

Health Information Exchanges & the Role of the RHIO


Week 8

24-Feb-2010

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Agenda

- I. Definitions: HIE and RHIO
 - II. The makeup of a RHIO
 - III. RHIO Case Studies
 - IV. RHIO: Success vs. Failure
 - V. CalRHIO and RHIO Breaking News
 - VI. Wrap-up and Questions
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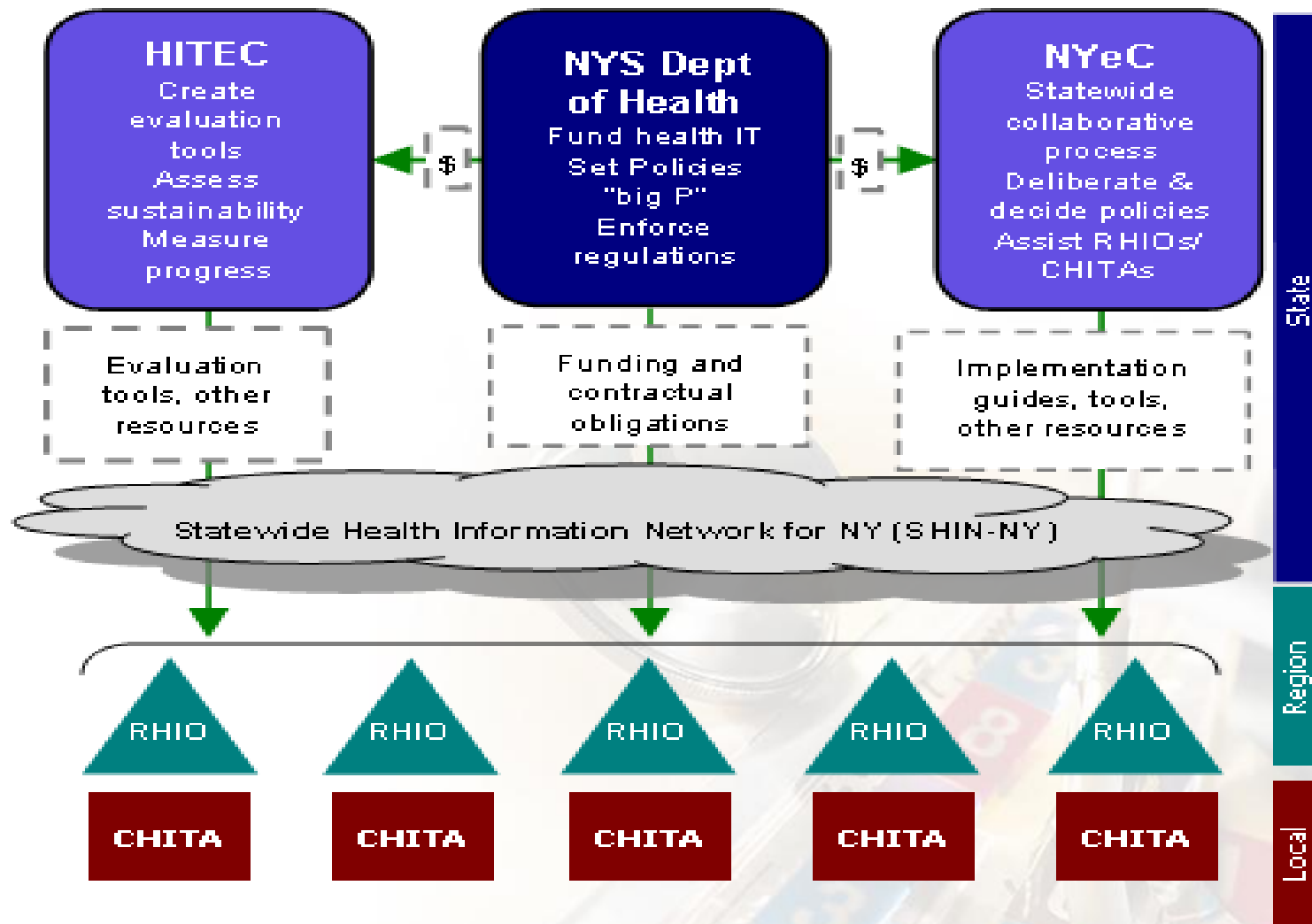


Definition: HIE and RHIO

- HIE
 - Electronic movement of health-related information among disparate healthcare systems according to nationally recognized standards.
 - RHIO
 - Multi stakeholder organizations
 - Defined geographic area
 - Governance
 - Integration and information exchange
 - Facilitate access and retrieval
- 



Relationship: HIE and RHIO





Common Goals: HIE and RHIO

- Common Goals
 - Safer care
 - Timely care
 - Efficient care
 - Effective care
 - Equity
 - Patient centered care

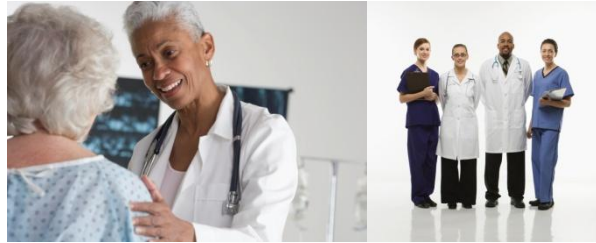


RHIO

Governance



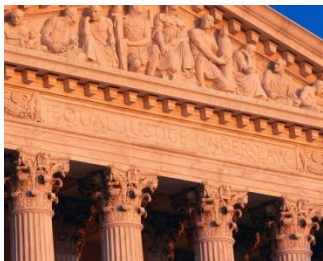
Stakeholders



Funding



RHIO



HIPAA/Legal
Concerns



Technology/Software



Data Ownership/
Stewardship



RHIO: Stakeholders

First Responders



Physician Offices



Public Health



First Responders



Hospitals and Long Term Care



Radiology Centers



Pharmacies



Laboratories



Communities



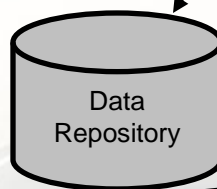
Employers, Payers, Vendors



Military



Patients



RHIO - Governance

- Governance members include:
 - Stakeholders
 - State CIO
- Governance can be established by:
 - Legislation
 - Incorporation
 - Executive order





RHIO - Funding

- Biggest obstacle is the long term for survival of a RHIO
- Most failed RHIO's start with grant dollars
- Funding models for successful RHIO
 - User fees
 - Stakeholder fees
 - Access fees
 - Local, State, and Federal funding

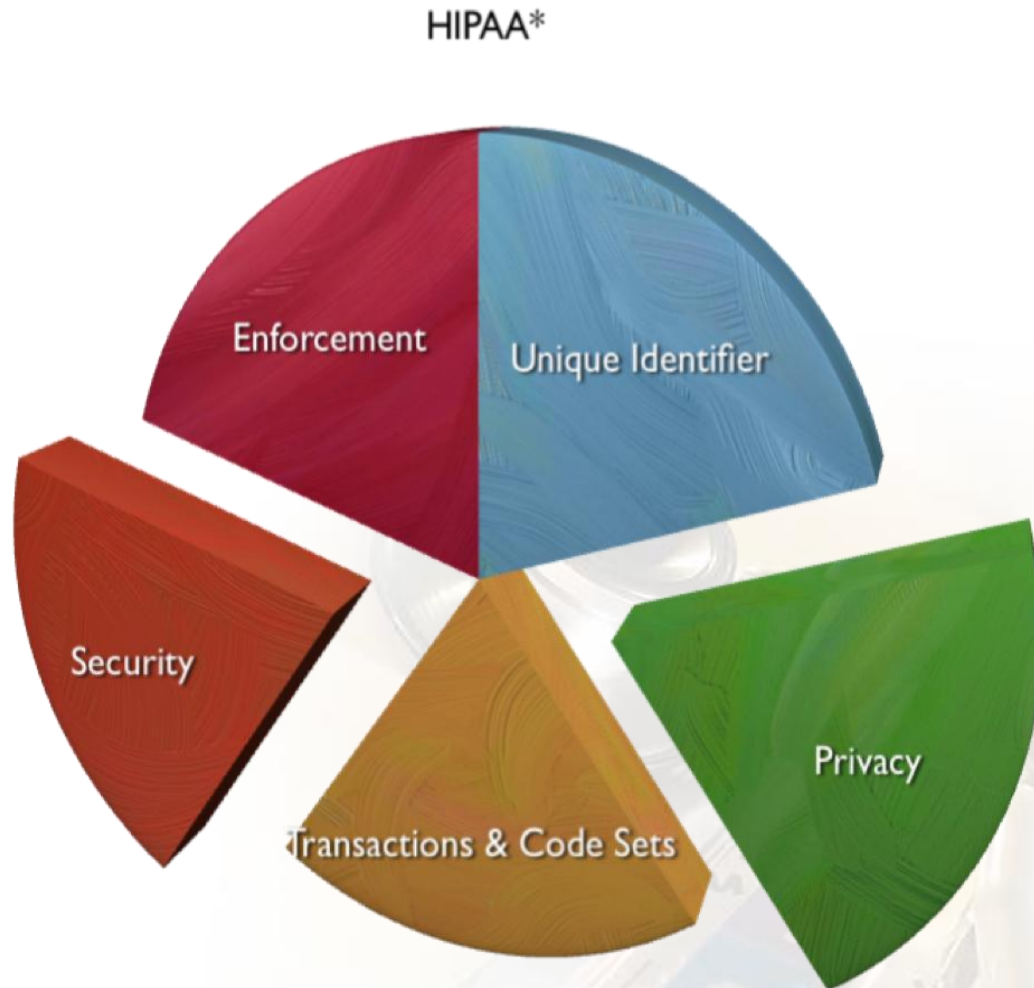


RHIO - Funding

- Future Models for funding
 - Model 1 – Government-led electronic HIE
 - Model 2 – Electronic HIE public utility with strong government oversight
 - Model 3 – Private-Sector-Led electronic HIE with government collaborations



RHIO – HIPAA/Legal Concerns





RHIO – HIPAA/Legal Concerns

- Privacy Rule – actually a disclosure rule
- Security Rule – applies specifically to ePHI
- HIPAA & HITECH
 - Covered Entities & Business Associates
 - Responsibilities of each under HITECH are essentially the same
- HIPAA & RHIO
 - As long as the Covered Entities and the RHIO (as a Business Associate) maintains similar/identical procedures they are HIPAA compliant

**Protect
Patient
Information**





RHIO – HIPAA/Legal Concerns


- HIPAA Security Rule – Safeguards Principle
 - Administrative, technical, and physical safeguards
 - Ensure confidentiality, integrity, and availability
 - To prevent unauthorized or inappropriate access, use, or disclosure

**Protect
Patient
Information**



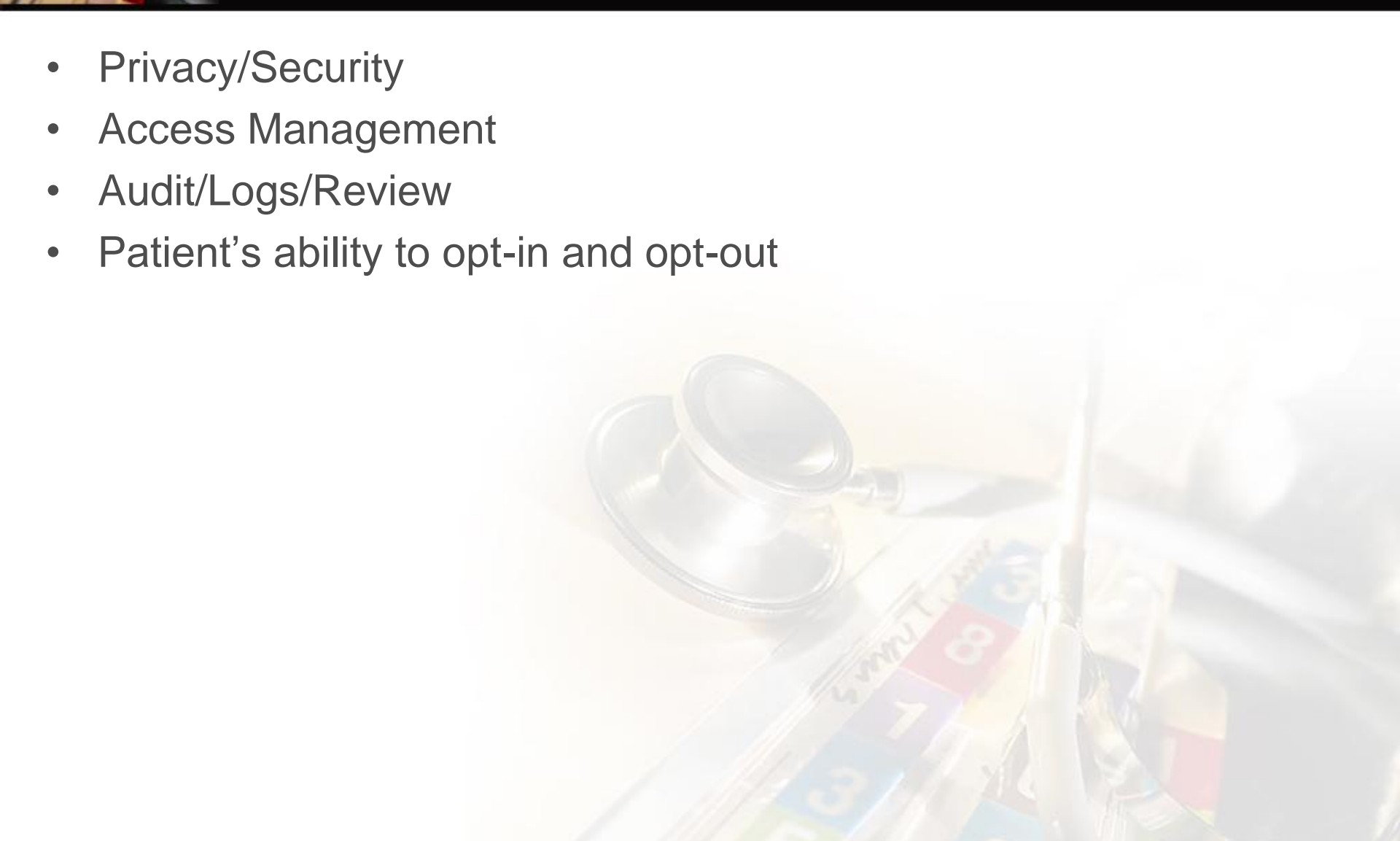


RHIO – Technology/Software

- Software: Build vs. Buy
 - Architecture: Centralized Database vs. Distributed Approach
 - Standards & Compliance
 - Master Patient Index
 - Service Levels
 - Business Continuity
 - Data Exchange
- 



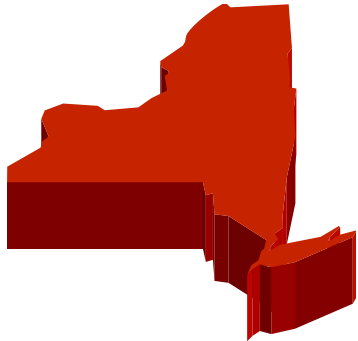
RHIO – Data Ownership/Stewardship

- Privacy/Security
 - Access Management
 - Audit/Logs/Review
 - Patient's ability to opt-in and opt-out
- 

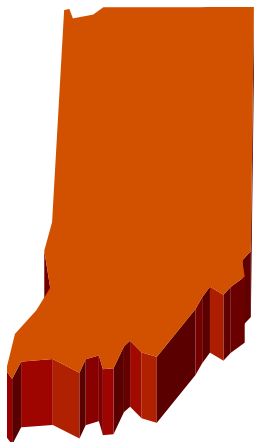


RHIO Case Studies

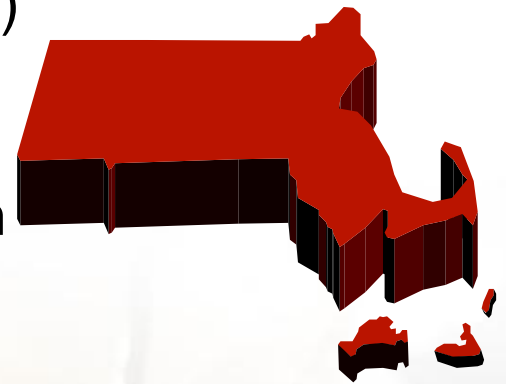
New York HEALTHeLINK



Indiana Health
Information Exchange



Northern Berkshire (MS)
eHealth Collaborative
And
Massachusetts eHealth
Collaborative




RHIO Case Studies - IHIE

- Overview
- CDSS
 - Public Health Surveillance
 - Enhanced Laboratory Reports (ELRs)



Indiana Health Information Exchange

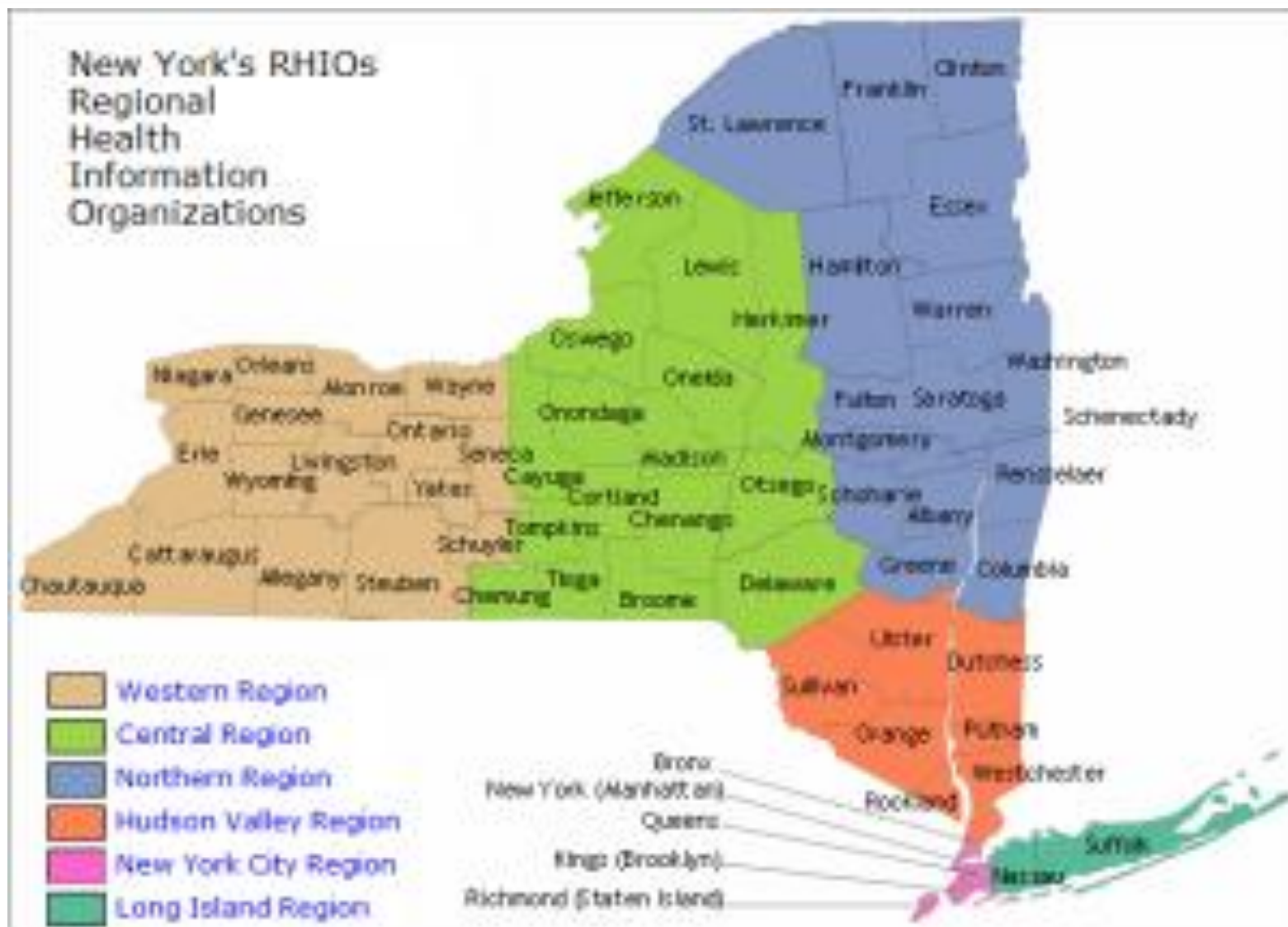
IHIE - ELRs

Hospital Department of Pathology And Laboratory Medicine Indianapolis, IN 46202	Enhanced Report 	Name: LastName, FirstName MRN: xxxxxxxxx DOB: mm/dd/45 Sex: Female Home: (xxx) xxx-xxxx Copy for: Test, Test MD			
Date: Fri 02/01/2009 01:23 PM Ordered by: Test, Test	Accession:	Account: Location:			
** TSH **					
<i>Procedure</i> TSH (3 rd GEN)	<i>Units</i> 5.5*H mcU/mL	<i>Ref Range</i> [0.4-5.0]			
All tests performed at Lab, Indpls, IN 46202					
Additional Clinical Context Added by Regenstrief and <u>not</u> from the reporting laboratory					
Date 12-Dec-08 17-Sep-08 12-Sep-07 14-Jul-06					
TSH (3 rd GEN)	1.28	1.00	1.27	1.55	mcU/mL
T4-Free Level	1.16	.	.	.	ng/dL
	Dose	#	Date Filled / Loc	Ordered by	
Levothyroxine	100 mcg	60	13-Dec-2008 at: CVS	by: Test, Test	
	125 mcg	90	19-Sep-2008 at: CVS	by: Test, Test	
	125 mcg	60	14-Sep-2007 at: Walgreens	by: Test, Test	
	125 mcg	60	14-Jul-2007 at: CVS	by: Test, Test	
---Recent Visits---					
13-Jan-09 Dr Test 1 at CHC.					
04-Dec-08 Dr Test 2 at CHC.					
30-Oct-08 Dr Test 3 at CHC.					
Computer Generated Reminders					
Patient is over 60 years old, advise cautious dosing of thyroid meds. Recommend waiting at least 4-6 weeks after thyroid medication adjustment prior to re-checking TSH.					
Clinical data provided should always be considered incomplete and you should exercise appropriate clinical judgment.					





RHIO Case Studies – HEALTHeLINK



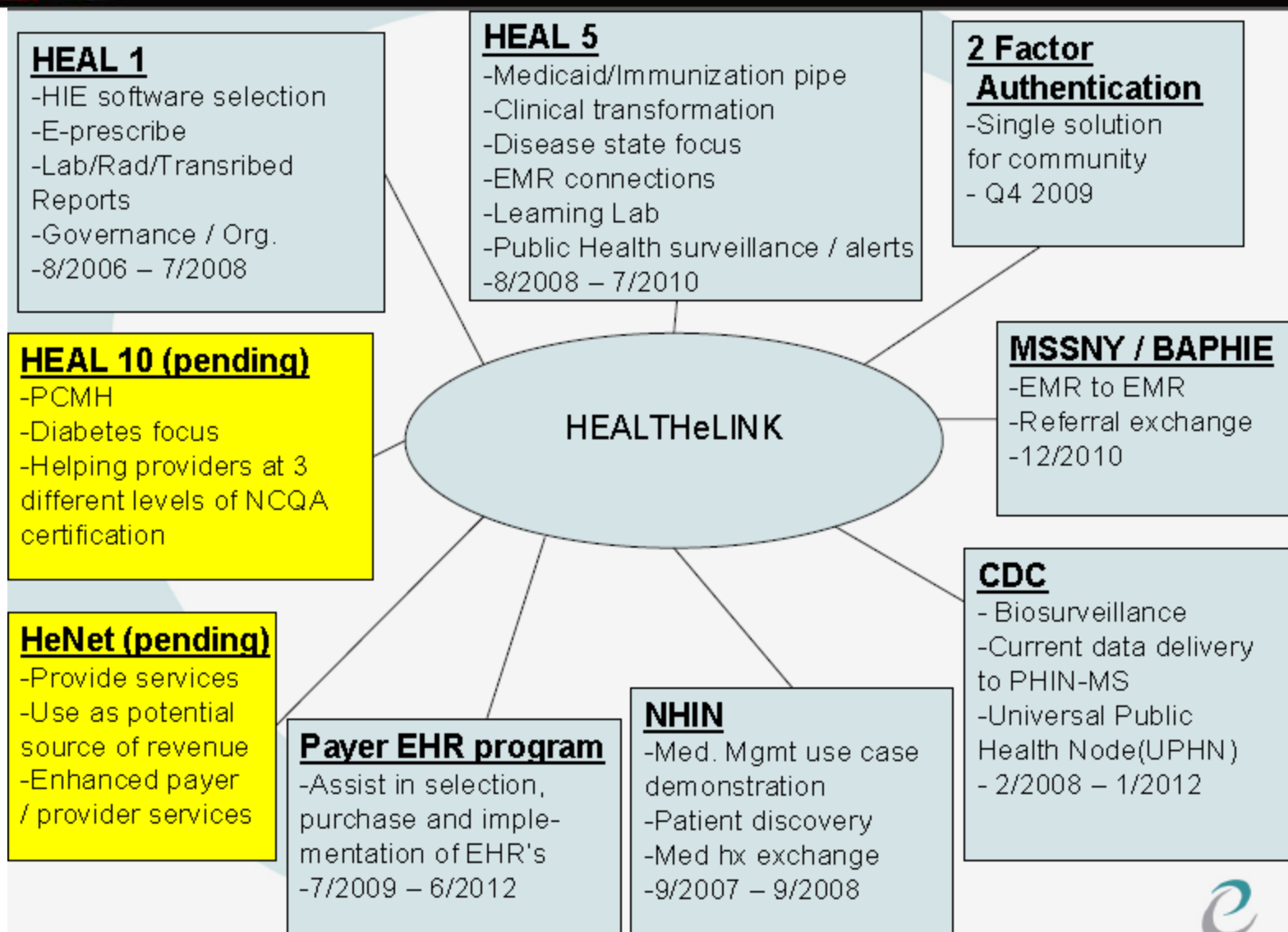
RHIO Case Studies – HEALTHeLINK

Who's linked to HEALTHeLINK?



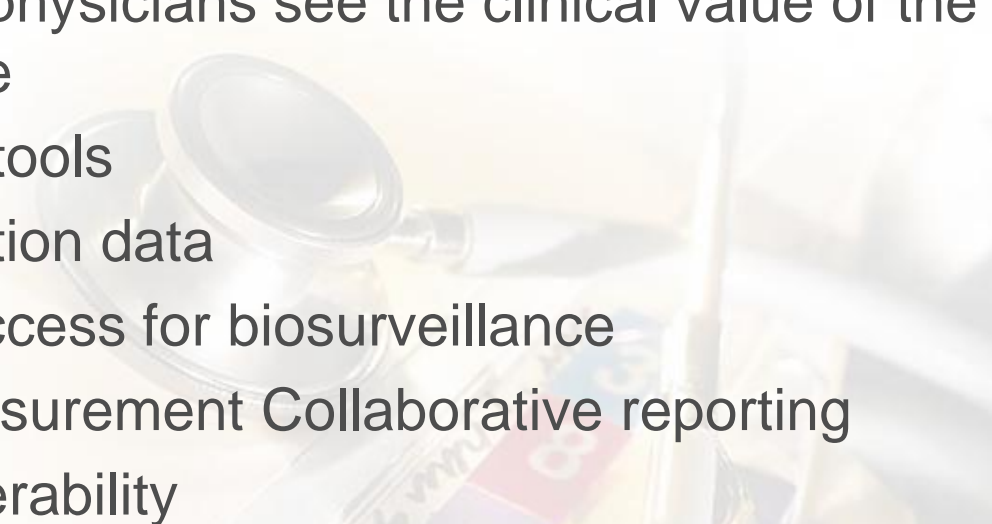


RHIO Case Studies – HEALTHeLINK





RHIO Case Studies – HEALTHeLINK

- HEAL 5 CDS
 - Implementation of Clinical Guidelines (National standards)
 - Clinical transformation – meaningful use recognition
 - Critical clinical data delivery direct to EHR's
 - Learning lab to help physicians see the clinical value of the information exchange
 - Linkage to Medicaid tools
 - Linkage to immunization data
 - Public Health data access for biosurveillance
 - Feed for Quality Measurement Collaborative reporting
 - EHR to EHR interoperability
- 

RHIO Case Studies – MAeHC and NBeHC

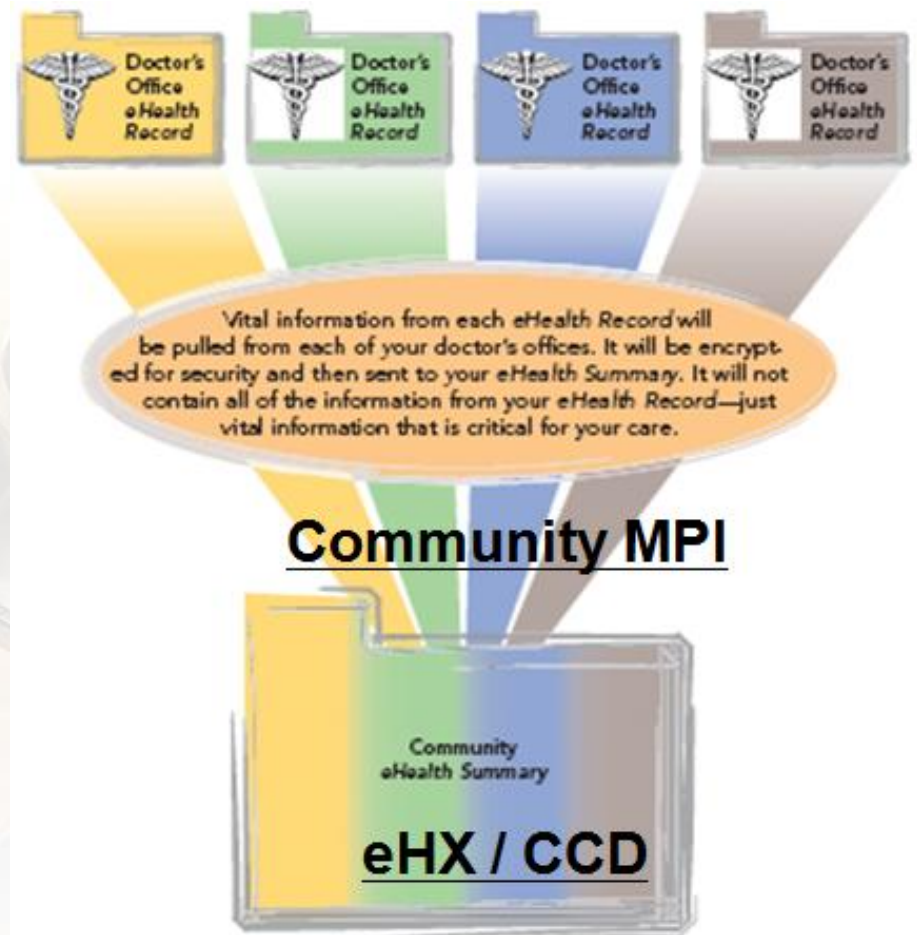
MAeHC

Massachusetts eHealth Collaborative

- Doctor's office record
- The merged e-Health Summary
 - Vital Signs
 - Med List
 - Problem List
 - Procedures
 - Social Hx, Family Hx
 - Alerts/Allergies
 - Lab Results
 - Radiology Results
 - Immunizations

NBeHC

Northern Berkshire eHealth Collaborative





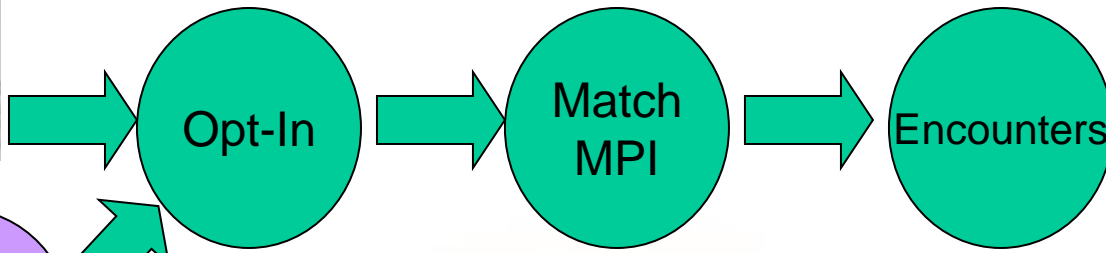
RHIO Case Studies – MAeHC and NBeHC



Office Visit

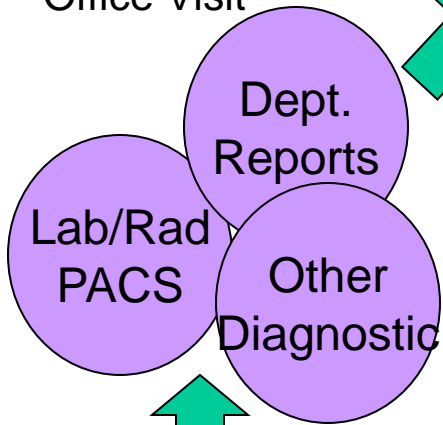
Community HIE

14 Practices - EHRs

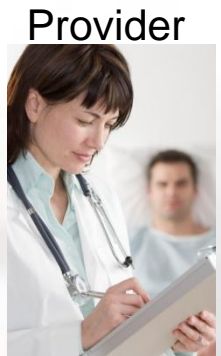
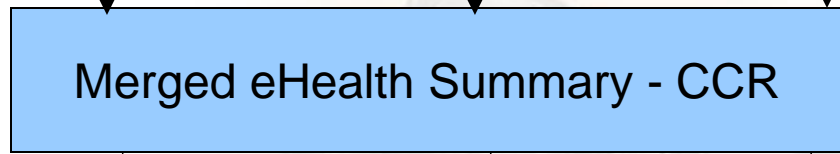
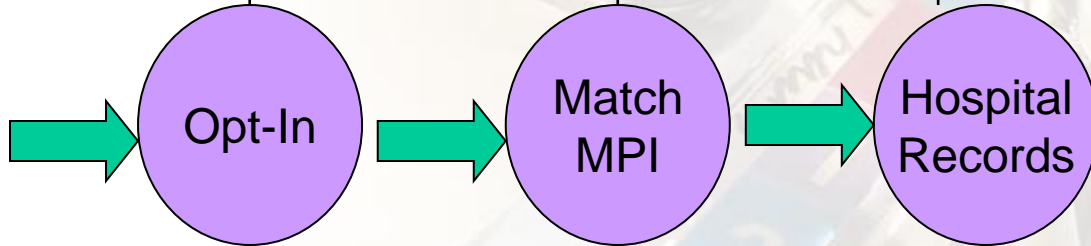


Data from Community Providers

Data from hospitals



Acute Care



Provider

* Filtered by per occurrence consent items (HIV & Genetic Testing)

RHIO Case Studies – MAeHC and NBeHC

eClinicalWeb
Schedule. Prescribe. Chart. Charge.

Home | Sign out

Dr. Robert Hertzig | Patient Search | eHS | Referrals | Labs/Imaging

You have no prior relationship with the following patient:

Patient Name: TEST, TOM
Sex: F
DOB: 12/15/1982
Address: 338 SOUTH STREET, NORTH-BORO MA 01532

If for some reason, you need to access the records, please enter the reason below:

Reason: Emergency Care
If "Other":

[Continue](#)

Reason for Access Required:

eClinicalWeb
Schedule. Prescribe. Chart. Charge.

Home | Sign out

TEST, TOM | General | eHS | Referrals | Labs/Imaging

Merged view by: Date from 04/01/2007 to 05/01/2009 | Facility: All | Name: | Go

eHealth Summary -- Merged View

⚠️ Notice: "This is not the complete medical record for the patient. Other relevant information may be present in records kept elsewhere. Please take appropriate measures to seek all relevant information from all sources."

Patient Demographics

Name	Date of Birth	Gender	Address / Phone
TOM TEST	Dec 15, 1982	female	Primary: 338 SOUTH STREET NORTH-BORO, MA 01532 Home: 617-283-2426

Alerts/Allergies

Type	Date	Code	Description	Reaction	Source
Allergy	Verified: Sep 07, 2006	(NDC)	lactose	can take small amounts	Arthur Turton
Allergy	Verified: Sep 07, 2006	00003013850 (NDC)	Bactrim	makes him dizzy	Arthur Turton

Advance Directives

Type	Date	Description	Status	Source
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Problems

Type	Date	Code	Description	Status	Source
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Procedures

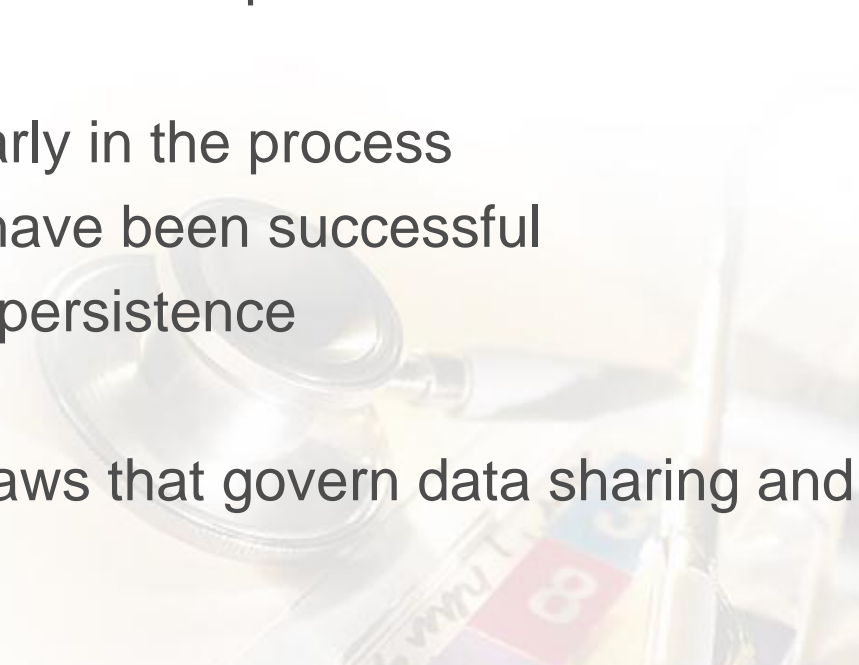


RHIO – Success vs. Failure



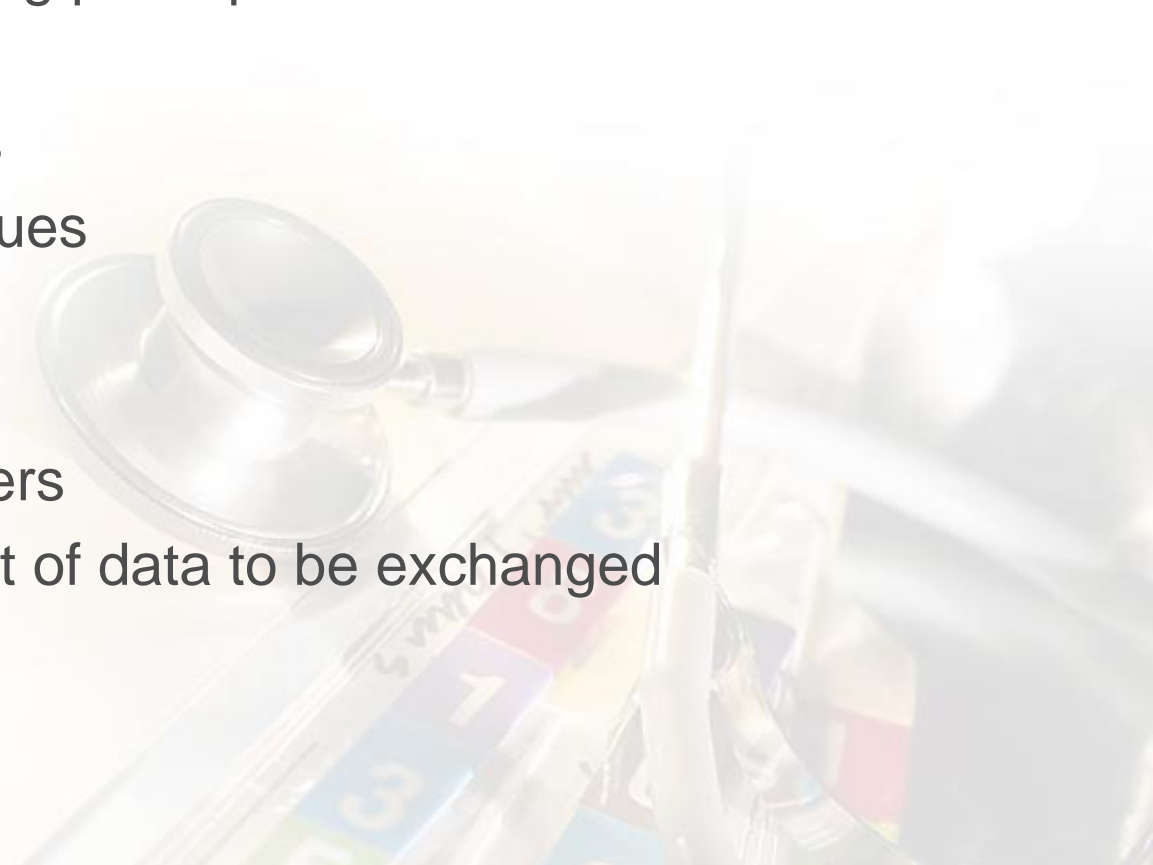


RHIO – Success Factors

- Funding: Pay for Services Model
 - Judicious use of grants initially
 - Implementation in incremental steps
 - Broad stakeholder base
 - Engage Stakeholders early in the process
 - Advice from those who have been successful
 - Planning, patience, and persistence
 - Adaptation
 - Understanding of state laws that govern data sharing and exchange
 - Leadership is essential
- 




RHIO – Failure Points

- Lack of compelling business case
 - Distorted economic incentives
 - Passive leadership among participants
 - Vendor limitations
 - Software/Roll-out delays
 - Privacy and Security Issues
 - Unrealistic timelines
 - Grant funding only
 - Narrow set of stakeholders
 - Overly ambitious amount of data to be exchanged
- 

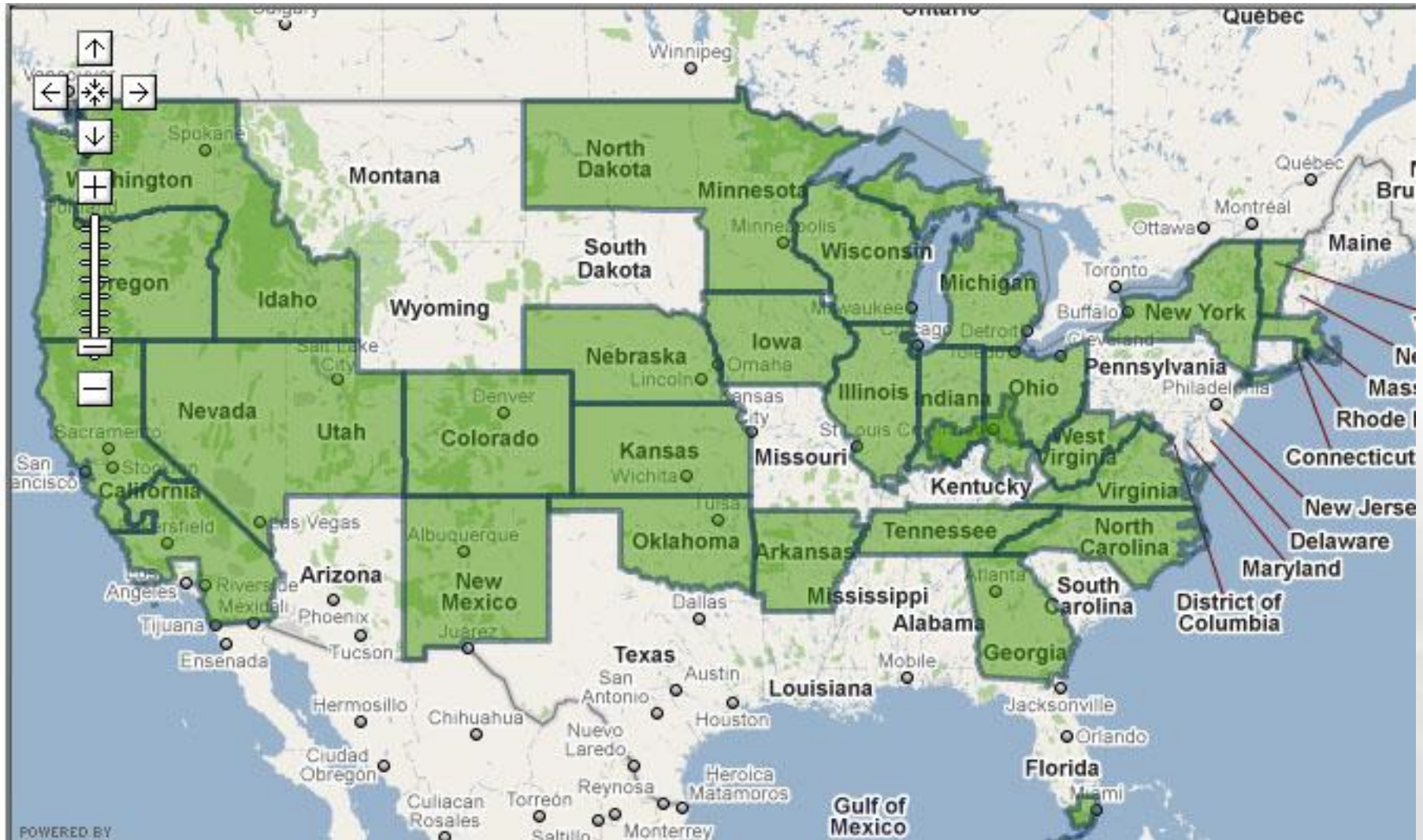


RHIO – CalRHIO collapse

- Unable to come to governance agreement with California eHealth Collaborative (CAeHC)
 - Moved away from being an umbrella organization, to being an HIE with one vendor and one business model
 - Stakeholders and other leaders doubted their ability to oversee HIE for the state
 - Lack of accomplishments
 - Lack of transparency
 - Concern about legal liability
 - Struggling to pay operating costs
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RHIO - Breaking News



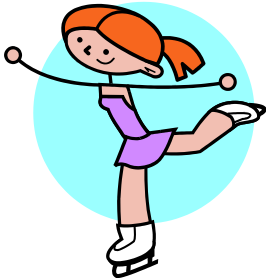


Wrap-up & Questions

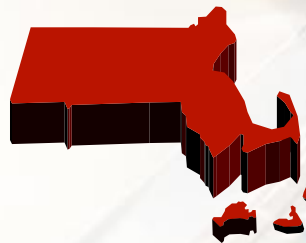


Thank-you

Kary



Connie



Michelle





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