THE CASE FOR PAYER PARTICIPATION IN HEALTH INFORMATION EXCHANGE

APRIL 2018

Health information exchanges (HIEs) are collaborative efforts that focus on health data exchange on a community, regional, or statewide basis. They provide new and efficient ways for a wide and varied set of participants (providers, labs, hospitals, payers, public health agencies, pharmacies, patients/citizens, etc.) to receive and send data. The term "HIE" can be used as both a verb and a noun. As a verb, HIE refers to the act of exchanging data through whatever means and using whatever technology that is selected. As a noun, HIE refers to the physical network or organization that enables the data exchange to take place (sometimes called Regional Health Information Organizations, or RHIOs). HIEs are quite diverse; their services have yet to be fully leveraged by the payer community.

TYPES OF HIEs

The HIE landscape continues to become more complex as different models of HIE have developed and, in some cases, are vying for their position in the interoperability marketplace (see Figure 1). State/community HIEs are supported within a medical trading area, community, or state and can be the most challenging to sustain. Some states—particularly smaller ones—have single, state-level HIEs, while other states, such as New York, pursue a model where they provide interconnection between regional HIEs. Still others merely facilitate HIE through selection of standards or deployment of lighter strategies, such as directed exchange. Most community HIEs continue to work on developing an appropriate business model and sustainability plan as the level of government funding experienced over the last several years is subsiding.

Interoperability Marketplace

State/Community HIE

Enterprise/Organization HIE

EHR Vendor Hub/HIE

Figure 1

Enterprise or organization HIEs are deployed and supported within a single organization or integrated delivery network (IDN) and may or may not interoperate beyond organizational boundaries. Many IDNs have become complex organizations connecting hospitals, clinics, tertiary care centers, and small practices. The movement to accountable care organizations (ACOs) will further promote the development of these HIEs to serve the information exchange needs of medical homes and their supporting clinical locations.

A third type of HIE, the electronic health records (EHR) vendor hub, has emerged as many EHR system vendors offer interoperability between installations of their products and often will provide less expensive external interfaces to/from these hubs. For the EHR system vendor, participating in the other types of HIEs is a matter of strategic leverage. For providers, participation becomes a matter of lower cost and improved functionality. For communities, these vendor hubs may or may not make interoperability more efficient, as the hub is focused less on interconnecting a logical set of data trading partners as it does on the idiosyncrasies of who happens to be using a particular EHR system.
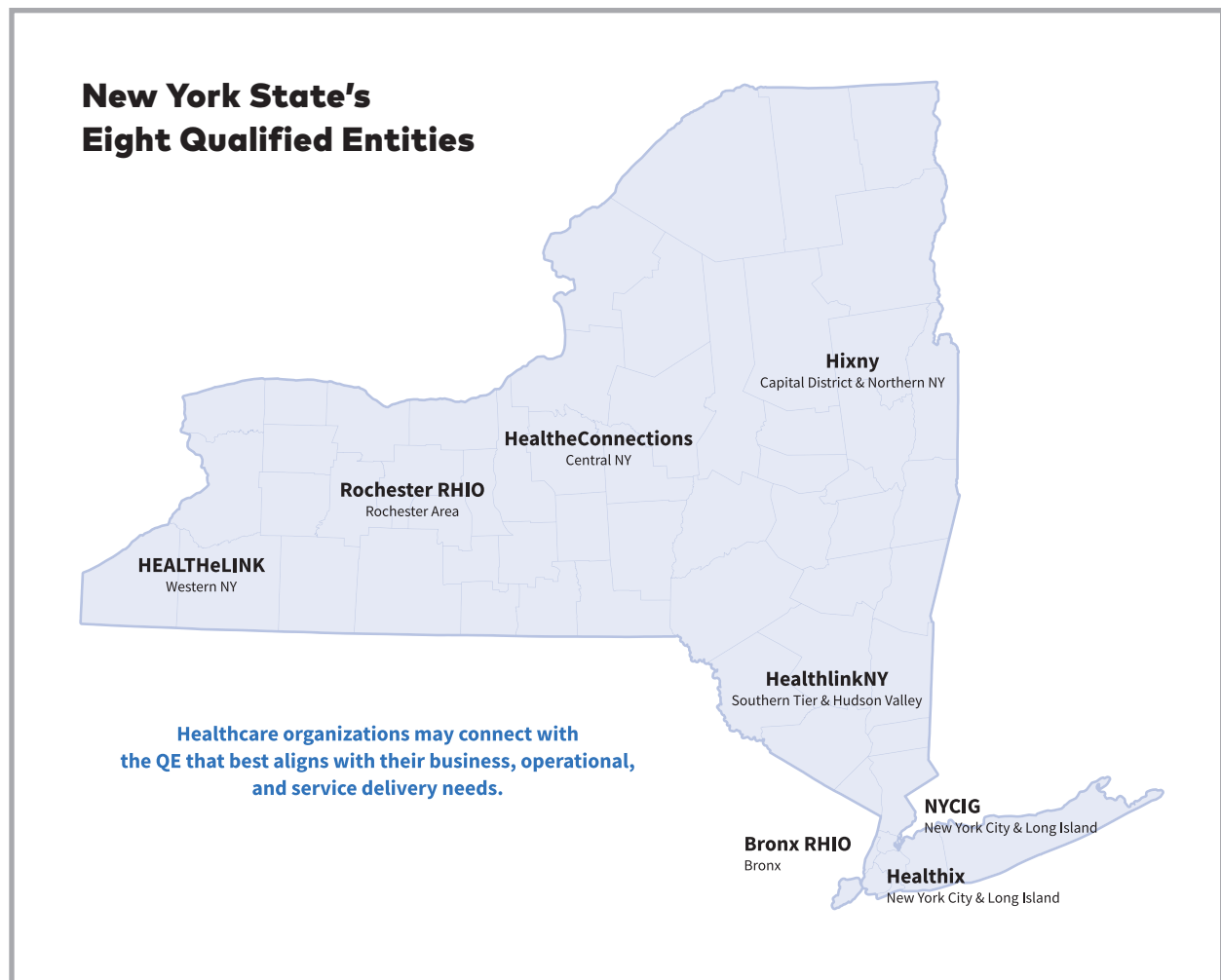
For payers, participation in a state/community HIE is a more reliable way to ensure that interoperability can be enabled with as wide a variety of data trading partners as possible. Private HIEs and vendor-dominated vendor hubs are restricted to the particular set of provider organizations or hospitals that are part of a corporate entity or who happen to be using a particular vendor's product. They do not promote wide-spread interoperability in a diverse healthcare ecosystem. State/community HIEs are governed by a more open, transparent, collaborative process where participants have a stronger say in the governance of the entity. State regulation may play a part in ensuring transparency and participation in governance.

The national landscape is very mixed, however. Consider:

- In Rhode Island, payers fund the state's HIE on a voluntary basis. However, current state law does not allow payers to access clinical data in the HIE directly even if patients "opt in" to participate.

- In Maine, where participation in the HIE is voluntary and their patient opt-out consent rule is considerably more permissive than New York's, Medicaid is the only major payer participating.

- In Utah, the HIE began as a claims clearinghouse and only subsequently began to work with clinical data. Payers have reasonably complete access to clinical data for their members in this opt-out state.

- In other states, such as New York, the HIE contains clinical data that can be used quickly and easily to look up patient-specific information to support both pre-authorization for payment and, later, claims adjudication. In addition, Direct messaging provides secure e-mail between known correspondents that can contain protected health information (PHI).

STATEWIDE HEALTH INFORMATION NETWORK FOR NEW YORK (SHIN-NY)

Under the direction of the New York State Department of Health (NYS DOH), the Statewide Health Information Network for New York (SHIN-NY) was established to allow the electronic exchange of clinical information and connect healthcare professionals statewide. The SHIN-NY is a "network of networks" comprised of New York's eight regional health information exchanges, or Qualified Entities (QEs). The QEs connect EHRs from participating healthcare professionals in each region, including those from hospitals, clinics, labs, radiologists, and ambulatory physicians, among others, and, with patient consent, allow those records to be shared securely with other participating healthcare professionals in their area.

New York State's Eight Qualified Entities

Hixny
Capital District & Northern NY

HealtheConnections
Central NY

Rochester RHIO
Rochester Area

HEALTHeLINK
Western NY

HealthlinkNY
Southern Tier & Hudson Valley

NYCIG
New York City & Long Island

Bronx RHIO
Bronx

Healthix
New York City & Long Island

Healthcare organizations may connect with the QE that best aligns with their business, operational, and service delivery needs.

The SHIN-NY interconnects these regional networks to create a secure, statewide network designed to improve healthcare for all New Yorkers by ensuring that doctors have instant, accurate, and accessible information about their patients, anywhere and anytime.

The SHIN-NY supports the state's various value-based care initiatives moving healthcare towards a more fully integrated, patient-centric system. Today, the SHIN-NY connects 98% of hospitals in New York State, over 80,000 healthcare professionals, and represents millions of people who live in or receive care in New York State.

The network helps healthcare professionals across the state better manage patient care by providing access to clinical records, helping to reduce healthcare costs, improve care coordination, and increase the quality of care for patients in New York State.

Types of data available in the SHIN-NY include:

Patient Consent
Radiology Images & Results
Demographics
Care Plans
Diagnosis/Problem List
Social/Family History
Immunization
Procedures
Discharge Summary
Vitals
Encounters
Advanced Directives
Transcribed Reports
Allergies
Contact/Next of Kin
EKGs
Medications
Lab Results
Clinical Reports
ED Reports
Schedule Data

All QEs offer basic services free of charge to participating organizations. These include:

- **Patient Record Lookup** functions like a highly secure search engine, allowing authorized users to retrieve individual patient records from across the network. QE participants with consent can readily look up a patient's records, regardless of where they have received care in the state.

- **Alerts** allow users to establish subscriptions to pre-defined events, such as emergency department (ED) or inpatient admission or discharge, and receive real-time notifications when those events occur.

- **Consent Management** tracks patient consent to access records according to New York State law and other requirements defined by state and federal regulation and policy.

- **Secure Messaging** provides authorized users the ability to securely and seamlessly exchange authenticated, encrypted clinical data with one another through the Direct Protocol. It's similar to highly secure email.

Each QE may offer additional custom services such as analytics and patient registry services.

PATIENT CONSENT

New York State law requires that SHIN-NY participants obtain patient consent before disclosing personal health information for non-emergency treatment. Unlike HIPAA, New York provides no exception to the consent requirement for treatment, payment, or healthcare operations. Consent may be verbal or implied, except for sensitive health information (e.g., behavioral health, substance use disorders, HIV status), which requires written consent.

In New York State, SHIN-NY policies and procedures are developed by the SHIN-NY Policy Committee, which is comprised of a cross-section of healthcare industry stakeholders, including health plan representatives, in collaboration with the state Department of Health. The SHIN-NY Regulation (10 NYCRR Part 300) governs how patient health information is accessed and used via the SHIN-NY, the QEs, and their participants. The SHIN-NY Regulation upholds affirmative consent and also allows for consent to disclose (sharing a patient's health information, not just accessing it) where applicable and where that is required by either state or federal law.

New York State operates under opt-in consent policies. That means patients must specifically affirm their consent to have their protected health information (PHI) accessed in the SHIN-NY. Patient consent is obtained at the organizational level (legal entity). If a provider works at more than one legal entity, the consent granted by the patient is not tied specifically to the provider and therefore it is not transferable to another legal entity; both legal entities must have secured patient consent for accessing PHI via the SHIN-NY. However, there are situations where accessing a patient's PHI can be done without affirmative consent. In emergencies, physicians can "break the glass" to access patient information without their consent. Additionally, electronic-based One-to-One Exchange allows for the disclosure of PHI via the SHIN-NY by one of the patient's providers (a QE participant) to one or more other QE participants who are either treating the patient or performing quality improvement and/or care management activities for the patient. Examples of this type of exchange include referrals to a specialist, a discharge summary sent to the location where the patient is transferred, lab results sent to the practitioner who ordered them, or clinical information sent from a QE participant to the patient's health plan for quality improvement or care management/coordination activities.

New York State policy includes payers as one of the organization types who may participate in the SHIN-NY through a Participation Agreement with a QE. As such, payers represent an important stakeholder for the SHIN-NY. As payment models shift from fee-for-service to performance-based methods, collaborative case management will become a more important fixture of the healthcare delivery ecosystem. More and better information will be required to keep pace with the expectations of consumers for quality care delivered at an increasingly affordable cost.

Electronic, computable, healthcare data is necessary, but not sufficient, to support new and existing payment models and emerging patient-centered care. Data must be accessible where and when it is required to support clinical and administrative needs. For data to be accessible, it must be portable, as the complexity and com-petitiveness of the healthcare environment in the US dictates a fairly distributed information model. Studies have shown that access to additional clinical data through an HIE will significantly reduce the number of laboratory tests, radiology examinations performed, and visits in emergency care settings and thereby can have a significant impact on overall cost of care.[1, 2] While more studies on the financial impact of HIE data is necessary, preliminary findings suggest measurable cost reduction with access to community patient data.

---

[1] Yaraghi, N. J. "An Empirical Analysis Of The Financial Benefits Of Health Information Exchange In Emergency Departments." *Journal of the American Medical Informatics Association*, 2015;22(6): 1169-1172.

[2] Frisse ME, Johnson KB, Nian H, et al. "The Financial Impact Of Health Information Exchange On Emergency Department Care." *Journal of the American Medical Informatics Association*, 2012;19(3): 328–333.

SHIN-NY USE CASES FOR PAYERS

The following use cases describe common clinical data functions currently performed by payer organizations and how the SHIN-NY can benefit payers and enable enhanced capabilities.

Use Case #1: General Care/Case Management

Payer-based care/case managers monitor and provide coordination services to a variety of patient sub-populations, typically those with chronic conditions or other special needs (e.g. rare diseases, transplant needs, etc.). To do this work effectively, care/case managers must have access to both longitudinal records for the patient as well as real-time data about current complaints, medications, encounters, lifestyle, and hospitalizations. Development, update, and monitoring of care plans is essential for proper and efficient patient care.

> **Without SHIN-NY:** Care/case workers face an uphill battle in gathering together relevant clinical and lifestyle data for patients whose care they are trying to manage. They rarely find out in a timely wayabout routine physician encounters or have access to historical data that might be used to establish a pattern of behavior or treatment. This situation is exacerbated by patients who receive care from multiple providers in differing geographic regions across the state.

> **With SHIN-NY:** Care/case workers can use the SHIN-NY to access clinical data for patients through a web-based portal for all of their members who have consented to allow such access. The HIE portal assists care/case managers in authorizing payment, arranging for care and services, coordinating care between multiple providers, and more proactive management of patient needs. This includes sharing care plans with appropriate external entities as required. The SHIN-NY also supports statewide patient record lookup, providing access to consolidated records that may come from anywhere in the state. Aggregated individual patient data—such as a consolidated medication history—may more readily elucidate exiting conditions or coverage that may be less evident from information from a single provider.

Use Case #2: Quality Assurance Reporting and Analytics

Payers are responsible for completing a variety of Quality Assurance Reporting Requirements (QARR), including collection and reporting of the Health Effectiveness Data and Information Set (HEDIS). The clinical data collected for these purposes also supports other uses, including supporting and augmenting reporting efforts for value-based initiatives, reporting for providers under capitated arrangements, and administrative transactions.

Without SHIN-NY: Health plans employ a small army of nurses and data entry clerks to visit practices and facilities to inspect either paper charts or EHR data manually to harvest the necessary data and enter it into their own electronic data systems. Chart reviews are expensive, time consuming, and intrusive to clinical sites.

With SHIN-NY: HIE access to clinical data can significantly reduce the on-site time required by payers to perform chart reviews. The HIE portal provides remote, online access to clinical data to support QARR/HEDIS data collection requirements and is available on demand 24/7.

Use Case #3: Population-based Analytics

Payers have many reasons to aggregate and use member data to support such activities as quality reporting and analysis, disease registries, aggregated claims databases, and disease/condition modeling, prediction, and management (e.g., hot-spotting). While claims information already possessed by the payer may provide the core of this data, clinical data can often significantly enhance the effectiveness, completeness, accuracy, and usefulness of the activity.

Without SHIN-NY: Collection of data is labor-intensive and costly, relying mostly on chart audits, surveys, and specific information sharing contracts between entities. As most data does not originate in electronic form, significant cost (and delay) is incurred in entering, cleaning, and further processing data for use in specific studies or activities.

With SHIN-NY: For specific panels of patients, the SHIN-NY can provide access to data extracts, supporting HEDIS and QARR requirements for health plans, as well as provider-level or practice-level assessment. A query manager and report writer may also be available to allow payers to extract and report on clinical data known to the HIE on identified, consented member records and deidentified, aggregated records as well. By originating in electronic form, this data can more quickly and easily be incorporated into other analytical systems used by the payer at lower cost.
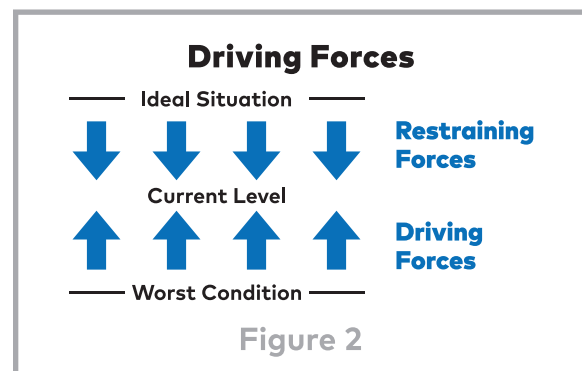
ENABLERS AND BARRIERS

The goal of greater payer participation in HIEs is to enable them to fulfill the scenarios discussed above. But, this ideal situation is not yet fully in place. As in any goal, there are driving forces pushing towards the best possible outcome and restraining forces pushing in the opposite direction towards the worst possible outcome (see Figure 2). The current situation represents equilibrium between the two, though it is still not always the desired outcome. To reach the desired outcome, reduce the number of restraining forces through some type of mitigating action and increase the number and power of driving forces pushing towards the ideal situation.

So what are the driving forces pushing the SHIN-NY towards greater payer participation? On the broad healthcare ecosystem side, payment reform is certainly driving payers to work more closely in managing patient care through such activities as accountable care organizations (ACO), patient-centered medical homes (PCMH), and more integrated care. These collaborative care models require information—real-time, aggregated, identified, and anonymized—to operate effectively. As the Center for Medicare and Medicaid Services (CMS) moves more aggressively towards value-based payment and quality reporting programs, this need for information will only increase. And the shared interest in supporting the Triple Aim (excellent quality of care, reduced cost, and improved outcomes) helps build a more compelling case for information sharing.[3]

HIE enables and supports value-bases care and leads to better care and lowers cost. Peer-reviewed, published, evidence-based studies have repeatedly shown that the use of the SHIN-NY to access patient information is associated with:

- 57% reduction in patient readmissions within 30-days after hospital discharge[4]

- 30% fewer emergency department admissions[5]

- 52% reduction in laboratory tests and a 36% reduction in the estimated number of radiology exams[6]

- 25% fewer repeat images within 90-days of first imaging procedure[7]

Driving Forces

Ideal Situation

Current Level

Worst Condition

Restraining Forces

Driving Forces

Figure 2

Participation in the SHIN-NY can offer a significant cost savings to New York overall and to clinical users (and therefore payers) especially. Providers' use of HIE exchange services to query patient information from EDs has been demonstrated to reduce the number of tests and orders.[7] Relevant patient information is frequently difficult to obtain in ED visits. Improved provider access to previously inaccessible patient information can improve the quality of care and reduce hospital admissions.[5,6] HIE subscription alert services can improve care coordination and management activities that contribute to reductions in preventable readmissions.[8]

---

[3] http://www.ihi.org/Topics/TripleAim/Pages/Overview.aspx

[4] https://academic.oup.com/jamia/article/22/2/435/694158

[5] https://www.ncbi.nlm.nih.gov/pubmed/24734135

[6] https://academic.oup.com/jamia/article/22/2/435/694158

[7] https://academic.oup.com/jamia/article/24/1/39/2631441

[8] https://academic.oup.com/jamia/article/24/e1/e150/2907910

Another important driving force towards payer participation in HIE is the potential for reduced cost of connectivity through the reliance on a single HIE connection to provide connectivity to many different organizations and data trading partners. HIE connectivity provides maximum leverage of a single physical connection. SHIN-NY participation is nearing or past the tipping point with most hospitals, labs, and pharmacies. Adoption efforts continue to focus on primary care providers, long-term care facilities, and many specialty practices. The SHIN-NY also provides a consistent policy framework with which all participants agree to comply, reducing the need to negotiate and enforce multiple point-to-point agreements with different trading partners. And as the SHIN-NY advances, additional statewide services that cross regions and medical trading areas will become available; for payers who service multiple regions in the state, this is especially useful.

The scenarios described above detail ways in which the SHIN-NY can help payers functionally. The availability of clinical data to supplement claims data supports a number of the business activities in these scenarios, including support for care/case management, quality reporting, care coordination, population-based analytics, and predictive risk assessment. These are data-driven activities, all aimed at improving the patient's experience and reducing cost. Without the SHIN-NY, payers often rely on expensive, time-consuming, and intrusive "chart pulls" to gather data from provider offices and the added step of digitizing the data that is harvested. The SHIN-NY provides a better way.

However, barriers to payer HIE participation still exist. In some areas there continues to be a historic distrust of payers by both providers and patients that can have a negative effect on their desire to collaborate and exchange data. In addition, there has often been a concern that data is a competitive commodity that should be guarded to protect proprietary—often financial—interests of the data holder.

Policy can present some strong barriers as well. In the SHIN-NY Regulation, policies limit the types of activities that payers can transact using the HIE. In addition, the complexities of patient consent requirements can also stifle data exchange, including compliance with state laws, documentation requirements that may be difficult to fulfill or monitor, and special rules regarding more sensitive PHI (such as HIV/AIDS, mental health, and federally-funded substance abuse treatment data). Many states allow patient data to be present in the HIE and accessed by authorized users unless a patient "opts out" to this participation. In New York State, patients must explicitly "opt in" to have their data accessible (see exceptions noted above). Payers may not condition health plan enrollment and receipt of benefits on a patient's decision to grant or withhold consent to access their information. In addition, access to a QE for purposes of payment or prior authorization is not permitted unless an additional consent is secured separately from the patient.

Functionally, payers need to be patient as HIE capabilities mature and develop, and they need to consider the impact of HIE functionality on their users. For instance, while notifications are a useful part of the SHIN-NY's service offering, alert fatigue can limit their effectiveness if not useful, timely, and measured. In addition, some alerts prompt the payer to access the HIE portal for more information, but when that information is not present in the patient's record in a timely and complete way, it may discourage the user from bothering to check, thereby reducing the impact of the initial notification. Finally, there is some overlap in HIE and payer system functionality payers need to consider.

HELPFUL ACTION

Payers (and others in the healthcare community) can take actions which can help mitigate the restraining forces and bolster the driving forces to move payers towards stronger participation in the SHIN-NY. First and foremost, training and education can go a long way to reduce barriers to participation. The complexity and newness of health information exchange can overwhelm potential participants; training and education must happen on many levels. Policy-oriented material and programs needs to be focused on the C-suite to educate senior payer organization leaders about the role of HIE in their organizations' future, and to educate leaders in other types of organizations about payer participation in HIE. Technical training and education is also needed to ensure that payer organizations are clear about the technical costs and expectations of participation. Finally, and perhaps most important, the functionality (now and in the future) of SHIN-NY services must be clearly explained and marketed to payer organizations with particular emphasis on how these capabilities can improve payer performance and lower overall cost.

HIE is an inherently collaborative activity, and, for some organizations, this level of collaboration can be new to the culture and operation of the organization. But the healthcare ecosystem is evolving and requires more collaborative planning among organizations to ensure collective success in an HIE-enabled world. For payers, this may mean cooperative discussion to ensure payer needs are articulated and met properly by SHIN-NY services. Similarly, it may mean collective legislative action to ensure payer interests are considered in HIE law and policy. With respect to the provider community, payers need to plan collaboratively as they consider and deploy systems that help support a better patient experience, greater reliance on clinical data, and improved data services to the clinical community to support patient care and payment. The structure and governance of the SHIN-NY can be a catalyst and forum for some of these activities to take place.

CONCLUSION

HIE is an important tool in improving the quality of patient care and outcomes, increasing accuracy and speed of diagnosis, eliminating unnecessary or duplicative tests and procedures, and reducing healthcare expenditures. Payers who participate in state/community HIEs, such as the SHIN-NY, experience greater oversight and are better equipped to manage and coordinate patient care.

The SHIN-NY can also support the increase in data sharing and reporting requirements, helping payers keep up with the demands of payment reform and more patient-centered care. Additional administrative benefits include more efficient workflows and enhanced population-based analytics and public health reporting.

Payers have much to gain as HIE services mature and develop. As integral parts of the healthcare delivery ecosystem, payers need to be increasingly collaborative with each other and other stakeholders. Furthermore, collaboration with the payer community will only strengthen the overall quality of healthcare delivery. The more payers engage with the SHIN-NY, the more compelling it will become for the SHIN-NY to continue to deploy products and services that meet payer needs. As healthcare moves toward placing value on patient-centered care, all parts of the system will need to collaborate together to achieve the Triple Aim.

ADDITIONAL RESOURCES

The following additional resources are available regarding payer participation in HIEs:

New York eHealth Collaborative: http://www.nyehealth.org/

Health Information Management and Systems Society (HIMSS), *Payer Participation in Health Information Exchange Organizations: The Time is Right*. July 2012.
http://www.himss.org/ResourceLibrary/ResourceDetail.aspx?ItemNumber=12145

Doris Cross, et al. "Assessing Payer Perspectives on Health Information Exchange," *Journal of the American Medical Informatics Association*, 23(2), 2016.
http://jamia.oxfordjournals.org/content/23/2/297

Author

Noam H. Arzt, PhD
HLN Consulting, LLC®
72810 Hedgehog St.
Palm Desert, CA 92260
858/538-2220 (Voice)
858/538-2209 (FAX)
info@hln.com
http://www.hln.com/