



NHIN Jurisdiction–Specific Business Plan

Report for NHIN Trial Implementation Contract Deliverable #9
HHSP23320074102EC - NY

November 13, 2008

Overview and Key Considerations

The New York eHealth Collaborative (NYeC) submits this *Jurisdiction-Specific Business Plan (Plan)* to the US Department of Health and Human Services in accordance with the Nationwide Health Information Network (NHIN) Trial Implementation contract, which specified that:

“the Contractor shall provide a jurisdiction-specific business plan outlining how its health information exchange will share data with other NHIN participants and become self-sustaining within five years.”

The *Plan* draws from the broad collaborative effort in New York to establish the organizational, technical and financing components of a sustainable health IT infrastructure that improves the quality, effectiveness, and safety of health care. The *Plan* is based on the key elements of New York’s business plan for advancing interoperable HIE and discusses: Key elements of the national health IT agenda basis for NHIN assumptions;

- Governance structures and processes which define the technology architecture, privacy and security policies, vendor requirements, and statewide services;
- Accountability mechanisms to ensure compliance and build trust;
- Defining the technical architecture for advancing widespread use of interoperability standards;
- Establishing a process to advance the value proposition for HIE and health IT adoption; and,
- Developing financing policies to address up-front infrastructure investment and ongoing operational costs, and establish incentives for broad adoption and use.

1. National Health IT Agenda and NHIN Assumptions

The federal government, through the Department of Health and Human Services Office of the National Coordinator for Health IT (ONC), has defined a national health IT strategy around four core functional components: (1) policies relating to privacy and security; (2) standards, networking, and interoperability; (3) adoption of technology and information use; and (4) collaborative governance and decision-making.¹

The NHIN prototypes and trial implementations have used a common set of technical policy assumptions with respect to design and operation, but the business model assumptions for NHIN rely on alignment of a complex set of local, regional, state-level and national factors.

As described at the January 2007 NHIN Prototype Public Forum session on business models, the concept of a “network of networks” includes certain core characteristics and services, but the governance, organizational and business models of the participating organizations will vary widely. At this forum, Micki Tripathi from the Massachusetts eHealth Collaborative noted that the foundational underpinnings of a successful NHIN are: (1) robust adoption of EHRs, and (2) the development of viable local networks based on sound value models.

¹ US Department of Health and Human Services, ONC. “Federal Health IT Strategic Plan: 2008-2012.” June 3, 2008. Available online at <http://www.hhs.gov/healthit/>.

Nationwide Health Information Network Initiative

Shared assumptions:

- Vision for the NHIN is a network of networks
- The organizations that provide network services may take several forms
- There are some basic network services necessary for connecting health records, security, record look-up and routing
- Many other network services may be considered valuable in local settings

NHIN Adoption has Several Pre-Conditions

- Financially viable participant networks and organizations
- Conformance of participant networks and organizations to necessary NHIN standards and policies
- Methods for addressing mis-aligned financial incentives and care improvement externalities
- Sufficient base of EHR adoption
- Broad adoption of standards
- Robust privacy and security policies and mechanisms
- Legal and policy approaches to anonymized, secondary uses of data

John Glaser NHIN Prototype
Public Forum January 2007

(accessed on November 13, 2008 at
<http://www.hhs.gov/healthit/healthnetwork/presentations/Glaser.pdf>)

It is clear that the NHIN business model needs to be founded on policies and strategies that will stimulate development of local capacity.

2. Framework for Sustainability: Governance Structures and Processes at Multiple Levels

In addition to the federal policy context, NYeC's efforts need to be considered in the broader context of evolving state and federal roles to advance health IT adoption which is a major focus for the State-Level Health Information Exchange Consensus Project funded by ONC.

Broad implementation of the NHIN requires a governance structure and policies to oversee this evolving marketplace. States have emerged as important points of organization and leadership for HIE governance and development. HIE initiatives are underway in most states, motivated by health care reform goals and the potential for HIE to improve health care safety, quality and cost-effectiveness. In developing HIE strategies, state leaders are building upon traditional state-level health policy levers (e.g., setting public policy, consumer protection, regulatory oversight, and administration of public insurance programs).

In order to advance state-level HIE strategies, there is growing consensus regarding the need for an identified, reliable and trusted state-level health information organization (e.g., organizations like NYeC) to serve in a neutral convener role. This organizational entity must be capable of engaging and building consensus for HIE implementation among diverse HIE stakeholders and both public and private sector data sources and users of interoperable health information. A dedicated resource for this work is necessary to coordinate and align the development of a multi-faceted shared HIE infrastructure. Federal policy leadership is important, but NYeC believes that implementation needs to be coordinated on a statewide basis.

As one of its principal health care reform initiatives, New York has engaged in the development and implementation of New York's Health Information Infrastructure comprised of three interrelated components – governance/organizational, clinical, and technical – to harness the power of health information to support patient care improvements.

New York's governance and organizational infrastructure provides the foundation for building a business model and sustaining the technical achievements of the NYeC's NHIN Trial Implementation.

The key elements to New York's governance infrastructure are:

1. New York State Office of Health Information Technology Transformation (OHITT). In January 2007, the New York State Department of Health created the Office of Health Information Technology Transformation (OHITT). OHITT is charged with coordinating health IT programs and policies across the public and private health-care sectors to enable improvements in health care quality, affordability and outcomes for all New Yorkers. OHITT is currently overseeing approximately \$400 million in health IT investment in New York from state funds as well as private sector contributions. The state called upon NYeC to manage a statewide collaboration process comprised of the organizations receiving state funds.

2. New York eHealth Collaborative (NYeC). The New York eHealth Collaborative (NYeC) is a public-private partnership and statewide governance body playing an integral role in the development of information policies through a consensus-based approach as part of New York State's health IT strategy. NYeC's key responsibilities include (1) convening, educating and engaging key constituencies, including health care and health IT leaders across the state, RHIOs, CHITAs and other health IT initiatives; (2) developing health information policies, standards and technical approaches; and (3) evaluating and establishing accountability measures for New York State's health IT strategy.

NYeC leads the Statewide Collaborative Process through an open, transparent, and consensus driven manner to which all contribute to ensure a comprehensive policy framework to advance health IT in the public's interest. This process is driven by the efforts of four workgroups which recommend policies, standards, technical approaches and services to the NYeC Policy and Operations Council, the NYeC Board and the Department of Health. The four workgroups are: (1) Clinical Priorities (2) Privacy and Security; (3) Technical Protocols and Services; (4) EHR Collaborative.

3. Regional Health Information Organizations (RHIOs). Underlying the Statewide Health Information Network for New York (SHIN-NY) and central to its successful implementation are RHIOs. New York's RHIOs, working with their stakeholders and constituents as well as NYeC, must create an environment that assures effective health information exchange both organizationally and technically through a sound governance structure. Serving as trusted brokers, RHIOs are multi-stakeholder collaborations that are responsible for implementing information policies and ensuring adherence to such policies to enable the secure and interoperable exchange of health information with a mission of governing its use in the public's interest and for the public good by supporting improvements in health care quality, affordability and outcomes. By virtue of fulfilling their obligations, RHIOs will be conferred benefits in terms of eligibility for grants, contracts for services, and access to various data sources, both public and private.

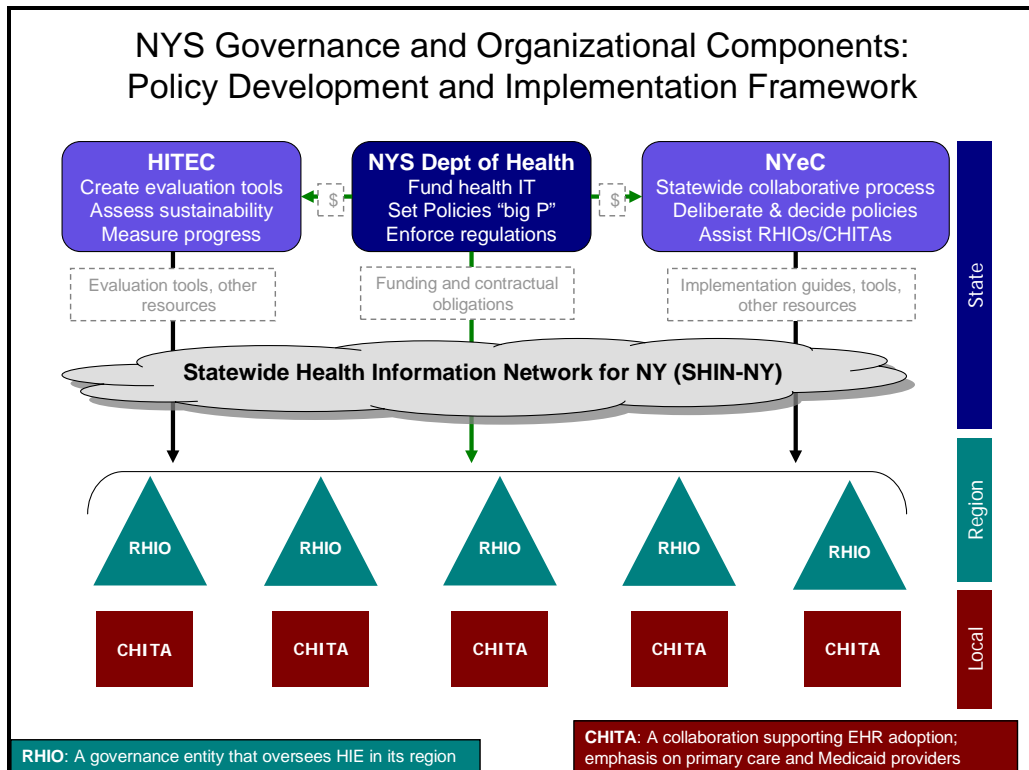
4. Community Health Information Technology Adoption Collaborative (CHITA).

CHITAs are community-based collaborations of clinicians and providers in a defined care coordination zone with an emphasis on primary care settings and with a mission to advance the adoption and effective use of interoperable electronic health records (EHRs). The State of New York is currently funding nine CHITAs to ensure that effective adoption and use of interoperable EHRs result in patient care improvements. CHITAs are informal collaborations of provider participants in a care coordination zone for the purpose of sharing software, technical services, and clinical services such as workflow re-design and process and quality interventions and improvement and ensuring groups of clinicians realize up-front and consistent value from interoperable EHRs.

5. New York Health Information Technology Evaluation Collaborative (HITEC).

HITEC is a multi-institutional, academic collaborative of New York State institutions including Cornell University, Columbia University, the University of Rochester, and the State University of New York at Albany, and serves in a research and evaluative role with respect to health IT initiatives in New York State. HITEC was formed to evaluate and develop evaluation instruments for health IT initiatives, including interoperable health information exchange and EHR adoption across the State.

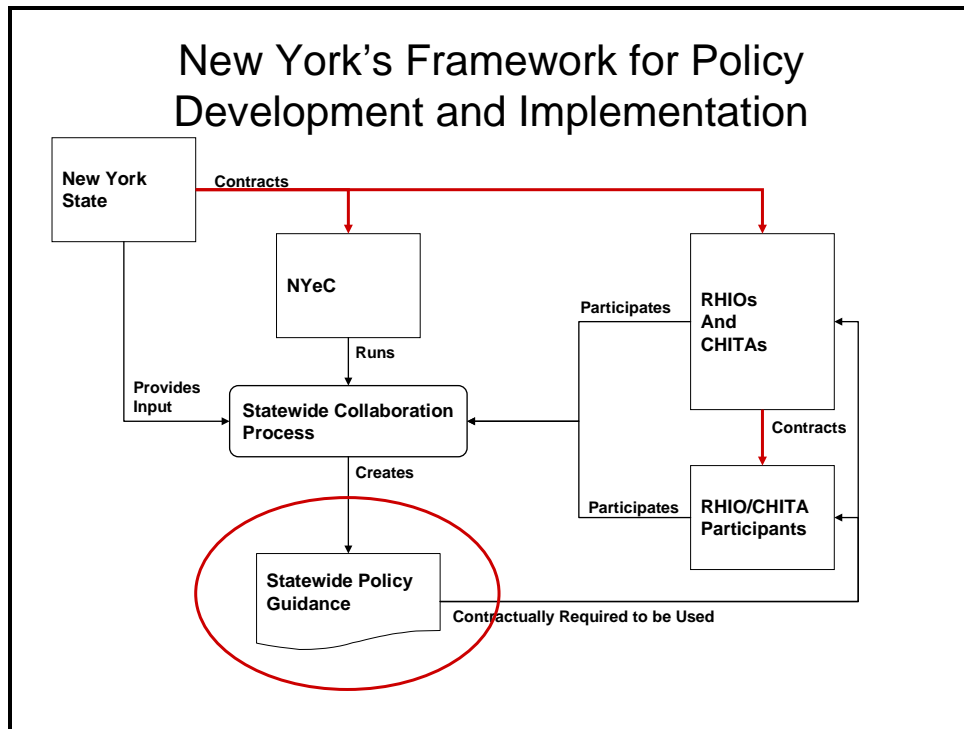
A high-level representation of the key building blocks and relationships is illustrated on the following page.



3. Accountability Approach to Ensure Compliance and Build Trust

Through the statewide collaboration process, NYeC is developing information policies is being formulated in the public's interest through a transparent governance process. This policy framework and governance as well as the technical infrastructure implementation are inextricably linked and essential to advancing interoperable health information exchange supporting care coordination, quality improvement interventions, public health reporting and biosurveillance activities.

Accountability is another essential component to NY's overall strategy and our response with respect to development of this NHIN business plan. Coordination of policy efforts is an important step, but it is not sufficient to ensure compliance and provide the public and NHIN participants with trust in the system. In concert with the NYS Department of Health (DOH), NYeC establishes the "rules of the road" but DOH has legal and contractual standing to enforce the adherence to standards developed through the collaborative process.



As previously noted, NYeC believes that governance and accountability are essential elements to the NHIN business plan, and it remains a significant gap as the first stage of NHIN trial implementation comes to a close. A long-term policy and business plan for NHIN would require HHS and all of the NHIN participants to establish comparable organizational capability, policies, and processes, and commit resources, to enforce compliance with NHIN policies.

4. Technical Framework: Focus on Interoperability and Standards

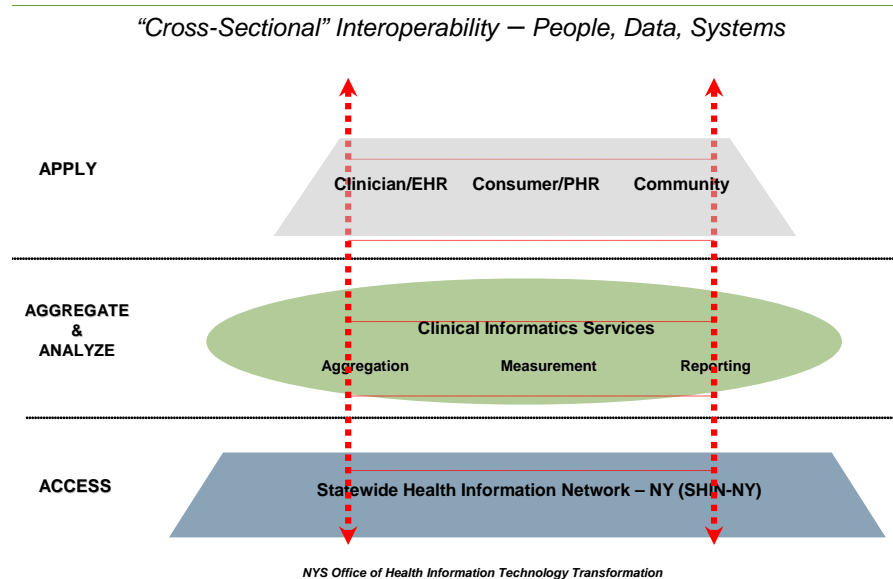
NYeC's Trial Implementation provides the foundation for the standards, protocols, and services that will ensure its ability to share data with future NHIN-compliant entities. With respect to the

technical infrastructure, the Statewide Health Information Network for New York (SHIN-NY) is viewed as a bedrock component that is essential to support New York's broader health care goals with respect to improving the quality and efficiency of health care for all New Yorkers. Other aspects of the technical infrastructure include electronic health records, personal health records and clinical informatics services for the aggregation and analysis of data for quality and public health reporting.

Serving as the statewide health information exchange architecture, the SHIN-NY will be built and operated using mutually-agreed upon and consistently-applied rules and standards called the Common Health Information Exchange Protocols (CHIxP). Communication across the SHIN-NY will be enabled by health information service providers' adoption and conformance to the CHIxP.²

NY's health information strategy incorporates principles and practices to support interoperability at several levels.

Framework for New York's Health IT Strategy



NYeC is also establishing requirements for EHRs, building on CCHIT standards, which will further bolster the state's goals to foster clinical value through coordinated policies and implementation support.

² New York State Department of Health Office of Health Information Technology Transformation. *HEAL NY Phase 5 Health IT RGA Section 7.2: Technical Discussion Document: Architectural Framework for New York's Health Information Infrastructure*. October 2007.

5. Foundation for Sustainability: Value from Interoperable HIE and Health IT Adoption

New York State is promoting implementation of standardized use cases, building on NHIN specifications, as well as clinical decision support tools that will enhance the value of health IT and health information exchange for clinicians and consumers, and help all stakeholders realize the benefits of interoperable health IT adoption.

- 1. *Interoperable EHRs for Medicaid:*** Sharing Medicaid medication history information with clinicians emphasizing medication management and electronic prescribing as the initial priority. This includes providing additional sources of medication history information from pharmacies and pharmacy benefit managers to enhance clinical decision support capabilities, such as drug-drug interaction checking. This use case includes Medicare electronic prescribing standards.
- 2. *Connecting New Yorkers and Clinicians:*** Providing the capacity to connect New Yorkers to their clinicians and providers to share clinical results, care management programs and emergency contact information.
- 3. *Health Information Exchange for Public Health:*** Improving situational awareness and reporting for public health purposes and reducing administrative costs of preparing and transmitting data among providers and public health officials. This use case incorporates Federal standards emerging from bio-surveillance best practices and the nationwide health information network.
- 4. *Immunization Reporting via EHRs:*** Interfacing EHRs with the immunization registries to enhance their use and improve safety and efficiency. The use case incorporates NY's Immunization Registry standards and incorporates criteria set forth by the Centers for Disease Control and Prevention (CDC) and the national Certification Commission for Healthcare Information Technology (CCHIT).
- 5. *Quality Reporting for Prevention via EHRs:*** Implementing EHRs with embedded quality metrics for reporting prevention and process measures to support quality reporting. The use case incorporates the Federal Quality and Lab-EHR use cases and NY's priorities and requirements with respect to quality measures and approaches.
- 6. *Quality Reporting for Outcomes:*** Providing quality-based outcome reports based on clinical information from an interoperable EHR as well as other data sources to all payers and providers to improve quality and support new payment models. The use case incorporates Federal standards and NY's priorities and requirements with respect to quality measures and approaches.
- 7. *Clinical Decision Support in a HIE Environment:*** Providing analytic software to guide medical decisions and facilitate quality interventions. A Clinical Decision Support use case must be submitted by each applicant for consideration in the evaluation process.

6. Financing Mechanisms for Up-front Investments and Ongoing Operations

Coordination of policy development and implementation efforts creates enormous opportunity to align policy goals. This alignment alone would be synchronized with, and greatly advance NHIN implementation. In addition, NY leads the nation in public financing to support health

information infrastructure and promote health IT use. From 2005 to 2008, NYS has provided more than \$150 million in grants to RHIOs and community-based organizations providing EHR adoption support. An additional \$50 million contributed by local stakeholders as matching funds brings the total investment to more than \$200 million. Additional grant funds (expected to total more than \$50 million) will be awarded in spring 2009.

Upfront Investments

New York's Health Information Infrastructure is being funded through State grants made available through two sources – the Healthcare Efficiency and Affordability Law for New Yorkers (HEAL) and the Federal-State Health Reform Partnership (F-SHRP). In March 2008, the New York State Department of Health and the Dormitory Authority awarded \$105 million to 19 community based health IT initiatives to advance New York's health information infrastructure as part of a comprehensive health IT strategy. A year prior, the Department awarded \$53 million to 26 projects advancing various health IT projects. These 45 projects in total are also contributing more than \$80 million in matching funds to their efforts.

New York's ambitious investment strategy is also being supported by federal funds, including a \$20 million grant from the Center for Disease Control in 2008 to enable collaboration among federal, state and local public health officials and regional providers participating in RHIOs to improve public health situational surveillance and reporting through health information exchange including infectious diseases, bio-threats, and emergencies.

Sustaining Ongoing Operations

In addition to the policy measures described above, NYeC is also developing strategies for financial sustainability. NYeC established the Health IT Sustainability Work Group early in 2008 to create a plan to address these issues. The work group is co-sponsored with the Business Council of NYS (BCNYS) which represents a large number and cross-section of employer interests. Health care reform has been an important policy concern for BCNYS for several years, and they have identified health IT adoption as a policy priority for their members. Many of NY's RHIOs have included payers – employers and health plans – in their governance and financing plans. This work group could help to identify common issues and solutions to align with the statewide health IT strategy. Many BCNYS members have a national presence as well, so this relationship could help advance NHIN as well as NYS interests.

The work group was structured into sub-groups based on three broad categories of work as described below:

Cost and Benefit Analysis: This sub-group is overseeing activities to detail the costs of providing interoperable health IT across New York State. The analysis will estimate the distribution of these costs and benefits among the various groups of stakeholders, with the primary goals of justifying the investment required to accomplish the task and identifying the value proposition for stakeholder groups. This information will support the work group overall, and also provide input to DOH in their policy development efforts, gaining stakeholder support for the initiative and developing financial plans that reflect the distribution of value projected or received across the broad spectrum of health care stakeholders. The group worked with NYeC to select a consultant for this work - Price Waterhouse Coopers is conducting the analysis, and the final results are expected by the end of November.

Financial Instruments and Policy: This sub-group is developing concepts to finance the various costs associated with HIE deployment and health IT adoption, including

defining policies and mechanisms for financial investment in health IT, both from broad value-driven activities and existing or potential financing sources and methods. It has produced numerous short issue papers explaining the conceptual framework for financing each of the various parts of health IT costs from both a stakeholder group perspective, differentiating investment and operating costs, and separating stakeholder, RHIO and Statewide costs. While the group has focused primarily on financial issues in the medium term, it is recognized that financial incentives will be likely to provide the long term sustainability of the statewide health information strategy.

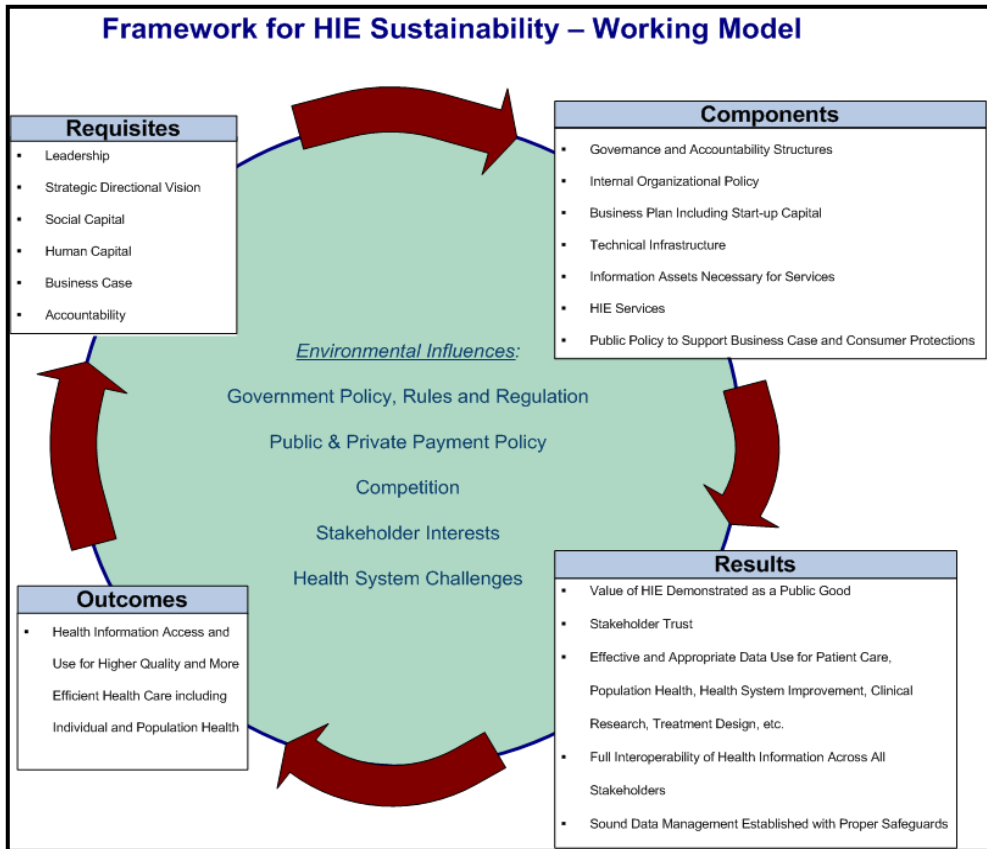
Business Support and Communications: This sub-group is developing recommendations to enlist the support of the business community in the statewide health information strategy. A major focus will be to communicate the need for this support and the justification for it to the business community. Specific deliverables will include regular correspondence to business leaders, organization of seminars/meetings to address business concerns, and meetings with the business community to address specific issues. The sub-group will also coordinate with the NYeC's education and communications committee, which is responsible for a similar mission across all health care stakeholder groups; and make sure that materials are disseminated through a variety of media.

The Health IT Sustainability Work Group's work to date has established baseline information to support future business model developments. NYeC will now focus on translating this information into policy and technical assistance activities in the following areas:

- NY's RHIOs are required to develop business and sustainability plans, and submit them to DOH in July 2009. NYeC will soon establish a business plan work group, which will focus on translating the cost-benefit analysis into common policies for financing infrastructure and ongoing operational costs for health information exchange.
- A coordinated approach to payment incentives supporting health IT adoption and use would also support RHIO business plans. NYS Medicaid is implementing a "pay-for-use" incentive program for community health centers, and a Medicaid e-prescribing incentive is under consideration for the 2009 state budget. NYeC will work with health plans and other stakeholders to develop incentive model for additional processes or outcomes which could be tied to health IT adoption.

Conclusion and Next Steps: Aligning NYeC and NHIN Business Models

NYeC pursued the opportunity to participate in the NHIN trial implementation because we believed there were many potential synergies between New York's health information strategy and the NHIN. There is a close relationship between the NHIN technical architecture model and use cases, and the SHIN-NY and HEAL 5 use cases being implemented on a statewide basis in NY. NYeC and its stakeholders (including the vendors) have leveraged existing infrastructure to develop technical services for health information exchange, and as a result we are positioned to accelerate SHIN-NY implementation.



(Accessed on November 3, 2008 at <http://www.slhie.org/roles.asp>)

This diagram was developed by the State-Level Health Information Exchange Consensus project and illustrates the broad domains and variables that need to be coordinated and aligned to achieve sustainability.

Common technical policies are an important ingredient to NHIN's future business model, but governance and financing are also essential. The solutions require shared investments and cooperation across a variety of complex stakeholder interests which we believe are best organized at the state level, and federal policies should formally recognize and support this state-level role as part of NHIN's business model. It is also critical for Medicare and Medicaid to participate in these efforts in a coordinated manner. We strongly encourage the AHIC successor to examine these issues and make recommendations on all three components of the NHIN business model.