



State of New Hampshire

Health Information Exchange Planning and Implementation Project

Phase 3 “Converging on Solutions” discussion deck  
Business and Technical Operations Workgroup

July 20, 2010

# Agenda

Opening remarks, review of work to date, review of initial consensus areas

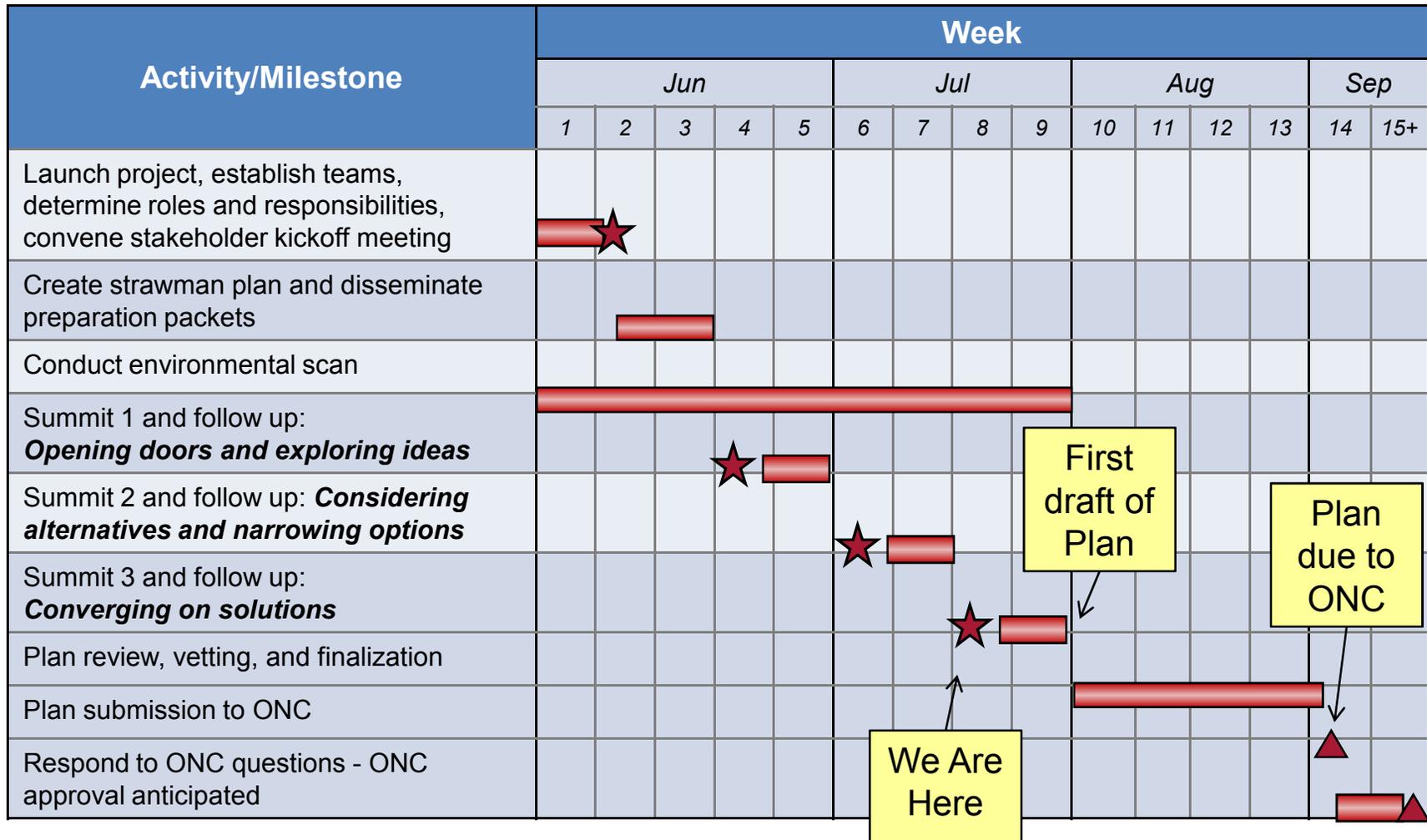
Converging on Solutions – Generating content for the strategic and operational plans

Wrap up and next steps

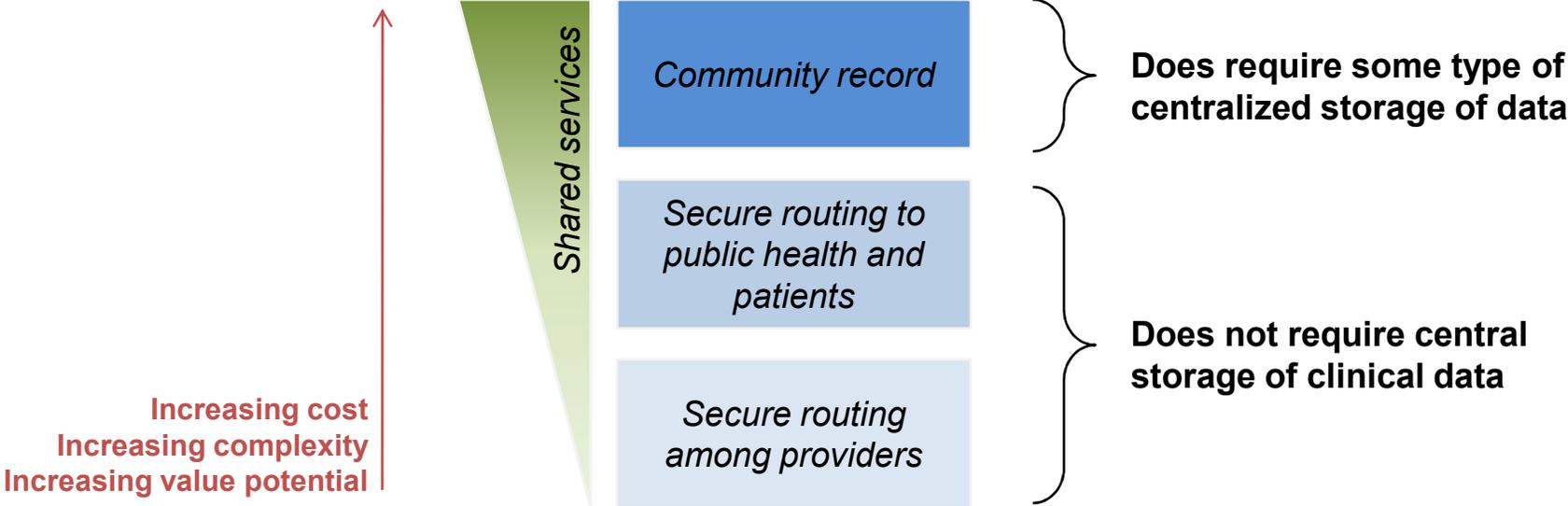
Appendix

# HIEPI - MAeHC Project Schedule

## Segment 1 Timeline: June 1 – October 31



# Review – Building blocks



## Review - Strawman phasing

- Is the transaction legal under current NH law?
- Are the technology, business, or legal complexities manageable given a short lead time?
- Can it be developed and launched within the ONC HIE funding budget?
- Is there an immediate market need for the transaction?
- Is there a lack of a clear substitute in the market today?

↓ No

- If it's illegal today, do we expect that it could be made legal in 2011 (e.g., is the transaction otherwise required in the market or by law, e.g., public health)?
- Is there expected to be an important market need for the transaction?
- Can technology, business, or legal complexities be resolved in parallel with Phase 1 implementations?
- Is there a continued lack of a clear substitute in the market today?

↓ No

- If it's illegal today, do we expect that it could be made legal in 2011 or beyond?
- Is there expected to be an important market need for the transaction?
- Can technology, business, or legal complexities be resolved in parallel with Phase 1 and 2 implementations?
- Is there a continued lack of a clear substitute in the market today?

Yes →

Phase 1

Yes →

Phase 2

Yes →

Phase 3

# Review - Strawman phasing (pending further input and environmental scan data)

Phase 1



- A “push” network that allows secure, standardized, low-cost sending and receiving of clinical documents among providers for treatment purposes
  - Across hospital networks (discharge summaries, labs, etc)
  - Manual record location across provider organizations
  - Within hospital networks for those hospitals who opt for it
  - Outside of hospital networks for offices and clinics who are not part of hospital networks today
- A standing, multi-stakeholder governance process to guide decision-making going forward
- A development program to build Phase 2 capabilities

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Phase 2



- Extend “push” network to include public health and other healthcare entities (e.g., long-term care, etc)
- A “pull” network to allow electronic queries of CCD-standardized patient information through a Record Locator Service
- Development program to build Phase 3 capabilities
- Business development to build shared services capabilities

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Phase 3



- Extend “push” network to include patients, other entities
- Extend “pull” network to allow centrally orchestrated merging of records across clinical entities
- Advanced shared services capabilities

# Review - Use case prioritization

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
Expanded secure routing	Reportable conditions	PCP or specialist	Public health	3	2	2	3	2
Expanded secure routing	Reportable conditions	Hospital	Public health	3	1	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

## Review - Use case prioritization (continued)

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 checking	Hospital	Health plan	3	3	3	1	3
Expanded secure routing	Claims submission & eligibility checking	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	Hospital	Public health	3	3	3	3	3
Community record	Public health case investigation	PCP or specialist	Public health	3	3	3	3	3

## Initial consensus areas from each workgroup

### **Governance Workgroup Consensus Areas**

- Considering “Public Instrumentality” as organizational form modeled after NH Healthy Kids (independent 501(c)3 with explicit link to State government)
- Inclusive stakeholder governance body to undertake governance functions of policy setting, financial oversight and control, and operational oversight
- Equal governance representation (as opposed to differential representation based on financial contribution)
- Representation by stakeholder group (as opposed to individual)

### **Finance Workgroup Consensus Areas**

- Federal grant to be treated as one-time startup investment with no expectation for ongoing operational revenue
- Project to proceed incrementally, seeking to generate value at each step
- Entity to be treated as a going concern with a diverse Federal match and ongoing revenue model that includes state funding and membership contributions from all stakeholders

## Initial consensus areas from each workgroup (continued)

### **Business and Technical Operations Workgroup Consensus Areas**

- Identified and vetted “use cases” that describe health information transactions (including stakeholders involved and information exchanged)
- Mapped use cases to building blocks to facilitate discussions and decisions of all other workgroups
- Prioritized use cases based on legality, Legality, Difficulty (Technical, Business/Governance, Legal complexity), Demand (Stakeholder interest; federal/state requirements), and Current market availability
- Began initial discussions regarding operations of HIE

### **Legal and Policy Workgroup Consensus Areas**

- Currently defining Consent, Audit, Authorization, Authentication, Access, and Contracts considerations for phase 1 health information transactions (transactions that are within current NH State and Federal law)
- Identifying areas where the HIE could improve privacy and security of health information exchange over current practice
- Identifying areas where public health reporting is both required by NH law and prohibited from the HIE

## Initial consensus areas from each workgroup (continued)

### **Public Health Workgroup Consensus Areas**

- ❑ Recognition that exchange of public health information using the HIE is currently prohibited by NH State law
- ❑ Identification of information that could be gathered via the HIE in the future that is of high value to public health including elements required by the ONC (Immunization information, Biosurveillance, Reportable Conditions)
- ❑ Consensus on approach that provides minimal exposure of personal health information (PHI) – (For example, public health may receive the number of H1N1 diagnoses for a given region and may go through an exception process to identify the provider and patient for follow-up action)
- ❑ Identifying areas where the HIE could improve privacy and security of public health information reporting over current practice as well as efficiency and cost of information gathering

## Initial consensus areas from each workgroup (continued)

### Technical Infrastructure Workgroup Consensus Areas

#### ❑ Incremental approach

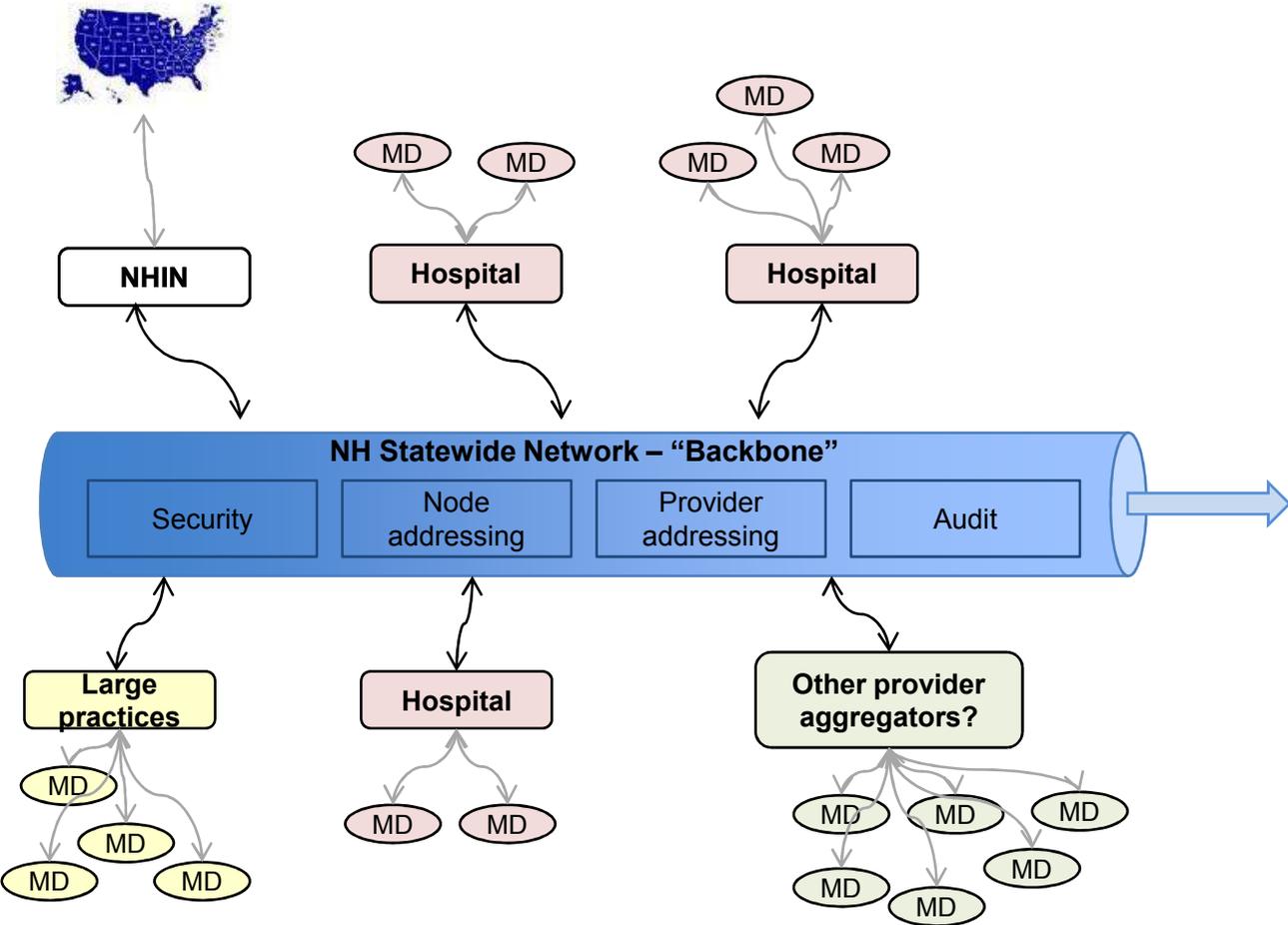
- Begin with legal transactions that are feasible and affordable and that can help NH's eligible providers and hospitals achieve meaningful use
- Build upon foundation as allowed by NH law and in line with financial model

#### ❑ Initial consensus areas for phase 1 foundation – to be confirmed this week

- Hospital and other healthcare systems as brokers for transactions
- Statewide HIE Narrowly Facilitates Exchange (Lean infrastructure)
- Use NHIN Direct as Protocol for Central Exchange
- Allow local and global addressing of endpoints
- Protected Health Information not exposed to central HIE
- Trust relationships are brokered by HIE and/or local networks
- Transport Layer Security is used as a baseline of transaction encryption - other encryption can be layered on
- Transactions are unsolicited and unidirectional
- No Consent Representation required for transaction (consent management responsibility federated to brokers and not enforced by HIE)
- Acknowledgement of successful transactions sent to initiator
- Local transactions happen according to local architectural and policy frameworks

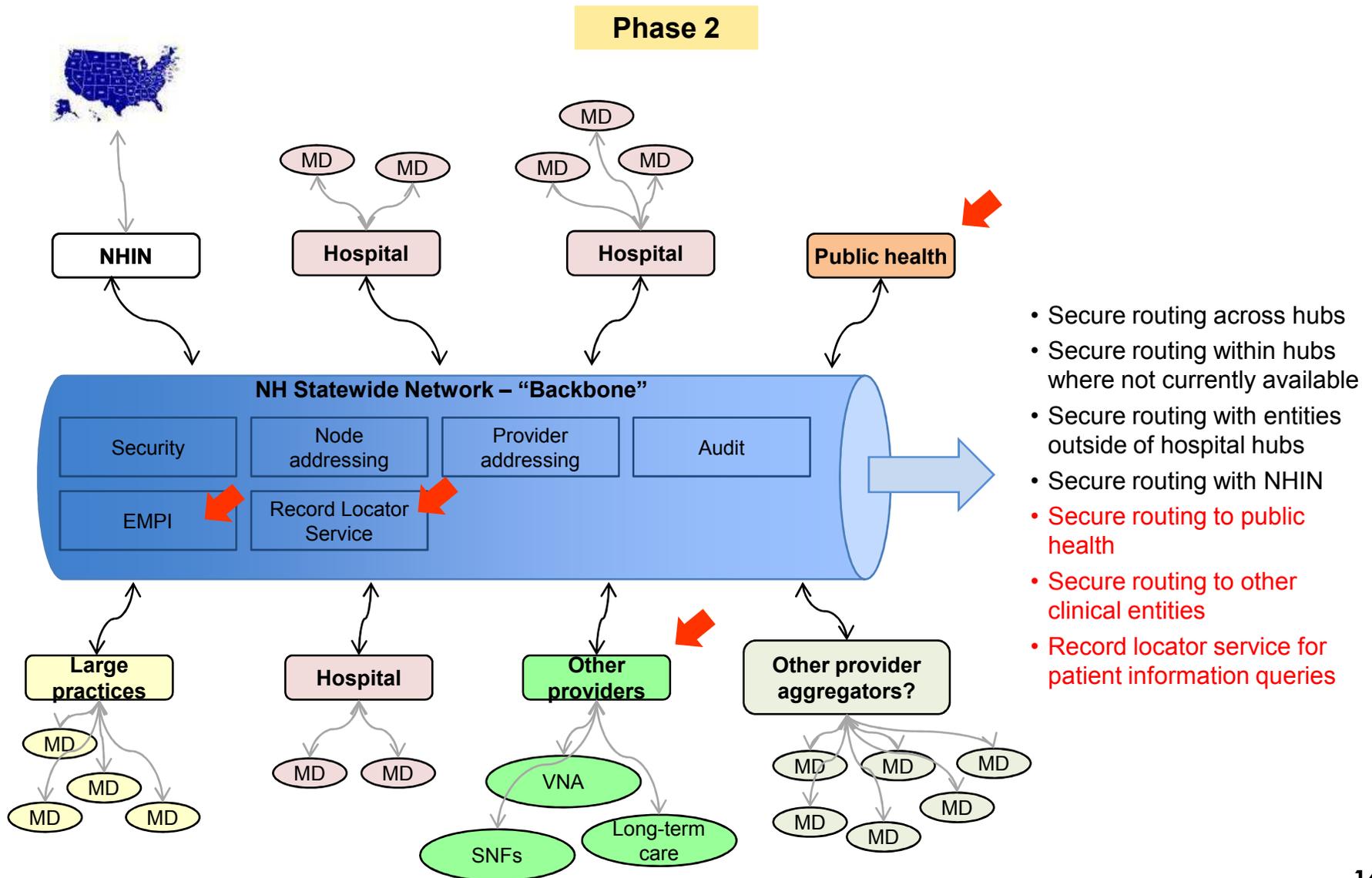
Emerging approach is to create “Hub of Hubs” tying together existing institutions (emerging Phase 1 consensus)

**Phase 1**



- Secure routing across hubs
- Secure routing within hubs where not currently available
- Secure routing with entities outside of hospital hubs
- Secure routing with NHIN

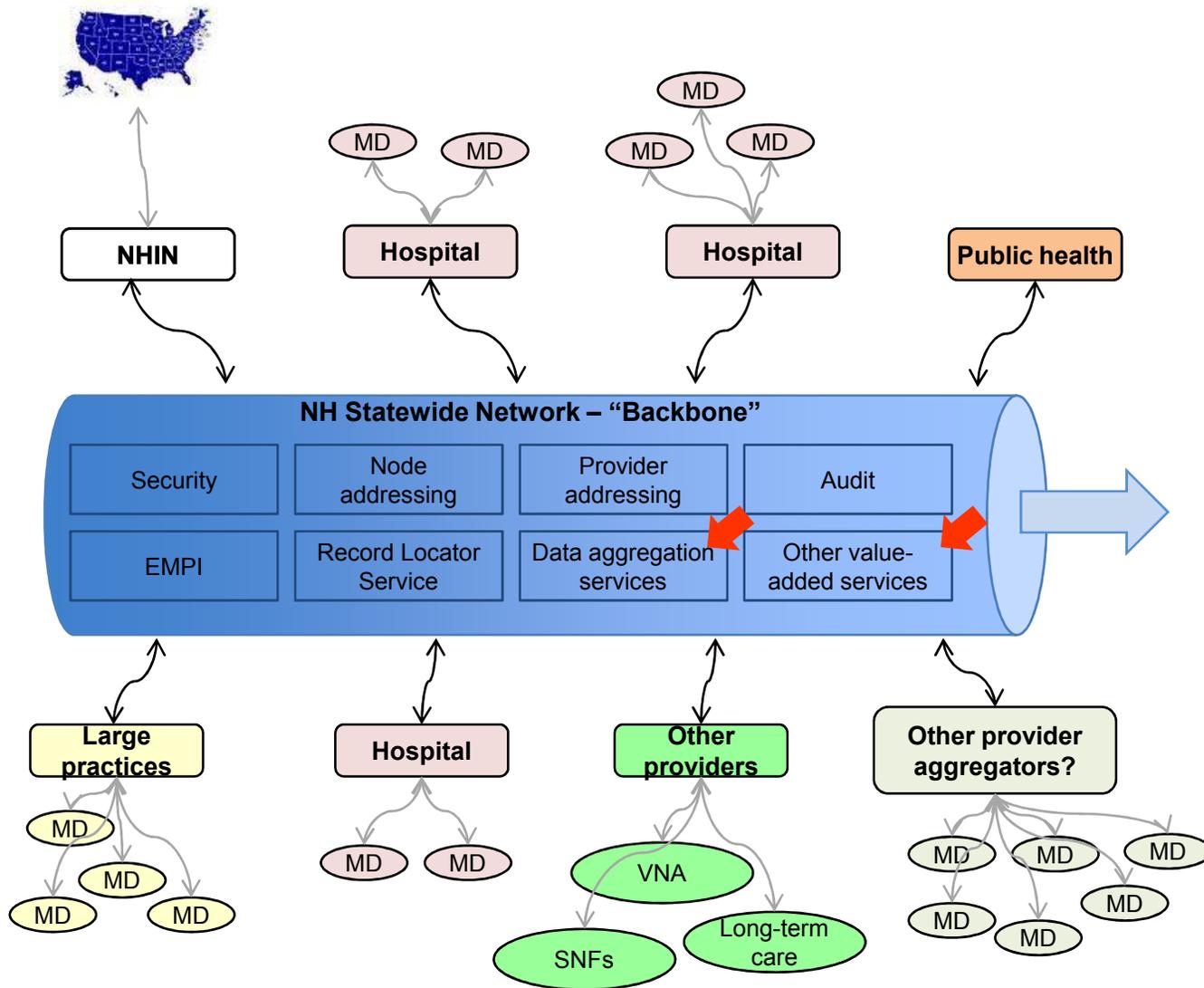
Emerging approach is to create “Hub of Hubs” tying together existing institutions (Phase 2 strawman – still to be vetted with WGs)



- Secure routing across hubs
- Secure routing within hubs where not currently available
- Secure routing with entities outside of hospital hubs
- Secure routing with NHIN
- **Secure routing to public health**
- **Secure routing to other clinical entities**
- **Record locator service for patient information queries**

Emerging approach is to create “Hub of Hubs” tying together existing institutions (Phase 3 strawman – still to be vetted with WGs)

Phase 3



- Secure routing across hubs
- Secure routing within hubs where not currently available
- Secure routing with entities outside of hospital hubs
- Secure routing with NHIN
- Secure routing to public health
- Secure routing to other clinical entities
- Record locator service for patient information queries
- Centrally orchestrated merging of records across clinical entities
- Quality registries
- Other...

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Opening remarks, review of work to date, review of initial consensus areas

Converging on Solutions – Generating content for the strategic and operational plans

Wrap up and next steps

Appendix

## Converging on Solutions

- ❑ Address all elements of strawman strategic and operational plans for which workgroup is responsible
- ❑ Create bulleted statements for each key part of the plans
- ❑ Try to come to workgroup consensus on all key decisions – note where consensus is not reached and a plan forward

## SP-8.4 HIE Business and Technical Operations

### ***Topic Guidance from ONC***

- ❑ **Implementation** – To address how the state plans will develop HIE capacity, the Strategic Plan must include a strategy that specifies how the state intends to meet meaningful use HIE requirements established by the Secretary, leverage existing state and regional HIE capacity and leverage statewide shared services and directories.
- ❑ The implementation strategy described in the Strategic Plan shall describe the incremental approach for HIE services to reach all geographies and providers across the state.
- ❑ The implementation strategy shall identify if and when the state HIE infrastructure will participate in the NHIN.

### ***Additional Guidance***

- ❑ What capabilities will be needed to manage the projected business and infrastructure of the organization?
  - For Phase 1?
  - For Phase 2?
  - For Phase 3?

## OP-3.4 HIE Business and Technical Summary

### ***Topic Guidance from ONC***

- ❑ **Current HIE Capacities** – The Operational Plan must describe how the state will leverage current HIE capacities, if applicable, such as current operational health information organizations (HIOs), including those providing services to areas in multiple states.
  
- ❑ **State-Level Shared Services and Repositories** – The Operational Plan must address whether the state will leverage state-level shared services and repositories including how HIOs and other data exchange mechanisms can leverage existing services and data repositories, both public or private. Shared services for states to consider include (but are not limited to): Security Service, Patient Locator Service, Data/Document Locator Service, and Terminology Service. These technical services may be developed over time and according to standards and certification criteria adopted by HHS in effort to develop capacity for nationwide HIE.
  
- ❑ **Standard operating procedures for HIE** (*encouraged but not required*) – The Operational Plan should include an explanation of how standard operating procedures and processes for HIE services will be developed and implemented.

## Phase 1 Operational Requirements

- Program/project management
- Organizational certification/compliance monitoring
- Rollout planning/management
- Coordination with other programs
- Vendor procurement strategies/vendor management (if needed)
- Certificate authority and management
- 'Micro data center' operations: Directories
- Maintenance and upgrade planning and management

# Additional Phase 2 & 3 Operations Requirements

## Phase 2

- Limited MPI/RLS Rollout and Maintenance
- Patient Authentication

## Phase 3

- Full MPI/RLS Rollout and Maintenance
- Clinical Viewer Infrastructure
  - Provider Authentication
- Clinical Repository Infrastructure
  - For orchestration, aggregation

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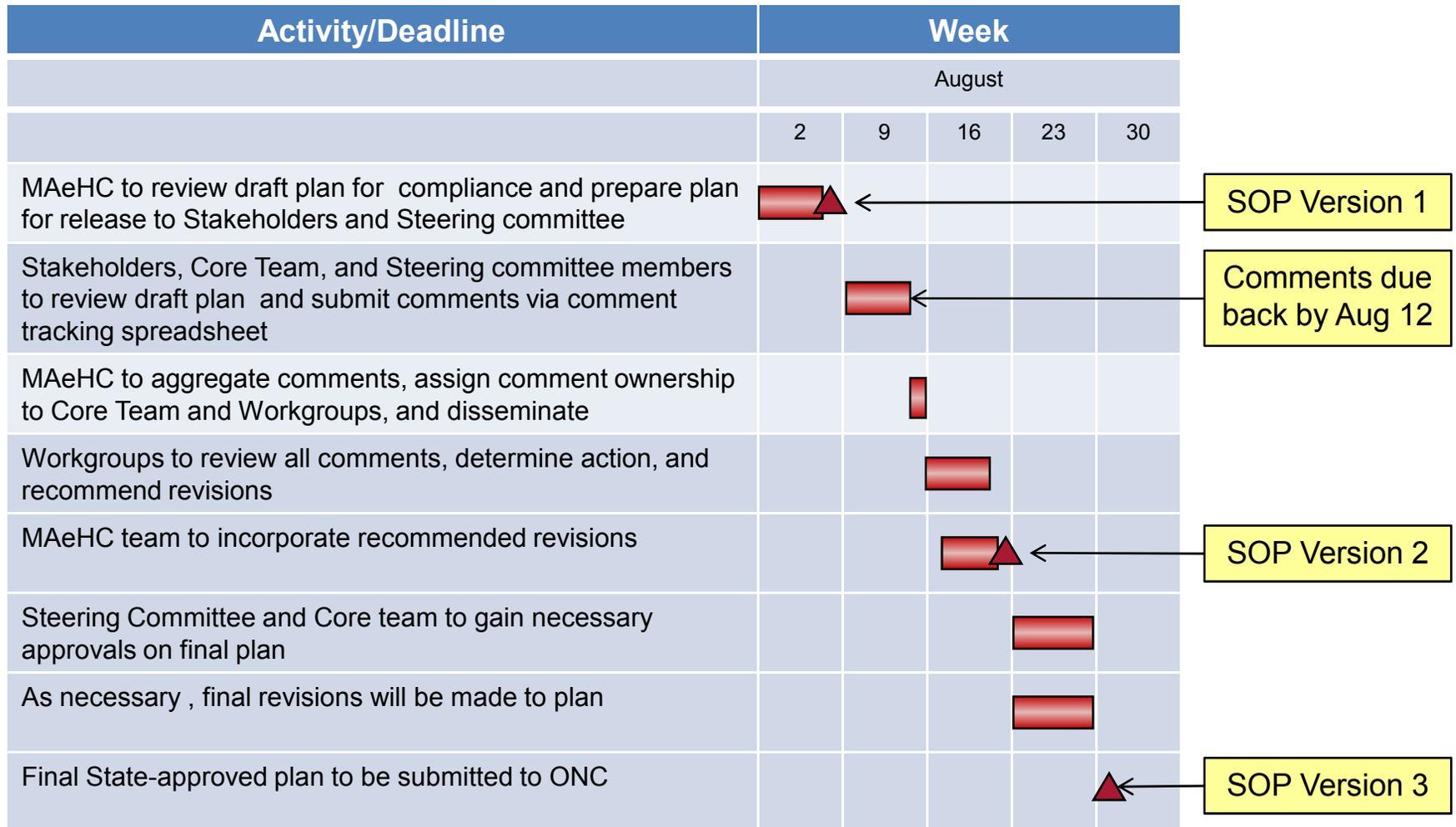
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Wrap up and next steps

Appendix

# Looking ahead to the review and finalization of the plan

## Segment 1 Timeline: June 1 – October 31





## Wrap up and next steps

- ❑ Next Summit: #3 Converging on Solutions – July 26, 9:00 - 1:00 Brown 232
- ❑ Feedback review session to be scheduled for between Aug 16 and 18
- ❑ Meeting summary to be distributed to all workgroups

# Agenda

Opening remarks, review of work to date, review of initial consensus areas

Converging on Solutions – Generating content for the strategic and operational plans

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## SP-2 HIE Development and Adoption Summary

### ***Topic Guidance from ONC***

- ❑ The Strategic plan must address vision, goals, objectives and strategies associated with HIE capacity development and use among all health care providers in the state, to include meeting HIE meaningful use criteria to be established by the Secretary through the rulemaking process.
- ❑ The Strategic Plan must also address continuous improvement in realizing appropriate and secure HIE across health care providers for care coordination and improvements to quality and efficiency of health care.
- ❑ Strategic Plans should also address HIE between health care providers, public health, and those offering services for patient engagement and data access.

## SP-3 HIT Adoption Summary

### ***Topic Guidance from ONC***

- ❑ Although it is beyond the scope of this program to fund HIT adoption initiatives described in a State Strategic Plan, it does not preclude other HITECH ACT programs or state funded initiatives to advance HIT adoption in a state.
- ❑ While many states have already addressed HIT adoption in their existing Health IT State Plans, it is not a requirement. However, the inclusion of Health IT adoption in the Strategic Plan is valuable and provides for a more comprehensive approach for planning how to achieve connectivity across the state.

## SP-7 Coordination with Public Health Programs

### ***Topic Guidance from NH DHHS***

- ❑ The Coordination with Public Health Programs Summary must include a summary of how appropriately-protected, de-identified Data derived from an HIE can improve the practice of New Hampshire's public health programs, including:
  - Chronic/Communicable Disease and Injury Surveillance and Control
  - Health Statistics and Data management
  - Disease/Injury Prevention
  - The NH PHIN Initiative, and
  - The public health programs listed under SP-5 above, namely: the HIV Care Grant Program, the MCH State Systems Development Initiative, State Office of Rural Health Policy, and the NH Primary Care Agency.
- ❑ This summary must include how EMR Data can flow from an HIE to the State's public health agencies in full compliance with privacy laws and with PHIN standards for the secure transport of health Data across the Internet. More generally, SP - 7 must describe how the interests of public health agencies can be incorporated into the meaningful use of EMR by the State's health care providers.

## OP-3.4 HIE Business and Technical Summary (continued)

### ***Additional Guidance***

- ❑ How should the Phase 1 business be launched and managed?
  - Prior to launch of separate public instrumentality organization (assuming that this can be created by the legislature in July 2011)?
  - After launch of the public instrumentality?
  - With special consideration given to seamless transition of the business and any infrastructure from State operational management and ownership to the new public instrumentality