



State of New Hampshire

Health Information Exchange Planning and Implementation Project

"Considering alternatives and narrowing options" discussion document
Technical Infrastructure

July 8, 2010

Agenda

Opening remarks - "Considering alternatives and narrowing options" phase

Discussion of transaction mapping to HIE building blocks

Discussion of prioritization

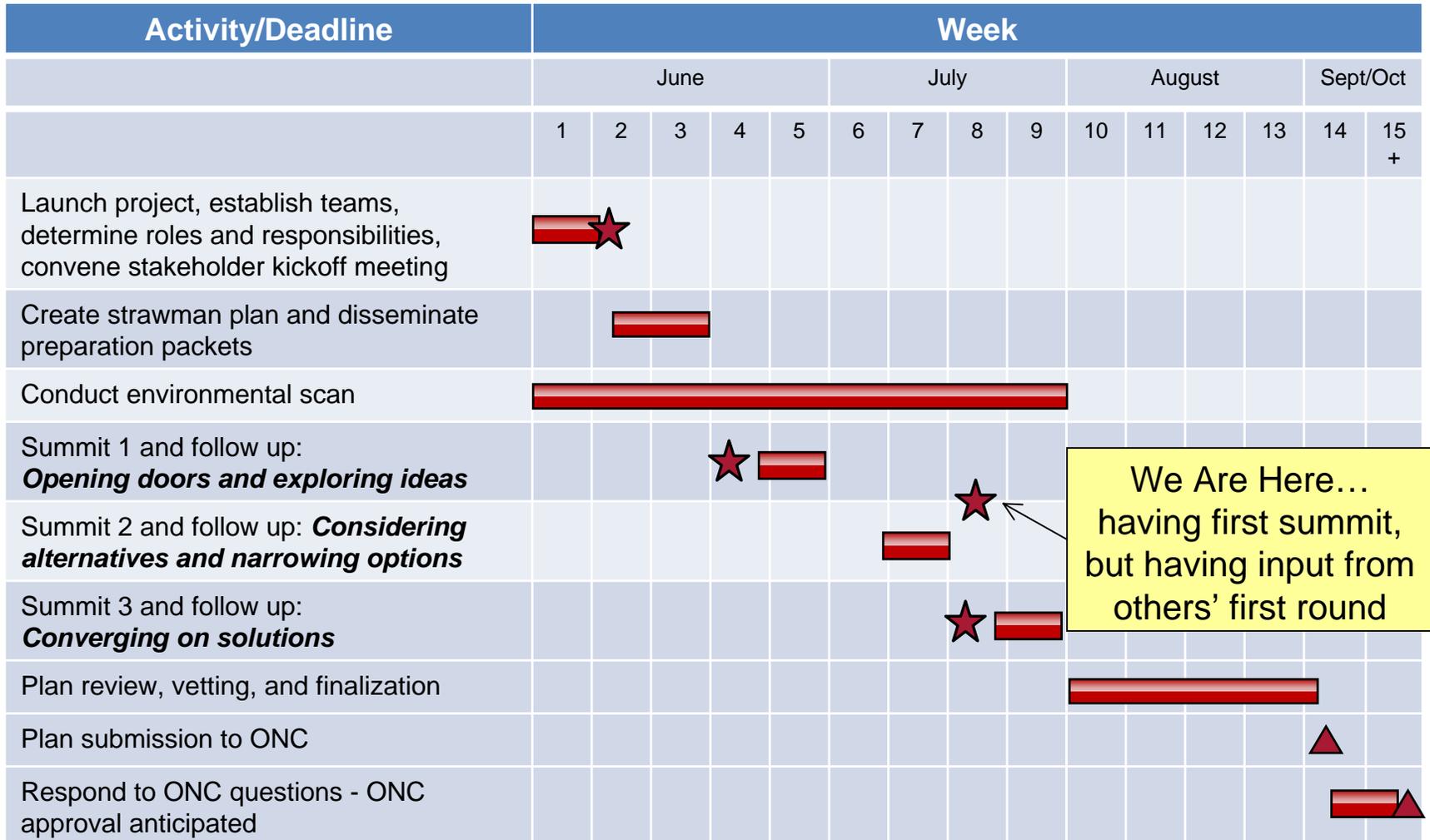
Review of initial technical infrastructure packages

Wrap-up and next steps

Worksheets

Review of Approach and High Level Timeline

Segment 1 Timeline: June 1 – October 31



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Recap of Summit/Teleconferences Round 1

- ❑ Business Operations Working Group
 - Introduced framework and approach
 - Detailed review of reference Use Cases

- ❑ Finance
 - Introduced framework and approach
 - Inventory of financing approaches and options

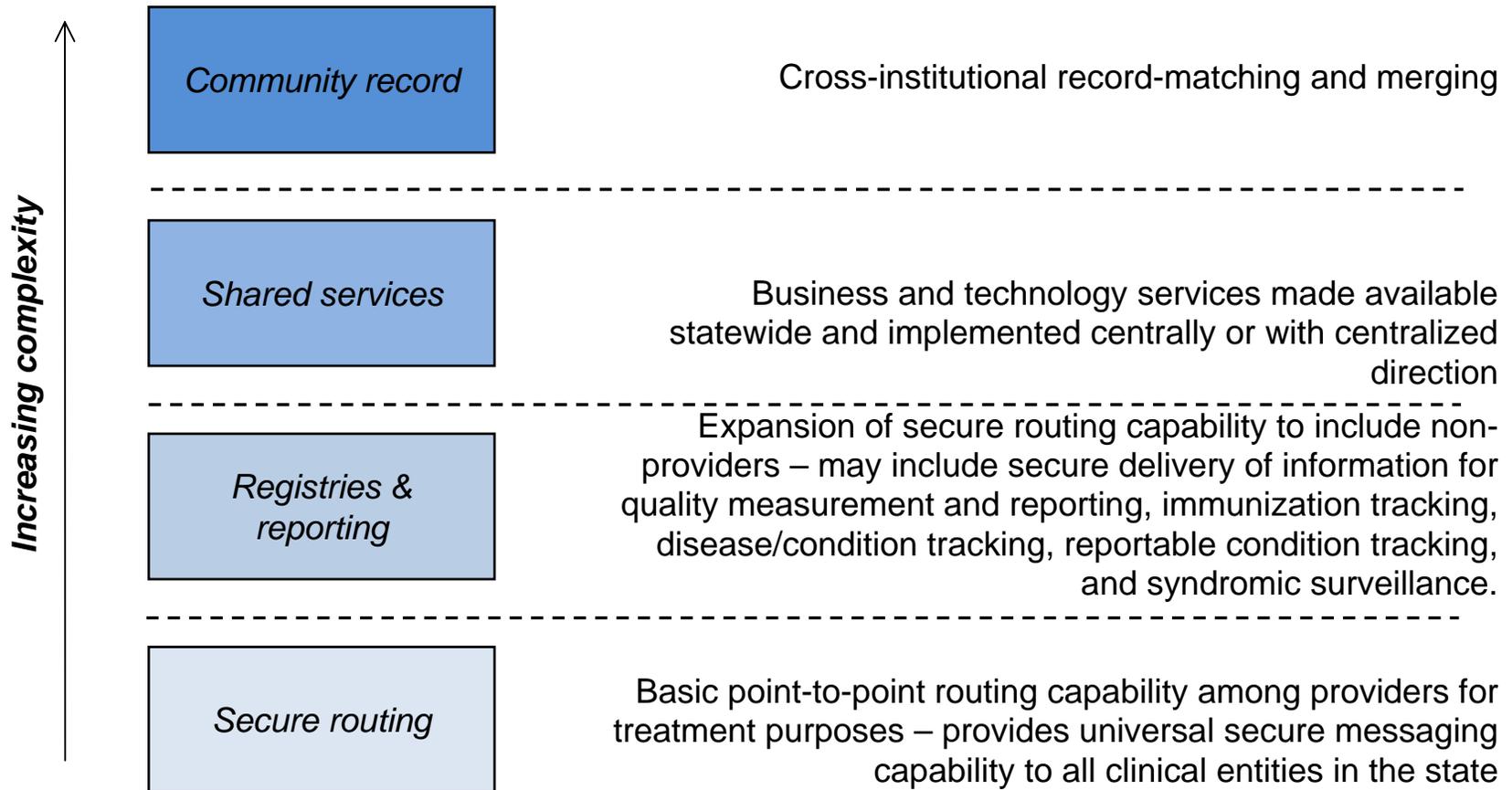
- ❑ Governance
 - Introduced framework and approach
 - Review of governance models and principles

- ❑ Technical infrastructure
 - Introduced framework and approach
 - Review of reference Use Cases

- ❑ Legal/Policy
 - Introduced framework and approach
 - Review of Use Cases in context of NH state law

RECAP: We started with these HIE Building Blocks...

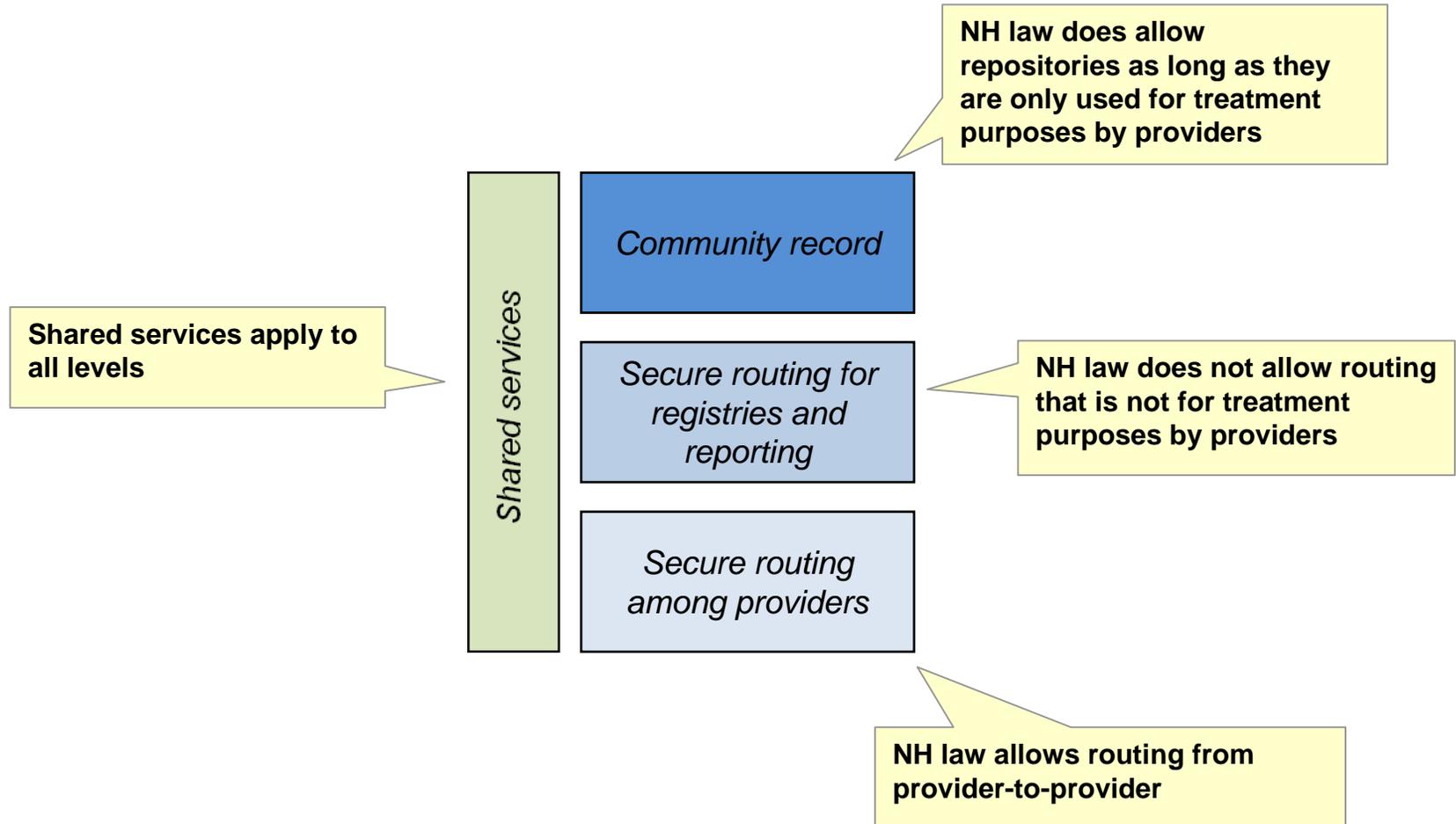
Description



...and these Reference Use Cases

HIE Building Block	What	From whom	To whom
Secure routing	Discharge summary	Hospital	Referring physician and/or PCP
	Discharge summary	Hospital	Hospital
	Discharge summary	Hospital	Other care settings
	Departmental reports	Hospital	Referring physician and/or PCP
	Claims submission & eligibility checking	Hospital	Health plan
	Discharge summary	Hospital	Patient
	Imaging reports	Imaging center	PCP or specialist
	Images	Imaging center	PCP or specialist
	Lab results	Lab	PCP or specialist
	Referral -- Summary of care record	PCP	Specialist
	Referral -- Summary of care record	PCP or specialist	Hospital
	eRX	PCP or specialist	Pharmacy
	Lab order	PCP or specialist	Lab
	Imaging order	PCP or specialist	Imaging center
	Claims submission & eligibility checking	PCP or specialist	Health plan
	Post-visit summary	PCP or specialist	Patient
	Consult note -- Summary of care record	Specialist	PCP
Registries & reporting	Immunization record	Hospital	Public health
	Syndromic surveillance data	Hospital	Public health
	Reportable lab results	Hospital	Public health
	Quality measures	Hospital	CMS and/or NH Medicaid
	Immunization record	PCP or specialist	Public health
	Syndromic surveillance data	PCP or specialist	Public health
Community record	Access to health information	PCP or specialist	Patient
	Medication history	Pharmacy	Hospital
	Medication history	Pharmacy	PCP or specialist
	Community record	Multiple sources	Hospital
	Community record	Multiple sources	PCP or specialist

Round 1 review by all Working Groups have generated some refinements to the HIE Building Blocks....



...and some modifications to the Use Cases...

❑ **Proposed additions to Use Cases**

- Add: Chart review by Public Health for case investigation
- Add: Creation of Radiation Exposure Registry
- Add: Public health labs
 - PH lab results to provider
 - PH lab results to other labs
 - Provider orders to PH labs
- Add: Patient summary request from provider to provider
- Add: Laboratory decision support for revenue cycle management
- Add: Commercial imaging centers and laboratories to use cases
- Add: Public health alerts as per Stage 2 MU recommendations
- Add: Medication history from other clinical sources (not just from pharmacy)
- Add: Quality measure delivery from ambulatory physicians to CMS and/or plans (already had hospitals, just needed to add ambulatory physicians)

❑ **Proposed modifications to use cases**

- Modify: Discharge *instructions* to patient (instead of discharge summary)
- Modify: ADT transactions from hospital to referring physician to PCP (instead of just discharge summaries; includes ED visits)

... leading to an updated Reference Use Case List per Building Block: Secure routing to providers

HIE Building Block	What	From whom	To whom
Secure routing to providers	Consult note -- Summary of care record	Specialist	PCP
Secure routing to providers	eRX	PCP or specialist	Pharmacy
Secure routing to providers	Hospital admission notification	Hospital	Referring physician and/or PCP
Secure routing to providers	Hospital admission notification	Hospital	Referring Hospital
Secure routing to providers	Hospital discharge summary	Hospital	Referring physician and/or PCP
Secure routing to providers	Hospital discharge summary	Hospital	Hospital
Secure routing to providers	Hospital discharge summary	Hospital	Other care settings
Secure routing to providers	Hospital ED visit summary	Hospital	Referring physician and/or PCP
Secure routing to providers	Images	Hospital	PCP or specialist
Secure routing to providers	Images	Imaging center	PCP or specialist
Secure routing to providers	Imaging order	PCP or specialist	Imaging center
Secure routing to providers	Imaging reports	Hospital	PCP or specialist
Secure routing to providers	Imaging reports	Imaging center	PCP or specialist
Secure routing to providers	Key clinical information summary	Hospital	Hospital
Secure routing to providers	Key clinical information summary	PCP or specialist	Hospital
Secure routing to providers	Lab order	PCP or specialist	Hospital
Secure routing to providers	Lab order	PCP or specialist	National lab
Secure routing to providers	Lab results	Hospital	PCP or specialist
Secure routing to providers	Lab results	National lab	PCP or specialist
Secure routing to providers	Lab results	Public health lab	Hospital
Secure routing to providers	Lab results	Public health lab	PCP or specialist
Secure routing to providers	Medication history	Pharmacy	Hospital
Secure routing to providers	Medication history	Pharmacy	PCP or specialist
Secure routing to providers	Referral -- Summary of care record	PCP	Specialist
Secure routing to providers	Referral -- Summary of care record	PCP or specialist	Hospital
Secure routing to providers	Request for key clinical information	Hospital	Hospital
Secure routing to providers	Request for key clinical information	Hospital	PCP or specialist

Updated Reference Use Case List: Expanded secure routing

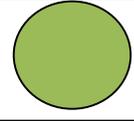
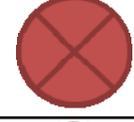
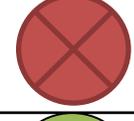
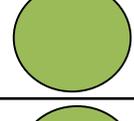
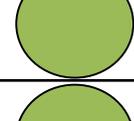
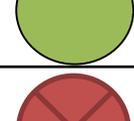
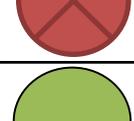
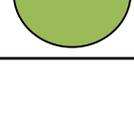
HIE Building Block	What	From whom	To whom
Expanded secure routing	Claims submission & eligibility checki	Hospital	Health plan
Expanded secure routing	Claims submission & eligibility checki	PCP or specialist	Health plan
Expanded secure routing	Immunization record	Hospital	Public health
Expanded secure routing	Immunization record	PCP or specialist	Public health
Expanded secure routing	Laboratory ordering decision support	Payers	PCP or specialist and hospitals
Expanded secure routing	Public health alerts	Public health	Hospital
Expanded secure routing	Public health alerts	Public health	PCP or specialist
Expanded secure routing	Quality measures	Hospital	CMS and/or NH Medicaid
Expanded secure routing	Quality measures	PCP or specialist	CMS and/or NH Medicaid
Expanded secure routing	Radiation exposure report	Hospital	Radiation exposure registry
Expanded secure routing	Radiation exposure report	Imaging center	Radiation exposure registry
Expanded secure routing	Reportable lab results	Hospital	Public health
Expanded secure routing	Syndromic surveillance data	Hospital	Public health
Expanded secure routing	Syndromic surveillance data	PCP or specialist	Public health
Expanded secure routing	Discharge instructions	Hospital	Patient
Expanded secure routing	General medical summary	PCP or specialist	Patient
Expanded secure routing	Post-visit summary	PCP or specialist	Patient

Updated Reference Use Case List: Community record

HIE Building Block	What	From whom	To whom
Community record	Community record	Multiple sources	Hospital
Community record	Community record	Multiple sources	PCP or specialist
Community record	Medication history	Other clinical sources	Hospital
Community record	Medication history	Other clinical sources	PCP or specialist
Community record	Public health case investigation information	Hospital	Public health
Community record	Public health case investigation information	PCP or specialist	Public health

Then we infused some legal perspective to the Consolidated Use Case Transactions...

Can NH HIE Facilitate?

Patient access to information	Provide patients with timely electronic access to their health information (including lab results, problem list, medication lists, allergies) within 96 hours of the information being available to the eligible professional	
Community Record	Capability to exchange key clinical information among providers of care and patient-authorized entities electronically (query capability)	
Quality measure reporting	Report quality measures to CMS or the States – manual in 2011, electronic in 2012	
Public health reporting	Capability to submit electronic data for syndromic surveillance and immunization registries, and actual submission where required and accepted	
Lab/Rad ordering	Use of CPOE – electronic transmission not required until Stage 2	
Referrals/consults (CCD push)	Provide summary of care record for each transition in care	
Hospital documents (CCD push)	Provide summary of care record for each transition in care	
Lab/Rad results (HL7 push)	Structured lab results	
Claims/eligibility checking	Electronic claims and insurance eligibility checking	
eRX	Electronic prescribing transactions and medication history lookup	

... based on New Hampshire Law:
NH RSA 332-I:1 Medical Records; Definitions.

- ❑ **Ownership of Records and Copies**: All medical information contained in the medical records in the possession of any health care provider shall be deemed to be the property of the patient. The patient shall be entitled to a copy of such records upon request.

- ❑ **Definition of HIE and Purpose**: "HIE" means **an entity established for the primary purpose of enabling and overseeing the exchange of protected health information for clinical decision-making purposes**.. . . .
 - "HIE" does not include entities solely owned and operated by health care providers, integrated delivery systems, or pharmacy exchanges.

NH RSA 332-I:3 Use and Disclosure of Protected Health Information; Health Information Exchange.

Providers Only and Treatment Purposes Only

- **Not for Public Health**
- **Not for Payment (i.e., access by payers or insurers)**
- **Not for Quality, Safety, Cost-Effectiveness, or other Operations**

- “Except as provided in paragraph VI, a health care provider or a business associate of a health care provider may disclose an individual's protected health information and information about the location of the individual's medical records to a health information exchange. **Only a health care provider, for purposes of treatment, may have access to protected health information in a” HIE.**

Opt-Out Required

- **Opt-Out for Demographic and Health Information**
- “An individual shall be given an opportunity to opt out of sharing his or her name or address and his or her protected health information through a” HIE.

NH RSA 332-I:3 Use and Disclosure of Protected Health Information; Health Information Exchange.

□ Audit Requirements -

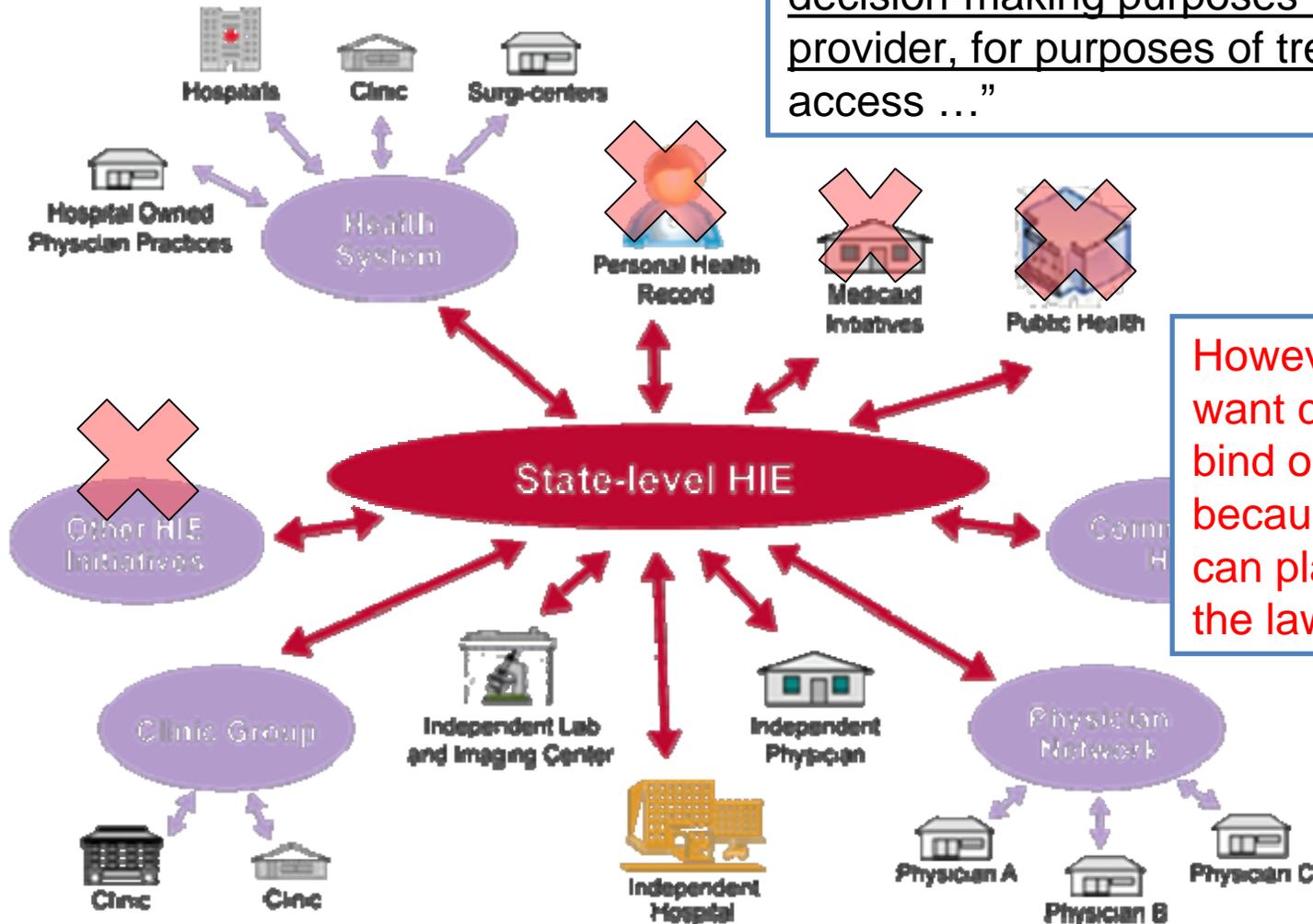
- HIE “shall maintain an **audit log of health care providers who access protected health information**, including:
 - (a) The **identity** of the health care provider accessing the information;
 - (b) The **identity of the individual** whose protected health information was accessed by the health care provider;
 - (c) The **date** the protected health information was accessed; and
 - (d) The **area of the record that was accessed.**”

□ Certification -

- HIE “shall be certified, when federal certification standards are established, to be in compliance with nationally accepted interoperability standards and practices.”

HIE Model under Current NH Law

"Health information exchange" means an entity established for the primary purpose of enabling and overseeing the exchange of protected health information for clinical decision-making purposes "Only a provider, for purposes of treatment" can access . . ."



However, we *don't* want current law to bind our planning because, indeed, we can plan to change the laws if warranted.

Summary of Medicare Meaningful Use Requirements

From CMS NPRM, Dec 2009

With Items that NH HIE Cannot Facilitate Shown in Red

	Stage 1 2011-2012	Stage 2 (est) 2013-2014
Documentation	<ul style="list-style-type: none"> • Structured problem list • Active meds list • Active allergy list, Demographics • Vital signs • Smoking status 	
Patients	<ul style="list-style-type: none"> • Send reminders to patients per patient preference • Provide patients with electronic copy of health information upon request • Provide patients with timely electronic access to their health information within 96 hours of availability to EP 	<ul style="list-style-type: none"> • Make patient data available in PHRs
Decision support	<ul style="list-style-type: none"> • drug-drug, drug-allergy, drug-formulary checks; • order entry for diagnostic tests and prescribing • condition-specific registry reporting 	
Interoperability	<ul style="list-style-type: none"> • electronic claims submission and insurance eligibility checking, • electronic lab results, • eRX, • immunization registry reporting, • summary-of-care record for each transition of care • Capability to exchange key clinical information (1 test) • Medication reconciliation at each transition of care • Capability to submit public health data to public health agencies (1 test) 	<ul style="list-style-type: none"> • Electronic transmission of key clinical information, quality measures, and public health data • Lab ordering • RX histories
Quality measurement	<ul style="list-style-type: none"> • Core plus specialty measures: attestation (2011); electronic report (2012) 	
Privacy & security	<ul style="list-style-type: none"> • Perform security audit 	

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Strawman prioritization

- ❑ Based on WG discussion in Summit 1, we have taken a first-cut at a prioritization of use cases
- ❑ This is a strawman for discussion and modification through the consensus process

- ❑ Prioritization criteria
 - Legality: Adherence with NH State Law
 - Difficulty: Technical, Business/Governance, Legal complexity
 - Demand: Stakeholder interest; federal/state requirements
 - Current market availability: Ability of stakeholders to procure service through existing market health information exchange services

- ❑ Using these criteria, we created a Strawman Phase 1, Phase 2, and Phase 3
 - Does not yet consider that New Hampshire may not want to pursue some functions at all

Strawman Phase 1

HIE Building Block	What	From whom	To whom	Phasing
Secure routing to providers	Consult note -- Summary of care record	Specialist	PCP	1
Secure routing to providers	Hospital admission notification	Hospital	Referring physician and/or PCP	1
Secure routing to providers	Hospital admission notification	Hospital	Referring Hospital	1
Secure routing to providers	Hospital discharge summary	Hospital	Referring physician and/or PCP	1
Secure routing to providers	Hospital discharge summary	Hospital	Hospital	1
Secure routing to providers	Hospital ED visit summary	Hospital	Referring physician and/or PCP	1
Secure routing to providers	Imaging reports	Hospital	PCP or specialist	1
Secure routing to providers	Key clinical information summary	Hospital	Hospital	1
Secure routing to providers	Key clinical information summary	PCP or specialist	Hospital	1
Secure routing to providers	Lab results	Hospital	PCP or specialist	1
Secure routing to providers	Referral -- Summary of care record	PCP	Specialist	1
Secure routing to providers	Referral -- Summary of care record	PCP or specialist	Hospital	1
Secure routing to providers	Request for key clinical information	Hospital	Hospital	1
Secure routing to providers	Request for key clinical information	Hospital	PCP or specialist	1

Strawman Phase 2

HIE Building Block	What	From whom	To whom	Phasing
Secure routing to providers	Hospital discharge summary	Hospital	Other care settings	2
Secure routing to providers	Lab order	PCP or specialist	Hospital	2
Secure routing to providers	Lab results	Public health lab	Hospital	2
Secure routing to providers	Lab results	Public health lab	PCP or specialist	2
Expanded secure routing	Immunization record	Hospital	Public health	2
Expanded secure routing	Immunization record	PCP or specialist	Public health	2
Expanded secure routing	Laboratory ordering decision support	Payers	PCP or specialist and hospitals	2
Expanded secure routing	Reportable lab results	Hospital	Public health	2
Expanded secure routing	Syndromic surveillance data	Hospital	Public health	2
Expanded secure routing	Syndromic surveillance data	PCP or specialist	Public health	2
Community record	Community record	Multiple sources	Hospital	2
Community record	Community record	Multiple sources	PCP or specialist	2
Community record	Medication history	Other clinical sources	Hospital	2
Community record	Medication history	Other clinical sources	PCP or specialist	2

Strawman Phase 3

HIE Building Block	What	From whom	To whom	Phasing
Secure routing to providers	eRX	PCP or specialist	Pharmacy	3
Secure routing to providers	Images	Hospital	PCP or specialist	3
Secure routing to providers	Images	Imaging center	PCP or specialist	3
Secure routing to providers	Imaging order	PCP or specialist	Imaging center	3
Secure routing to providers	Imaging reports	Imaging center	PCP or specialist	3
Secure routing to providers	Lab order	PCP or specialist	National lab	3
Secure routing to providers	Lab results	National lab	PCP or specialist	3
Secure routing to providers	Medication history	Pharmacy	Hospital	3
Secure routing to providers	Medication history	Pharmacy	PCP or specialist	3
Expanded secure routing	Claims submission & eligibility checki	Hospital	Health plan	3
Expanded secure routing	Claims submission & eligibility checki	PCP or specialist	Health plan	3
Expanded secure routing	Discharge instructions	Hospital	Patient	3
Expanded secure routing	General medical summary	PCP or specialist	Patient	3
Expanded secure routing	Post-visit summary	PCP or specialist	Patient	3
Expanded secure routing	Public health alerts	Public health	Hospital	3
Expanded secure routing	Public health alerts	Public health	PCP or specialist	3
Expanded secure routing	Quality measures	Hospital	CMS and/or NH Medicaid	3
Expanded secure routing	Quality measures	PCP or specialist	CMS and/or NH Medicaid	3
Expanded secure routing	Radiation exposure report	Hospital	Radiation exposure registry	3
Expanded secure routing	Radiation exposure report	Imaging center	Radiation exposure registry	3
Community record	Public health case investigation inform	Hospital	Public health	3
Community record	Public health case investigation inform	PCP or specialist	Public health	3

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Discussion of transaction mapping to HIE building blocks

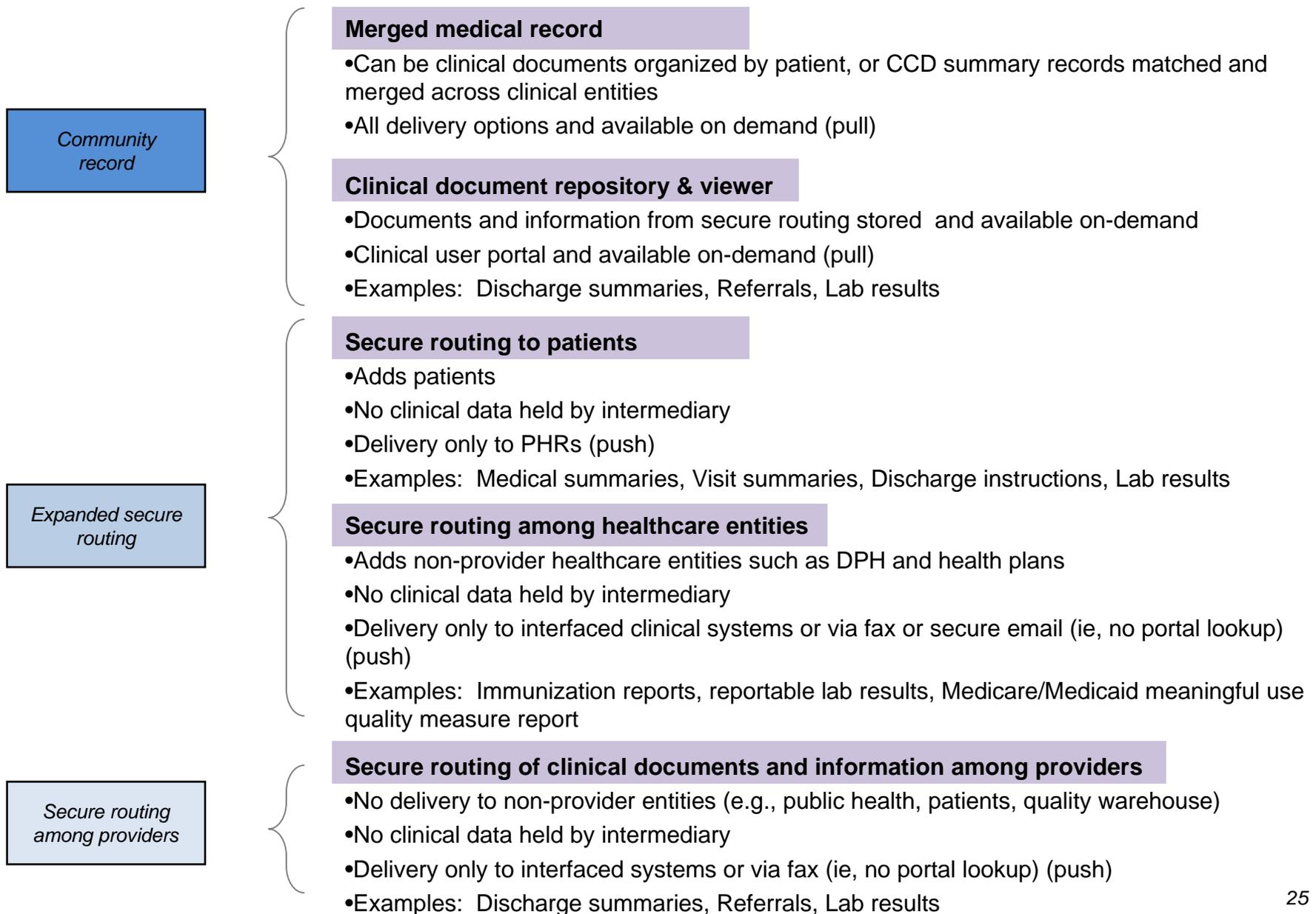
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Review of initial technical infrastructure packages

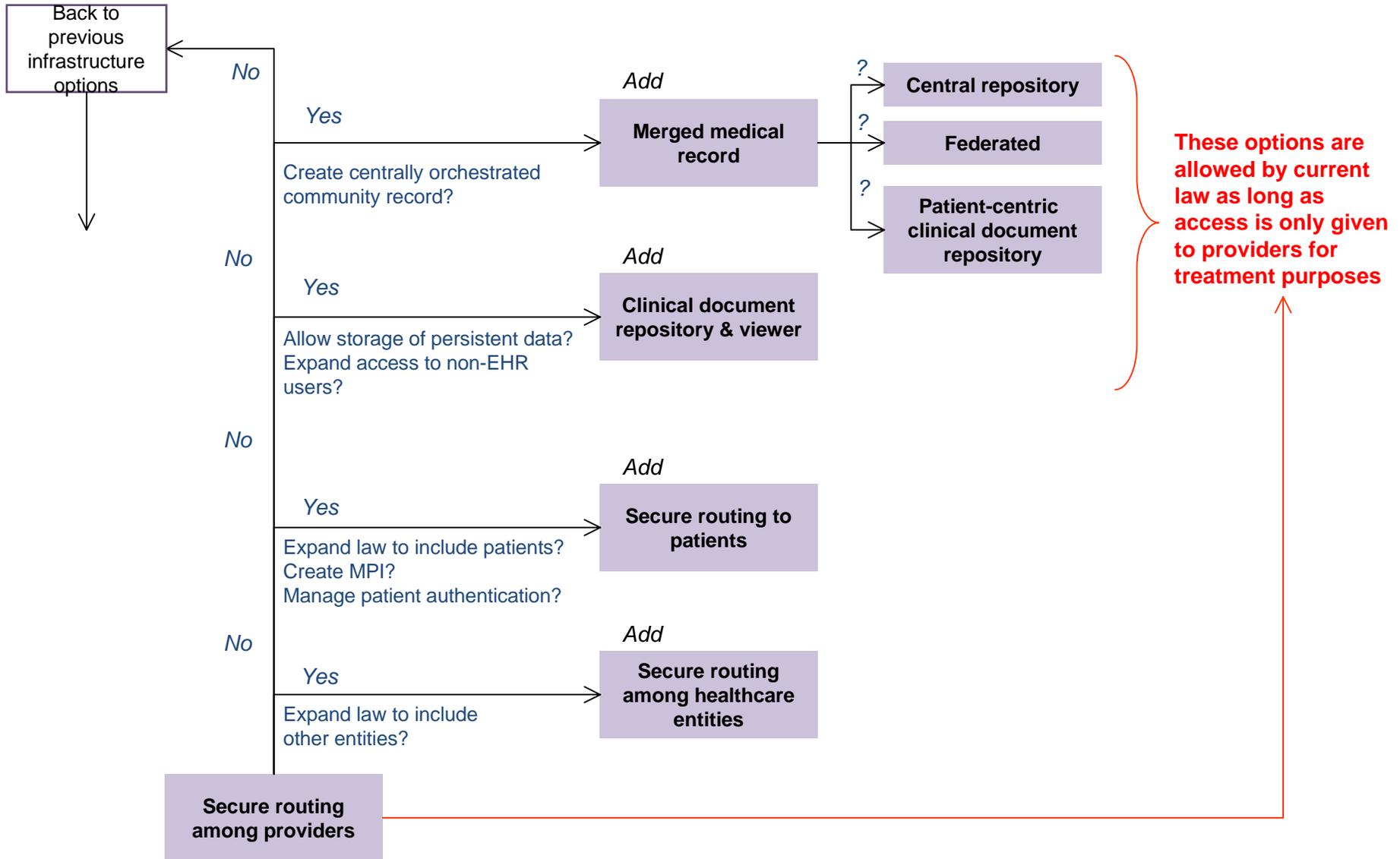
Wrap-up and next steps

Worksheets

HIE Building Block Options Mapped to Infrastructure Components



Infrastructure Components Logic Tree



Complexity Progression of Building Blocks

HIE building block

Infrastructure components

Added complexity of each block

Merged medical record

Add integrated clinical records

Patient directory (MPI)
Clinical document or clinical data repository

- Persistent data
- Requires patient-matching
- For merging records, minimally requires message structure/format standardization

Clinical document repository & viewer

Add portal access for non-EHR users

Message/document repository
Clinical user portal

- Persistent data
- Requires management of end-user authentication & authorization and support for portal end-users
- Can add patient-matching to organize documents, but not required for document delivery and viewing

Secure routing among health care entities & patients

Add delivery to patients

Patient directory (MPI)
Delivery adaptor (PHR)

- Adds entities not allowed by current NH law
- Requires patient-matching and authentication

Secure routing among health care entities

Add delivery to non-provider entities

Non-provider entity registry (e.g., public health, quality warehouses, social services, etc)

- Adds entities not allowed by current NH law

Secure routing of clinical documents and information among providers

Core infrastructure: Secure routing to providers

Authentication & secure transport
Provider entity registry
Provider directory
Message format translation & validation
Message routing
Delivery acknowledgement
Audit/logging
Delivery adaptors (clinical system, fax, secure email)

- Simplest step up from current state
- No persistent data
- No patient-matching
- Only includes providers
- No portal

Technical Infrastructure Workgroup

Endpoint systems considerations

HIE building block

Considerations for each level

Add integrated clinical records

Central clinical data repository

- X
- Y
- Z

Federated Clinical data repository

- X
- Y
- Z

Patient-centric clinical document repository

- X
 - Y
 - Z
-

Add portal access for non-EHR users

Clinical document repository & viewer

- X
 - Y
 - Z
-

Add delivery to patients

Secure routing to patients

- X
 - Y
 - Z
-

Add delivery to non-provider entities

Secure routing among healthcare entities

- X
 - Y
 - Z
-

Core infrastructure:

Secure routing among providers

- X
- Y
- Z

Technical Infrastructure Workgroup

HIE application considerations

HIE building block

Considerations for each level

Add integrated clinical records

Central clinical data repository

- X
- Y
- Z

Federated Clinical data repository

- X
- Y
- Z

Patient-centric clinical document repository

- X
 - Y
 - Z
-

Add portal access for non-EHR users

Clinical document repository & viewer

- X
 - Y
 - Z
-

Add delivery to patients

Secure routing to patients

- X
 - Y
 - Z
-

Add delivery to non-provider entities

Secure routing among healthcare entities

- X
 - Y
 - Z
-

Core infrastructure:

Secure routing among providers

- X
- Y
- Z

Technical Infrastructure Workgroup

Addressing considerations

HIE building block

Considerations for each level

Add integrated clinical records

Central clinical data repository

- X
- Y
- Z

Federated Clinical data repository

- X
- Y
- Z

Patient-centric clinical document repository

- X
 - Y
 - Z
-

Add portal access for non-EHR users

Clinical document repository & viewer

- X
 - Y
 - Z
-

Add delivery to patients

Secure routing to patients

- X
 - Y
 - Z
-

Add delivery to non-provider entities

Secure routing among healthcare entities

- X
 - Y
 - Z
-

Core infrastructure:

Secure routing among providers

- X
- Y
- Z

Patient identity management considerations

HIE building block

Considerations for each level

Add integrated clinical records

Central clinical
data repository

- X
- Y
- Z

Federated Clinical
data repository

- X
- Y
- Z

Patient-centric
clinical document
repository

- X
- Y
- Z

Add portal access for non-EHR users

Clinical document
repository & viewer

- X
- Y
- Z

Add delivery to patients

Secure routing to
patients

- X
- Y
- Z

Add delivery to non-provider entities

Secure routing
among healthcare
entities

- X
- Y
- Z

Core infrastructure:

Secure routing
among providers

- X
- Y
- Z

Technical Infrastructure Workgroup

Trust relationship considerations

HIE building block

Considerations for each level

Add integrated clinical records

Central clinical data repository

- X
- Y
- Z

Federated Clinical data repository

- X
- Y
- Z

Patient-centric clinical document repository

- X
 - Y
 - Z
-

Add portal access for non-EHR users

Clinical document repository & viewer

- X
 - Y
 - Z
-

Add delivery to patients

Secure routing to patients

- X
 - Y
 - Z
-

Add delivery to non-provider entities

Secure routing among healthcare entities

- X
 - Y
 - Z
-

Core infrastructure:

Secure routing among providers

- X
- Y
- Z

Technical Infrastructure Workgroup

Transport security considerations

HIE building block

Considerations for each level

Add integrated clinical records

Central clinical data repository

- X
- Y
- Z

Federated Clinical data repository

- X
- Y
- Z

Patient-centric clinical document repository

- X
- Y
- Z

Add portal access for non-EHR users

Clinical document repository & viewer

- X
- Y
- Z

Add delivery to patients

Secure routing to patients

- X
- Y
- Z

Add delivery to non-provider entities

Secure routing among healthcare entities

- X
- Y
- Z

Core infrastructure:

Secure routing among providers

- X
- Y
- Z

Modes of transactions considerations

HIE building block

Considerations for each level

Add integrated clinical records

Central clinical data repository

- X
- Y
- Z

Federated Clinical data repository

- X
- Y
- Z

Patient-centric clinical document repository

- X
- Y
- Z

Add portal access for non-EHR users

Clinical document repository & viewer

- X
- Y
- Z

Add delivery to patients

Secure routing to patients

- X
- Y
- Z

Add delivery to non-provider entities

Secure routing among healthcare entities

- X
- Y
- Z

Core infrastructure:

Secure routing among providers

- X
- Y
- Z

Consent management considerations

HIE building block

Considerations for each level

Add integrated clinical records

Central clinical data repository

- X
- Y
- Z

Federated Clinical data repository

- X
- Y
- Z

Patient-centric clinical document repository

- X
- Y
- Z

Add portal access for non-EHR users

Clinical document repository & viewer

- X
- Y
- Z

Add delivery to patients

Secure routing to patients

- X
- Y
- Z

Add delivery to non-provider entities

Secure routing among healthcare entities

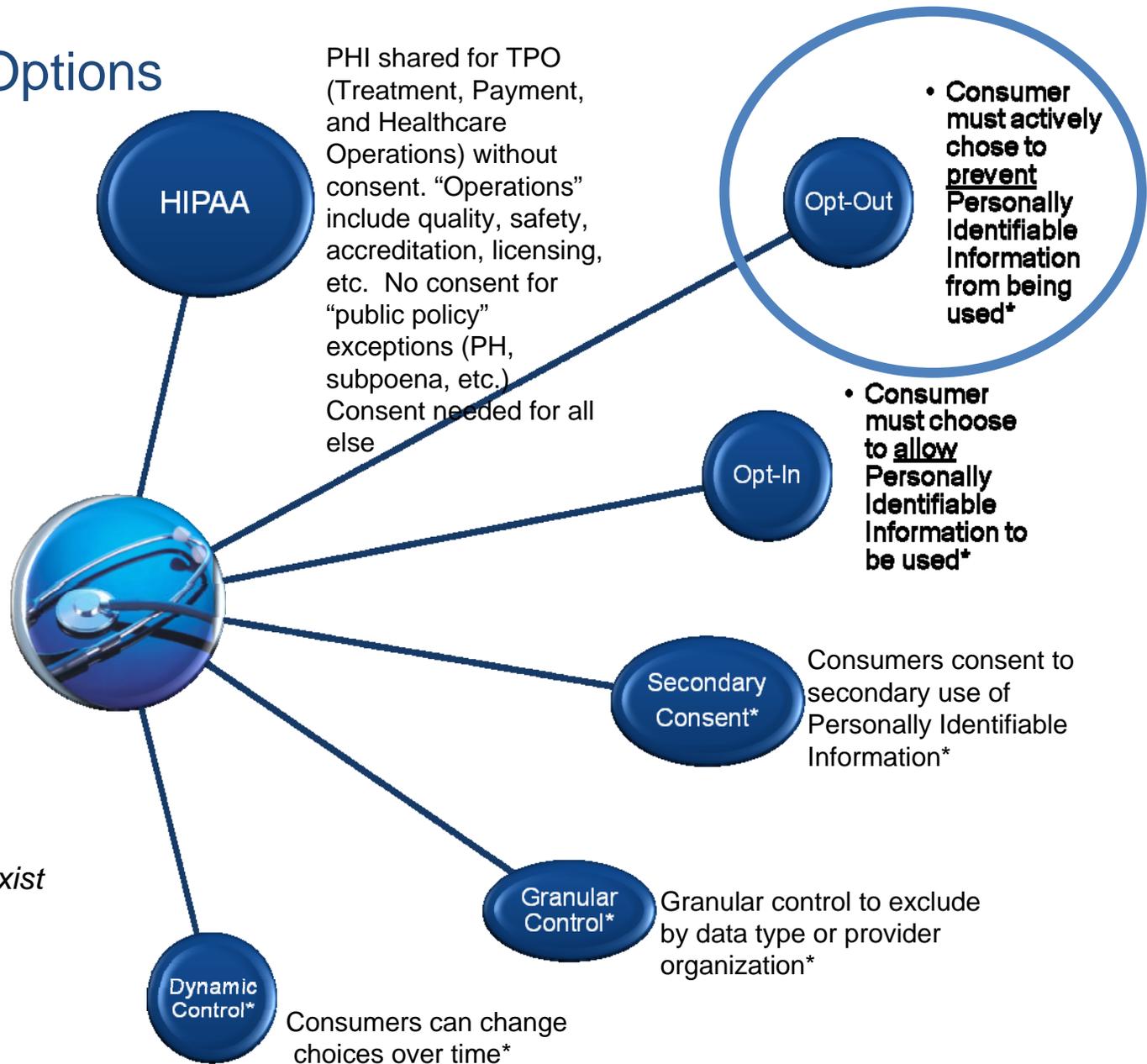
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Core infrastructure:

Secure routing among providers

- X
- Y
- Z

Consent Options

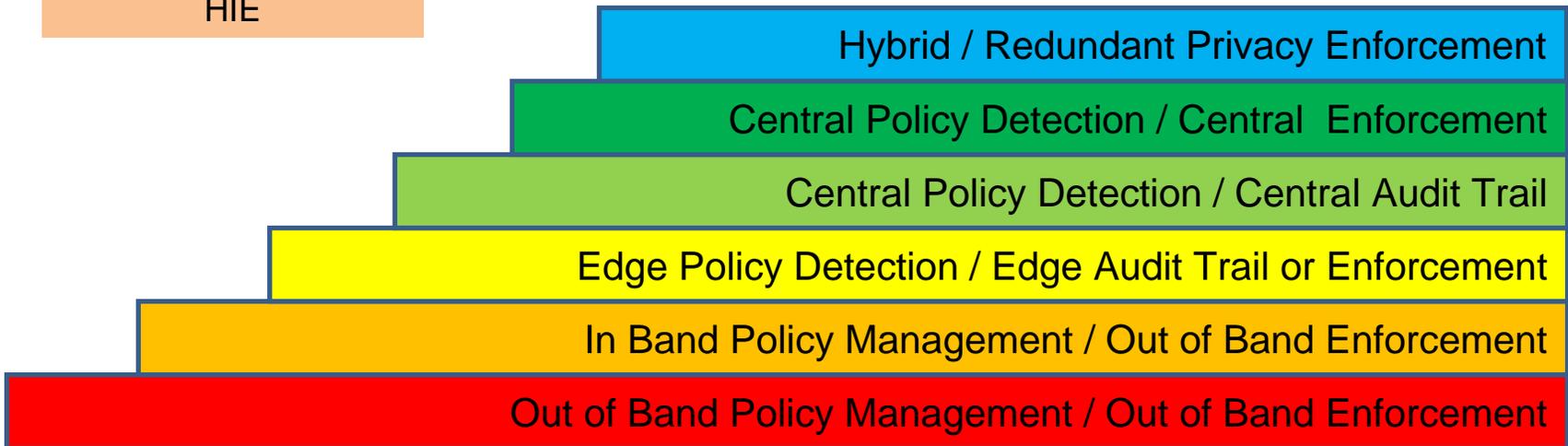


**Multiple variations exist*

Progression of Privacy Management

There are different tiers of privacy protection which may be implemented in an HIE

Protected Health Information



Privacy and Security Safeguards

- ❑ Audit Logging - Audit trail or audit log is a chronological sequence of audit records, each of which contains evidence directly pertaining to and resulting from the execution of a business process or system function. Audit records typically result from activities such as transactions or communications by individual people, systems, accounts or other entities. Webopedia defines an audit trail as "a record showing who has accessed a computer system and what operations he or she has performed during a given period of time."
 - ***NH law has specific audit log requirements (set forth later)***

- ❑ Encryption - encryption is the process of transforming information (referred to as plaintext) using an algorithm (called cipher) to make it unreadable to anyone except those possessing special knowledge, usually referred to as a key.
 - Encryption is also used to protect data in transit, for example data being transferred via networks (e.g. the Internet, e-commerce. There have been numerous reports of data in transit being intercepted in recent years.
 - Encrypting data in transit also helps to secure it as it is often difficult to physically secure all access to networks.

Privacy and Security Safeguards

- ❑ Authentication – Establishing the identity of a user. The ways in which someone may be authenticated include: something you know, something you have, or something you are.
 - The **ownership factors**: Something the user **has** (e.g., wrist band, ID card, [security token](#), [software token](#), [phone](#), or [cell phone](#)).
 - The **knowledge factors**: Something the user **knows** (e.g., a [password](#), [pass phrase](#), or [personal identification number](#) (PIN), [challenge response](#) (the user must answer a question)).
 - The **inherence factors**: Something the user **is** or **does** (e.g., [fingerprint](#), [retinal](#) pattern, [DNA](#) sequence (there are assorted definitions of what is sufficient), [signature](#), face, voice, unique bio-electric signals, or other [biometric](#) identifier).

- ❑ Principle of Least Privilege means giving a user powers which are absolutely essential to do his/her work. This requires that an abstraction layer where every module (such as a process, a user, etc.) must be able to access only such information and resources that are necessary to its legitimate purpose. [Treatment]

Agenda

Opening remarks - "Considering alternatives and narrowing options" phase

Discussion of transaction mapping to HIE building blocks

Discussion of prioritization

Review of initial technical infrastructure packages and business/technical operations approaches

Wrap-up and next steps

Worksheets

Wrap up and next steps

- ❑ Next conference call: 7/14/2010, 10am – 12pm ET, (877) 449-6558 Access Code 7352914860
- ❑ Next Summit: 7/22/2010, 12pm – 4pm ET, (877) 449-6558 Access Code 7352914860
- ❑ Meeting summary to be distributed to all workgroups
- ❑ Offline consideration of transaction prioritization