

## NHIEPI Strategic and Operational Plan Change Control Form

Version	Date of Issue	Author	Description of Change
SOP Version 5	9-15-10	Mark Belanger	“Final” Draft sent to ONC
SOP Version 6	9-30-10	Mark Belanger	Updated per ONC initial comments see below for detail
SOP Version 8	11-4-10	Mark Belanger	See Below

### SOP Version 6 Updates:

**Page 5:** Updated ePrescribing Gap Summary to include:  
88% of Providers are not e-Prescribing and 4% of community pharmacies are not set up for e-Prescribing.

**Page 66:** Updated Transition of Governance section to include:  
Figure 18: Transition of Governance and Operations to HIO illustrates the anticipated transition of HIO governance, leadership, operations, and volunteers from its current state within the NH DHHS to the future state where operations will be housed in the new organization.

### SOP Version 8 Updates:

#### Strategic Plan Section

**Page 31:** Updated State of ePrescribing in New Hampshire to include:  
We will formalize a program to assess eRX penetration within each HIE cluster and outside of the clusters and develop statewide goals for eRX adoption and, measurement and feedback programs to assess progress over time and identify persistent gaps. We will use innovative approaches and best practices from other nationwide initiatives such as the Blue Cross Blue Shield-Tufts eRX Collaborative in Massachusetts and the Central Indiana eRX Initiative sponsored by the Employers’ Forum of Indiana. A particularly useful approach adopted in the Indiana program was to bring prescribing providers and pharmacists together to understand each others’ systems and workflows to gain end-to-end visibility of eRX transactions and better understanding of the implications of non-standard use on either end of the transaction. Given that New Hampshire already has very high penetration of eRX systems in pharmacies, this might be an especially effective approach in the state. We do not believe that investment in statewide technology infrastructure related to eRX is warranted at this time.

**Page 65/66:** Updated Governance Section to include:  
Contingency plan if General Court does not authorize “public instrumentality” organizational form

We recognize that there is some risk that the General Court will not act expeditiously or as recommended. This presents a risk to the State's providers' abilities to meet meaningful use stage 1 and requires a contingency plan that may be implemented quickly. Through our planning efforts we investigated several organizational forms for the HIO (See Figure 17) and our agreed upon alternative to our first choice of the public instrumentality, is the State Agency. Since the cooperative agreement is currently under the management of NH DHHS, this State Agency is best positioned to the HIO quickly if the General Court does not authorize the public instrumentality in the 2011 legislative session (January – May 2011). Though this contingency plan will not require any transition of operations, it will be necessary to broaden governance to include representation from a wide range of stakeholders. This will be accomplished through the creation of a multi-stakeholder advisory committee that works with the current HIEPI Steering Committee to oversee the launch and operations of the HIO within NH DHHS. While that is the contingency plan agreed to through the consensus process at the time, if it appears that the preferred option is at risk we will reconsider all options through our consensus process to take into account any changed circumstances that might bear on our decision.

**Page 74/75: Updated HIE Architecture Section to include:**

This strategy is reliant upon a base level of capability among the HIE clusters for enabling stage 1 meaningful use transactions, for meeting Program Information Notice (PIN) requirements (e-prescribing, structured lab result exchange, and patient summary of care exchange), and for connecting local HIE networks to a statewide network. We will help prospective HIE clusters to assess capabilities relative to these requirements, identify capability gaps, and create a roadmap to address these gaps. We will then help organizations execute upon their roadmaps by connecting organizations to resources, facilitating cross-organizational collaboration, and providing direct assistance to connect HIE clusters with the statewide network.

We are in full agreement that adherence to standards is required to limit complexity as HIE clusters connect to the statewide network and as HIE clusters connect to entities in other states. It will be our policy that the payload of health information will be “closed envelopes of personal health information” as in the FEDEX model alluded to earlier, and thus will not be viewable by the HIO in our model. This approach is consistent with Directed Exchange principles endorsed by the federal Privacy and Security Tiger Team and NHIN Direct. This will prevent our being able to monitor adherence to interoperability standards between sender and receiver. We will instead manage the endpoints by requiring that each HIE cluster use only certified health IT systems and adhere to implementation guides for CCD-C32 and HL7 2.5.1 formats and content.

Adherence to HHS-adopted standards will be a requirement of participation for all HIE clusters and we will implement a process for testing standards conformance and for certifying HIE clusters prior to their connection to the statewide network. To encourage ongoing adherence to HHS-adopted interoperability standards, the HIO will adjudicate among participant nodes where adherence to format or semantic standards is in dispute. An alternative to making this a requirement would be to have our planned provider directory allow discoverability of each cluster's service capabilities which would promote market enforcement of standardization. A large number of stakeholders expressed interest standardizing content and format during our deliberations and we are thus confident that we will be able to create a policy and assistance framework for achieving this important objective.

**Page 80:**

The Phase One infrastructure will specifically facilitate the exchange of information required for Stage 1 Meaningful Use and by the Program Information Notice, including structured lab results delivery and patient care summary delivery across organizational lines. As explained earlier, we will not facilitate e-prescribing transactions, as they may be conducted with systems (e.g., electronic medical record or standalone ePrescribing solutions) already in place in the State.

**Operational Plan Section**

**Page 97: Governance Section Updated to include:**

As discussed in the strategic plan, there is a chance that the General Court will not authorize the creation of a public instrumentality and that this presents a risk to the State's providers' abilities to meet meaningful use stage 1. Given the stage 1 meaningful use timelines, there is little room for delay in the launch of a HIO. Therefore, our contingency plan is to house the HIO within NH DHHS. This contingency plan will be executed within the 2011 legislative session (January – May 2011) if and when it becomes clear that the General Court will not authorize creation of a public instrumentality. Given this timing, we will have the transitional operations and governance structure in place as shown in Figure 24 above. The contingency plan will be to keep the transitional governance and operations structure in place and to go through a consensus process to formalize the multi-stakeholder governance function.

**Page 101: Architecture and Standards Section Updated to include:**

**3. Implementation of National Standards:** The HIO will use nationally accepted and standards-based protocols for central exchange, in addition to those standards defined and required by HHS for content, vocabulary and security (discussed in Strategic Plan). Potential options are NHIN Direct that is currently under development at ONC and enables simplified

directed exchange between two known endpoints, and the NHIN Specifications in use in the NHIN Exchange Limited Production Network that represent a more robust framework for interoperability and are currently being implemented by federal agencies. The state is leaning heavily towards SOAP as a transport protocol because of the richness of the SOAP envelope for housing meta-data that enables much greater network extensibility at much lower cost and complexity for deployed systems.

**Page 103-105: Approach to HIE Cluster Readiness:**

As mentioned in the strategy, the NH strategy is reliant upon a base level of capability among the HIE clusters for enabling stage 1 meaningful use transactions, for meeting Program Information Notice requirements, and for connecting local HIE networks to a statewide network. To support HIE cluster readiness, we will undertake the following activities:

- **Assess the capabilities of prospective HIE clusters:** We will gather capability information from all prospective HIE clusters relative to meaningful use stage 1 criteria, Program Information Notice requirements, and requirements for connecting local HIE networks to a statewide network through interview meetings and site visits. We will develop a standard assessment template to guide the assessments and will coordinate meetings and site visits with the outreach efforts of the Regional Extension Center of New Hampshire.
- **Identify capability gaps:** The output of the assessments will be identification of capability gaps relative to the baseline capabilities required for connecting to the statewide network.
- **Assist HIE clusters to create a roadmap for addressing capability gaps:** Based upon the capability gaps, we will work with HIE cluster leaders to create a roadmap for closing critical gaps.
- **Assist HIE clusters to connect with the statewide network:** We will help organizations execute upon their roadmaps by connecting organizations to resources, facilitating cross-organizational collaboration, and providing direct assistance to connect HIE clusters with the statewide network. Once a prospective HIE cluster can demonstrate adequate maturity of capabilities, we will work with the HIE cluster to integrate with the statewide network. This includes physical connection of the HIE cluster to the statewide network as well as integration of processes, policies, and procedures to ensure secure and standardized exchange of information between the HIE cluster and the other HIE clusters that are connected to the statewide network. HIE clusters will be required to test conformance with HHS-adopted standards and will be certified as HIE clusters once these tests are completed successfully. Integration activity

between HIE clusters and the statewide network are covered under our current budget and we will work to coordinate with other programs to bring additional resources to bear.

#### Approach to Connecting Unaffiliated Providers

Independent physicians represent approximately 34% of the State's total physicians. These providers are not affiliated with a hospital system, integrated delivery network, or other system that gives these providers access to robust health information exchange capabilities. Since our phase 1 architecture is a "hub of hubs" model, these independent physicians require a hub in order to participate.

We have discussed multiple options for aligning unaffiliated providers with robust HIE capabilities. The most favorable options are presented below and we are remaining open to additional options as we learn more about unaffiliated providers:

- Option 1: Unaffiliated providers can be encouraged to join an existing HIE cluster. This requires that an existing HIE cluster be willing to accept an unaffiliated provider and that the provider be willing to work with the HIE cluster. One variation of this option is to designate geographic territories and facilitate the alignment of unaffiliated providers with the HIE cluster(s) within a geography. A second variation is to facilitate the alignment of unaffiliated providers with an HIE cluster regardless of geography.
- Option 2: Unaffiliated providers can be encouraged to form new HIE clusters. This requires that unaffiliated providers organize themselves for the purpose of pooling resources for shared IT services. There are successful examples of this model within the state and the statewide HIE process can help facilitate formation of new HIE clusters.

We have discussed additional options in which unaffiliated providers connect directly to the statewide network. The direct options introduce significant levels of complexity and cost and are not possible within our current constraints.

Though this is an important part of our vision and one of our key strategies, we have not yet reached consensus on our approach to connecting unaffiliated providers. There are significant benefits and issues that come with each option and we require additional planning to figure this out. We have a consensus process in place to continue to narrow our options and finalize our decision regarding approach. This process includes the following activities:

- **Identify unaffiliated providers:** We have begun work with the HIE clusters to identify the owned and affiliated providers in the State and the majority of this activity is complete. We plan to work with the Regional

Extension Center of New Hampshire to identify the remaining unaffiliated providers.

- **Assess barriers to connecting these providers through existing or new HIE clusters:** We have heard anecdotal reasons for providers to remain independent and would like to test initial hypotheses to determine why some providers are not currently organized regarding health IT capabilities. This will be done through interviews and surveys. Identification of these barriers will inform how we attempt to connect unaffiliated providers.

- **Facilitate connection of these providers to an existing or new HIE cluster:** With an understanding of the barriers, we will select an option for connecting unaffiliated providers and then facilitate the process for connecting providers to existing HIE clusters and/or launch of new HIE clusters.

**Page 106: Approach to Standards and Support of Interoperability updated:**

As mentioned in the strategic plan, since the payload of health information will be “closed envelopes of personal health information” and will not be viewable by the HIO, we will be unable to monitor adherence to HHS-adopted interoperability standards within the HIO. Instead, our community of stakeholders will adopt, implement, adhere to, and enforce use of HHS-adopted standards through the following process:

- **HIE clusters will agree to use certified health IT systems within their networks:** The meaningful use program and the Regional Extension Center of New Hampshire both provide guidance for use of certified systems as well as significant incentives to encourage selection and implementation certified systems. We will work closely with these programs, as well as others, to ensure that all systems connecting to the statewide network are certified.

- **HIE clusters will adhere to HHS-adopted standards:** All HIE clusters will adhere to content, vocabulary and security standards for transactions that go through the statewide network. We will work with each HIE cluster to educate leaders on agreed to standards and associated policies and procedures for participation in the statewide network.

- **HIE clusters will be tested for standards conformance and will be certified prior to connection to the statewide network:** All HIE clusters will demonstrated adherence to content, vocabulary and security standards which will lead to certification once successful.

- **HIE clusters will enter into user agreements with the HIO:** A user agreement will be used to formalize the commitment of each HIE cluster to adhering to HHS-adopted standards.

- **HIE clusters will continue to adhere to HHS-adopted standards, will monitor each others' transactions, and will commit to collaborative continuous improvement:** To encourage ongoing adherence to HHS-adopted interoperability standards, we will set up a process in which HIE clusters may flag issues they may be having with transactions coming from another HIE cluster. We will then facilitate joint problem solving sessions to resolve any issues that arise. We believe that this will be the most effective and efficient way to make each HIE cluster aware of the repercussions of their choices and actions and that this facilitated process will encourage convergence on a set of standards by all.

**Page 107: Alignment with NHIN:**

As discussed in the Strategic Plan, one of the core principles of the HIO architecture is for it to serve as a gateway to the Nationwide Health Information Network (NHIN) Exchange for all providers in the state. Referencing section SP-8.1, sub-section *Facilitating Participation in NHIN* of this document: "Our Phase 1 model deploys a NHIN gateway immediately in order to facilitate NHIN Direct transactions as soon as the specifications are available and to lay the foundation for more comprehensive exchange in conjunction with our neighboring states either through participation in NHIN Exchange and utilization of NHIN Connect, or in alignment with future NHIN solutions as appropriate." Given the current maturity of the NHIN, we are currently remaining open to the NHIN Direct and NHIN Exchange models, though we favor the open source Connect platform as of now. We have a collaborative process in place to further evaluate alternatives in the coming months and to determine exactly how we will a NHIN gateway for NH.

**Page 107/108: Services and Operations:**

The HIO's mission is to help facilitate exchange of key health information. In the short term, this includes services to enable providers to meet stage 1 meaningful use criteria. In the long term, this includes stage 2 and stage 3 meaningful use and the other emerging needs of our stakeholders. The HIO will fulfill its mission in two ways:

1. The HIO will steward collaboration among our HIE stakeholder community to encourage exchange of key health information where viable technology options (existing HIE clusters) are in place and to encourage implementation of systems where there are currently gaps (new HIE clusters).

2. The HIO will help a statewide network services to bridge the HIE clusters.

### **Stewardship of Collaboration among New Hampshire's HIE Stakeholders**

Through New Hampshire's HIE Strategic and Operational planning process, over 80 stakeholders engaged in a collaborative community of leaders working toward common ends. The stakeholders engaged in a process for raising and resolving difficult issues, for determining shared priorities, and for setting strategic direction for work that may be done together. The value of this collaborative process is not to be underestimated, for it provides a way for New Hampshire's stakeholders to share ideas, learning, resources, and effort from the public, private, and civil sectors in order to implement infrastructure that benefits all New Hampshire's patients and those that serve them. Therefore, a core service of the HIO is to continue to steward collaboration among New Hampshire's HIE stakeholders.

Stewardship of collaboration requires that the HIO provide the following services:

- **Facilitation of multi-stakeholder planning process:** This includes engagement of stakeholders, facilitation of workgroup meetings, engagement of subject matter experts, coordination, communication, and administrative support. Ongoing planning efforts will include stakeholder community representatives to identify gaps in capabilities throughout the state relative to meaningful use (stage 1,2, and 3) and set a plan to address such gaps.
- **Training and Technical Assistance:** The HIO will collaborate closely with leaders of the other HIT and HIE programs in the state to share education, training, and technical assistance materials, tools, educational documentation, and best practices. Direct technical training for HIO participation will be developed and delivered by the HIO. Training and technical assistance will be specifically targeted to help providers meet meaningful use criteria.
- **HIE Cluster creation, certification, and coordination:** The HIO will provide services for assessing existing HIE clusters, assisting clusters to meet minimal requirements for connection to the statewide network, certification of the HIE clusters to acknowledge a base level of capability and commitment, and ongoing coordination with the clusters. The HIO will also provide a service for helping unaffiliated providers to join an existing HIE cluster or form a new HIE cluster.

- **Project management:** This entails a shared project management office that is empowered by stakeholders to manage an agreed to project management plan.
- **Coordination with other initiatives:** Though all stakeholders are expected to coordinate efforts with parallel initiatives, the HIO is accountable for a formal coordination function. To fulfill this service, the HIO will establish formal connections with the leadership of parallel initiatives (as described in the coordination sections of the strategic plan) and formal processes for engaging with these connection points regularly.
- **Communications:** The HIO will take responsibility for outreach to the HIO's stakeholders, customers, partners, and the general public. This includes regular messages to inform each constituency of the HIO's plans and progress against such plans.

A certified HIE cluster will be a health care organization or aggregator of organizations that is capable of fulfilling the technical, legal, policy, and procedural obligations defined by the consensus governance process of the HIO, and willing to enter a binding contract with the HIO. In addition to signing an agreement with the Statewide HIO, Qualified Organizations will need to integrate with and connect to the statewide HIE platform to access core technical infrastructure and services on behalf of its providers. Some steps that might form part of an HIE cluster certification protocol might be:

- Policies requiring users within the cluster to formally adopt certified EHRs
- Verifying gateway connections
- Testing the registration of an audit record in a test transmission of each of the three Stage 1 exchange constructs
- Test the receipt of a transaction sent by a named originator. Define a "transaction" – composed, for example, of these segments:

Envelope sent

Transmission registered in audit log

Envelope received and 'processed' (understood by the receiving software)  
Acknowledgement sent (pushed) back to the originator.

**Page 109: Statewide Network Services**

As described throughout this plan, we intend to deploy a statewide network to facilitate exchange of health information between HIE clusters. This solution will enable New Hampshire's providers to meet stage 1 meaningful use criteria by exchanging structured lab results and patient care summaries among non-affiliated organizations. (note: e-prescribing is widely available in the market and will not be included in the statewide network.)

**Use of NHIN Protocols/Standards and State Level Shared Services**

As referenced in the HIE Architecture and Standards section for NHIN, from a technology perspective, the NHIN Gateway is part of the Core Services of New Hampshire's HIE infrastructure. The HIO will connect according to the standards and specifications of NHIN.