform. The Centers for Medicare & Medicaid Innovation awarded \$45 million over three years to the State to support the Vermont Health Care Innovation Project in implementing three innovative payment models (accountable care organizations/shared savings programs, episodes of care, and pay-for-performance), with the goal of better quality care provided more efficiently.

The grant also supports several key investments in Vermont's health information system infrastructure, including:

- Improved data transmission and integration across providers
- Expanded measurement of consumer experience
- Improved capacity to measure and address provider workforce needs
- Improved data analytics and predictive modeling to support monitoring system costs and quality
- Enhanced telemedicine/health capabilities.

The budget for this effort included \$1,250,000 to develop a statewide telehealth strategy and fund one or more pilots to test the strategy. JBS International – a consulting company based in North Bethesda, Maryland, with a 30-year history of working with vulnerable populations, health information technologies, workforce development, and data/analytics at international, U.S. federal and state, and more local levels – was awarded the contract to support the development of the statewide telehealth strategy and the RFP process for the pilot projects.

## II. Strategy Development

Our approach to strategy development included a number of elements, most important of which was the convening of a multi-stakeholder Telehealth Steering Committee to guide the process and recommendations. Participants on this Committee are listed in *Appendix A*.

The Committee contributed to the other elements of the strategy development as well: a definition of telehealth for the state of Vermont, a set of principles to guide strategy development, a statewide survey of current telehealth initiatives in Vermont, and a national environmental scan of other statewide programs. Barriers to more extensive deployment of telehealth modalities were discussed along with

potential opportunities for mitigation. Lastly, the group formulated recommendations for the state strategy and recommendations for pilots that could test and further that strategy.

## **Definitions**

There is currently no unifying agreement on the definition of “telehealth.” The federal government has several definitions. There are different state definitions in those states that have legislated telehealth parity. The American Telehealth Association has a definition that is widely used as a basis that is customized to meet a specific organization or entity’s needs. For the purposes of Vermont’s telehealth strategy, the Vermont Telehealth Steering Committee recommends adoption of the following definition:

*Telehealth is the HIPAA compliant use of health information exchanged from one site to another via electronic communications to improve a person’s health and wellbeing. Telehealth includes a growing variety of applications and services using two-way video, email, smart phones, wireless tools and other forms of telecommunications technology.*

This definition looks to the future and is expansive to cover the burgeoning new approaches, products, and services that are proving effective with respect to improving access to care and services, integrating care among multiple types of providers, and engaging patients in their own health and care by working with them to meet their needs. Examples of the types of telehealth technologies that would be included in this definition include:

- Interactive Real-Time Audio-Visual – Mature, costly, and stationary equipment housed in various clinical facilities for clinician to clinician consulting, patient to remote clinician care, education, and administrative purposes. Major suppliers of this technology (Polycom, Cisco) are now moving away from this type of “bridge” equipment to cloud based systems that can be more easily updated and are more mobile.
- Store and Forward – Asynchronous communication technology that is also mature and ideal for certain visual consultations (dermatology, pathology, radiology, ophthalmology), though it is also being tested with templates to gather clinical information for other types of consultations, notably psychiatry. Available for use on cell phones through mobile application devices as well as computers and tablets.
- E-visits – Downloadable, HIPAA compliant, secure “Skype-like” approaches to providing care virtually from and to multiple devices. There are several mature companies (Vidyo, Zoom) with others transitioning (Polycom, Cisco), and many more with releases set within the coming year. Software is licensed, with cost advantages for large numbers of users (both originating and responding). Transition can be wireless or via broadband.
- Remote monitoring – Multiple peripheral technologies in use that collect data through devices that interact directly with a patient and transmit data wirelessly to the vendor’s monitoring site where it can be accessed by the appropriate care coordinator or clinician, though not all incorporate interoperability standards that would allow transmission of the date to electronic health records. Predominantly being used by Home Health and care coordination teams to monitor vitals and other physiological parameters, and to monitor adherence to use of certain medications. Also in use by substance abuse treatment centers to monitor recovery through breathalyzers that can regularly transmit data to a monitoring center.

- Secure messaging – A secure form of email that requires log on and password validation that is required as part of ONC Certified Health Information Technology for Meaningful Use.
- Wearables – A newly developing, consumer oriented, and unregulated device market that collects person/patient generated data for use by wearers and/or their clinicians to maintain optimal health. Data may also be shared through social networking sites.

### **Guiding Principles**

The recommended Telehealth Strategy adheres to the following guiding principles:

1. *Patient centeredness* is first and foremost – care and services are to be provided when and where they are needed by patients to improve health, wellbeing, and outcomes of treatment.
2. *Improved access to care* should address service, geographic, and personal limitations.
3. The strategy must *support and align with health reform programs and initiatives*.
4. The strategy should *align and support existing programs and efforts*.
5. *A consistent set of outcome measures* (both short- and long-term) should be established.
6. New and upgraded telehealth technologies must incorporate data standards that support *interoperable health information exchange*.

While not a guiding principle, care was taken to address the fact that illness and disease do not honor state boundaries and that the statewide strategy should also recognize that Vermonters seek care in New York, New Hampshire, and Massachusetts as well as in-state, and that residents of those states may seek regular care in Vermont.

### **Current State of Telehealth in Vermont**

All members of the Steering Committee as well as a number of other interested parties were interviewed, using a standardized questionnaire to assess the current telehealth network in the state. (*Appendix B*). *Table 1* outlines the results of that survey.

In summary, we found that significant investment has been made in stationary equipment that is housed in medical facilities – hospitals, emergency departments, Federally Qualified Health Centers, and Designated Mental Health Agencies (DAs) – and that it is used primarily for administrative or educational purposes. While there is also limited use of telehealth technology for patient care purposes (primarily telepsychiatry) there is a significant amount of equipment down time at all facilities.

There is also a strong remote monitoring program that is used by the Home Health Agencies that is funded by either Medicare as part of its Home Health bundled payment or by Medicaid as part of a small pilot to reimburse for use with Medicaid patients who have congestive heart failure (CHF), though the prevalence of this diagnosis is small in the overall Medicaid population in need of home-based services. The equipment used in that program is wireless and can monitor a number of physiological parameters.



Lastly, there are a number of unique small pilots that are being conducted independent of the larger programs<sup>1</sup>. One of these, a small teledermatology store and forward pilot project at UVMHC has addressed the problem of geographic and service access by using a free, downloadable application developed by the American Academy of Dermatology that can be used by primary care clinicians to send images to a dermatologist at UVMHC. The pilot has demonstrated a decrease in wait time from 6 months to as little as a week for guidance on how to manage a skin lesion and obviating the need for an in person visit in the Burlington area, where 13 out of the 19 dermatologists in the state practice. Planned Parenthood of Northern New England just started offering home-based e-visits in March, 2015. And a telemedcheck pilot program through Vermont Care Partners has been initiated in the Designated Mental Health Agencies (DAs). Lastly, a handful of small efforts have been set up by individual clinicians.

Most striking was the lack of coordinated effort among most of the programs, which represented a significant opportunity for a more cohesive approach in the future as growth occurs in the telehealth sector.

### ***National Environmental Scan***

In addition to our survey of telehealth programs in the state of Vermont we also interviewed nine states with statewide telehealth programs with respect to barriers and enablers as their programs developed (see Table 2.) While there are many telehealth programs, projects, and pilots being researched throughout the country, most are focused on specific providers, populations, or in limited geographic areas. The nine states interviewed represent those with statewide programs. We also spoke with the Southcentral Alaska Foundation<sup>2</sup> which has perhaps the most comprehensive telehealth program in the 50 states built on the work established by the Indian Health Service prior to the tribes negotiating autonomy in providing care to their members. The foundation uses all modalities of telehealth, including tele-prescribing via kiosks in remote areas, to assure that all needs of their diverse, scattered, and somewhat isolated population of patients. Given their payment and organizational structure, however, (Federal grant dollars and employed staff) and that of the Veteran's administration and Kaiser Permanente, which also have strong telehealth programs, we did not include them in our review.

One of the nine state programs that are included is coordinated within state government (Colorado). Five (Arizona, New Mexico, Mississippi, Illinois, Missouri) are coordinated by academic medical centers, one is a not for profit organization (Georgia), one a university that is not an academic medical center (Utah), and one is a hospital system-based (Nebraska).

While these programs serve different populations, have different types of connectivity platforms, and have unique (and minimal) measures of success, our scan revealed a number of commonalities among them all:

- Most were driven by access to care issues;
- All faced similar barriers to implementation (see below);

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<sup>1</sup> **Contact information:** Teledermatology pilot: [Julie.lin@uvmhealth.org](mailto:Julie.lin@uvmhealth.org); PPNNE pilot: [wendycampbell@ppnne.org](mailto:wendycampbell@ppnne.org); DA's telemedcheck: [simone@vermontcarepartners.org](mailto:simone@vermontcarepartners.org)

<sup>2</sup> See: <https://www.southcentralfoundation.com/>

- Most focused on interactive Audio Visual technology between clinicians or between a patient and a clinician, though all were moving away from stationary equipment and moving towards cloud based connectivity accessible from any site; and
- Each found that interest among providers was growing, spurred by satisfaction among early adopters, local policy changes, and expanding national interest in all types of mobile telehealth modalities.

Perhaps the most salient feature of these programs, however, is the role they play in coordinating telehealth efforts throughout their state. Such coordination could leverage advantages when purchasing products and services, consolidate and replicate successful training programs, supporting statewide policy changes, and create a menu of outcome measure that could demonstrate value to patients, clinicians, payers, and policy makers.

### ***Barriers to Use of Telehealth Services and Possible Mitigation Opportunities***

As noted above, all programs face similar barriers with respect to implementation and expansion, though none are strong enough to preclude development of strong statewide programs, as we've seen.

1. *Lack of reimbursement for time and expertise expended during telehealth encounters.* This is perhaps most significant for the Medicare population, for whom direct reimbursement is currently limited to areas designated as rural health professional shortage areas, specific facility-based originating sites where the patient must be situated, interactive Audio Visual telehealth (except for store and forward demonstrations in Hawaii and Alaska) and certain specified provider types. Remote monitoring is not covered, though Home Health agencies have discretionary power to use telehealth as part of their global payment for services to Medicare patients, and primary care clinicians can bill for a new care coordination code that could include remote monitoring.<sup>3</sup>

There is, however, hope on the horizon. When Congress passed the Medicare Access and CHIP Reauthorization Act of 2015,<sup>4</sup> it included a directive for the U.S. Government Accountability Office to study telehealth and make recommendations on expanded coverage at a later date. CMS is including the use of telehealth in its new accountable care organization (ACO) contracts. In addition, each state Medicaid program has the latitude to reimburse whatever telehealth services it deems appropriate, though the number of states that have exercised this option is somewhat limited to those whose states have passed telehealth parity acts directing Medicaid to cover specific services.

Commercial payers usually only reimburse for services that are required by state law as well, though recent interest in using direct-to-consumer telehealth consultations is gaining interest among the national payers who find this a less costly alternative than either paying for a doctor's visit or an Emergency Department encounter. There are, at the moment, over 130 bills working their way through the legislative process in various states, so the environment is very dynamic.

<sup>3</sup> Primary care practices participating in Vermont's Blueprint for Health are not eligible to receive payments under this care coordination code because they currently receive medical home payments from Medicare through the Blueprint's participation on the federal Multi-payer Advanced Primary Care Practice (MAPCP) demonstration.

<sup>4</sup> See: <https://www.congress.gov/bill/114th-congress/house-bill/2/text>.

Vermont's Parity law, An Act Relating to Telemedicine,<sup>5</sup> was passed in 2012 but it was limited to interactive audio visual encounters and facility based originating sites – similar to Medicare restrictions but without geographic limitations. Since then, almost no services have been billed to Vermont's largest commercial insurer, BlueCross BlueShield of Vermont, with the telehealth modifier. Medicaid's billings (mostly for telepsychiatry) are increasing, however, as interest grows. More important has been the passage of S139 in May 2015, which requires Medicaid to reimburse for e-visits in the residential setting.<sup>6</sup> There is still no coverage for store and forward technologies (though anyone using them must obtain patient consent) and Vermont's Medicaid program does not reimburse for remote monitoring outside of the small CHF pilot being conducted by the Home Health agencies, though this type of technology is at the heart of care coordination activities.

2. *Difficulty in engaging busy clinicians to consider use of telehealth within their practices.* This is primarily an education and experience issue. With consistent reimbursement, user-friendly applications that can be easily downloaded to any computer or tablet, and the right technical assistance with respect to incorporating telehealth into the workflows of the practice, physicians find that their care is more efficient and their patients' needs are met with greater satisfaction. In the face of competing priorities (e.g., ICD 10, Meaningful Use) greater efficiency becomes even more valuable. And, as noted above, early adopters who benefit from the advantages become champions for more extensive use among their colleagues.

Here in Vermont, these types of educational programs can be conducted in multiple ways using the expertise and information available through the New England Telehealth Resource Center and Grand Rounds presentations. And, as patient demand spreads for home-based visits and useable software becomes more available, even the more recalcitrant physicians are likely to engage.

3. *Insufficient access to broadband or wireless to support telehealth.* Access to broadband and wireless is a two pronged issue which includes provider and patient technological access and affordability on the part of the patient to that technology. The Vermont Telecommunications Authority has been tasked with overseeing the dispersion of broadband and wireless connectivity to all inhabited areas of the state. At present the broadband coverage is almost completed at a download speed of .768 mbps, which can lead to some lag for video use. A download speed of .512 would better support video use and is available in a number of more heavily populated parts of the state. Nevertheless, the coverage is sufficient to support the newer technologies available.

Wireless coverage is hampered by the mountainous terrain of the state and local aversion to cell towers. Of greater significance may be the costs associated with cell plan usage and the applications required for secure telehealth encounters. While this may be mitigated somewhat by bulk purchasing, cost to consumers will remain an issue in some parts of the state.

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<sup>5</sup> For full text, see:

<http://legislature.vermont.gov/assets/Documents/2012/Docs/ACTS/ACT107/ACT107%20As%20Enacted.pdf>.

<sup>6</sup> For full text, see:

<http://legislature.vermont.gov/assets/Documents/2016/Docs/ACTS/ACT054/ACT054%20As%20Enacted.pdf>.

4. *Clinician licensure in multiple states.* Current state laws prohibit providers from caring for a patient who lives in a state if the physician or other type of clinician is not licensed in that state. Obtaining multiple licenses to allow for practice across state lines can be a very time- and cost-intensive process. Recent steps by the Federation of State Medical Boards (FSMB) and the National Council of State Boards of Nursing Licensure (NCSBN) have provided a means to expedite the credentialing process by allowing one state Board that signs a FSMB or NCSBN Compact to share the verified credentialing information with another state board to ease cross-state licensing challenges.

At present, a limited number of states (most thinly populated and rural) have signed the FSMB Compact, with at least another dozen or so in consideration (including Vermont). The Nurse Licensure Compact (NLC) is active in 25 states and has been recently updated. Vermont is not actively considering the NLC, but New Hampshire, Massachusetts, and New York have either signed or are considering signature at this time. While the advantage to patients with significant access limitations to be able to receive consultative care from physicians all over the country clearly has its advantages, there is a risk of further fragmented care. A number of companies are now advertising direct-to-consumer telehealth outside of a patient's usual system of care. State or provider effort is needed to ensure that all care, including care accessed from direct-to-consumer companies, is coordinated.

5. *Implementation resources.* There are national guidelines for use of various telehealth services and multiple approaches to helping clinicians efficiently embed telehealth services into their workflow. While some early-adopting clinicians will enthusiastically embrace the concept of providing virtual care to their patients and do so on their own, most will require some technical assistance to implement and use the technology efficiently. Any program or plan to incorporate any telehealth modality in the care continuum must have access to and budget accordingly for this service.
6. *Technical limitations of the products and services that assure interoperability of the data and information and sufficiently secure transmissions for privacy protection.* Much has been done at the Federal level to develop and promulgate standards for interoperable exchange of data and to assure security of information and patient controlled consent of segmented data sharing. This work has been focused on Electronic Health Records and organizations that have been created to exchange health information among many partners. Virtually all telehealth related technologies have been out of the scope of this federal work unless they are embedded within the infrastructure of a clinician's EHR (e.g. secure messaging technology.) While there are organizations external to the public space that are engaged in developing interoperability and security standards for telehealth products and services, few vendors adopt them, thus limiting the ability of these products and services to exchange data with other relevant parties.

Addressing these barriers is foundational for the development of the ensuing Telehealth Strategic Plan. Also foundational are the following elements.

### **III. Recommendations for Strategy Elements**

As noted earlier, the Telehealth Steering Committee participated in or reviewed the development of a set of guiding principles, a survey of the current state of telehealth in Vermont, an environmental scan

that identified and interviewed nine statewide programs across the country, and synthesis of barriers to telehealth adoption and how to mitigate them. A number of Committee members also attended the American Telehealth Association's Annual Meeting this past May and contributed helpful intelligence on the exponential expansion in programs, projects, and research that is now progressing in the field, the exponential expansion of the products and services that are now available to support all forms of telehealth; and new policies that are encouraging even greater adoption of all types of services.

Based on its work and information gathering, the Vermont Telehealth Steering Committee defined a number of elements that characterize our proposed statewide telehealth strategy:

- A. A comprehensive and inclusive definition of telehealth;
- B. A set of guiding principles that characterize the goals of the strategy;
- C. Support for Vermont's health reform efforts;
- D. Strong emphasis on providing care in situations of geographic and personal limitations;
- E. The need for a coordinating entity or body that can monitor and update programs, leverage purchasing power, identify a set of outcome measures that the various programs can track, and advocate for policy changes as needed;
- F. Migration away from the stationary A-V equipment that is becoming obsolete to more flexible, HIPAA compliant, cloud based applications that can be easily downloaded to a cell phone, tablet, or desktop computer;
- G. Approaches to updating Parity Law to achieve alignment among at least local payers with respect to reimbursement for telehealth services;
- H. Availability of technical assistance as telehealth becomes part of physician/clinician workflow; and
- I. Consideration of how Vermont would join the FSMB Compact if a decision is made to do so.

These elements and the supporting landscape analysis are the foundation for a Telehealth Strategic Plan for the state of Vermont

#### **IV. A Telehealth Strategy for the State of Vermont**

The Vermont Telehealth Steering Committee is pleased to present the following Strategic Plan goals, along with their key strategies:

- 1. Create an entity, either within state government or free standing, to act as a coordination body to support further expansion of telehealth services that promote patient-centered care.**
  - A. Develop timelines and measures of success for the Strategic Plan, based on available resources, expertise, and experience.
  - B. Engage stakeholders, coordinate implementation of, and monitor the Telehealth Strategic Plan.
  - C. Monitor the state and national telehealth environment.
  - D. Advocate, track, and promulgate policy changes.

- E. Leverage purchase of products and services.
- F. Create and monitor outcome measures that demonstrate value.
- G. Coordinate telehealth-related activity in programs throughout the state.
- H. Further prioritize areas where services can expand.
- I. Maintain a website where all information related to telehealth in the State of Vermont is readily and easily accessible.

**2. Assure that state policies will support all aspects of telehealth that align with the goals of health reform and maintain a patient-centered approach to care.**

- A. Review and update policies related to the use of telehealth by physicians, nurses, pharmacists, and other health professionals both within and outside Vermont.
  - 1. Conduct an analysis of the implications of signing the FSMB Compact and NLC, taking into account not only the increased access to care that this may afford to Vermonters, but also the risk of more fragmented care and how that risk can be mitigated. The analyses will need to be conducted by the State's Physician and Nursing Licensing Boards prior to a decision to adopt the Compacts.
  - 2. Promulgate national guidelines on the appropriate use of telehealth services by physicians, nurses, and pharmacists that are reviewed, updated, and made available on an annual basis by these three boards to their licensees.
- B. Conduct a review and update the 2012 Act Relating to Telehealth to achieve a consistent reimbursement infrastructure across Medicaid and commercial payers upon completion of the VHCIP-supported telehealth pilots.
  - 1. Educate providers practicing telehealth under both Vermont's 2012 telehealth parity law and the 2015 state law requiring Medicaid coverage for e-visits in residential settings about:
    - Appropriate use of these services; and
    - Billing for these services using the appropriate modifier so that usage and outcomes can be tracked.
  - 2. Generate, track, and report outcome measures from the VHCIP-funded telehealth pilot projects to be implemented in 2016 to inform policymakers.
  - 3. Engage and educate lawmakers regarding the rationale for expansion of the reimbursement for telehealth services.

**3. Ensure that telehealth technologies incorporate interoperability and security standards such that data and information can flow through Vermont's health information exchange either directly or through provider electronic medical record systems.**

- A. Assure that all certification-eligible equipment purchased in support of VHCIP-supported telehealth pilot projects is certified (Continua).

- B. Assure that telehealth products and services are HIPAA-compliant and include appropriate security standards.
  - C. Support conversion of all existing stationary equipment to cloud-based technology that can be more easily updated and usable on desktop computers, laptops, tablets, and mobile devices.
  - D. Monitor broadband and wireless access and use for health care purposes throughout the state, upgrading to .512 mbps in areas where clinicians and patients require more reliable connection for real time audio/visual transactions.
  - E. Analyze the cost/benefit of subsidizing wireless/broadband plans for high-risk patients with either geographic, service, or personally limited access to care outside of their home environment.
- 4. Make resources available to engage clinician interest in the use of telehealth products and services, and to provide support for the effective and efficient implementation of those products and services.**
- A. Conduct pilot projects that include resources for clinician engagement and training.
  - B. Conduct pilot projects that demonstrate cost savings associated with the use of telehealth so that either state or multi-payer funding will support training as well as care.

## **v. Development of Pilot Projects to Test the Strategy**

The Vermont Telehealth Steering Committee spent a considerable amount of time discussing how the pilot projects might be defined and implemented.

The benefits of five types of pilots were explored in detail. These included pilots focused on:

- A. Increased use of the current interactive AV system to minimize unused capacity;
- B. A store and forward dermatology pilot using free downloadable apps;
- C. A pilot to test the efficacy and efficiency of e-visits in specified populations;
- D. Implementation of a case-based tele-education program that would support primary care clinicians caring for patients with complex diseases (e.g., Hepatitis C) or those with difficult to manage presentations (e.g., chronic pain syndromes, irritable bowel syndrome); and
- E. Extension of Medicaid's remote monitoring pilot for Home Health care of CHF to other disease presentations (e.g., Chronic Obstructive Pulmonary Disease).

The ultimate decision was made to *not* focus on specific types of pilots, but to open the RFP process to any Vermont based organization (vendors excluded) that could:

- Describe how the project would align with the statewide telehealth strategy;
- Describe how the project would align with the strategy's principles;
- Describe how the project would coordinate with other telehealth efforts in Vermont;
- Demonstrate sufficient resources to design and manage the project;

- Clearly define implementation and maintenance costs;
- Leverage technology costs;
- Recruit participants;
- Gather data for measurable outcomes;
- Be sustainable after conclusion of the pilot; and
- Be scalable

A Request for Proposal (RFP) is in development where the required information can be entered into a series of templates to facilitate both the response to the RFP and the evaluation of the project proposals. The timeline for this process includes release of the RFP after presentation to the VHCIP Steering Committee and Core Team in July, with proposals due in early August and awards made September 1, 2015.

## **VI. Conclusion**

Telehealth, with all of its modalities, clearly is the future with investors, policy makers, providers, and even payers all recognizing its potential to support the Triple Aim. Telehealth is also the present, given the efforts of many states to participate in health reform through new payment and delivery system structures, advanced care coordination models, better integration of care across different types of providers, and motivated patient engagement.

Implementation of a thoughtful statewide telehealth strategy implies addressing multiple issues in concert. Vermont is unique in its foresight to address these issues through the development of its telehealth strategy and funding of pilot projects that will test that strategy.



**Appendix A:  
Telehealth Steering Committee Membership**

Judy Amour	University of Vermont Medical Center Telehealth
Terry Rabinowitz, MD	University of Vermont Medical Center and University of VT
Peter Cobb	Vermont Visiting Nurses Association
Nancy Eldridge	Cathedral Square/SASH Program
Kim Fitzgerald	Cathedral Square/SASH Program
Amber Fulcher	VT Department of Disabilities, Aging, and Independent Living
Stuart Graves, MD	Physician user of telehealth services
Danielle Louder	NE Telehealth Resource Center
Andrew Solomon	NE Telehealth Resource Center
Sarah Kinsler	Department of Vermont Health Access
Steven Meier	Department of Vermont Health Access
Sandy McDowell	Vermont Information Technology Leaders
Melissa Miles	BiState Primary Care Association
Sarah Pletcher, MD	Dartmouth-Hitchcock Center for Telehealth
Simone Reuschmeyer	Vermont Care Partners
Beth Tanzman	Blueprint for Health
Michael Wehner	University of Vermont Medical Center Telehealth

**Appendix B:  
Respondents to Vermont Survey of Current Telehealth Programs**

Judy Amour	University of Vermont Medical Center (UVMMC) Telehealth
Terry Rabinowitz, MD	University of Vermont Medical Center and University of VT
Peter Cobb	Vermont Visiting Nurses Association
Nancy Eldridge	Cathedral Square/SASH Program
Kim Fitzgerald	Cathedral Square/SASH Program
Amber Fulcher	VT Department of Disabilities, Aging, and Independent Living
Stuart Graves, MD	Physician user of telehealth services
Danielle Louder	NE Telehealth Resource Center
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Sarah Kinsler	Department of Vermont Health Access
Steven Meier	Department of Vermont Health Access
Sandy McDowell	Vermont Information Technology Leaders
Melissa Miles	BiState Primary Care Association
Sarah Pletcher, MD	Dartmouth-Hitchcock Center for Telehealth
Simone Reuschmeyer	Vermont Care Partners
Beth Tanzman	Blueprint for Health
Michael Wehner	University of Vermont Medical Center Telehealth
David Wennberg, MD	The Dartmouth Institute
Julie Lin, MD	University of Vermont Medical Center
Norman Ward, MD	OneCare Vermont
Robert Wheeler, MD	Blue Cross Blue Shield of Vermont
Dana Bianchi	Vermont Department of Education
Barbara Winters	Brain Injury Association of Vermont
Wendy Campbell	Planned Parenthood of Northern New England

**Table 1:  
Telehealth in Vermont: May 2015**

Type	Organization or Program	Partners in Use	Technology	Uses	Use vs capacity	Barriers to expanded use	Contact
<b>Interactive Audio-visual</b>  Reimbursed by commercial and Medicaid payers through 2012 Parity Law	UVM MC	Those within system on same EHR  If not on same EHR, available in community hospital EDs	Polycom Prism	With Patient -Psych -Genetic Counseling -Maternal/fetal Monitoring -Neurology -Pedi Urgent Care  Consensus conference -Pathology -Pedi Urology -ICU  Education (Grand rounds)  Administration	50%         Limited participation	Bandwidth in rural areas  Workflow challenges in clinical setting  Reimbursement  Lack of public awareness	Judy.Amour@uvmhealth.org  Michael.Wechner@uvmhealth.org
	Dartmouth Hitchcock Telemedicine Center	Vermont Medical Centers: -Southwestrn -Deerfield Val -Northshire  50 providers total -- NH hospitals	Polycom	24/7 hour consultations and e-visits available for myriad of specialties and problems		\$11M in grants and sustained by Vermont Parity and Medicaid reimbursements Pre and post surgical visits in bundled episode	Sarah.N.Pletcher@hitchcock.org

Type	Organization or Program	Partners in Use	Technology	Uses	Use vs capacity	Barriers to expanded use	Contact
		All FQHCs and their clinicians	Polycom	Telepsych with UVM, other FQHCs, Community Health Centers, and NHs Dietician consults  Continuing Medical Education		Need source of sustainable revenue (grant funded)	
Interactive AV (cont'd)	Designated Authorities (community based care centers for BH and developmental disability care and support)	Clinicians within the Vermont Care Network  UVM	Polycom Tandberg (purchased by Cisco in 2010)	Administration Distance learning Training  Some telepsych with UVM  Piloting a telecheck (medcheck) program		Bandwidth (need 1280, rural areas may carry only 720)  Integration into clinician workflow	Simone Reuschmeyer  Simone@Vermontcarepartners.org
	Federally Qualified Health Centers	Nursing Homes  Dietician services	Polycom	NH encounters  Encounters  Administration and education			mmiles@bistatepca.org
	State of Vermont		Cisco bridge equipment currently not in use	Purchased for DAIL in collaboration with Dept of Ed and other agencies		Could be reactivated but would require funding for both updating and ongoing maintenance	Dana.bianchi@state.vt.us

Type	Organization or Program	Partners in Use	Technology	Uses	Use vs capacity	Barriers to expanded use	Contact
<p><b>Store and Forward</b></p> <p>Reimbursement not required by statute. If used, patient consent must be obtained</p>	UVM Health	Primary Care MDs -- pilot project	<p>Access Derm mobile application (<a href="https://accessderm.aad.org">https://accessderm.aad.org</a>) sponsored by AAD (American Academy of Dermatology)</p> <p>HIPAA compliant</p>	<p>View skin rashes/ lesions and clinical history -- make treatment recommendations to primary care clinicians</p> <p>Coordinates care and facilitates faster in person clinic appts in dermatology (6 months vs 1 week)</p>	19 derms; 13 in or within 10 miles of Burlington with very long wait times (6 months)	<p>Lack of funding to use more extensively</p> <p>Not reimbursed</p> <p>New mobile phone app with more clinical input about to be rolled out.</p> <p>Other software available</p>	Julie.Lin@uvmhealth.org
<p><b>Remote monitoring</b></p> <p>Initiated and overseen by delivery system</p> <p>Limited coverage in Medicare's bundled home health care payment</p> <p>-Medicaid pilot for CHF patients</p> <p>-bundled care coordination payment to PCP</p>	Certified Home Health Agencies	<p>Physicians</p> <p>Cathedral Health Facilities (SASH program participants)</p>	<p>Honeywell Cardicom Phillips</p>	<p>Telemonitoring available statewide</p> <p>CHF pilot funded by Medicaid</p>	<p>Most agencies purchased original equipment with grants</p> <p>Significant capacity for growth pending payment adjustment</p>	<p>Most agencies do not have connectivity with other clinical data (no HIE connection)</p> <p>Limited number of Medicaid only patients (mostly dual eligible, given the age ranges of Medicaid and Medicare beneficiaries)</p> <p>Reimbursement does not cover costs</p>	Peter Cobb vnavt@comcast.net

Type	Organization or Program	Partners in Use	Technology	Uses	Use vs capacity	Barriers to expanded use	Contact
	Federally Qualified Health Centers	Collaborations with VTVNA and Central VT Home Health and Hospice		Daily monitoring of high risk Medicare patients with COPD, CHF, and Diabetes  Telemed Followups			Mmiles@bistatepca.org
	Designated Mental Health Authorities			Telemedcheck follow ups as noted above.			Simone@vermontcarepartners.org
<b>Outpatient e-Visits</b>  Patient needs for direct care are met at home, school, work, or on travel	Planned Parenthood Northern New England  Pilot in 4 centers commenced in May 2015	Currently in Barre Williston Newport St. Johnsbury  8 more to come	VC	Patient Care  Includes a small patient satisfaction survey	Just starting -- ability to increase capacity significantly	Grant funded	Wendy.campbell@ppnne.org
	Selected individual clinicians	Patients	Mobile devices or wireless technologies (i.e. Skype like programs)	Patient care -follow up -new problem, established patient -referral from another provider		Reimbursable by Medicaid if between primary care and patients' residence as of passage of S 139 (5/23/15)  HIPAA compliant software available with licensure; Skype not HIPAA compliant  Assurance of adherence to care guidelines	

Type	Organization or Program	Partners in Use	Technology	Uses	Use vs capacity	Barriers to expanded use	Contact
<b>Wearables</b>  Personal (and personally purchased) devices that monitor physiological parameters/activities and can serve to alert both patients and clinicians	Individual Vermonters					Do not usually incorporate interoperability standards  Frequently produce a surfeit of data  Rapidly developing, immature market	
<b>Social Networking</b>	Individual Vermonters		Multiple approaches and websites; includes gamification	Capitalizes on individual needs to share/compare progress in maintaining/improving health/healthy activities	Burgeoning market with no oversight at the moment	Research and pilots in how to use to improve public health messaging still lacking	

**Table 2:  
Environmental Scan of Statewide Telehealth Programs**

Organization/ Program/Contact	Program Model	Financing	Population Served	Interstate Medical Licensure Compact	Technology Used	Uses for Technology	Outcome/ Performance Metrics	Barriers/ Challenges to use	Policy Issues
<a href="#">Arizona Telemedicine Program</a>  Dr. Ronald Weinstein <a href="mailto:rweinstein@telemedicine.arizona.edu">rweinstein@telemedicine.arizona.edu</a>	Membership-based	Federal and other grants; Membership fees	Rural, Geographically underserved	No	T1, T3, VPN, Wireless, Other	Telemedicine, Telepathology, Tele-diabetes, TeleTrauma; Tele-Home Health Education; Store-and-forward, real-time	160 sites connected	Competition with larger healthcare systems and evolving level of competition in the healthcare marketplace.	Reimbursement restricted to geography; Restrictive parity legislation
<a href="#">Colorado Telehealth Network</a>  Ryan Westberry <a href="mailto:ryan.westberry@coloradohealth.net">ryan.westberry@coloradohealth.net</a>	Hub-and-spoke	SIM grant	Rural and Underserved regions	No	Broadband; Vidyo; Cloud-based telebehavioral health platform	Telehealth; Statewide image exchange service; Telecom programs	Primarily used between hospitals and affiliates; Broadband connectivity to 200 behavioral and physical health care sites	Geographical limitations in the use of technology; Silos for telehealth information	No Medicaid reimbursement; Geographical and clinical setting reimbursement restrictions



Organization/ Program/Contact	Program Model	Financing	Population Served	Interstate Medical Licensure Compact	Technology Used	Uses for Technology	Outcome/ Performance Metrics	Barriers/ Challenges to use	Policy Issues
<a href="#">Georgia Partnership for TeleHealth</a>  Paula Guy <a href="mailto:Paula.guy@gatelehalth.org">Paula.guy@gatelehalth.org</a>	Subscription-based	Grants; Donations (nonprofit)	Rural and Medically underserved areas	No	T1; Broadband; 4G; Cloud	Telemedicine; Education; Advocacy; Consultative Services; Trauma; HIE	Over 800 connection points across 16 states and 8 countries; cost savings of 60% for high risk individuals	Home-based care is not reimbursable; Limitations to cross-state private telehealth companies	Reimbursement limited to designated settings; Medicaid, Medicare, and private payers reimburse
<a href="#">Southern Illinois University Telehealth and Clinical Outreach</a>  Dr. Nina Antonitti <a href="mailto:nantoniotti79@sium.edu">nantoniotti79@sium.edu</a>		Universal Services Funding; Illinois Legislature; federal grant subcontract through Illinois Department of Human Services	Rural	Introduced in Feb 2015	Broadband; 3G; 4G	Education; Training; Telehealth – Clinical care; Telepsychiatry; Outreach	Educational programs connect with 30 sites from 4 other states	Medicaid reimbursement	Medicare reimbursement challenging; Medicare Advantage plans offer reimbursement; Uneven parity

Organization/ Program/Contact	Program Model	Financing	Population Served	Interstate Medical Licensure Compact	Technology Used	Uses for Technology	Outcome/ Performance Metrics	Barriers/ Challenges to use	Policy Issues
<a href="#">University of Mississippi- Center for Telehealth</a>  Dr. Kristi Henderson <a href="mailto:khenderson@umc.edu">khenderson@umc.edu</a>		Self-sustaining; Grants; State funds for new initiatives; Corporate sponsorship	Rural; Underserved areas	No	T1; Broadband	Telemedicine; Tele-diabetes; Remote patient monitoring; tablets; Emergency medicine; Adult and children's services; Education; Distance learning; Video consults; mobile telemedicine carts	166 Contracts; 100 clinical sites; Over 30 specialties	Medicaid reimbursement	Reimbursement from self-insured policies; Any provider can be reimbursed; Medicaid Reimbursement a challenge; Rate parity among private payers
<a href="#">Missouri Telehealth Network</a>  Rachel Mutrux <a href="mailto:mutrux@health.missouri.edu">mutrux@health.missouri.edu</a>	Open architecture to connect providers instead of an integrate statewide network	Federal, State, Institutional grants; Telephone companies	Underserved	No	T1; Broadband Polycom; Web-based connections	Telehealth; Training; Education; Technology Support; Research	Over 202 sites in 62 counties	Limits on interoperability; Adoption; HIE is not readily used; Limit on reimbursement for certain services	No uniform payment; Legislative telehealth bills are being considered; Medicaid reimburses for some services; 100% mandated coverage unavailable; Commercial insurers mandated to pay for telehealth

Organization/ Program/Contact	Program Model	Financing	Population Served	Interstate Medical Licensure Compact	Technology Used	Uses for Technology	Outcome/ Performance Metrics	Barriers/ Challenges to use	Policy Issues
<a href="#">Nebraska Statewide Telehealth Network</a>  Dale Gibbs <a href="mailto:DaleGibbs@catholichealth.net">DaleGibbs@catholichealth.net</a>	Hub-and-spoke	T1 lines subsidized by Universal Service Administrative Company (USAC); membership fee	No target population	Introduced Jan 2015	T1	Telehealth; Education; Support; Consultations; Training; Readiness of state for preparedness in the event of attacks and disasters	Over 110 sites	Adoption; Difficult to enforce policy change as non-legal entity; Competition; HIE is not well connected	Medicaid and all payers have parity for telehealth and in-person rates
<a href="#">University of New Mexico: Project ECHO</a>  Dr. Sanjeev Arora <a href="mailto:SArora@salud.unm.edu">SArora@salud.unm.edu</a> Erika Harding <a href="mailto:EHarding@salud.unm.edu">EHarding@salud.unm.edu</a>	Hub-and-spoke	Federal and Private grants	Underserved	No	Broadband; Jabber	Education; Training; Inter-professional relationships; Care management		Maintaining with fee-for-service models	
<a href="#">Utah Telehealth Network</a>  Deb LaMarche <a href="mailto:deb.lamarche@utn.org">deb.lamarche@utn.org</a>		Federal and State; USAC; Member fees	Rural	Yes	T1; Ethernet-based services	Telehealth; Education; Support; Network services; ECHO		Lack of engagement due to costs for connecting to the network; Reimbursement restrictions; Interoperability	Reimbursement policies improvements are being driven by the advisory council

Attachment 4  
LTSS Health Data  
Infrastructure Report

# LTSS Information Technology Assessment

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## Findings and Recommendations

Presented by  
Beth Waldman, Senior Consultant

# Presentation Topics

- Project Focus
- IT Capacity Across LTSS Providers
- Ongoing Related Activities
- Opportunities
- Next Steps

# Project Focus

- HIS conducted this study for the State
- Purpose of project was to:
  - Update 2012 LTSS Information Technology Assessment;  
and
  - Review IT capacity at additional LTSS providers
    - Level of electronic collection and/or transfer of information

# Types of LTSS Providers Interviewed

- HIS conducted over 100 interviews including:
  - Vermont Area Agencies on Aging (5)
  - Adult Day Providers (12),
  - Designated Agencies & Specialized Services Agencies(16),
  - Home Health Care Agencies (10),
  - Traumatic Brain Injury Providers (2),
  - Long Term Residential Care Providers (54), and
    - Long Term Residential Care Homes,
    - Nursing Homes,
    - Assisted Living Residences
  - Vermont Center for Independent Living.



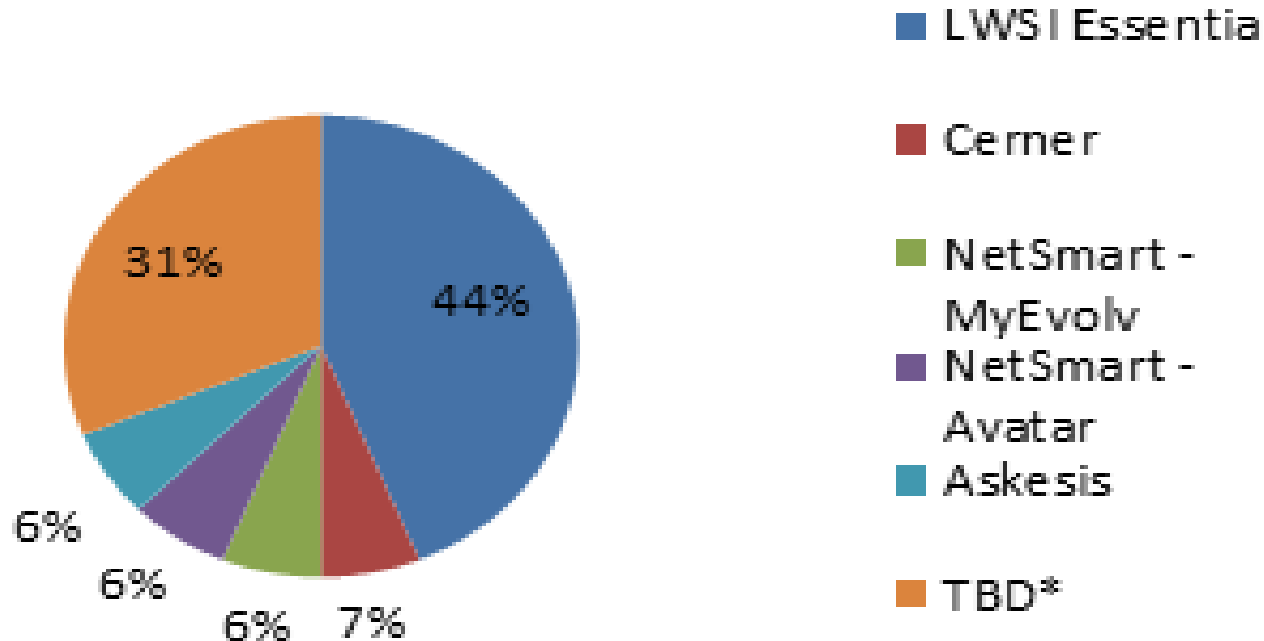
# REPORT ON LTSS CAPACITY

# Overview of Findings

Provider	IT Capacity
Designated Agencies and Specialized Services Agencies	Some capacity; working on joint procurement of EHR
Home Health Agencies	Many agencies have capacity
Long Term Residential Care Settings	Many have some electronic capacity – either full EHR or for Resident Management
Adult Day Centers	No EHR; heavy reliance on paper
Area Agencies on Aging	Use SAMS (CM and financial management)
Vermont Center of Independent Living	CIL Management Suite (case notes)
Support and Services at Home (SASH)	DocSite Clinical Registry
TBI Providers	No EHR; heavy reliance on paper

# Designated Agencies and Specialized Services Agencies(1 of 2)

**Designated and Specialised Service Agencies  
by Core System  
(n=16)**



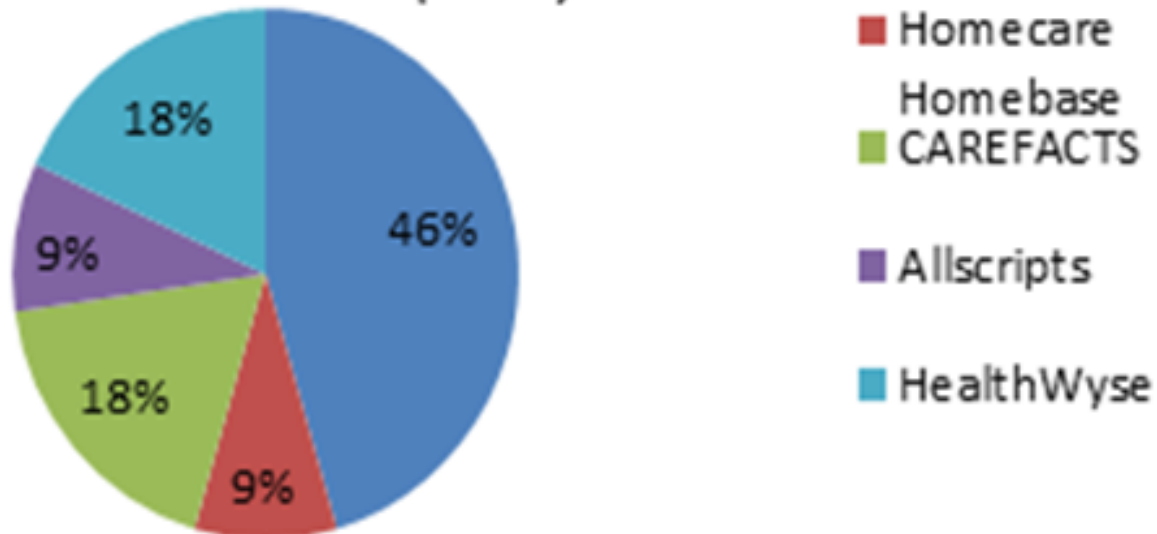
# Designated Agencies and Specialized Services Agencies(2 of 2)

- All DAs have EHRs – working to expand to all programs.
  - Certified under 2011 and 2014 ONC Rules.
  - Significant work over last several years to improve functionality.
  - Two ongoing pilot projects on integrating data between DAs and primary care providers.

# Home Health Agencies (1 of 2)

## Home Health Agencies by Core IT System

**System**  
(n=11)

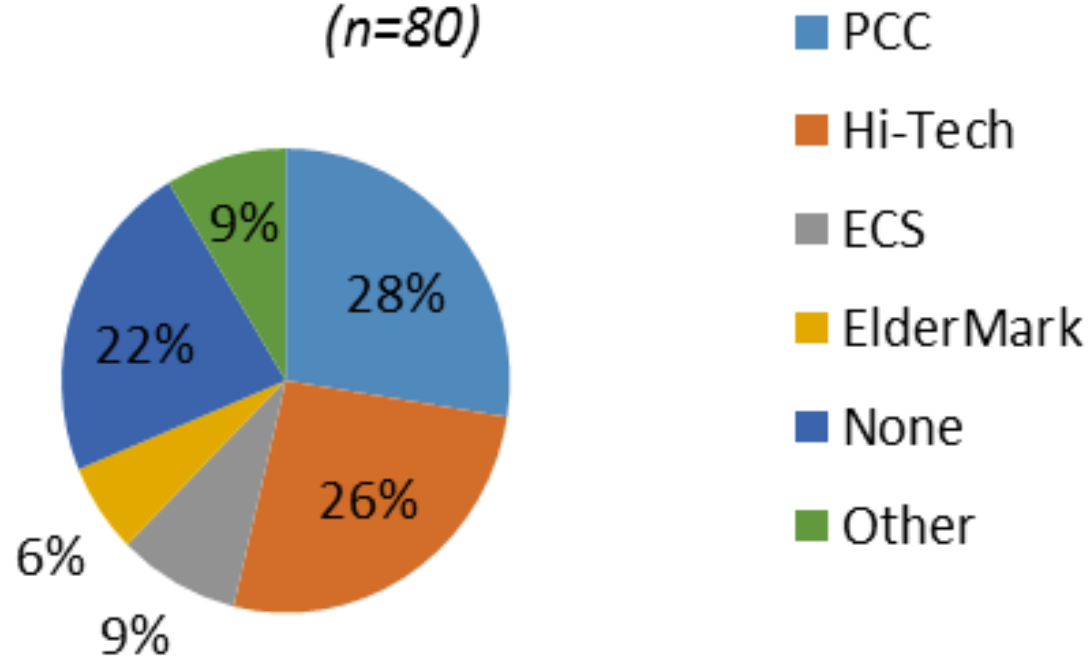


# Home Health Agencies (2 of 2)

- Significant progress since 2012 report.
- Low user satisfaction with current EHRs.
- Some HHAs use VITLAccess with additional interfaces being planned.
- Continue to have difficulty with accessing information from referral sources and obtaining sufficient physician authorization.

# Long Term Care Residential Facilities (1 of 2)

**Long Term Residential Care Settings by Core IT System**  
(n=80)



# Long Term Residential Care Facilities (2 of 2)

- Hi-Tech is being purchased by Wescom/PointClickCare.
  - Not being supported as of September 30, 2015.
  - Facilities using this need new solution.



# Adult Day Centers

- Varying levels of technology depending on the size of their organization.
  - The larger agencies maintain participant, caregiver, volunteer, and donor computer records using standard tools like MS Access, Word and Excel.
  - Intake and assessment data is recorded on paper forms. Daily medical recordkeeping is performed using pre-printed forms for handwritten recording of vital signs, medication use and provider notes.
- No use of EHRs to store data in structured formats.
- No mechanism for information to be shared or exchanged electronically with others involved in the participant's care.

# Areas Agencies on Aging

- Use the Harmony “Social Assistance Management System” (SAMS) system.
  - Primary case management and financial management database.
  - Also used to complete documentation required by Waiver programs and the Federal Older Americans Act.
  - Working to develop an electronic version of the Independent Living Assessment (ILA) form in SAMS.
  - SAMS licenses held by DAIL; and DAIL currently responsible for upkeep.
- Use a legacy reporting database(originally developed by the Champlain Valley AAA) to record client notes.

# Vermont Center of Independent Living

- Uses the CIL Management Suite software from Q90 Corporation.
  - Tracks clients and services, including case notes and tracking progress towards goals.
  - Generates the federal 704 performance reporting required for recipients of Independent Living Center funding, including the independent living center (ILC) survey.
  - Web based solution -- does not interface to any other systems.

# Support and Services at Home (SASH)

- Use a clinical registry (DocSite):
  - To perform assessments,;
  - Enter and monitor health information (medications, allergies; health team members);
  - Develop care plans; and
  - Make referrals.
- Not able to communicate electronically with other providers.
- DocSite system is also used by the Blueprint for Health (as a chronic care registry), and by Community Health Teams (to develop individualized health maintenance plans for patients seen in primary care settings.)

# TBI Providers

- Documenting on paper forms.
- No use of EHR to store data in structured formats.
- No mechanism for information to be shared or exchanged electronically with others involved in the resident's care.

Quick Overview of Existing Projects

# ONGOING RELATED ACTIVITIES

# Acquisition and Implementation of a Medicaid Case Management System

- Functionality to support all AHS programs that provide care management services to Medicaid beneficiaries, including external partners.
- The Vermont Chronic Care Initiative will begin using the new system in 2015, with roll out to additional programs beginning in 2016.
- Additional planning and analysis is underway to determine the exact roll out approach, including potential replacement of existing systems (like SAMS, described below) used by LTSS providers for care management.

# Vermont Care Networks (VCN) Data Quality and Data Repository Project

- Focused on collection, aggregating, and reporting of consistent, reliable and structured mental health data.
- Planned completion in 2016.



# Migration of the Blueprint Clinical Registry System (DocSite)

- Migrating DocSite to VITL's infrastructure.
- SASH and other care teams will have the ability to access these services post-migration.

# 42 CFR Part 2 Compliant HIE

- Collaboration between DVHA and VITL.
- Looking for solution to allow health information protected by SAMHSA's 42 CFR Part 2 regulation to be transmitted and accessed with appropriate consent.

# Shared Care Plans/Universal Transfer Protocol (SCÜP)

- First phase of project was completed in February.
- As next step, investigating the ability of diverse service providers to share information with each other electronically in a timely, standardized fashion across the continuum of care, using a common data set.

# VITL Activity

- **VITLAccess:** assembles patient information received from health care organizations across Vermont and compiles the patient information into a single secure provider portal.
- **VITLDirect:** secure messaging service provided by VITL that can securely transmit a summary of care record for a single patient between providers. This function can be incorporated into any EHR that supports secure messaging.
- **VITLNotify:** a communication system being tested by VITL to proactively notify appropriate providers of a patient's clinical encounters.

# Recommendations to the HIE/HIT Work Group (1 of 2)

- Work with Long Term Residential Care Homes to assist in selecting and contracting with new vendor through provision of TA in product review, developing cost analysis and developing implementation plan.
- Evaluate Adult Day Centers information-sharing technology and include as part of interoperability roadmap.
- Provide AAAs with proposal for hiring a dedicated resource to support use of SAMS.
- Continue to pursue a 42 CFR Part 2 compliant solution to enable information sharing for substance use.

# Recommendations to the HIT/HIE Work Group(2 of 2)

- Continue to support provider interfaces with VHIE.
  - Demographic and clinical interfaces for HHAs,
  - Lab interfaces for BH Providers and Long Term Residential Care Facilities, and
  - Immunization registries.
- Continue to pursue the Shared Care Plan/Universal Protocol project.
- Encourage expansion of use of SAMS in read-only mode for LTSS providers to view patient information (assessment, care plans, notes and schedules).
- Explore use of BridgeGate MDS to CCD transformation services.

# Next Steps

- Report currently being finalized.
- HIT/HIE Work Group to consider potential for supporting some projects based on this assessment.