

Spotlight on: New York – Empowering Communities to Deliver a New Standard of Care

December 2012

❖ **The Challenge**

To enable statewide exchange across multiple, independent sub-state HIE entities that have adopted varying technical approaches and services

❖ **The Approach**

A balance of local autonomy and statewide accountability to meet consensus driven expectations based on minimum technical and policy requirements for interoperability

❖ **New York's winning formula includes:**

- Common statewide policies and technical standards for interoperability adopted by all HIE entities
- Collaborative and inclusive state-level governance to establish processes and ensure accountability
- Local autonomy to develop HIE services that meet diverse needs and expectations of consumers and providers
- Local leadership and financial commitment (through matching requirements) to build trust and actual use of exchange services
- Promoting innovation

Despite New York's notoriously fast paced environment, enabling health information exchange (HIE) across the state took more than a "New York minute." The impressive numbers—3.5M patient consents; 65 percent of New York's hospitals actively engaged in query-based exchange, 42 percent actively engaged in directed exchange; nearly 30,000 clinical and administrative users—resulted from the state's hard work and thoughtful, long-term courtship with health information technology (HIT) and HIE stakeholders¹. Early collaborations around administrative data exchange and a pioneering state program are demonstrating the value of HIE and HIT across New York State (NYS). Nearly half of all New Yorkers now benefit from HIE—due in large part to a statewide governance structure that oversees the consistent application of policies and national standards. To understand what is driving HIE success in New York, we spoke to a handful of state and local health care leaders about HIE and their work to unlock statewide data flow and increase data use.

Local Autonomy to Build Trust, Buy-In & Actual Use

Trust is the lynchpin of HIE. Without it, creating valuable and sustainable exchange is challenging, if not impossible. New York's HIE strategy hinges on the belief that health care is local and that trust is best established through local leaders. It took local health care leaders and their long-standing relationships to build trust, buy-in and the accountability needed to transform care across the large and diverse communities that make up the New York health care marketplace.

It is impossible to discuss New York's HIT infrastructure without acknowledging the contributions of the Health Care Efficiency and Affordability Law for New Yorkers Capital Grant Program (HEAL NY Program), which put more than \$396M toward improving the technical infrastructure, processes and outcomes of the state's health care delivery system. The state's investment alone undeniably spurred development, but in most cases HEAL grants supporting development of capacity for functional HIE were given to sub-state nodes/HIE entities on the condition that they put up significant matching funds—to the tune of \$408M—from regional and local communities. This requirement for infusion of local resources in exchange—funding and human capital—ensured local commitment to creating thoughtful, sustainable approaches to enabling exchange. The HEAL grants and associated local investments mobilized local health care leaders, giving

¹ For more information on New York's implementation metrics, please visit the State HIE Program Measures Dashboard, <http://statehieresources.org/program-measures-dashboard/>.

them the flexibility to adapt HIE services to meet the needs of local markets, proving critical for success across New York's vastly diverse communities and regions. Although implementing one central HIE infrastructure could have been simpler and faster upfront, a centralized approach would have minimized the role and potentially the commitment of local health care providers to actually trust and use the services. Additionally, the local approach helped raise awareness of HIE and build trust in exchange services among both provider and patient communities.

Supporting Individual Choice

Local financial commitment paired with flexibility to develop services that meet local needs and processes that build trust have resulted in relatively high patient consent and provider utilization rates. As an example, northern New York's HIE entity, Healthcare Information Xchange New York ([HIXNY](#)), averages 73,000 patient record queries from participating organizations per month. HIXNY also boasts a 94 percent patient consent rate; nearly every patient signs up when presented with the opportunity. HIXNY reported a 207 percent jump in patient consents in 2011 and is on pace for another 185 percent increase in 2012, with more than 650,000 consents total.

New York's statewide approach to individual choice provides consumers with the opportunity to make decisions about participating in exchange through an opt-in consent model. In this case, providers usually explain exchange options to patients and obtain their consent during the registration process at the beginning of office visits.

The high rate of individuals choosing to participate in HIXNY is in large part due to HIXNY's in-person training and materials that help participating hospital and practice staff integrate the consent process into their registration workflow. HIE leaders also attribute the consent rate to HIXNY's communications team, comprising representatives from each of the [member organizations](#). Together they leverage a multi-pronged marketing approach through shared messaging on websites, e-newsletters and PR campaigns to help providers and patients understand the importance of exchange. They also host in-person events to help educate the community about the value and importance of HIE and serve as "outreach agents" for New York's broader HIT efforts by spreading information about regional extension center services for EHR adoption.

HEALTHeLINK, an HIE entity serving western New York, also expects to reach critical mass with nearly 500,000 patient consents by the end of 2012, with over 60 percent of those over the age of 60 consented. Dan Porreca, HEALTHeLINK executive director, credits much of this to significant work done by four account managers who are responsible for reaching physicians and educating them about HIE services as well as HEALTHeLINK's clinical transformation partners for assisting with process and workflow consulting in the physician practices. Outreach and education not only increase providers' trust of the system and other participants, but also enhance providers' ability to effectively discuss HIE with their patients. Use of the technology and services continues to grow at an impressive pace and the results are beginning to show both in the ability for more efficient care coordination and in the elimination of unnecessary diagnostic tests. HEALTHeLINK experienced a 650 percent increase in the number of patient record lookups comparing December of 2010 to December of 2011. In 2012, the growth of use continued with a 200 percent increase over the total for 2011!

Health Plans: Local Stakeholders Providing Multi-Faceted Support

Many of New York's 11 sub-state HIE entities include another distinctive characteristic—health plan involvement and support. Involving health plans from the outset has provided New York a leg up in HIE development. This is especially true for the HIE entities in areas where regional nonprofit health plans still maintain a strong foothold. For example, three health plans represent 65-70 percent of the commercially covered lives residing in the western New York area covered by HEALTHeLINK and are therefore critical

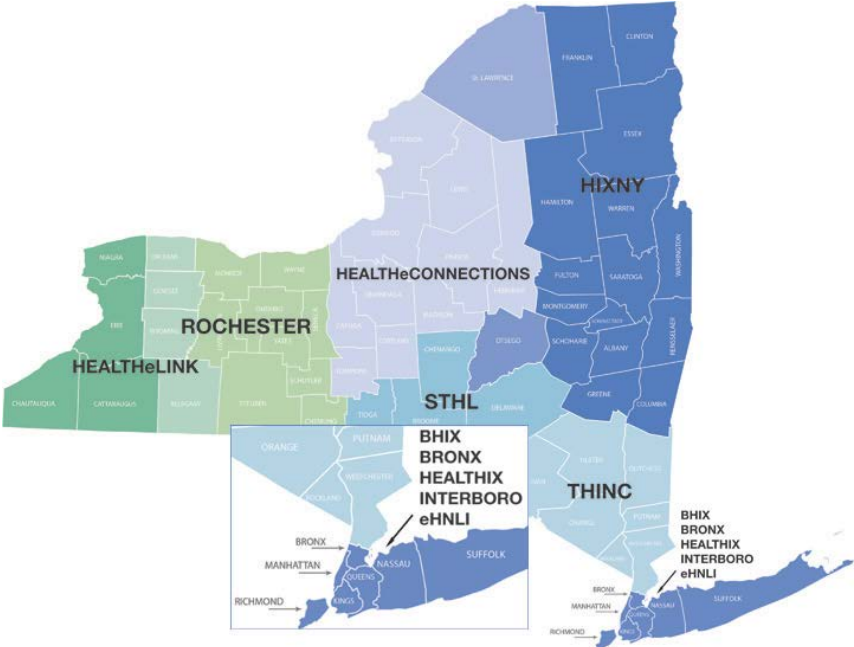
HIE stakeholders in the region. All three health plans contributed initial funding to HEALTHeLINK and continue to provide operational funding along with four founding member hospitals. The health plan and hospital charter members also lend leadership with invaluable data management expertise and share an interest in effective care coordination. In many ways, these health plans were the drivers of exchange. Much like physician organizations and hospitals, they seek better and timely information to drive efficiencies, patient safety and better outcomes. They also recognize collaboration as the most effective way to achieve those goals. In the case of HEALTHeLINK, the health plans provided member data in 2008 to populate the HIE entity’s master patient index. HEALTHeLINK now maintains the database using hospital ADT feeds. In return, the health plans access clinical data for treatment and quality purposes (case and disease management) for consenting patients. HEALTHeLINK’s [patient consent form](#) prominently indicates this potential use of clinical data.

The HEALTHeLINK technical platform also supports the [Western New York Beacon Community](#), a project leveraging nearly \$16.1M in Office of the National Coordinator for Health IT (ONC) Beacon Community Cooperative Agreement funds to close gaps in service and improve health outcomes for patients with diabetes. The Beacon project is strengthening the platform by connecting additional partners and data sources (more than 40 as of October), and by developing new functionality to increase HEALTHeLINK’s value to users.

Services to Support Local Needs

While the 11 sub-state HIE entities were afforded the latitude to independently create and deliver services to meet the needs of their respective communities, some common services emerged (see **Figure 1** below for a map of the geographic areas covered by sub-state HIE entities; overlap is indicated with a lighter shade of the bordering HIE entity’s color). All the HIE entities offer some form of a virtual patient record that aggregates clinical data sources within the region to provide a comprehensive view of a patient’s medical history. Providers can query this information, including encounters and diagnoses, medications, allergies and lab results and retrieve it from centralized or federated repositories. A majority of HIE entities offer secure clinical messaging, primarily for referrals management, and patient portals for communicating results with patients. A handful of HIE entities—such as **Healthix** and the **Bronx RHIO**—offer automated alerts to notify providers when patients are admitted to the ED, hospital, have died, or other customizable alerts, as well as other services like medication history lookup, coordinated care plan selection, analytics, and reporting. HIE entities like **HIXNY**, the **Brooklyn Health Information Exchange (BHIX)** and the **Rochester RHIO** offer EHR integration, workflow and meaningful use consulting services.

Figure 1. New York’s Sub-state HIE Entities



The state is now working to harmonize these services and establish a set of minimum core services that will comprise the foundation or baseline for statewide exchange going forward.

Consensus & Accountability through State-Level Governance

Trusting local health care leaders to build HIE services to meet the needs of their local communities is a part of New York's winning formula, but they also require participation in the statewide policy process. In doing so, New York created a formal structure and shared accountability between the state and sub-state HIE entities for implementation. Participation ensured the HIE entities had the tools for interoperability (i.e., consistent policies and standards) and an understanding of the statewide expectations to build out their local HIE services.

Rachel Block, Deputy Commissioner for Health Information Technology Transformation in the NYS Department of Health, told us ***“Everyone had a say in what was going to go forward and what they were expected to implement in the context of their programs.”*** She added that although New York's public-private model has leaned more on the private sector and thus has taken longer to drive consensus in a diverse stakeholder community, it has been a good model. The [Statewide Policy Guidance \(SPG\)](#), as it is formally referred to, provides every HIE entity with minimum technical and policy requirements for interoperability and sets the parameters by which implementation will be evaluated.

The magic of the state's HIT governance framework is in how it is built and maintained. The open and transparent “bottom up” process, referred to as the Statewide Collaborative Process (SCP), is driven by a group of nearly 400 individuals charged with expanding the adoption and use of HIT through policies and standards. The SCP includes representatives from the sub-state HIE entities, hospitals, provider organizations, state government, public health, HIT vendors and consumer advocates. Perhaps the SCP's most enduring success factor is support from the state government itself through the NYS Department of Health (DOH) in partnership with the New York eHealth Collaborative (NYeC), a non-profit organization. Founded by health care leaders in 2006, NYeC receives funding from state and federal grants to serve as the nucleus of health IT in New York State. NYeC works to develop policies and standards that align with national standards, to assist health care providers in making the shift to electronic health records, and to coordinate the creation of a network to connect health care providers statewide, known as the Statewide Health Information Network for New York (SHIN-NY). Through the SCP, the state and NYeC provide oversight, lead strategic development discussions and share responsibility for implementation with the sub-state HIE entities.

Today, NYeC develops and operates the SHIN-NY—from both a policy and infrastructure perspective. In this capacity, NYeC coordinates efforts among and between the NYS DOH, the sub-state HIE entities, providers, the public and others. The SHIN-NY is a technical infrastructure and shared IT framework that includes services, technical standards, protocols and policies from the SPG to ensure providers are able to seamlessly share information across the state regardless of organizational, geographic or vendor boundaries. At present, all of New York's sub-state HIE entities participate in the SHIN-NY, either by relying on the technical infrastructure and services SHIN-NY provides (as is the case for five downstate HIE entities—[BHIX, the Bronx RHIO, Healthix, the Interboro RHIO, and the e-Health Network of Long Island \(eHNLi\)](#)), or by agreeing to use their set of standards and policies to enable interoperability across the state.

SHIN-NY is in essence a shared service provider for HIE across New York State. It is a network of networks that will connect independent sub-state HIE entities and ensure a minimum set of core services are streamlined and available across the state. NYeC, NYS DOH, the sub-state HIE entities and the other stakeholders are currently working to define what will become core HIE services. What's referred to as the “three S's” are thought to be among the core set:

- Send (email using the [Direct](#) standard)
- Subscribe (alerts for providers)
- Search (patient lookup)

Other services will be viewed as value-adds and determined locally by communities.

Vendors: A Seat at the Table

Another outcome of the SPG is that more software vendors are now encouraged to connect with multiple New York HIE entities because they only need to comply with one set of statewide standards. Beginning with the HEAL program, participating vendors have agreed to technical requirements and program milestones, but New York decided to continue strengthening partnerships with EHR and HIE vendors by requiring participation in the SCP. In doing so, vendors benefit from a greater understanding of the value they bring to exchange. And since competing vendors participate in the SCP, they not only hear each other's opinions on the program's direction, they also help drive faster development and implementation due to the healthy dose of competition fostered by the SCP's transparency.

New York is also extending its work with vendors in its [EHR / HIE Interoperability Workgroup](#). Created in 2011, the workgroup leverages existing standards and develops consistent implementation guides for interoperability between HIE software platforms, and the applications that interface with them. The workgroup's main objective is to create an integrated marketplace of EHR capabilities wherein the interfaces between EHRs and HIE entities will be more compatible. It is worth noting that the workgroup builds on and accelerates consensus on national standards, adopting ONC's EHR certification criteria and testing procedures as finalized for Stage 2 meaningful use.

Rachel Block referred to development of the workgroup's agreement or memorandum of understanding (MOU) as "a major step moving forward." The workgroup now comprises 17 states, 40 technology vendors and 34 HIE entities, representing more than 50 percent of the U.S. population. To join the workgroup, the states, EHR and HIE vendors sign the MOU and agree to comply with the specifications developed by the workgroup and modify their products within one or two releases. Most vendors are on track to meet the workgroup's first specifications—released in November 2011—by the first quarter of 2013. And in signing the MOU, the states agree that their state designated entity (SDE) will work with their HIE entities and state policy groups to ensure compliance to the specifications by their stakeholders. They also agree to market to the provider community the value of using EHRs and exchange mechanisms that meet the specifications through state policy, preferred vendors of regional extension center(s) or other means.

This fall, the workgroup announced their partnership with [Healtheway](#), another non-profit organization chartered to operationally support the eHealth Exchange, formerly the Nationwide Health Information Network (NwHIN) Exchange. The partnership has since created an extensive, highly automated testing program to verify that tested EHR and HIE systems are capable of exchanging health information with many other systems.

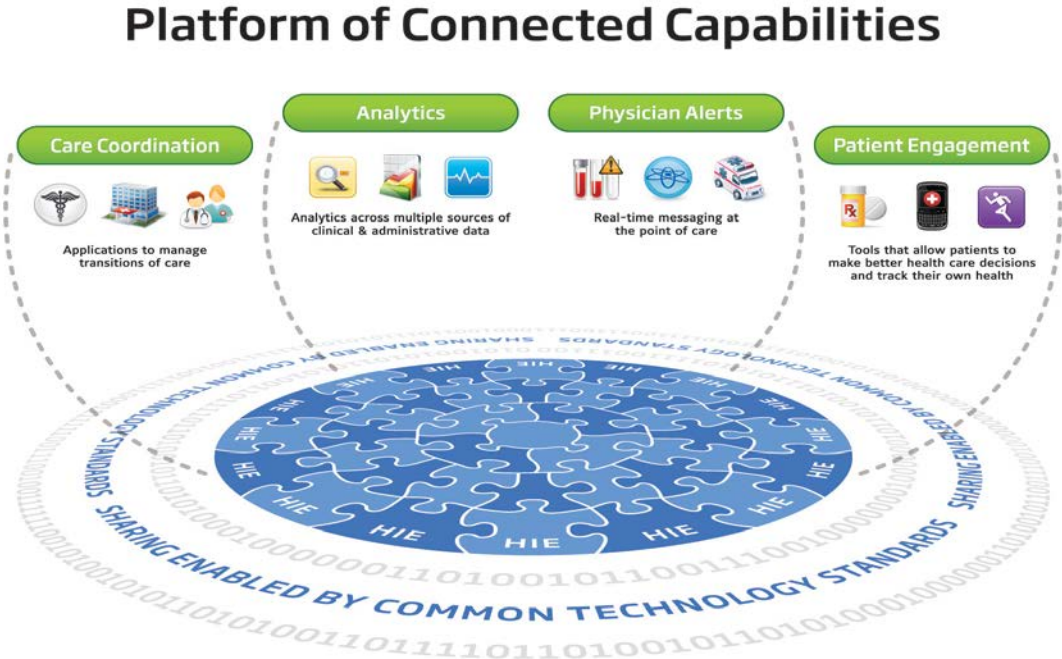
Promoting Innovation

New York also attributes their success to promoting innovation among their diverse HIT community. NYeC is demonstrating this commitment to innovation and greater interoperability through the recent launch of their [Digital Accelerator program](#). The program is an extension of New York's philosophy of collaboration and a recognition that it will take more than a robust technical infrastructure and mere access to data to coordinate care and improve outcomes. HIE participants must use the data to make care decisions. The Digital Accelerator program is providing the financial resources and structure to create the next generation of technology that will facilitate more real-time data use.

The program combines growth-stage digital health companies, provider and hospital subject matter experts, and the investment community to produce new tools and jobs to help drive the next generation of HIE solutions. Eight companies were recently awarded \$300,000 each to develop cutting-edge technology products to build on the four focus areas of the SHIN-NY—care coordination, patient engagement, analytics and message alerts (see **Figure 2** below). It is expected that when the program is over, these companies will attract upwards of \$150M to \$200M in venture capital investment, based on five years of consecutive administration.

Provider mentorship is a distinguishing characteristic of New York’s Digital Accelerator program. The winning companies are paired with 3-4 providers from some of the larger provider organizations in New York, which yields tools that are sensitive to provider workflow and to integration with EHRs and the SHIN-NY. The developers do this by using the NYeC-developed application programming interface (API) to build technology applications that sit on top of the SHIN-NY.

Figure 2. Four Key Areas Enhanced by HIE data in New York



Two early applications include [Aidin](#), a web-based referral platform for hospitals discharging patients to post-acute care, and [MedCPU](#), a real-time clinical decision support tool. Aidin collects data about how well post-acute care providers perform—using patient satisfaction scores and Medicare quality measure data—and makes it easy for hospital staff to present that information to patients and their families when they are choosing their post-acute provider. Patients and care providers no longer need to pick blindly from a list of long-term care facilities or rehabilitation centers in the area, increasing the likelihood that patients will choose better providers for better outcomes.

MedCPU delivers real-time clinical care advice through its Advisor Button technology. It uniquely captures the complete clinical picture from clinicians’ free-text notes, dictations and structured documentation entered into any EHR. The application analyzes patient data against a growing library of best-practice content, generating real-time precise prompts for best care consideration. The application will become even more intelligent once the SHIN-NY has the ability to send automated MedCPU alerts when there is a change to a

patient's Continuity of Care Document (CCD) information. Developing this SHIN-NY capability is a priority for New York's Medicaid [Home Health Initiative](#).

Expect to see additional investment and collaboration around connecting more care settings and provider types, mainly behavioral health, long-term care and public health, to ensure that the right information is available at the right time and for the right people. New York will also continue to harmonize the offerings of their multiple sub-state HIE entities until they arrive at ubiquitous core services and pricing, at which point HIE participation may become a requirement for providers. As they explore what levers—regulations and financing among them—they need to make the core HIE services sustainable, governance, policy setting and accountability for implementation will remain strategic imperatives for New York.

References and links

To learn more, please contact Rachel Block at rx17@health.state.ny.us.

And for more information please visit:

<http://www.health.ny.gov/technology/>

<http://nyehealth.org/>

<http://digitalhealthaccelerator.com/>

<http://wnyhealthelink.com/>

<http://www.hixny.org/>