Vermont Information Technology Leaders, Inc.

Update to the House Health Care Committee

January 16, 2013

VITL

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Medical Director

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Chief Technology Officer

FY13 Accomplishments

- **Electronic Health Records (EHR)**
  - Assisted 911 primary care providers go live on an Electronic Health Record (EHR)
  - Assisted 443 primary care providers meet meaningful use
  - Implemented a new relationship with the Blueprint for Health
- **Interfaces**
  - All but one of Vermont's hospitals are connected to the VHIE (Vermont Health Information Exchange)
  - Connected Dartmouth Hitchcock Medical Center to the VHIE for ADT (admissions/discharges/transfers) and lab results
  - Went live with 190 interfaces in FY13 compared to 51 interfaces in FY12 – a 373% increase
  - Live with immunizations to the VT Department of Health (11)

FY13 Accomplishments (continued)

- **Interfaces (continued)**
  - Live with lab results to a first nursing home
  - Completed the grant with Bi-State primary care (the FQHCs)
- **Provider Portal**
  - Implemented 6 pilot sites:
    - VITLAccess
    - Medication History
    - Consent Policy
- **Infrastructure**
  - Installed an interface engine tool to provide new messaging capabilities which allows us to build specialized interfaces
  - Purchased and installed an enterprise data warehouse which will allow us to perform data analytics and reporting

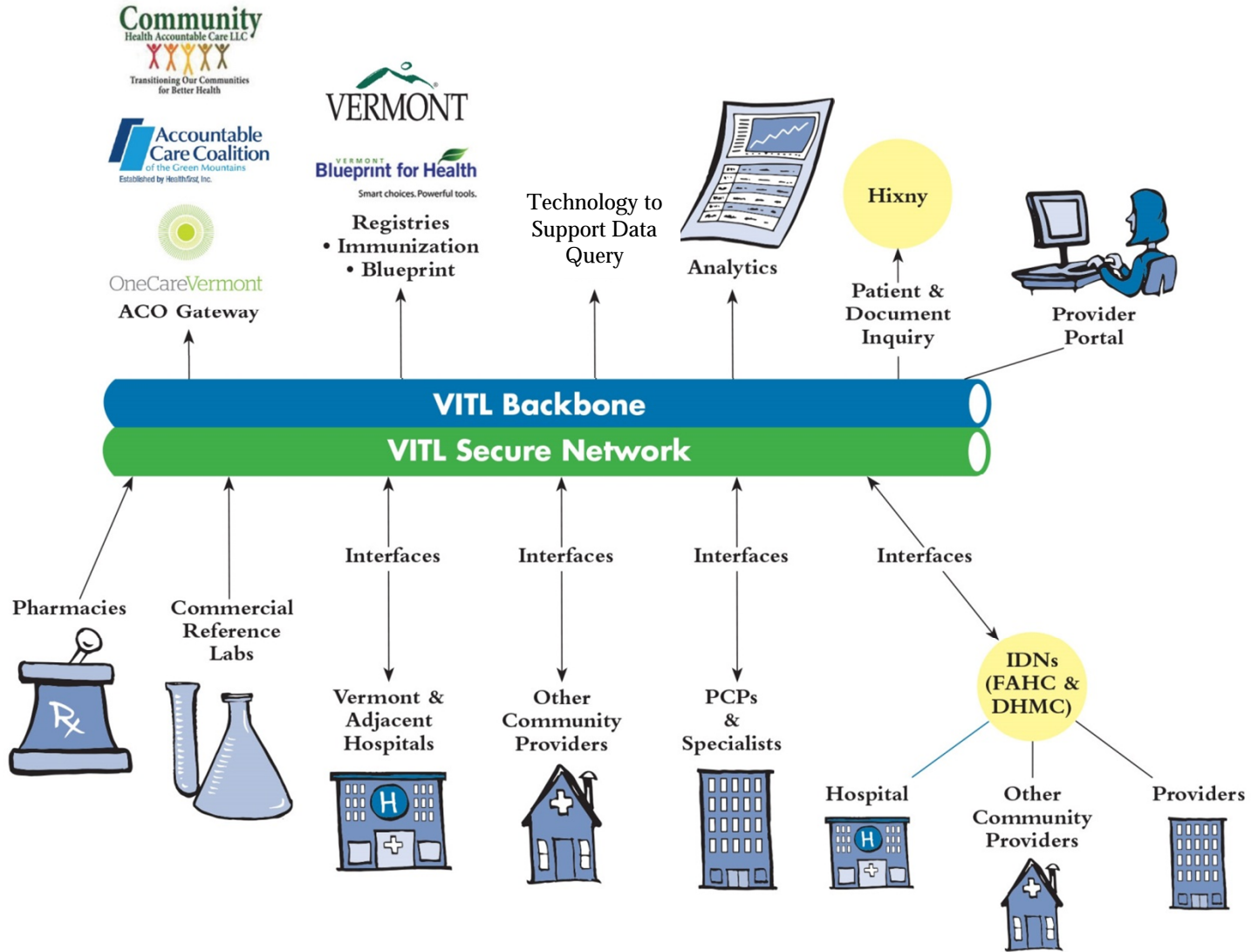# FY13 Accomplishments (continued)

- **Other**
  - Selected by OneCare VT to serve as their HIE infrastructure
  - Legislation passed empowering VITL to certify providers in VT for meaningful use of EHRs and authorizing VITL to develop criteria for connectivity to the VHIE

Vermont HIE Architecture

HOSPITAL INTERFACE STATUS

VITL

PROGRESS
As of January 15, 2013

	VERMONT HOSPITALS														OTHER
	Brattleboro Mem. Hosp.	Copley Hospital	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*

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HOSPITAL INTERFACE STATUS
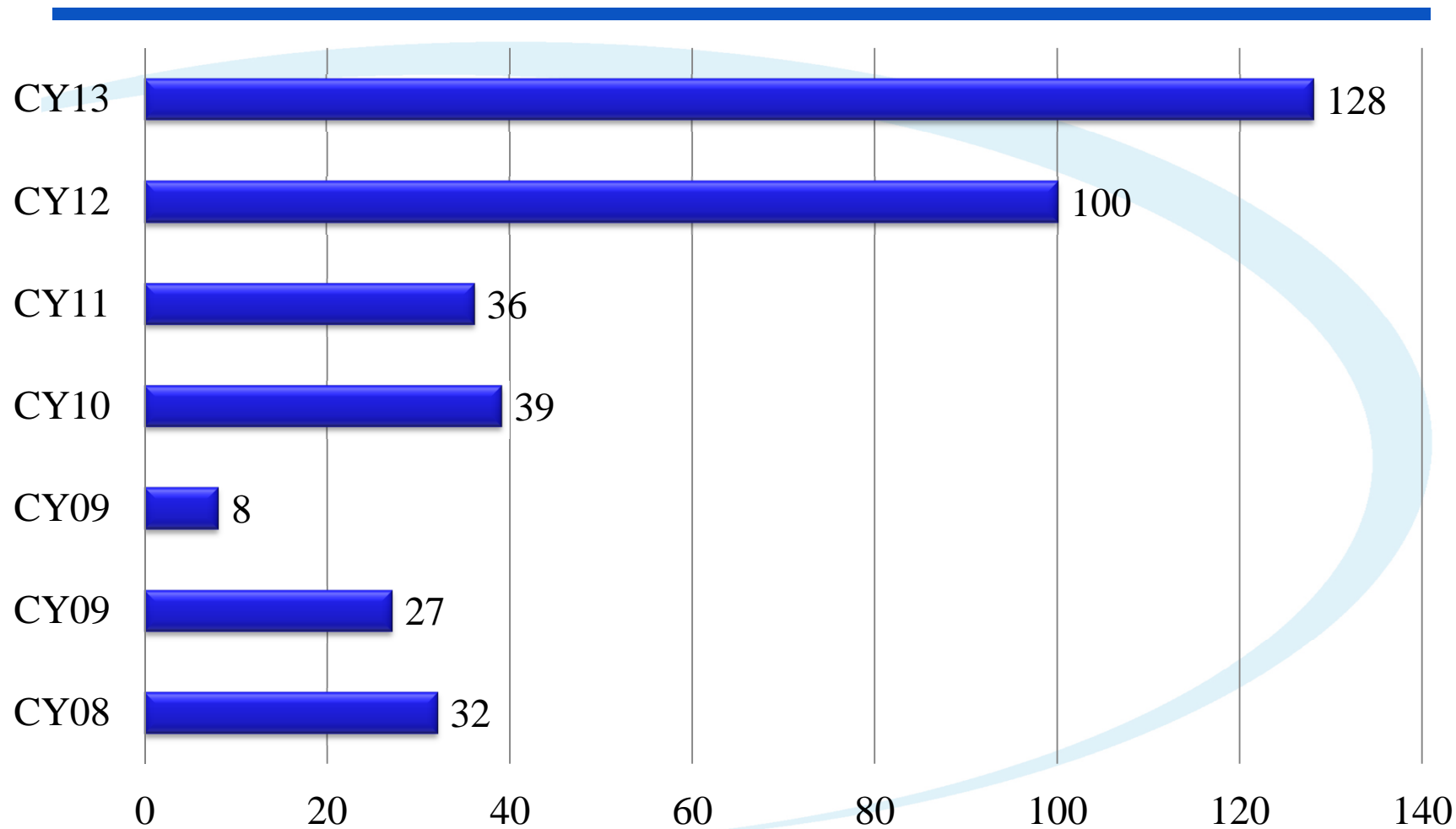
VITL

PROGRESS
As of
January 1, 2014

VERMONT HOSPITALS | **OTHER**

Legend:
- ♦ = COMPLETE – The interface is live
- ■ = IN PROGRESS – The interface is being developed.
- ✱ = Pending – Not actively working on the interface.
- (○) = circled symbol

	Brattleboro Mem. Hosp.	Copley Hospital	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∞	(■)	✱	✱	(■)	✱	(■)	(■)	✱	✱	(■)	✱	✱	✱	✱	✱

† Admissions/Discharges/Transfers

‡ Discharge Summaries/ Endoscopy/ Cardiology/ Emergency Department Reports

∞ Continuity of Care Documents

○ Medication History is Live. Deployed to Selected Pilot Sites

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Ambulatory Interfaces

Chart data:
- CY13: 128
- CY12: 100
- CY11: 36
- CY10: 39
- CY09: 8
- CY09: 27
- CY08: 32

(x-axis: 0, 20, 40, 60, 80, 100, 120, 140)

VITL

Total Interfaces:
370 representing 1129 providers from 162 provider organizations

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Vermont HIE Interface Count
December 31, 2013

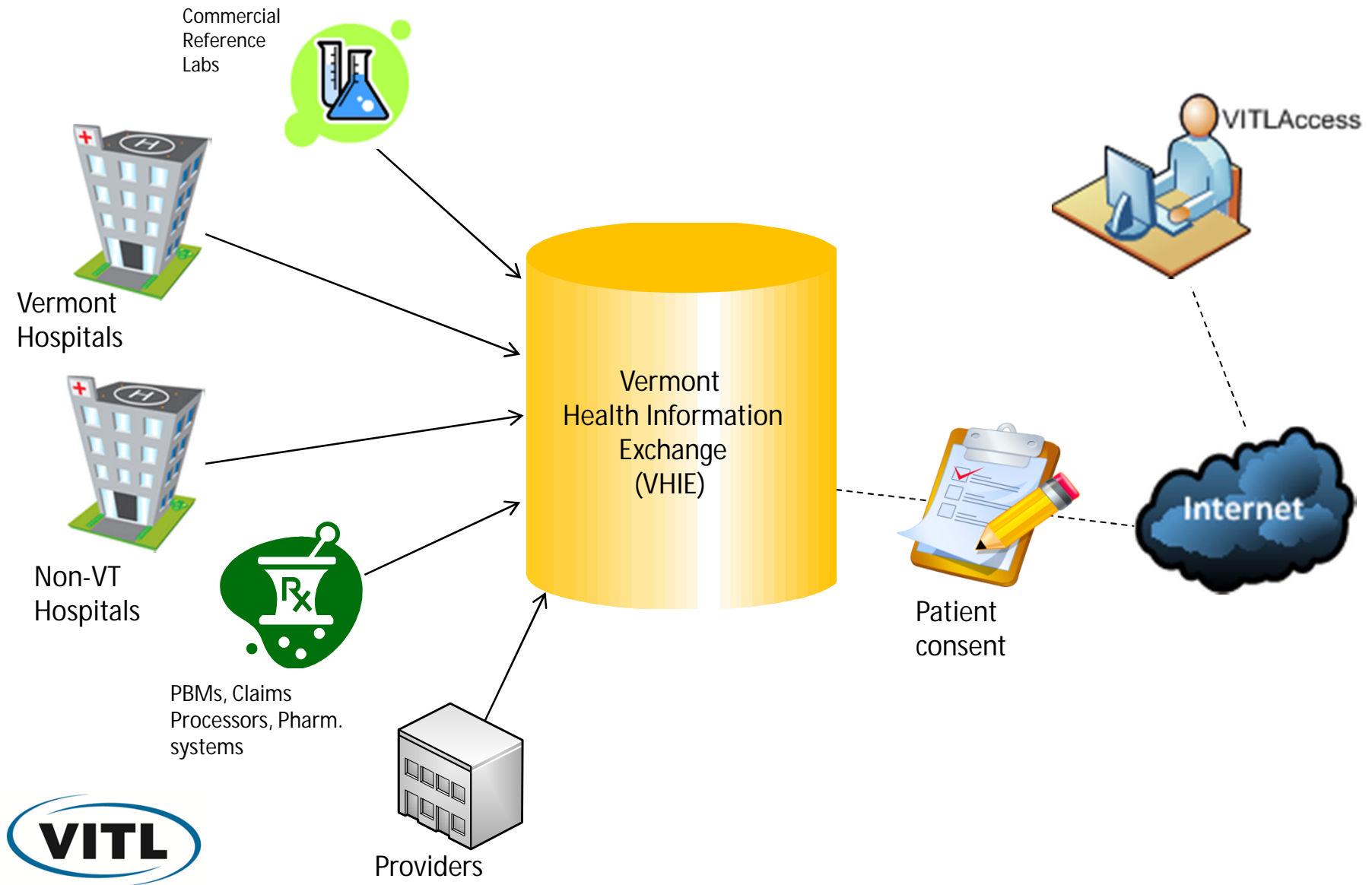|	2008	2009	2010	2011	2012	2013
Hospital	1	5	5	9	43	68
Practice	27	35	74	116	242	370
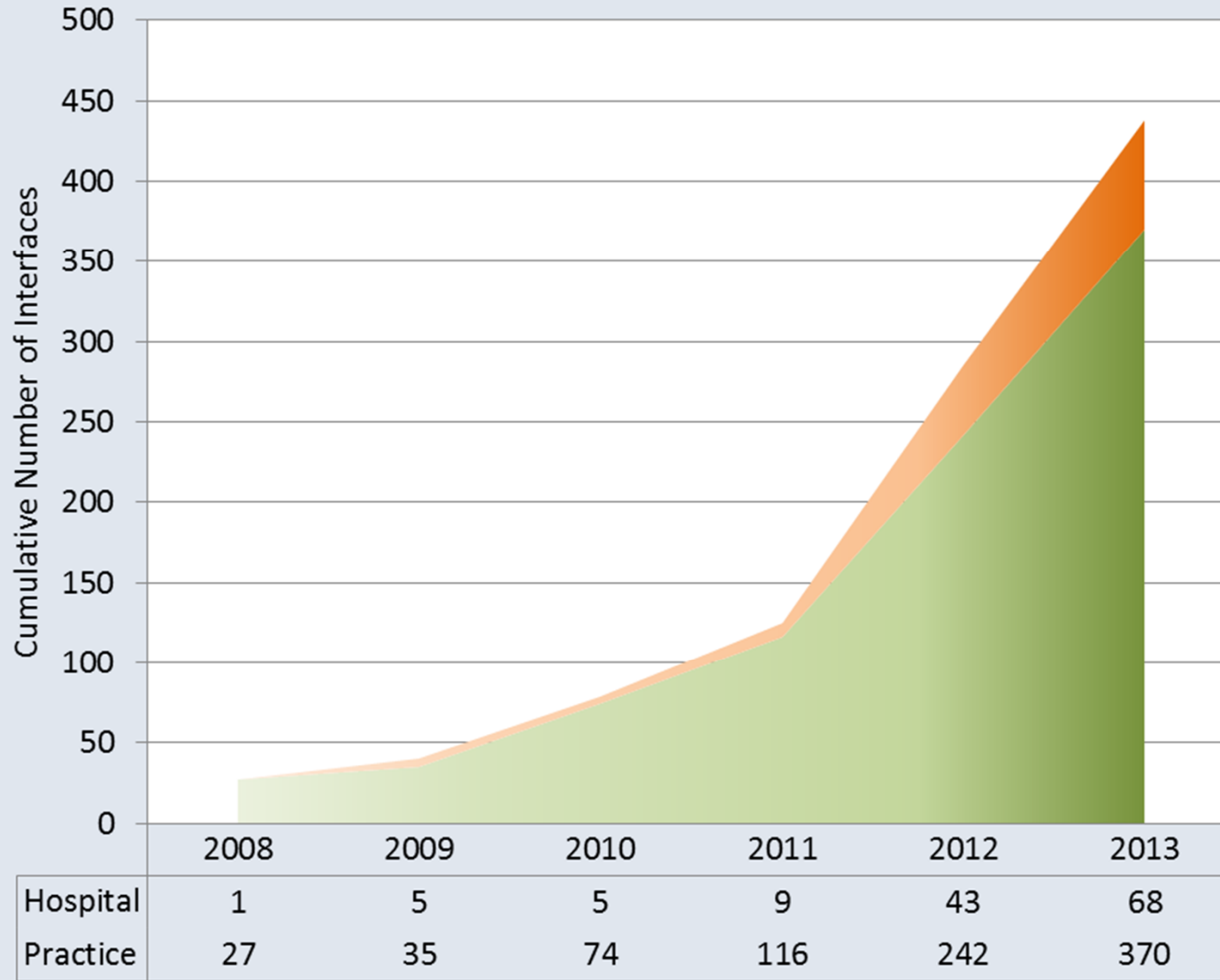
VITLAccess

- VITLAccess is a window into the VITL clinical repository
- VITL has been building interfaces and the clinical repository for **9** years
- Processing **2.2 million** clinical messages per <u>month</u>
- VITL Support Center operational for **4** years
- VITLAccess (ProAccess) has been operational for **14** years
- Expected number of users is **5000-10,000**

VITL Access

Commercial Reference Labs

Vermont Hospitals

Non-VT Hospitals

PBMs, Claims Processors, Pharm. systems

Providers

Vermont Health Information Exchange (VHIE)

Patient consent

VITLAccess

Internet

VITL

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VITL Milestones 3/1/13 – 3/31/14

VITLAccess

3/25/2013
Complete
Training
Materials

3/25/2013
Begin
Training
on Consent

4/12/2013
Begin
Collecting
Consents

5/23/2013
1st Pilot is LIVE
VITLAccess
Consent

7/31/2013
Medication
History Feed

Early 2014
VITLAccess
Statewide
Rollout
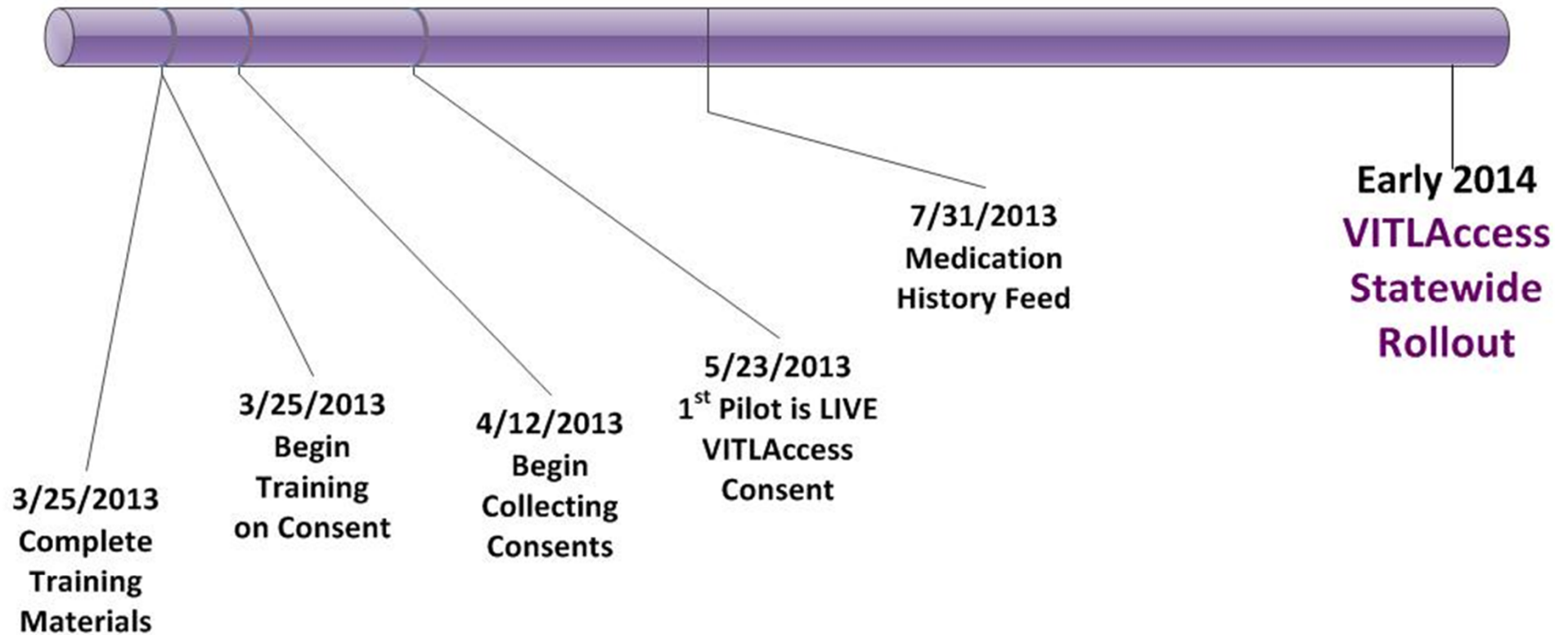
VITLAccess Pilot Sites
Representing a wide range of care settings

Pilot Facility	Town	Profile
Susan Lemei, MD PC	Chester	Single doctor primary care practice
Lamoille Home Health and Hospice	Morrisville	Home health agency
The Manor	Morrisville	Nursing home
BMH Center for Cardiovascular Health	Brattleboro	Specialty care practice (hospital owned)
North County Hospital Emergency Department	Newport	Hospital ED
Rainbow Pediatrics	Middlebury	Privately owned pediatric practice
The Health Center	Plainfield	FQHC serving over 13,000 patients

VITL Health Information Exchange Implementation Best Practice

- Training
- Testing
  - Quality analysis
  - Unit testing
  - System testing
- Pilot sites – discovery before deployment
- 24 x 7 support
- Incremental implementation
- Ongoing training

VITL

Security

- VITL's technology infrastructure is Medicity, one of the largest HIE vendors in the US

- All data in transit across the HIE is encrypted

- Patient information is not comingled and is stored in separate data vaults by provider organization

- The network is monitored 24/7 for signs of intrusion

- Every attempt to access the HIE is logged

- Medicity's data centers are SSAE-16 certified: best practice in healthcare and exceeds HIPAA standards

- Medicity has never had a breach

- VITL is seeking FIPS 200 compliance, a Federal information systems security level that covers 17 domains and exceeds HIPAA requirements

ACO Support

VITLAccess

Imaging
Network

2014

Medication
History

Hixny

VITL

OneCare Vermont

Medication History

VITL X-State Connectivity
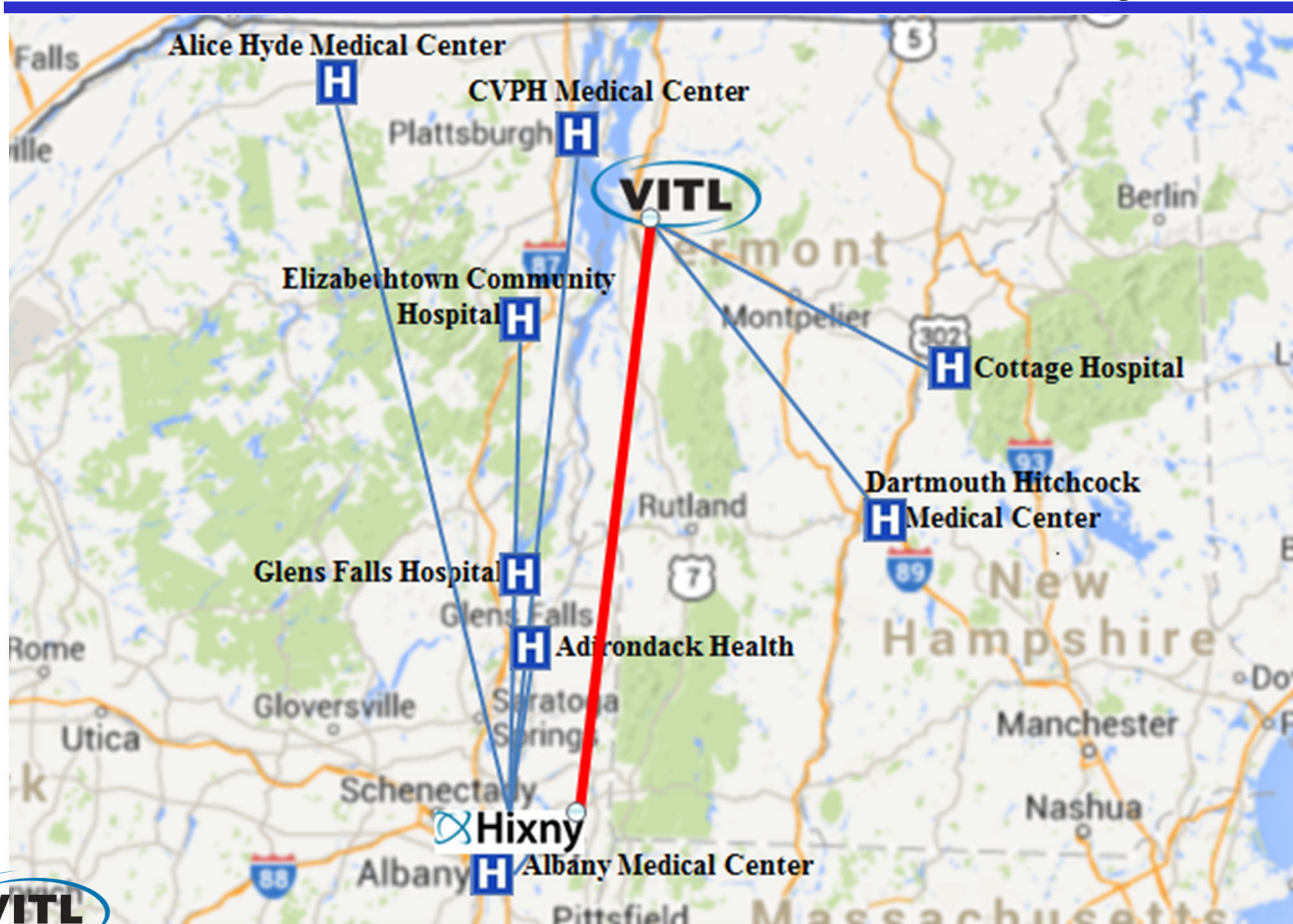
Connectivity Criteria

- 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

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What is the current state of medical image sharing?

- Use of CDs
  - Images are given to a patient on a CD to take with them
  - Patients often forget or cannot bring these with them (emergency)
  - Reading the images from these CDs can be problematic
  - Burning CDs is time consuming and expensive
- Large hospitals give community physicians access to the images
- Most EHRs can accept images but they are not available
- Images can be manually sent from one radiology system to another but only if there is a secure network in place

VITL

Building a Vermont
Medical Imaging Network

- VITL is leading the effort to design a state-wide imaging network

- Working with FAHC and DHMC

- Looking at solving 7 imaging scenarios
  - Image review at provider practices
  - Trauma transfers
  - Specialist referrals
  - Out-of-network referrals
  - Radiology ordering
  - Radiology outreach/consolidation
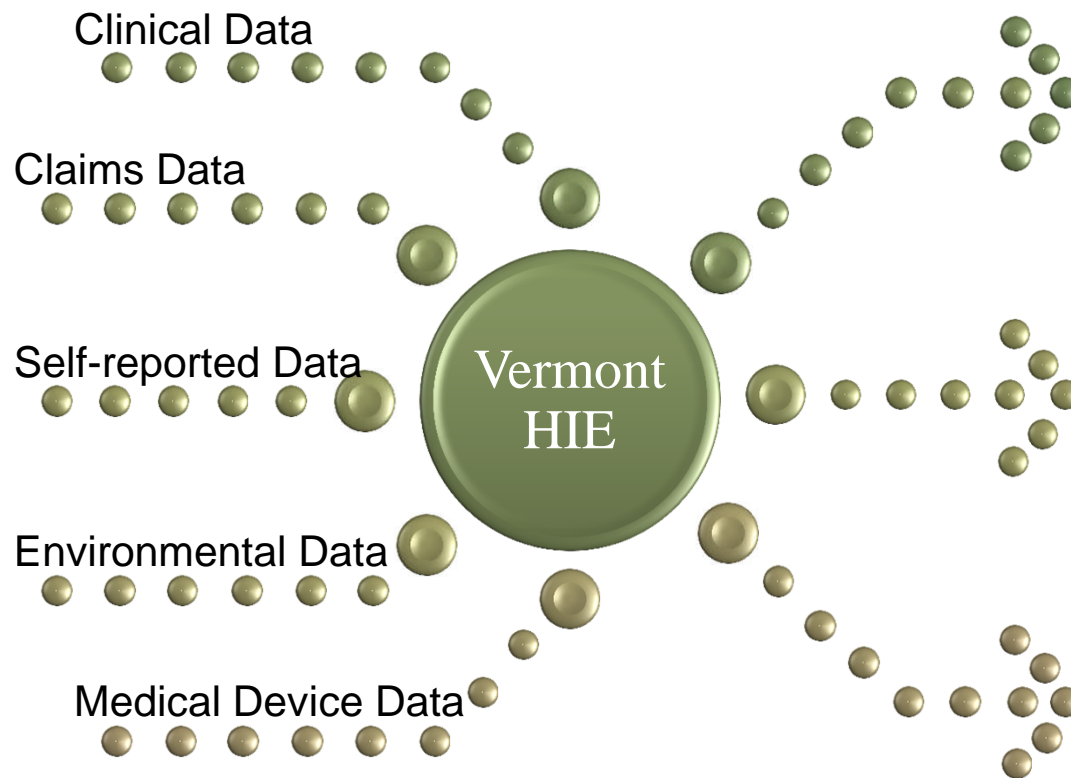 - Research

Outcomes

- Fewer repeat images: safer care and lower costs

- Better access to images at provider practices and hospitals: more informed decision making and can make comparisons with prior images

- Lower costs for hospitals for image archive

- More appropriate image ordering

Success Factors

- The system infrastructure needed is expensive but so are medical images

- This will be a long term project (2-3 years)

- We are working with a vendor partner (lifeIMAGE) who may be willing to fund a significant portion of the network

- FAHC, DHMC and the ACOs are all very supportive

- Once in place the entire state provider community should benefit from this network

The Future of
Health Information Exchange

Clinical Data

Claims Data

Self-reported Data

Environmental Data

Medical Device Data

Vermont HIE

Patients engaged in their own care
- Improved health
- Participatory with care providers

Information at the point of care
- More informed care
- Lower cost
- Fewer redundant procedures

Informed healthcare delivery
- Blueprint for Health
- Accountable care organizations
- Meaningful use of Health IT
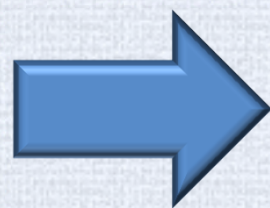- Data Analytics

VITL

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Questions?

Amendment Process
Policy on Patient Consent for Provider Access

- Policy is incorporated in Vermont Health Information Technology Plan (VHITP)

- To amend the VHITP:

  1. VITL requested Secretary of Administration and Green Mountain Care Board consider changing current policy

  2. Secretary of Administration solicits public comment (Stakeholder meeting scheduled for January 27, 2014)

  3. Secretary of Administration reviews and approves policy change

  4. Green Mountain Care Board reviews and approves policy change

Using 21 different EHR Systems

2011
- FQHC: 73%
- HA: 57%
- HI: 79%
- VAHHA: 100%

2012
- FQHC: 91%
- HA: 93%
- HI: 100%
- VAHHA: 100%

2013
- FQHC: 91%
- HA: 100%
- HI: 100%
- VAHHA: 100%

- FQHC: Federally Qualified Health Center EHR Go-Live Dates
- HA: Hospital Ambulatory EHR Go-Live Dates
- HI: Hospital Inpatient/HIS EHR Go-Live Dates
- VAHHA: VAHHA Member EHR Go-Live Dates

Sending Clinical Data to the VHIE

- 13 out of 14 Hospitals are sending clinical data to the VHIE

- 10 out of 11 FQHC's are sending clinical data to the VHIE

- 0 out of 10 VAHHA's are sending clinical data to the VHIE

VITL

Health Information Technology
Leading to improved health

Paper
- Manual entry
- Error prone
- Limited sharing
- Manual search / retrieval
- Costly storage at risk of physical damage or destruction

Electronic health records

VT Hospitals:
- 100% Live

VT Eligible Professionals:
- 992 Enrolled with VITL
- 924 Live EHR
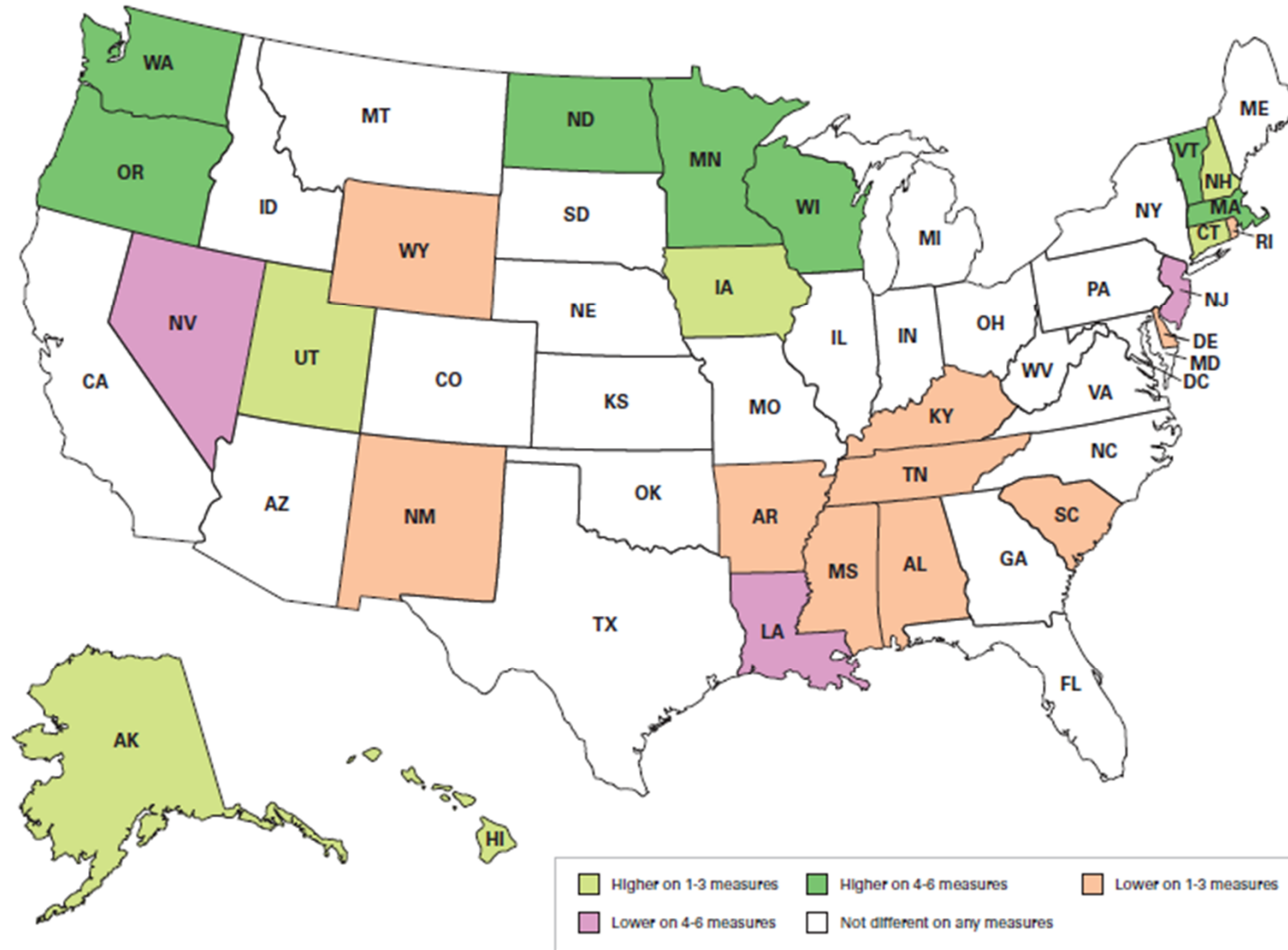- 571 Stage 1 Meaningful Use

Health Information Exchange

Hospitals:
- All 14 VT
- Dartmouth – Hitchcock
- Cottage Hospitals (NH)
- Samaritan Hospital (NY)

10 of 11 FQHC's

Practices:
- 162 Practices
- 370 Interfaces
- 1129 Providers

Multi-Sourced Data
- Clinical data
- Claims data
- Payer data
- Environmental data
- Social data
- Patient (self-reported) data
- Medical device data

■ Figure 2. State-Level Electronic Exchange Capability Relative to the National Average[a]

Legend:
- Higher on 1-3 measures
- Higher on 4-6 measures
- Lower on 1-3 measures
- Lower on 4-6 measures
- Not different on any measures

[a]Significantly different from national average at $P < .05$.

Source Document: The American Journal of Managed Care, Volume 19, Number 10, "Physician Capability to Electronically Exchange Clinical Information, 2011", figure 2., page 840

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Vermont Imaging Network