In Safe Hands
Failsafe program prevents potential harm to patients and provides greater peace of mind.  

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Innovation in Medicine
Pennsylvania physicians lead innovation in health care across the nation.  

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Coordination of care, closing care gaps, value-based payment models: How can a clinician address the ever-changing health care environment while decreasing overhead and maximizing efficiency?

A community of regional health information organizations (RHIOs) in Pennsylvania is ready to support the data-driven demands put upon clinicians and staff. RHIOs offer a solution — a Health Information Exchange (HIE) — which can streamline the process of information flow in and out of a practice.

An HIE can paint a more complete picture for patient care as well as reduce staff research time. By querying your HIE or simply receiving data directly into an integrated electronic health record (EHR), your practice could be receiving information such as medication lists; patient history; admission, discharge, and transfer (ADT) reports; or procedure notifications. Medical decision-making is supported with a more complete medical record, and a patient is spared additional time and money by avoiding redundant or duplicate procedures and testing.

One area where an HIE can help improve efficiency is transition of care management, which mandates patient follow-up 24 to 48 hours after discharge from a hospital or emergency department to reduce readmission rates.

“We are following up after every ADT, contacting every patient,” says William Artz, DO, of Associated Family Practice Professionals, PC, and HealthShare Exchange participant.

How Do I Get Started with an HIE?

Step one in HIE participation is asking questions. Here is a checklist that may be helpful when you are making decisions regarding your HIE:

What degree of collaboration does your HIE provide?
  • Can it be integrated with my EHR?
  • Is the HIE browser-based?

Does the HIE offer Direct Secure Messaging between providers?

What data is protected when I query the system?
  • Would it include minors?
  • Will it exchange sensitive information (super-protected information)?

Which exchange service providers are available in my area?

“Almost everyone comes in. Patients think it is awesome that we have that kind of access in order to care for them. We have had to change our workflow, setting aside a block of appointments, to capture patients discharged from the hospital and ED.”

Additional benefits to participation in an HIE include the assistance in quality reporting. Patient queries could result in closing a gap in care, or indicate patient non-compliance. In some cases, locating information to close the gaps could be as easy as a few clicks of a mouse.

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An HIE is a secure exchange of health information between physicians, nurses, pharmacists, and other health care providers. HIEs aim to:

- Ensure continuity of care
- Avoid medical and medication errors
- Decrease duplicate procedures or testing
- Provide a complete medical record, verify medication, patient history
- Provide timely access to patient data
- Support patient safety
- Support physicians for unplanned care by helping them query the exchange for medication allergies, problem lists, and recent tests
- Reduce costs for your practice and patients

For more information regarding HIE, please visit www.healthit.gov/HIE or dhs.pa.gov/provider/healthinformationexchange/.

What Is Happening in Pennsylvania?

There are four regional health information organizations in Pennsylvania: HealthShare Exchange, ClinicalConnect HIE, Keystone Health Information Exchange, and Mount Nittany Exchange. The RHIOs coordinate with the Pennsylvania eHealth Partnership — the organization that maintains the Pennsylvania Patient and Provider Network (P3N) — to enable statewide health information exchange. P3N is considered the “hub” to allow secure health information to be exchanged between participating providers, the public health gateway, regional health information exchanges, care coordinators, and facilities across the state.

RHIOs work as a community, providing secure delivery of information to those who participate. It is a collaborative effort, notes Kim Chaundy, director of operations, Keystone Health Information Exchange. “We don’t want to be an analytic tool; we want to feed into the tool to bring data together for the benefit of care coordination and workflow improvement opportunities. This is a key element RHIOs can offer,” Chaundy says.

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HealthShare Exchange (HSX), incorporated as a nonprofit in 2012, services facilities and providers primarily in eastern Pennsylvania, specifically Greater Philadelphia, but is expanding its Exchange activities to South Jersey and other areas. The health information organization began its journey with Direct Secure Messaging, and now has more than 9,000 practitioners connected by its Provider Directory. It also has information on more than 5 million regional patients in its Clinical Data Repository (CDR), which provides longitudinal records of the recent medical history of these individuals.

HSX connects health plans and nearly all the hospitals and health systems (and their owned practices) in its service area, as well as behavioral health, long-term care, and Accountable Care Organizations (ACOs). More than 100 independent ambulatory practices are also included. It includes federal and city health clinics.

With emergency department and hospital admission data from its membership, HSX provides an Encounter Notification Service (ENS), which now includes more than 3 million patients, to alert members when their patients interface with a medical center anywhere in its region.

Martin Lupinetti, executive director, HSX, says, “There was a lack of information flow that needed to be addressed. A movement was started between hospitals and plans to find a better way.” HSX was built to aid providers in better care coordination and communication efforts, especially during transitions of care.

HSX’s CDR continues to grow, as more of its members also contribute Continuity of Care Documents (CCDs) in association with patient encounters. HSX has an implementation team that assists members in deploying its services, which are integrated whenever possible in the provider’s existing clinical workflow. The Exchange provides 24/7 support and has a fee schedule based on organization type, patient volume, services selected, and other factors.

William Artz, DO
ClinicalConnect HIE services western Pennsylvania, spanning from Erie to the border of West Virginia and as far as Ohio to Muncy. The organization, which recently celebrated its fifth year of service, was founded by nine major hospitals in the Pittsburgh area that put competitiveness aside and collaborated on the project.

Today, ClinicalConnect HIE offers the longitudinal patient record, aggregating data from all member organizations. Additionally, ClinicalConnect HIE supplies data from its external trading partners using the federal and state data-sharing systems.

There are more than 3.2 million patients who are part of ClinicalConnect HIE. More than 1 million charts have been viewed using the Exchange. Direct Secure Messaging, a standard for exchanging clinical data through secure email, is also offered.

There are challenges with every HIE implementation, but ClinicalConnect HIE works to meet the HIE needs of participating providers with phased onboarding, flexible cost, and an experienced team. “Our goal is to see HIE incorporated as normal practice for clinical workflow,” says Laura Mosesso, outreach manager, ClinicalConnect HIE.

Mount Nittany Exchange, based in State College, provides support for hospital systems, ambulatory practices, long-term care facilities, post-acute care centers, and free clinics, with an emphasis on small entities that do not have much in the way of IT support services.

To service clinicians who may not have the infrastructure to integrate an HIE into their day-to-day workflow, the Exchange offers a browser-based provider portal to close the gaps in the electronic continuum of care.

The Exchange also offers EHR integration for EHR systems that can consume Consolidated Clinical Document Architecture (CCD-A). CCD-A is the mandatory content used to create a CCD. A structured clinical document — typically sent through an HIE — will be delivered by CCD-A to provide patient data to a clinician querying the Exchange to coordinate patient care.

Mount Nittany Exchange transmits Direct Secure Messaging, allowing participating providers to send secure messages to other providers to communicate care coordination. The Exchange also delivers a mobile app alert system, notifying providers of emergency department visits and inpatient admissions. Membership in this HIE is available to participants for a nominal fee. Delivery of training is web-based for those who are authorized to access patient data within the practice.
Keystone Health Information Exchange (KeyHIE) was established in 2005 and supports single physician practices, federally qualified health centers (FQHCs), critical access hospitals, and large health systems.

KeyHIE connects approximately 100 unique health care organizations, 26 hospitals, 335 physician practices, 29 home health agencies, 89 long-term care facilities, one pharmacy, four EMS services, and three insurance payers throughout Pennsylvania. This connectivity serves more than 5 million patients, across 53 counties, gathering data to provide a longitudinal medical record for care coordination and earlier treatment decisions by authorizing secure access across multiple platforms.

Recently, KeyHIE announced the availability of their Information Delivery Service (IDS). IDS provides a streamlined approach to delivering clinical information and pushes data directly to an EHR, where it will either be parsed to a holding tank for review or directly to a medical record, limiting staff research hours and maximizing efficiency. The RHIO has expanded its IDS to support a learning health system and value-based payments, including population health management, ACOs, and Bundled Payment Care Incentives (BPCIs).

Clients of KeyHIE can select from a basic package, which provides a browser-based clinical document viewer, to an advanced package that offers the clinical document viewer, plus Direct Secure Messaging, notifications and reminders, and EHR integration. All packages include MyKeyCare, a multi-facility patient portal that allows patients to access documents and lab results, request prescription renewals, and send secure messages to providers.

KeyHIE extends various training platforms that are tailored to the needs of staff, including customized workflows. Along with training, this HIE offers marketing tools, technical support, and a competitive fee schedule.

Investing in new technology can likely appear to be an expensive, laborious process. Each RHIO is prepared to aid a practice or facility to make that transition as seamless as possible, at a reasonable cost.

“We are all in the business of the dollar in many ways; an HIE pays for itself in less than a month,” Dr. Artz points out. “We have had to reserve additional parking spaces to provide care based on the ability to capture patients coming out of the hospital from HIE notifications. Not only is this good for our business, it generates better patient care.”

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Interested in Participating?
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