VT Health Care Innovation Project
HIE Work Group Meeting Minutes

Date of meeting: ***Wednesday Nov 20, 2013 9am-10:30 @ AHS Training Rm, 208 Hurricane Lane, Williston, VT***

Attendees: Brian Otley; Simone Rueschmeyer; Alicia Cooper; Anna Reeves; Steven Maier; Brendan Hoga; Jennifer Egelhof; Mike Del Trecco; Nick Emlen; Leah Fullem; Michael Gagnon; Pat Jones; Marybeth McCaffrey; Todd Moore; Jennifer Moran; Arsi Namdar; Chuck Podesta; Amy Putnam; Larry Sandage; Heather Skeels; Bob Thorn; Eileen Underwood; Spenser Weppler; Stephen West-Fisher; Georgia Maheras; Nelson LaMothe; George Sales. Telephone: Sean Yiterwyk; Stacey Murdoch; Jay Hughes; James Mauro; Sheila Burnham.

Agenda Item	Discussion	Next Steps
1 Welcome and Introductions	Brian Otley and Simone Rueschemeyer opened the meeting with a welcome and introductions around the room.	
2 Presentation about SAFTINet	Heather Skeels provided a brief overview and presentation on Bi-State and the SAFTINet Project. The project's mission is to promote access to effective and affordable primary care and preventive services for everyone, with an emphasis on underserved populations in Vermont and New Hampshire. The presentation, as Heather pointed out, was to emphasize what the project was meant to accomplish, and to note what it was not meant to do. It aggregates and provides actionable, meaningful data through ROSITA, but is not meant to be 'live' data to be analyzed in real-time. The system, as Heather described, is a 'data aggregator' rather than a tool to be used for 'risk stratification' or immediate care tool. Note that her talking points follow the handout that she provided ("A Brief Overview of Bi-State and the SAFTINet Project", Heather Skeels).	
3 Presentation about HIE / VITL	Mike Gagnon of VITL provided a brief over view and status of VITL. He illustrated the background of the five (5) different HER Systems and their 'go-live' dates, as well as those of VAHHA members. The goal is not to combine them, but rather to identify the vendor and determine qualitatively the data that they send. He also provided an illustration of the primary care EHR installations in Vermont, and described how some vendors are better than others in providing specialized services. These vendors are evaluated based on the government's recommendation, and	

Agenda Item	Discussion	Next Steps
	emphasized that 'interoperability' is one of the key factors. Mike also discussed the progress-to-date of hospital interface from January 2013 to November 2013, illustrating the activities that have commenced, mostly in Medication History and Immunization, and completed activities such as ADT and Lab Test Results. His briefing follows the presentation handout that he provided, ("Update on the Status of VITL", SIM HIE Workgroup, November 20, 2013).	
4 WG Update and Discussion	Brian Otley and Simone Rueschemeyer provided a brief update on the Working Group, and is heeding the 'call to action' that the group is facing. The core team meets every week, and although they admit to lacking 'shared consensus', the group is working diligently to get a framework together to make actionable decisions soon.	
5 Next Steps, Wrap-Up and Future Meeting Schedule	As the group is still finalizing the Work Plan, Brian and Simone will identify inputs for the Work Plan, provide feedback in the next meeting.	

VT Health Care Innovation Project
HIE Work Group Meeting Agenda

Wednesday, November 20, 2013; 9:00-10:30am
AHS Training Room, 208 Hurricane Lane, Williston, VT
Call-In Number: *1-877-273-4202*; Passcode *2252454*

Item #	Time Frame	Topic	Presenter	Relevant Attachments (describe document type: powerpoint, word, excel, etc…)
1	9:00-9:05	Welcome and Introductions	Brian Otley and Simone Rueschemeyer	Agenda
2	9:05-9:35	Presentation about SaftiNet	Bi-State Primary Care	Powerpoint
3	9:35-10:05	Presentation about the HIE	VITL	Powerpoint
4	10:05-10:25	Work Group Update and Discussion	Brian Otley and Simone Rueschemeyer	
5	10:25-10:30	Next Steps, Wrap-Up and Future Meeting Schedule	Brian Otley and Simone Rueschemeyer	

Agenda Item 2A

BI-STATE PRIMARY CARE ASSOCIATION
SERVING VERMONT & NEW HAMPSHIRE
www.bistatepca.org
525 Clinton Street, Bow, NH 03304
61 Elm Street, Montpelier, VT 05602

Bi-State Primary Care Association

A Brief Overview of
Bi-State and the SAFTINet Project

Heather E. Skeels

Mission

- Promote access to effective and affordable primary care and preventive services for all, with special emphasis on underserved populations in Vermont and New Hampshire

Bi-State Primary Care Association

- Bi-State is a two state organization with members including FQHCs, CHCs, RHCs, private and hospital-supported primary care practices, Community Action Programs, Health Care for the Homeless, Area Health Education Centers, Clinics for the Uninsured, and social service agencies.

Vermont Membership

- Community Health Centers of Burlington
- Community Health Centers of the Rutland Region
- Community Health Services of the Lamoille Valley
- Gifford Medical Center
- The Health Center
- Little Rivers Health Care
- Newport Pediatrics & Adolescent Medicine
- North Country Health Systems
- Northeastern Vermont Regional Hospital
- Northern Counties Health Care
- Northern Tier Center for Health
- Mountain Health Center (Five Town Health Alliance)
- Planned Parenthood of Northern New England
- Springfield Medical Care Systems
- UVM College of Medicine Office of Primary Care and AHEC Program
- Vermont Coalition of Clinics for the Uninsured

VRHA HIT Project

- Awarded in June 2010 and closed in May 2013.
- Goals were 1. patient data would be structured, reliable and complete and that 2. DocSite would be populated with FQHC patient data.

Selected Accomplishments

- The 8 participating FQHCs all have electronic health records
- Clinical data for the "big three" selected measures are structured, reliable, and complete in source systems
- FQHCs are Patient Centered Medical Homes and participating in the Blueprint for Health
- FQHCs are well on their way to populating DocSite and associated UDS Reports

The Intangible Accomplishment

- The Vermont HIT Project allowed the VRHA members to be ready to participate in other HIT related activities as they arise

The SAFTINet Project

Scalable Architecture for Federated Translational Inquires Network

- **Who is SAFTINet?**
  - A network of stakeholders interested in improving health care delivery and outcomes of underserved populations
- **What is SAFTINet?**
  - A practice-based research network with a distributed database of clinical and claims data collected during routine care, to support both research and quality improvement
- **SAFTINet Research and Quality Improvement Goals**
  - Improve health care quality and value, and reduce health disparities, in low income patients with chronic conditions who receive care in public safety net clinics, by generating evidence that will inform health policy, health services delivery, and practice at the point of care

Partners and Collaborators

- University of Colorado Denver (UCD)
- American Academy of Family Physicians (AAFP)
- Ohio State University (OSU) Department of Biomedical Informatics
- Colorado Community Managed Care Network and the Colorado Associated Community Health Information Enterprise (CCMCN/CACHIE)
- Salud Family Health Centers
- Metro Community Provider Network (MCPN)
- Denver Health and Hospital Authority (DHHA)
- Cherokee Health Systems (CHS)
- Colorado Department of Health Care Policy & Financing (HCPF)
- QED Clinical d/b/a CINA
- DARTNet Institute
- Observational Medical Outcomes Partnership (OMOP)
- Recombinant by Deloitte
- Bi-State Primary Care Association (BSPCA)
- Fletcher Allen Healthcare and the University of Vermont (FA/UVM)

SAFTINet Project Goals and Objectives

- **SAFTINET Objective**
  - Extend the DARTNet framework to build, deploy and assess a safety-net focused distributed research network which combines ambulatory and inpatient clinical data and Medicaid claims and eligibility data for clinical and research purposes
- **Goal**
  - Build the technology necessary to support a valued, virtual organization that securely federates clinical EHR and Medicaid/CHIP data, to promote quality care and provide enhanced data for comparative effectiveness research

SAFTINet Project Funding

- Original funding ended on September 29th 2013
- Extension funding was received beginning October 2013.

Goals of Extension SAFTINet Funding

- Optimize the value and sustainability of a distributed research network (SAFTINet), which focuses on improving the care of the underserved by supporting quality improvement and patient-centered outcomes research.

Comparative Effectiveness Research

- **Definition**
  - The generation and synthesis of evidence that compares the benefits and harms of alternative methods to prevent, diagnose, treat and monitor a clinical condition, or to improve the delivery of care.
- **Purpose**
  - To improve health outcomes by developing and disseminating evidence-based information to patients, clinicians, and other decision-makers, responding to their expressed needs, about which interventions are most effective for which patients under specific circumstances.

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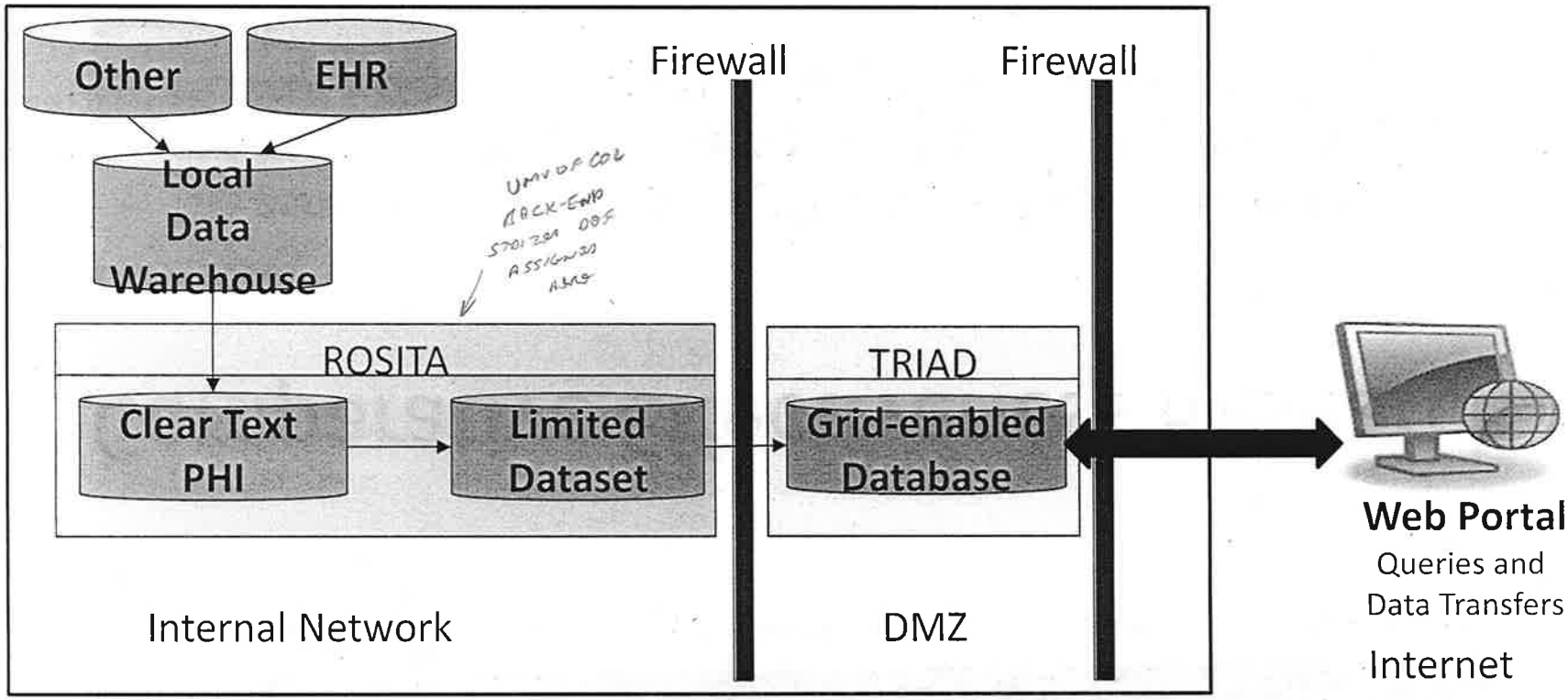
General Infrastructure



Infrastructure Components

- A **common data model** that specifies the database architecture
- **ETL tools** that support data transformation, concept mapping and data loading into the database
- **Record linkage tools** that allow for linkage of patient identities between electronic health record or clinical depositories and administrative claims data.
- A **secure network environment** to "house" partner-specific network-enabled databases and link these databases to a central research portal
- A **secure central research portal**, including a federate query processor, and user authentication and authorization functions, to support approved data requests.

Data Governance

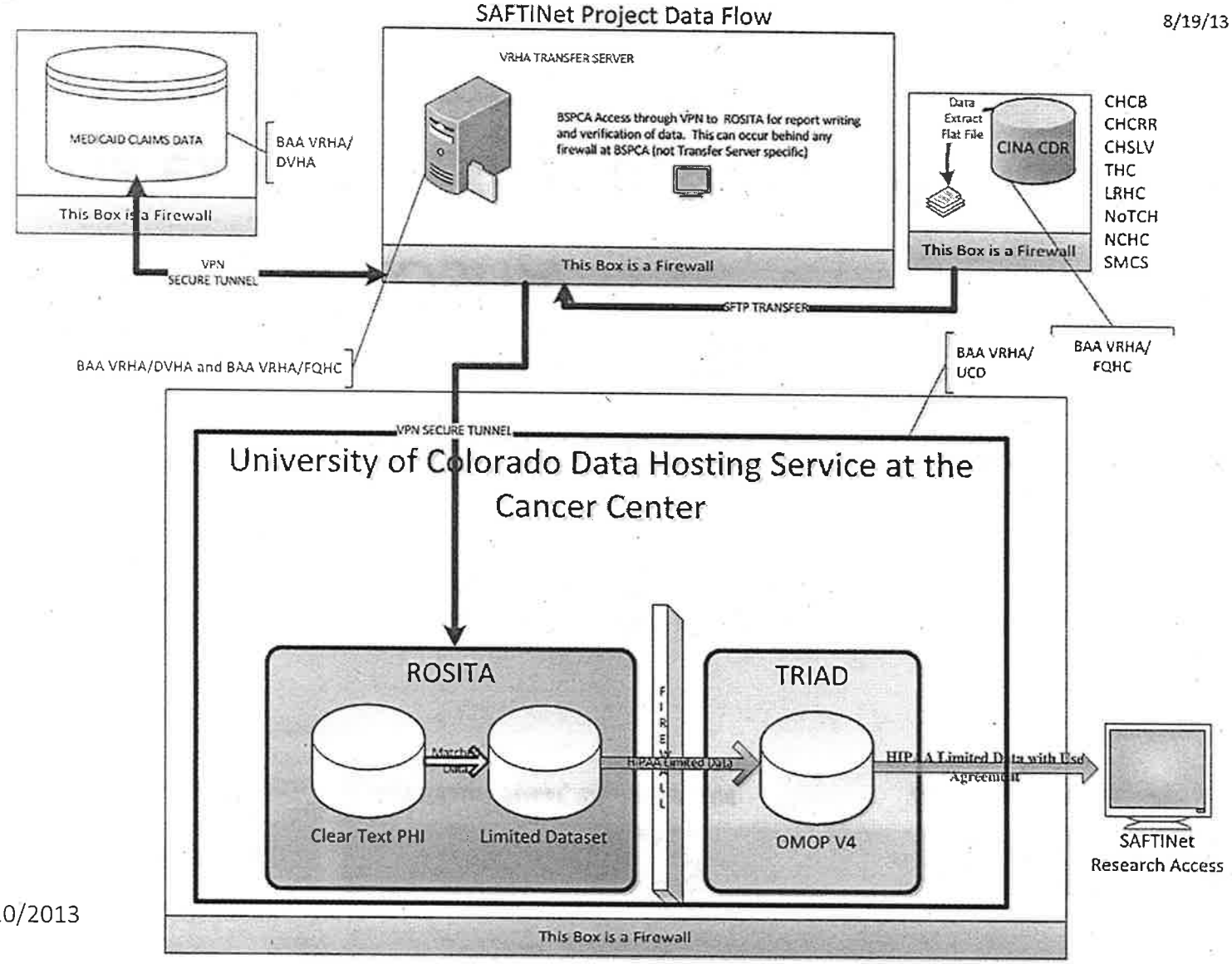
- Master consortium agreement (MCA)
  - Describes the terms and conditions under which Consortium Members will participate in a network to permit the transfer, use and disclosure of data to a network-enabled database.
- Data use agreements (DUAs)
  - A legally binding agreement between parties (e.g., contractor, private industry, academic institution, other Federal government agency, or state agency), when an external entity requests the use of Protected Health Information in the form of a Limited Data Set.
- Service Level Objectives (SLO)
  - Defines roles, responsibilities and objectives for adoption and maintenance of SAFTINet technology and security

ROSITA

- Reusable **O**MOP and **S**AFTINet **In**t**e**rface **A**daptor
- ROSITA is the platform which integrates clinical and claims data for SAFTINet

TRIAD

- TRIAD is a service-oriented platform that provides the tools for organizations to integrate data silos, securely share data and compose analysis pipelines.


SAFTINet Project Data Flow
8/19/13
MEDICAID CLAIMS DATA
BAA VRHA/ DVHA
This Box is a Firewall
VPN SECURE TUNNEL
VRHA TRANSFER SERVER
BSPCA Access through VPN to ROSITA for report writing and verification of data. This can occur behind any firewall at BSPCA (not Transfer Server specific)
This Box is a Firewall
Data Extract Flat File
CINA CDR
This Box is a Firewall
CHCB
CHCRR
CHSLV
THC
LRHC
NoTCH
NCHC
SMCS
SFTP TRANSFER
BAA VRHA/DVHA and BAA VRHA/FQHC
BAA VRHA/ UCD
BAA VRHA/ FQHC
VPN SECURE TUNNEL
University of Colorado Data Hosting Service at the Cancer Center
ROSITA
Clear Text PHI
Limited Dataset
FIREWALL
TRIAD
OMOP V4
SAFTINet Research Access
This Box is a Firewall

CINA CDR

- CINA is the company used to extract data from each FQHC to a flat file that will then be loaded into ROSITA.
- Data extracts will be automated and are expected on a monthly basis.

Clinical Data From 7 of 8 FQHCs

- Using CINA, clinical data is being extracted from 7 of the 8 FQHCs. We expect data from the last FQHC very soon.
- Medicaid beneficiary lists have been successfully extracted at 6 sites. After upgrades are completed we expect the last two to be completed.

ROSITA Update

- Merging of clinical and claims files is underway. New code is being written to deal with challenges with the format of claims files.
- Incremental loads are under development and we expect will be available 1st quarter 2014

Ability to Leverage Data in ROSITA

- In addition to having data available for research, raw data is available for the FQHCs to analyze as well as ask and answer questions.

Questions we would like to answer…

- Questions VRHA would like to answer with the clinical and claims data…
  - Demonstrating complexity of patients who present for a simple visit (cold) but have more going on and the treatment of that patient. Clearly demonstrating the complexity of a procedure in conjunction with different diagnosis codes.
  - Understanding the various components of an episode of care from hospital back through follow up in primary care.
  - Understanding the complexity of co-morbidities and the impact on care (e.g. diabetes and depression)
  - Identify high utilizers and general utilization of ED, specialist care, imaging (diagnostic, standard, and advanced), pharmacy, and entire system of care.
  - Utilization of hospital, SNF, home health, and hospice.
  - Cost categories of lab, transportation services, medical services, supplies, DME, etc.

Heather E. Skeels
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Hskeels@bistatepca.org
heather.skeels (Skype)

AGENDA ITEM 2B

SAFTINet (Scalable Architecture for Federated Translational Inquiries Network) is a multi-state consortium of stakeholders wanting to better understand the impact of health care delivery on health outcomes for minority, underserved and socioeconomically disadvantage patients.

SAFTINet
Informing Practice Improving Care

Who are we?

- A growing multi-state consortium of diverse safety-net clinics and practices from California, Colorado, Tennessee, and Vermont
- A partnership between clinical organizations, healthcare payers, researchers, and informatics experts

State	Clinical Partner	Setting	No. of Practices	No. of Patients	Medicaid	Non-White	Latino/Latina
CA	LANet: Community Health Alliance of Pasadena	Urban	3	14,214	24%	N/A	57%
CO	Denver Health	Urban	12	240,354	47%	31%	58%
CO	Salud Family Health Centers	Rural	9	78,904	33%	46%	51%
TN	Cherokee Health Systems	Rural	19	111,221	37%	35%	4%
VT	Bi-State Primary Care Association	Rural	35	99,942	27%	N/A	1%
VT	Fletcher Allen Health Care	Rural	10	207,948	10%	7%	<1%
CO	Metro Community Provider Network	Urban	11	35,097	40%	39%	34%
		TOTAL	**99**	**787,680**			

What is SAFTINet's Technical Infrastructure?

- 6 federated databases ("grid nodes") with electronic health data from 14 safety net health care organizations
- Organizations maintain their databases within their own protected network environment and release subsets of data upon request for specific data uses
- A unique ROSITA system to help partners transform their data into an interoperable and harmonized format using the Observational Medical Outcomes Partnership (OMOP) Common Data Model (Version 4) and vocabulary.
- TRIAD technology supports the trusted and secure fabric of the grid network. Grid node databases are accessible for querying via a secure web-based query portal for authorized and authenticated uses. The portal returns aggregated, patient-level data from across the nodes.

Unique Technology Features

- Fully identified data sets for partners, HIPAA-compliant data sets for research use
- Ability to link claims and clinical data for a more comprehensive view of health care utilization and outcomes
- Pre-built reports and descriptive statistics for quick knowledge
- Ability to perform queries across the nodes for more tailored and in-depth investigations

What can SAFTINet's data and analytic tools support?

- Natural experiments and CER/PCOR studied in medically underserved populations
- Quality reporting, meaningful use, and performance benchmarking
- Outcomes, Process and Cost Evaluations
- Multi-institution collaborative investigation to identify best practices
- Data quality assessment and validation

How is SAFTINet governed?

- SAFTINet is a partnership between the clinical stakeholders and the University of Colorado.
  - Steering Committee – strategic planning and network governance
  - Research and Quality Improvement Committee – data governance and use
  - Technical Team – technology development and support
- SAFTINet's Network Governance is guided by a framework of active stakeholder engagement.
- SAFTINet's Data Governance focuses on issues related to:
  - Data security, access and appropriate use
  - Compliance with regulations
  - Protection of individual privacy and confidentiality
  - Protection of proprietary information
- The SAFTINet Master Consortium Agreement (MCA) stipulates the rights and responsibilities of partners, including policies regarding data requests, publications, data sharing responsibilities, and membership termination.

SAFTINet was founded with funding from the Agency for Health Care Research and Quality.

Contact Lisa Schilling, MD MSPH (lisa.schilling@ucdenver.edu) for more information about SAFTINet.

Agenda Item 3

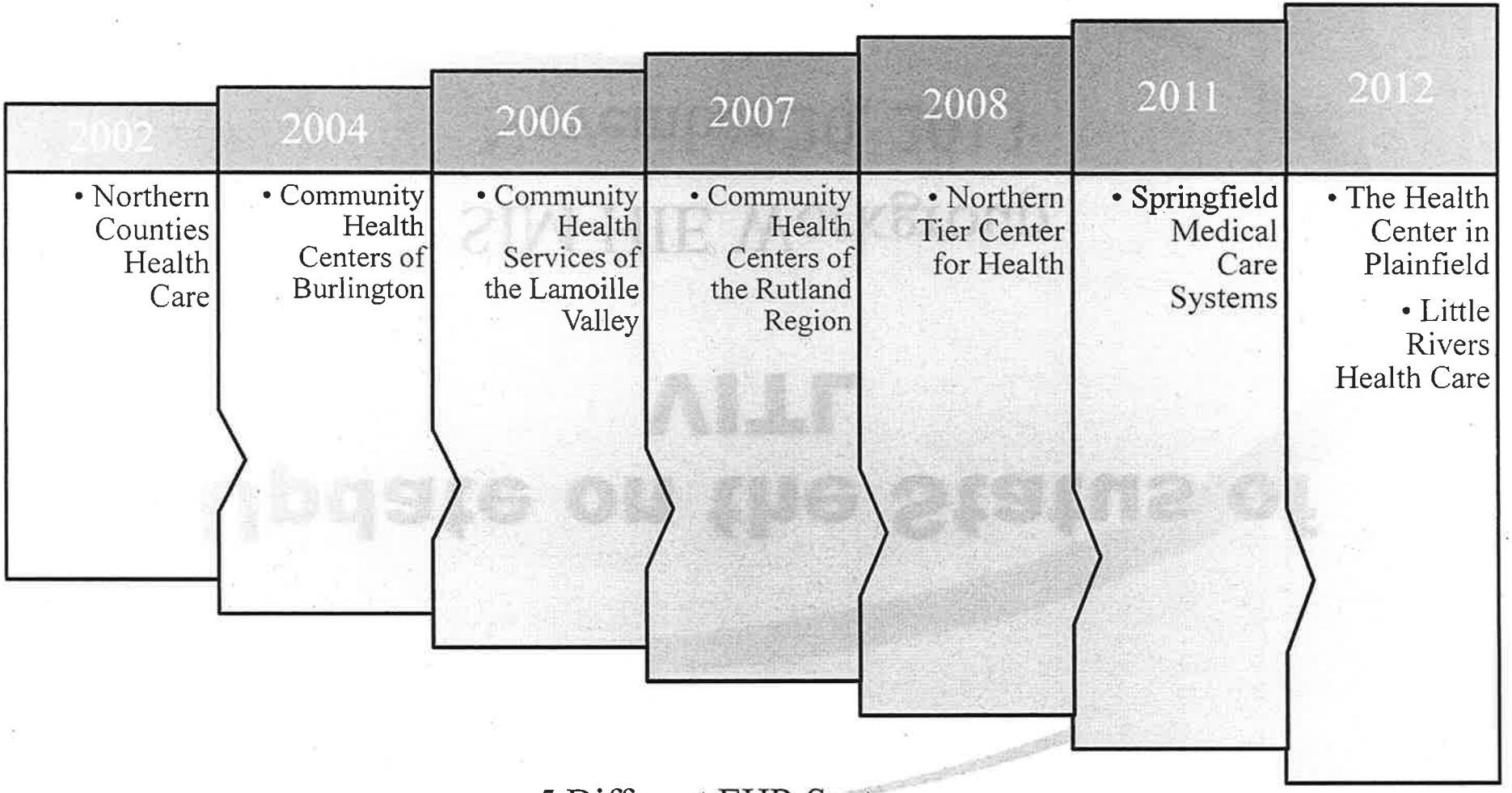
Update on the Status of VITL

SIM HIE Workgroup

November 20, 2013

VITL

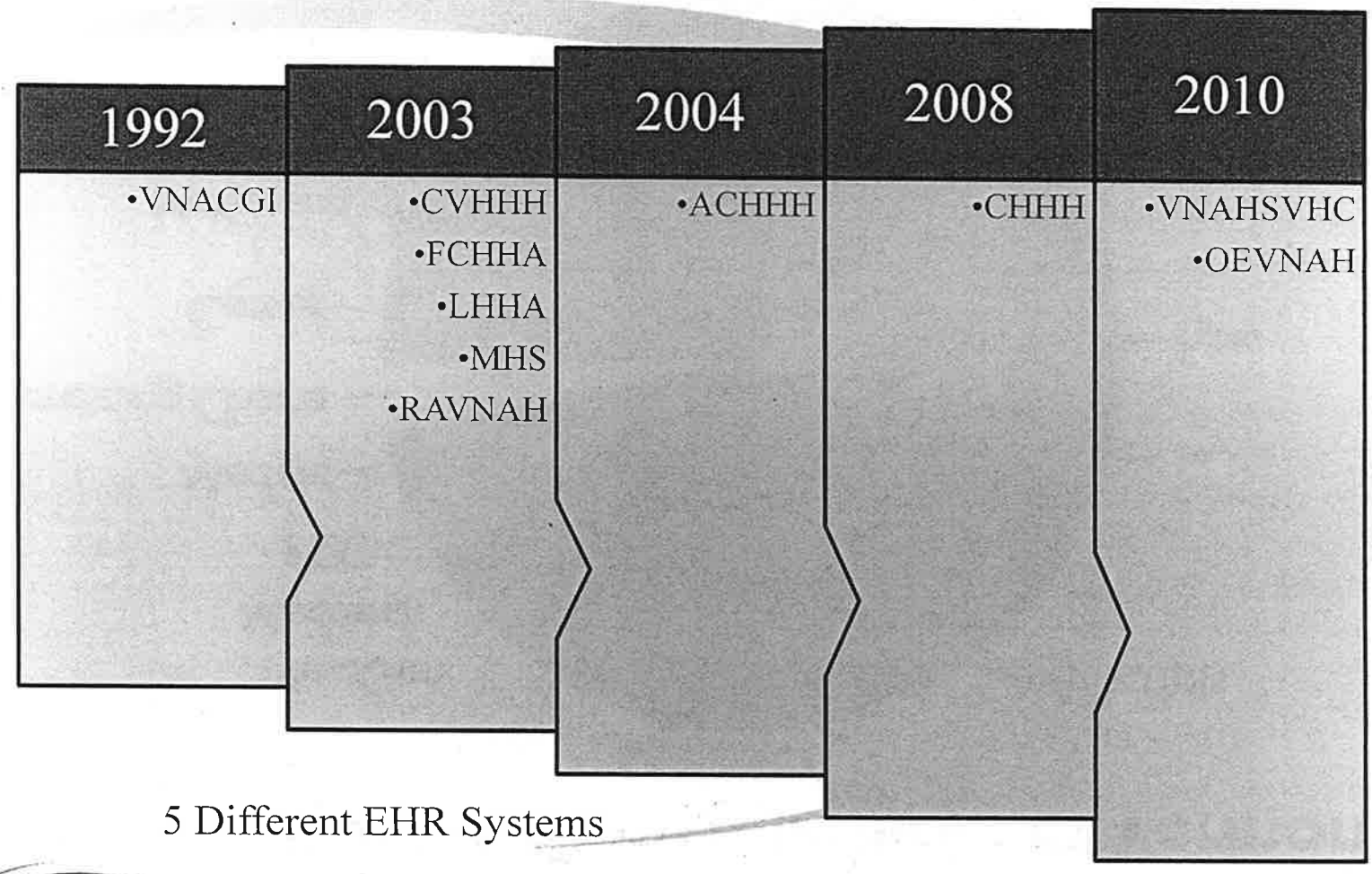
FQHC EHR Go-Live Dates



5 Different EHR Systems

VITL

VAHHA Member EHR Go-Live Dates

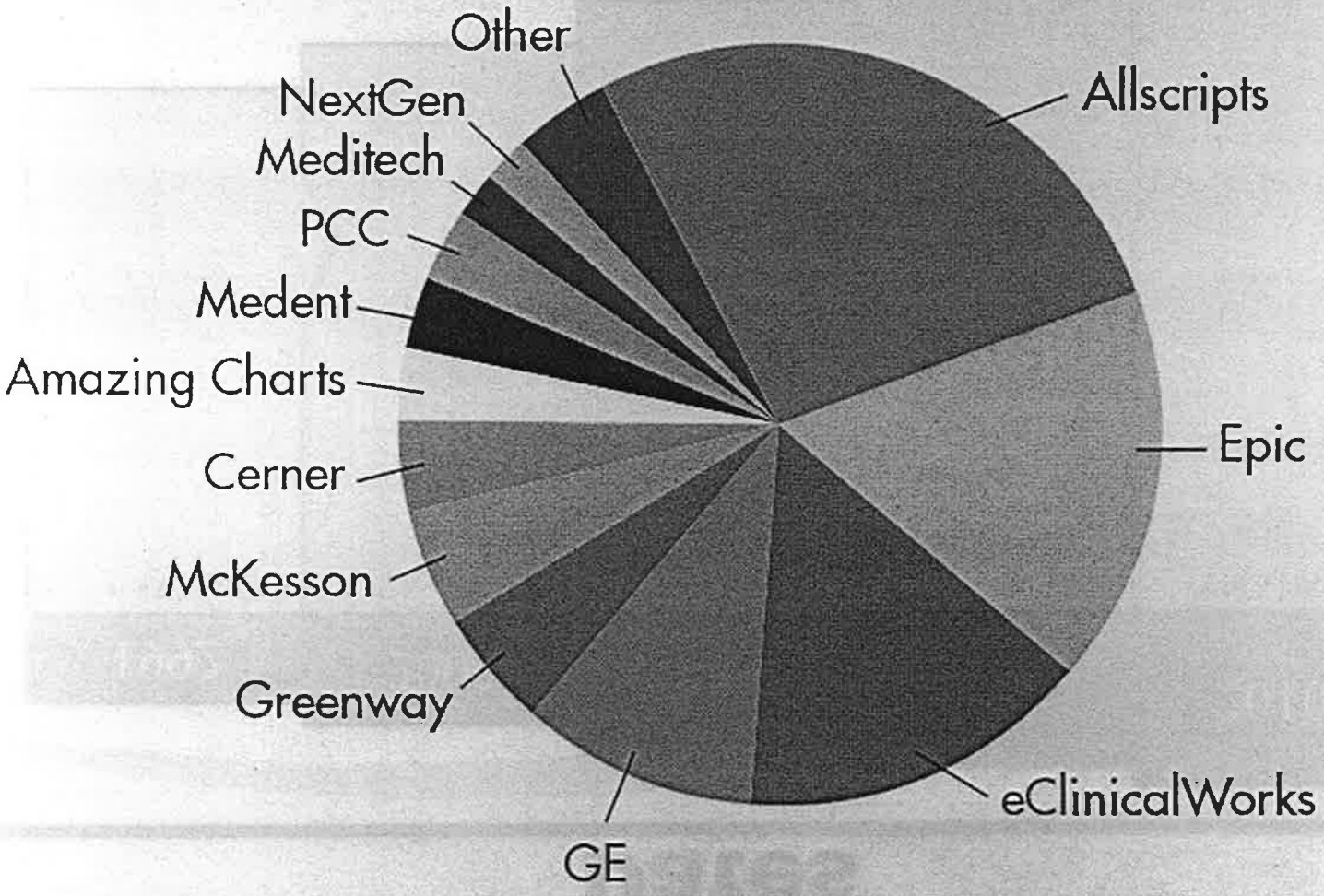


5 Different EHR Systems

VITL

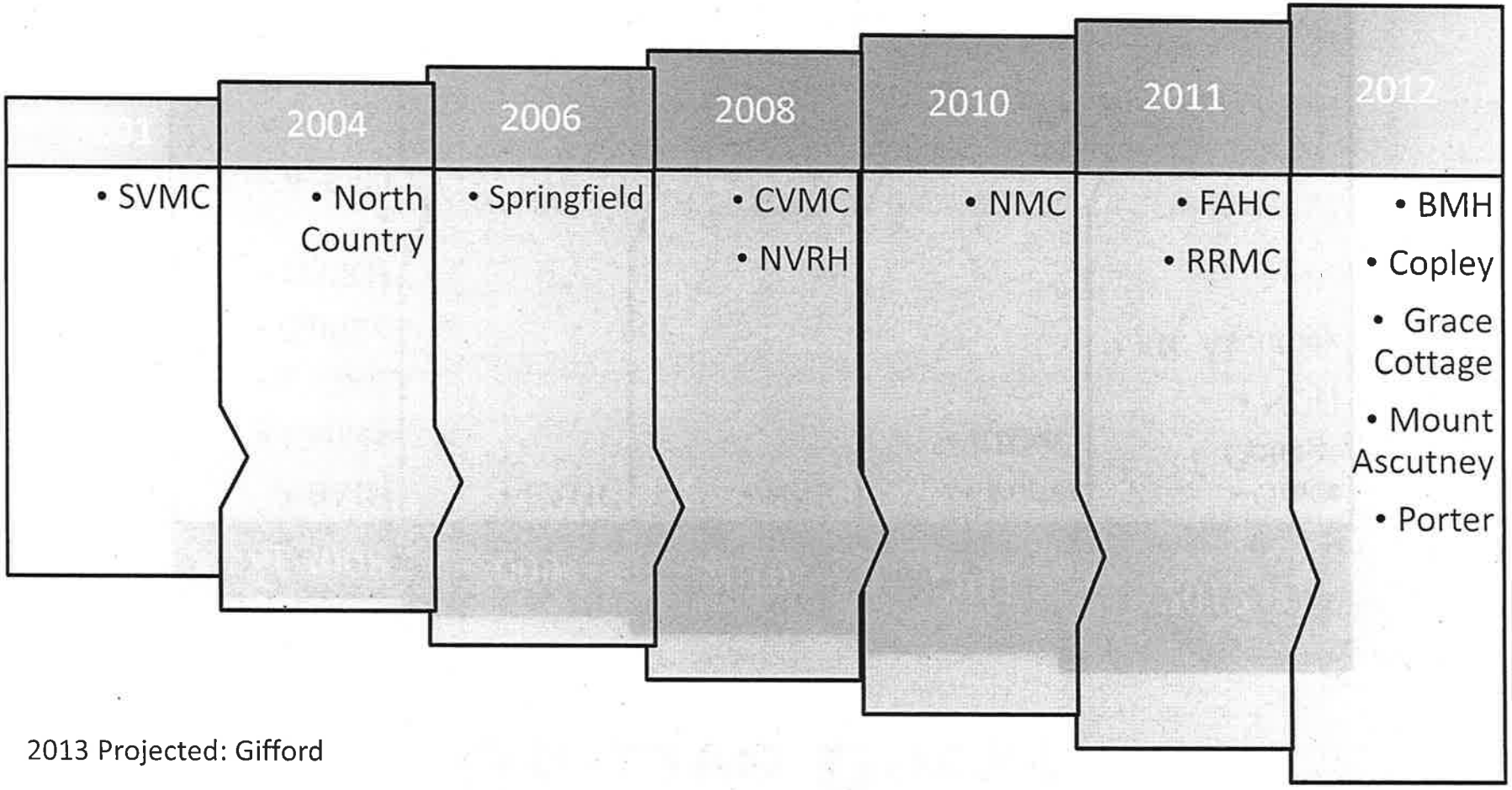
Source: Elise Ames' report to DVHA, 2012

Primary Care EHR Installations in Vermont



VITL

Hospital Ambulatory EHR Go-Live Dates

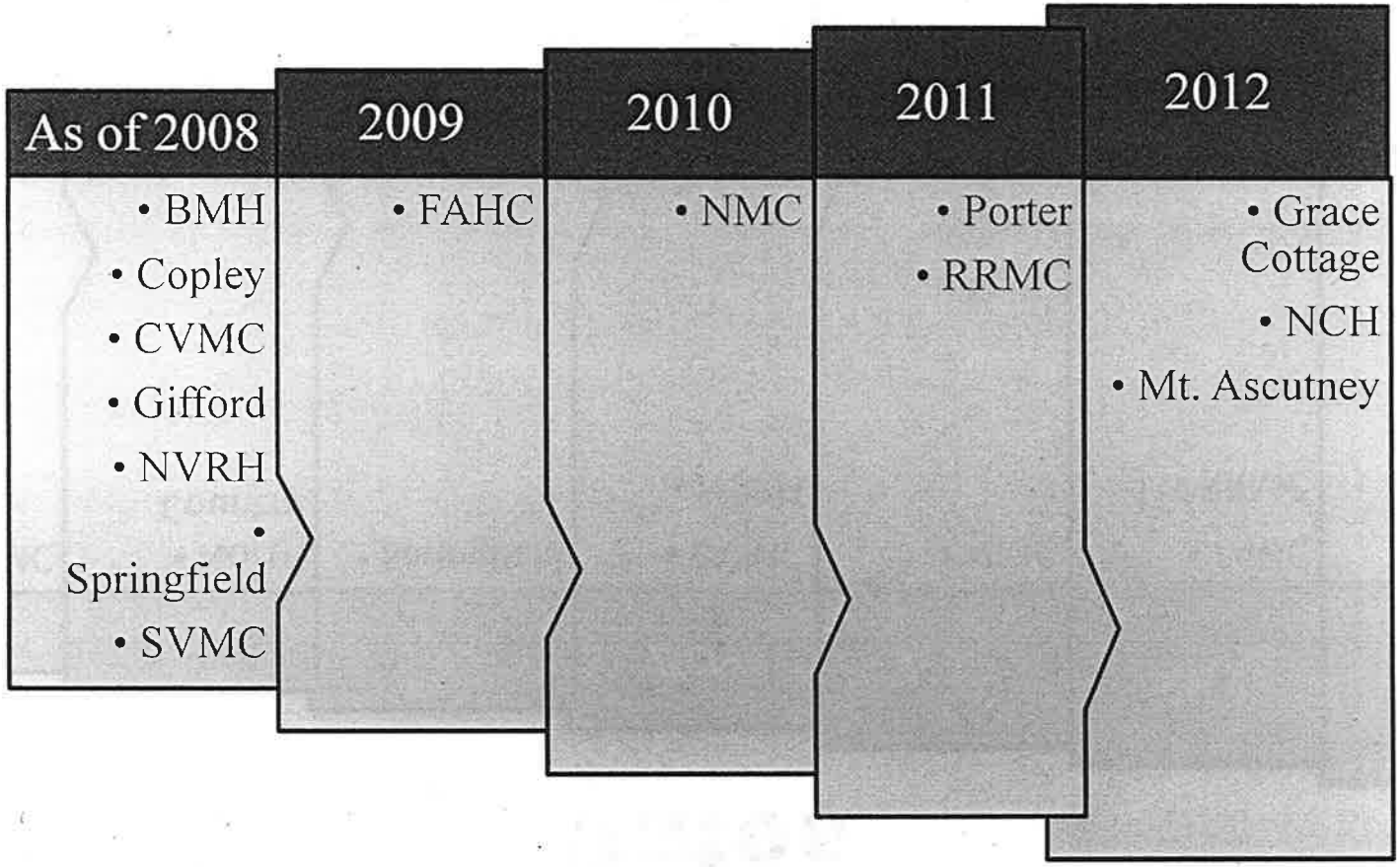


2013 Projected: Gifford

VITL

9 Different EHR Systems

Hospital Inpatient/HIS EHRs Go-Live Dates



VITL

6 Different EHR Systems

HOSPITAL INTERFACE STATUS

VITL

PROGRESS
As of January 15, 2013

	VERMONT HOSPITALS														OTHER
	BRATTLEBORO MEM. HOSP.	COPLEY HOSPITIAL	CENTRAL VT. MEDICAL CTR.	FLETCHER ALLEN HEALTH CARE	GIFFORD MEDICAL CTR.	GRACE COTTAGE HOSPITAL	MOUNT ASCUTNEY HOSPITAL	NORTH COUNTRY HOSPITAL	NORTHWESTERN MEDICAL CTR.	NORTHEASTERN MEDICAL CTR.	PORTER MEDICAL CENTER	RUTLAND REGIONAL MED. CTR.	SPRINGFIELD HOSPITAL	SOUTHWESTERN VT MED. CTR.	DARTMOUTH HITCHCOCK MED. CTR.
ADT†	✦	✦	✦	■	✦	■	■	■	✦	✱	✦	✦	✦	✱	■
LAB TEST RESULTS	✦	✦	✦	✱	✦	■	■	■	✦	✱	✦	✦	✦	✱	■
RADIOLOGY REPORTS	✦	✦	✦	✱	✦	■	■	■	✱	✱	✦	✦	✦	✱	✱
TRANSCRIBED REPORTS‡	✦	✦	✦	✱	✦	■	■	■	✱	✱	✦	✦	✦	✱	✱
MEDICATION HISTORY	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱
PATHOLOGY REPORTS	✱	✦	■	■	✱	■	■	■	✱	✱	✦	✦	✱	✱	■
RADIOLOGY IMAGES	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱
IMMUNIZATION	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱
CCD∞	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱	✱

✦ COMPLETE – The interface is live

■ IN PROGRESS – The interface is being developed.

✱ Pending – Not actively working on the interface.

† *Admissions/Discharges/Transfers*

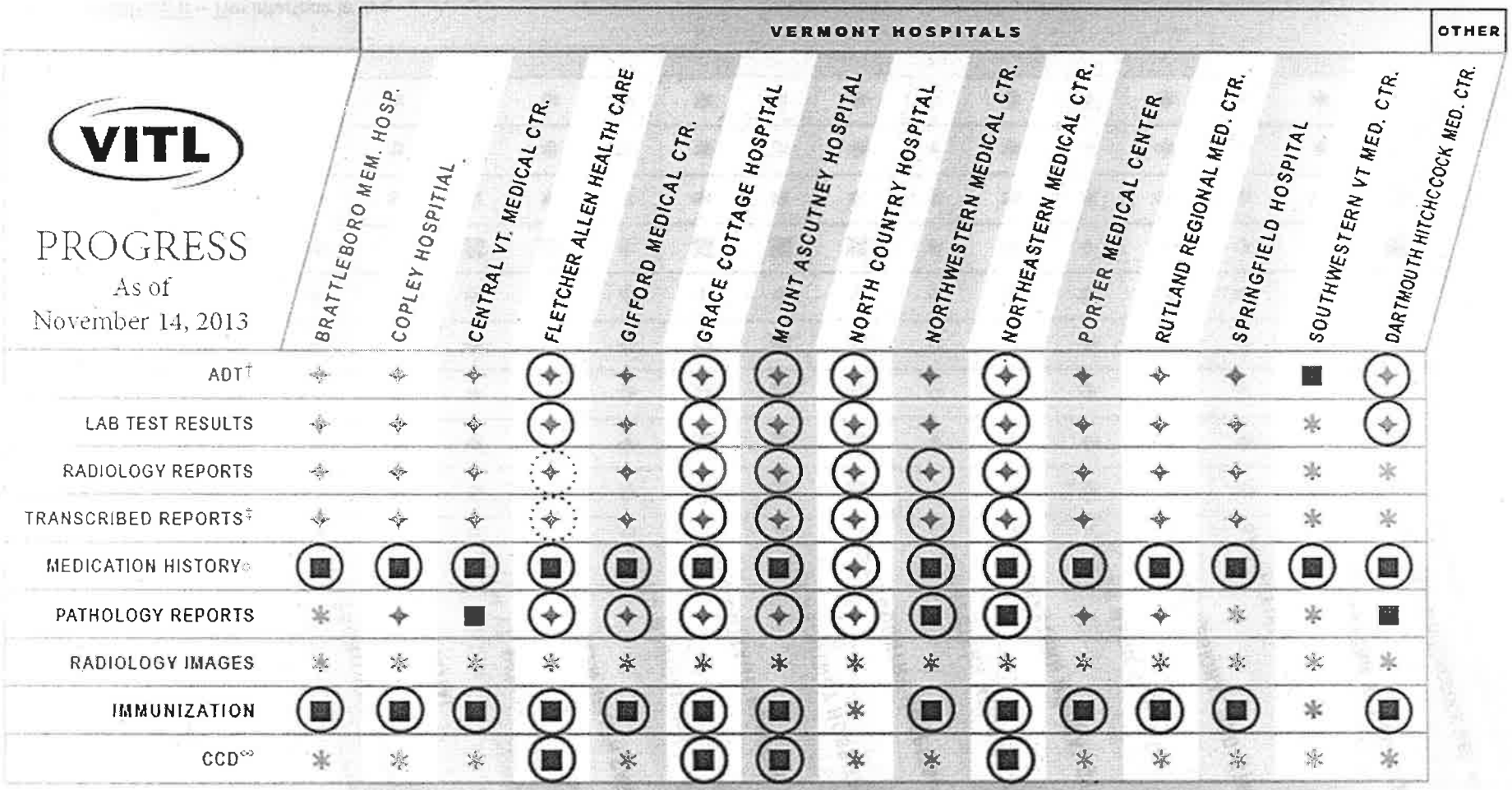
‡ *Discharge Summaries/ Endoscopy/ Cardiology/ Emergency Department Reports*

∞ *Continuity of Care Documents*

HOSPITAL INTERFACE STATUS

VITL

PROGRESS
As of
November 14, 2013



- COMPLETE – The interface is live
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† *Admissions/Discharges/Transfers*

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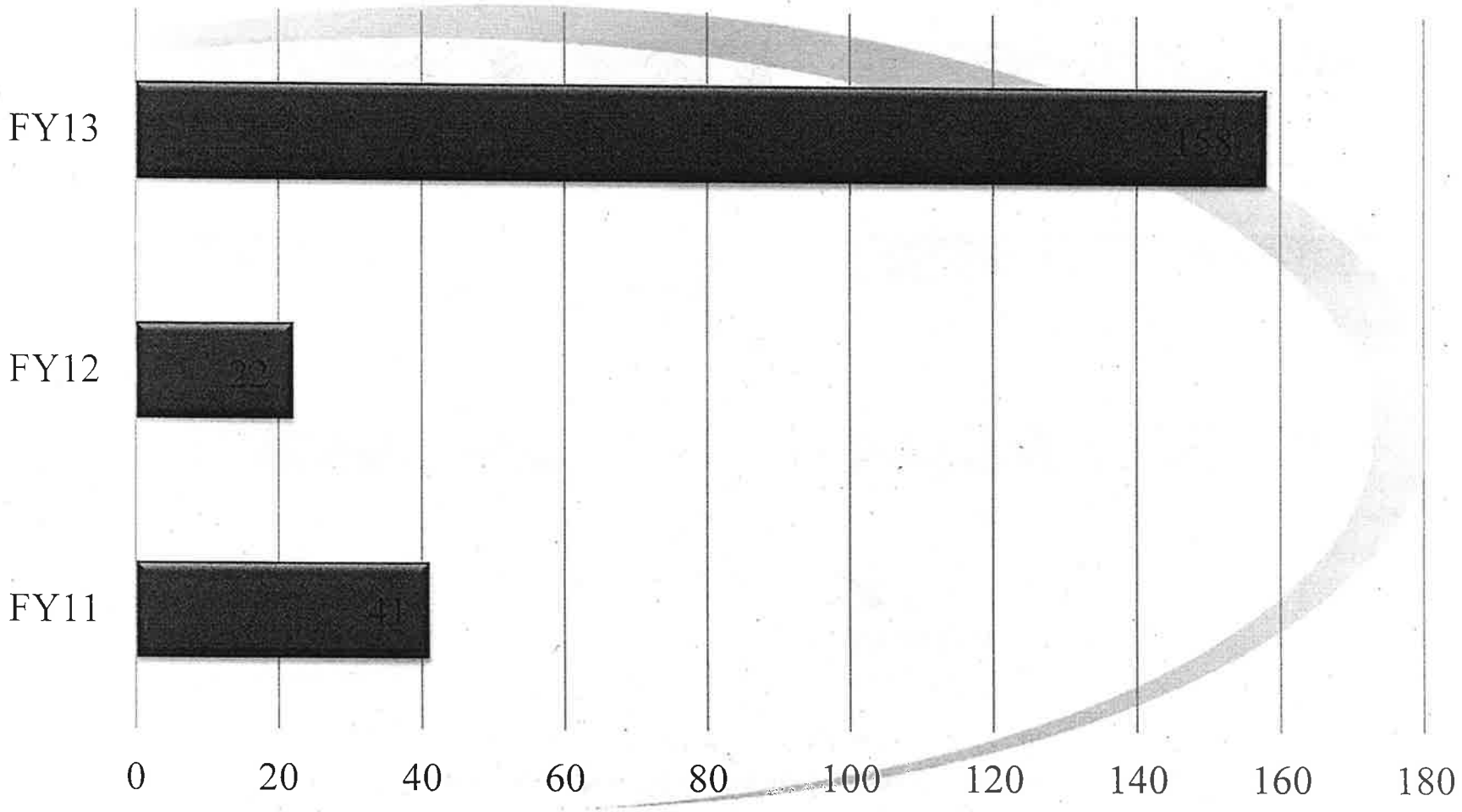
∞ *Continuity of Care Documents*

○ *Medication History is Live. Deployed to Selected Pilot Sites*

Ambulatory Interface Chart

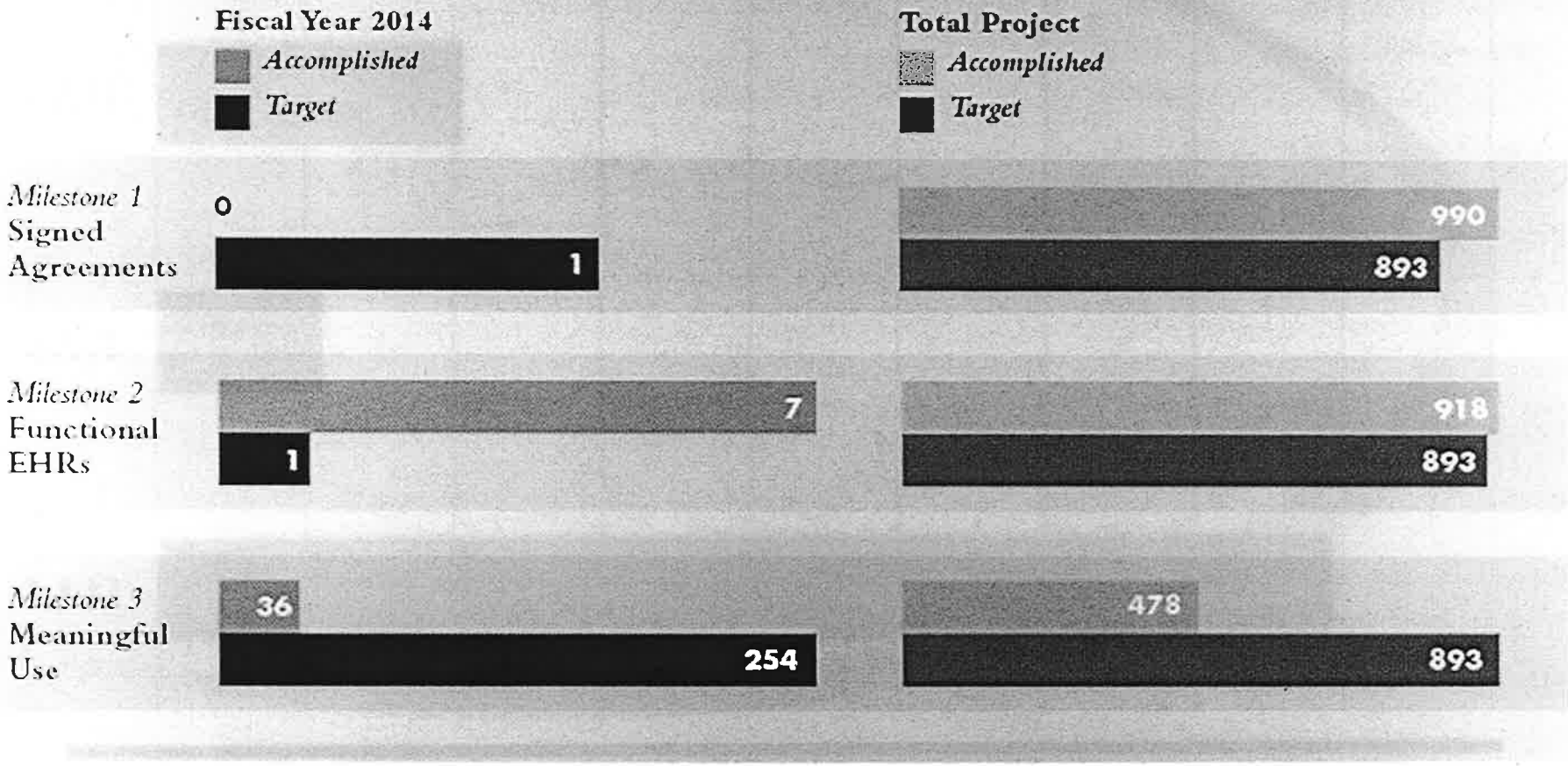


VITL

Total Interfaces:
221 representing 840 providers from 87 provider organizations

Overall Electronic Health Records Support

Progress for Regional Extension Center as of October 31, 2013.



Interface Development

Progress for new interfaces as of October 31, 2013.

Health Information Exchange Activity

As of October 31, 2013.

Volume of Data	*Average Transactions/Month (000's)* **Approximately 2,200.0**
Provider Participation	*Number Registered in MPI* **> 545**
Patient Participation	*Number Registered in MPI (000's)* **Approximately 1,100.0**

VITL

VITLAccess

- VITLAccess is a portal for viewing patient data in the VITL clinical repository
- VITL has been building interfaces and the clinical repository for **9** years
- Processing **2.2 million** clinical messages per month
- VITL Support Center operational for **4** years
- VITLAccess (ProAccess) has been operational for **14** years
- Expected number of users is **5,000-10,000**

VITL

VITL 2014 Project Timeline

ACO Support

Clinical Analytics

VITLAccess

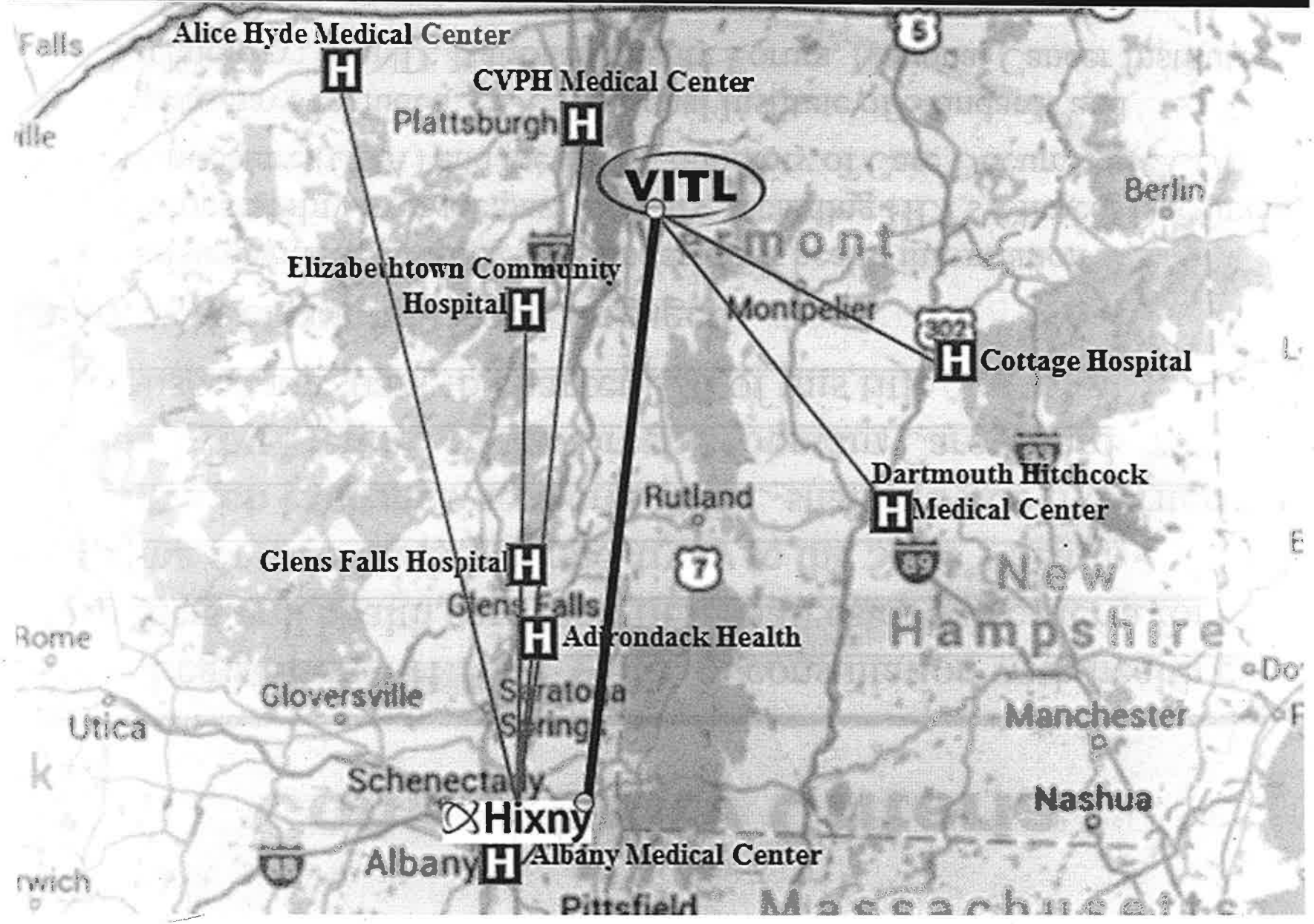
Imaging Network

2014

Medication History

Hixny

VITL Cross-State Connectivity



Connectivity Criteria

- New Legislation – H.107: VITL, in consultation with health care providers and health care facilities, shall establish criteria for creating or maintaining connectivity to the State's health information exchange network. VITL shall provide the criteria annually by March 1 to the Green Mountain Care Board established pursuant to chapter 220 of this title.
- Lantana Consulting Group Engaged
  - Assisted with developing the standards for health information interoperability over the past 15 years, including HL7's Clinical Document Architecture (CDA) and the HL7 Continuity of Care Document (CCD).
  - Clients have included: CDC; National Institute of Standards and Technology; RAND; National Quality Forum, National Cancer Institute
- Provider Interviews Underway

VITL

Questions?

VITL