



State of New Hampshire

Health Information Exchange Planning and Implementation Project

"Considering alternatives and narrowing options"  
Discussion document for Finance Work Group

July 14, 2010

# Agenda

Welcome and catch up on new developments from last week

Guided Discussion:

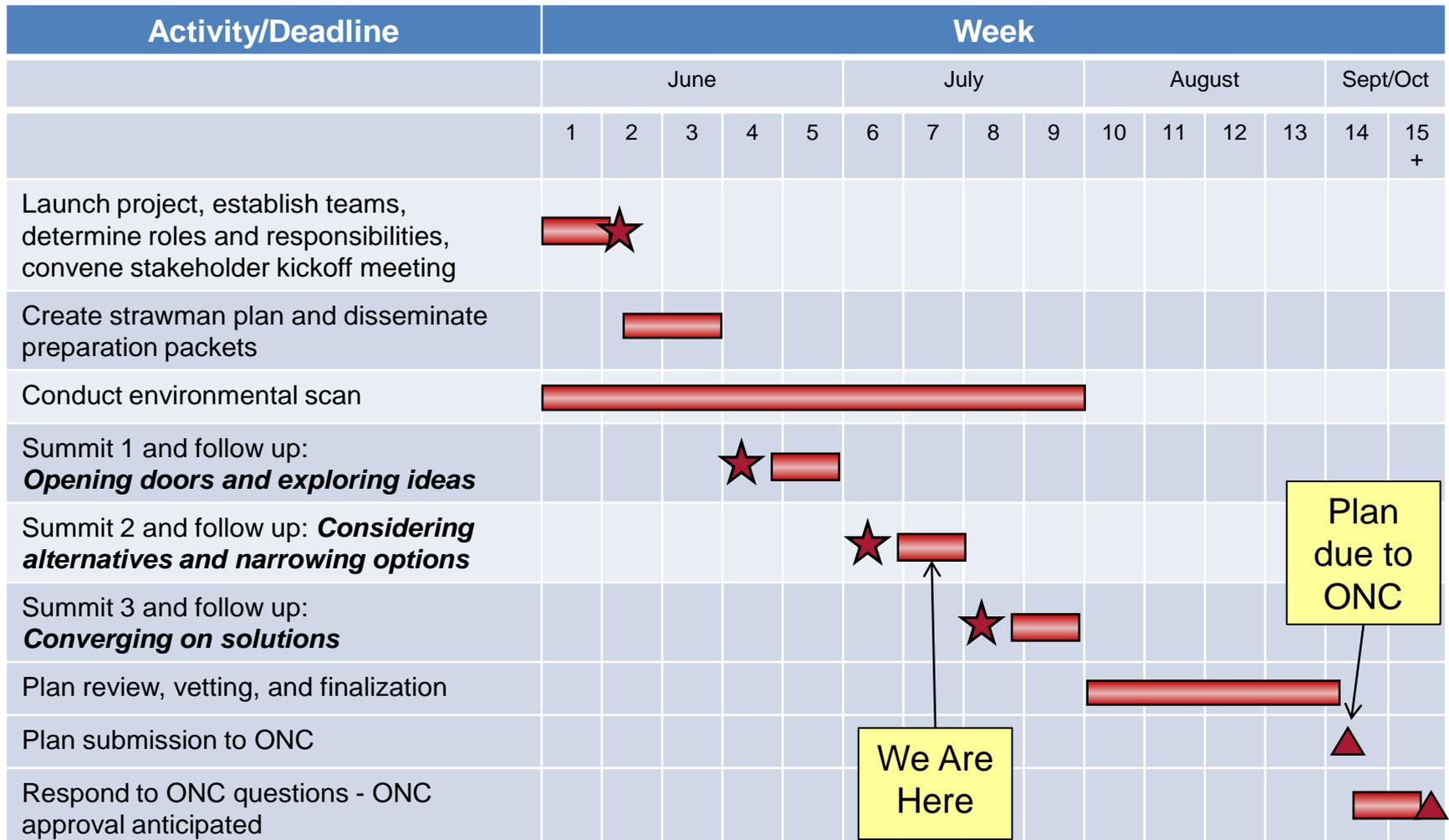
- Phase 1 components under consideration by all workgroups and clarification of technical infrastructure
- Coming to consensus on the Finance elements required for this first phase
- Given time we will repeat this for later phase elements

Wrap up and next steps

Appendix

# Review of Approach and High Level Timeline

## Segment 1 Timeline: June 1 – October 31



## “Converging on Solutions“ – objectives for today

- ❑ Gain consensus on the Finance components required for secure routing among providers for treatment purposes
  
- ❑ To inform this objective, catch up on new developments from last week
  - Program Information Notice
  - Consensus on Building Blocks by Business and Technical Infrastructure WG
  - Developments regarding management of opt-out and audit requirements

## Considerations from the ONC Program Information Notice

- ❑ State Level HIE cooperative agreement to be viewed as one-time investment
- ❑ Concern that States do not have the time or money to deploy robust HIEs
- ❑ Concern that states are mandating provider and hospital participation as part of sustainability model
- ❑ Strong guidance to leverage existing infrastructure and to identify and fill gaps
- ❑ Guiding Principles
  - Support privacy and security
  - Focus on desired outcomes, especially meaningful use of EHRs
  - Support HIE services and adoption for all relevant stakeholder organizations, including providers in small practices, across a broad range of uses and scenarios
  - Be operationally feasible and achievable, building on what is already working
  - Remain vigilant and adapt to emerging trends and developments
  - Foster innovation

## Considerations from the ONC Program Information Notice (cont...)

- ❑ Ensure that all eligible providers have at least one option available to them to meet the HIE requirements of MU in 2011 – Concrete and operationally feasible plan to address and enable; E-prescribing, Receipt of structured lab results, Sharing patient care summaries across unaffiliated organizations
- ❑ Fulfill six responsibilities:
  - Initiate a transparent multi-stakeholder process – analyze and understand HIE currently taking place in state, complete gap analysis, and address gaps
  - Monitor and track MU HIE capabilities in state
    - x% clinical Laboratories send results electronically
    - x% pharmacies accept electronic prescribing and refill requests
    - x% Health Departments electronically receiving immunizations, syndromic surveillance, and notifiable lab results
    - x% Health Plans support electronic eligibility and claims transactions
  - Assure trust of information sharing must be consistent with and address the elements in: [http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS\\_0\\_10731\\_848088\\_0\\_0\\_18/NationwidePS\\_Framework-5.pdf](http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_10731_848088_0_0_18/NationwidePS_Framework-5.pdf)
  - Set strategy to meet gaps in HIE capabilities for MU – specifically
    - Building capacity of public health systems to accept electronic reporting of immunizations, notifiable diseases, and syndromic surveillance reporting from providers
    - Enabling clinical quality reporting to Medicaid and Medicare
  - Ensure consistency with National policies and standards
  - Align with Medicaid and Public Health

# Considerations from the ONC Program Information Notice (cont...)

## ❑ Strategy to Meet Meaningful Use

- Fill gaps identified in environment scan
- Invest federal dollars and matching funds to enable eligible providers to have at least one option for the following Stage 1 meaningful use requirements in 2011:
  - E-prescribing
  - Receipt of structured lab results
  - Sharing patient care summaries across unaffiliated organizations
- Address future strategy to address other required information sharing capabilities including:
  - Building capacity of public health systems to accept electronic reporting of immunizations, notifiable diseases, and syndromic surveillance reporting from providers
  - Enabling electronic MU and clinical quality reporting to CMS

## Catch up on other workgroup progress and additional discussions

- ❑ Organization discussion from Business and Technical Operations
  - Agreement on use case prioritization and phasing
  - Consensus on building blocks
  
- ❑ Discussion with legislator regarding concerns with current law
  - Management of opt-out
  - Management of audit log requirement

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## Guided Discussion:

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Wrap up and next steps

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# Review of HIE Building Blocks Mapped to Infrastructure Components

*Community record*

## **Merged medical record**

- Can be clinical documents organized by patient, or CCD summary records matched and merged across clinical entities
- All delivery options and available on demand (pull)

## **Clinical document repository & viewer**

- Documents and information from secure routing stored and available on-demand
- Clinical user portal and available on-demand (pull)
- Examples: Discharge summaries, Referrals, Lab results

## **Secure routing to patients**

- Adds patients
- No clinical data held by intermediary
- Delivery only to PHRs (push)
- Examples: Medical summaries, Visit summaries, Discharge instructions, Lab results

## **Secure routing among healthcare entities**

- Adds non-provider healthcare entities such as DPH and health plans
- No clinical data held by intermediary
- Delivery only to interfaced clinical systems or via fax or secure email (ie, no portal lookup) (push)
- Examples: Immunization reports, reportable lab results, Medicare/Medicaid meaningful use quality measure report

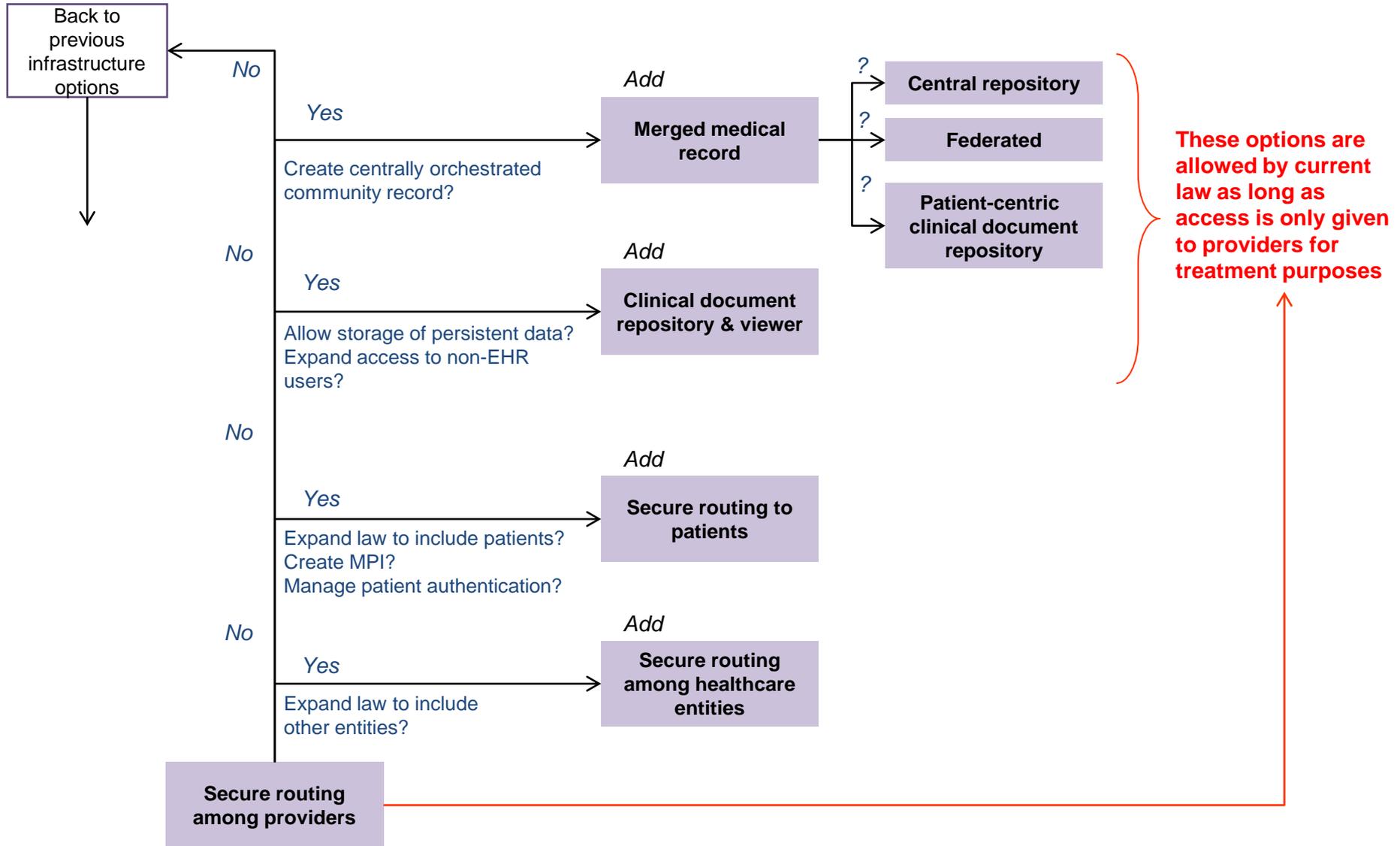
## **Secure routing of clinical documents and information among providers**

- No delivery to non-provider entities (e.g., public health, patients, quality warehouse)
- No clinical data held by intermediary
- Delivery only to interfaced systems or via fax (ie, no portal lookup) (push)
- Examples: Discharge summaries, Referrals, Lab results

*Expanded secure routing*

*Secure routing among providers*

# Review of Infrastructure Components Logic Tree



# HEALTH INFORMATION EXCHANGES

## 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

# Finance consideration for phase 1 building block (starting at the bottom)

## Merged medical record

- Same as below, plus...

## Clinical document repository & viewer

- Same as below, plus...

## Secure routing to patients

- Same as below, plus...

## Secure routing among healthcare entities

- Same as below, plus...

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## Secure routing among providers

- Cost considerations
- Demand considerations
- Revenue considerations

Today we will be focusing on gaining consensus on phase 1 finance elements

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Wrap up and next steps

Appendix

## Wrap up and next steps

- ❑ Next conference call: July 20, 2:00 - 3:00
- ❑ Next Summit: #3 Converging on Solutions- July 26, 1:00 - 5:00 13 Brown 232
- ❑ Meeting summary to be distributed to all workgroups

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## Updated Reference Use Case List: 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

## 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

## Backup: Prioritization matrix details – Phase 1 and Phase 2

HIE Building Block	What	From whom	To whom	Legality	Difficulty	Demand for service	Current market availability	Phasing
Secure routing to providers	Consult note -- Summary of care record	Specialist	PCP	1	1	1	2	1
Secure routing to providers	Hospital admission notification	Hospital	Referring physician and/or PCP	1	1	1	2	1
Secure routing to providers	Hospital admission notification	Hospital	Referring Hospital	1	1	1	3	1
Secure routing to providers	Hospital discharge summary	Hospital	Referring physician and/or PCP	1	1	1	2	1
Secure routing to providers	Hospital discharge summary	Hospital	Hospital	1	1	1	3	1
Secure routing to providers	Hospital ED visit summary	Hospital	Referring physician and/or PCP	1	1	1	2	1
Secure routing to providers	Imaging reports	Hospital	PCP or specialist	1	1	1	2	1
Secure routing to providers	Key clinical information summary	Hospital	Hospital	1	1	1	3	1
Secure routing to providers	Key clinical information summary	PCP or specialist	Hospital	1	1	1	2	1
Secure routing to providers	Lab results	Hospital	PCP or specialist	1	1	1	2	1
Secure routing to providers	Referral -- Summary of care record	PCP	Specialist	1	1	1	2	1
Secure routing to providers	Referral -- Summary of care record	PCP or specialist	Hospital	1	1	1	2	1
Secure routing to providers	Request for key clinical information	Hospital	Hospital	1	1	1	3	1
Secure routing to providers	Request for key clinical information	Hospital	PCP or specialist	1	1	1	2	1

HIE Building Block	What	From whom	To whom	Legality	Difficulty	Demand for service	Current market availability	Phasing
Secure routing to providers	Hospital discharge summary	Hospital	Other care settings	1	2	1	3	2
Secure routing to providers	Lab order	PCP or specialist	Hospital	1	2	2	3	2
Secure routing to providers	Lab results	Public health lab	Hospital	1	2	3	3	2
Secure routing to providers	Lab results	Public health lab	PCP or specialist	1	2	3	3	2
Expanded secure routing	Immunization record	Hospital	Public health	3	1	1	3	2
Expanded secure routing	Immunization record	PCP or specialist	Public health	3	1	1	3	2
Expanded secure routing	Laboratory ordering decision support	Payers	PCP or specialist and hospitals	3	3	1	2	2
Expanded secure routing	Reportable lab results	Hospital	Public health	3	1	2	3	2
Expanded secure routing	Syndromic surveillance data	Hospital	Public health	3	1	2	3	2
Expanded secure routing	Syndromic surveillance data	PCP or specialist	Public health	3	2	2	3	2
Community record	Community record	Multiple sources	Hospital	1	3	2	3	2
Community record	Community record	Multiple sources	PCP or specialist	1	3	2	3	2
Community record	Medication history	Other clinical sources	Hospital	1	3	1	3	2
Community record	Medication history	Other clinical sources	PCP or specialist	1	3	1	3	2

# Backup: Prioritization matrix details – Phase 3

HIE Building Block	What	From whom	To whom	Legality	Difficulty	Demand for service	Current market availability	Phasing
Secure routing to providers	eRX	PCP or specialist	Pharmacy	1	3	1	1	3
Secure routing to providers	Images	Hospital	PCP or specialist	1	3	2	2	3
Secure routing to providers	Images	Imaging center	PCP or specialist	1	3	3	3	3
Secure routing to providers	Imaging order	PCP or specialist	Imaging center	1	3	3	3	3
Secure routing to providers	Imaging reports	Imaging center	PCP or specialist	1	2	3	3	3
Secure routing to providers	Lab order	PCP or specialist	National lab	1	3	2	1	3
Secure routing to providers	Lab results	National lab	PCP or specialist	1	3	2	1	3
Secure routing to providers	Medication history	Pharmacy	Hospital	1	3	1	1	3
Secure routing to providers	Medication history	Pharmacy	PCP or specialist	1	3	1	1	3
Expanded secure routing	Claims submission & eligibility checki	Hospital	Health plan	3	3	3	1	3
Expanded secure routing	Claims submission & eligibility checki	PCP or specialist	Health plan	3	3	1	1	3
Expanded secure routing	Discharge instructions	Hospital	Patient	3	3	1	1	3
Expanded secure routing	General medical summary	PCP or specialist	Patient	3	3	1	1	3
Expanded secure routing	Post-visit summary	PCP or specialist	Patient	3	3	1	1	3
Expanded secure routing	Public health alerts	Public health	Hospital	3	3	2	3	3
Expanded secure routing	Public health alerts	Public health	PCP or specialist	3	3	2	3	3
Expanded secure routing	Quality measures	Hospital	CMS and/or NH Medicaid	3	3	3	2	3
Expanded secure routing	Quality measures	PCP or specialist	CMS and/or NH Medicaid	3	3	3	3	3
Expanded secure routing	Radiation exposure report	Hospital	Radiation exposure registry	3	3	3	3	3
Expanded secure routing	Radiation exposure report	Imaging center	Radiation exposure registry	3	3	3	3	3
Community record	Public health case investigation infor	Hospital	Public health	3	3	3	3	3
Community record	Public health case investigation infor	PCP or specialist	Public health	3	3	3	3	3