Many Roads to Data Exchange

Save to myBoK

By Lorraine Fernandes, RHIA, and Michele O'Connor, MPA, RHIA, FAHIMA

Federal dollars are spurring efforts for health information exchange, but to say there is more than one approach is an understatement. Providers and payers are taking local, state, regional, and federal routes in search of connected healthcare.

The last year has seen tremendous excitement about the HITECH monies earmarked to incent health IT adoption. The $48 billion in stimulus dollars that will be paid to states, providers, hospitals, and other segments of healthcare is meant to promote adoption of health IT with the goal of improving outcomes for individual and population health.

The notice of proposed rulemaking on the "meaningful use" EHR program, wrote the Markle Foundation and more than 50 supporting organizations, "marks a major, positive step forward in the nation's efforts to improve health and health care by putting modern information technology (IT) tools at the fingertips of medical professionals and consumers alike."[1]

Key to achieving these outcomes is the ability to share data across entities. Failure to do so in a meaningful way will only produce more silos of electronic data with limited value.

Fortunately, local, regional, and state health organizations have been paving the way for data sharing and data exchange for years. In 2006 the Markle Foundation and Connecting for Health through the Common Framework emphasized the importance and value of data sharing while managing privacy, matching patient records, and defining architecture. In parallel, the technology to support data exchange has advanced.

This has led to considerable variation in approaches and innovations throughout the healthcare ecosystem. All approaches share values of patient safety, cost containment, and customer satisfaction, and all share common challenges. All will require some level of federal leadership.

Local

As John Lumpkin, MD, MPH, the senior vice president and director of the healthcare group for the Robert Wood Johnson Foundation, noted: "Healthcare is delivered locally, but influenced by national and local factors. We must take action at every level to fix it."[2] Local data sharing has been around for many years, but the past 12 months have seen a dramatic escalation in the push to share data between hospitals and physicians.

This is especially true when the physician practices are not owned by the hospitals and the hospital serves as a primary source of lab, radiology, and other diagnostic services. Local data sharing takes many forms, but the most prominent today is pushing lab, radiology, and transcribed reports from a hospital to a physician practice. The receiving agent can be a robust electronic health record (EHR) system, results viewer, or clinical portal. Paper-based offices may receive fax transmissions.

Hospitals are the primary sponsors of local data sharing, and many have recognized that creating loyalty across both patient and physician constituencies is vital to retaining or growing market share. In addition, they may also justify their investments by reducing redundant tests and associated patient co-pays. These all add up to a clear return on investment.

With local data sharing, providers are really creating meaningful data in a matter of weeks, thus individual and population health are quickly and better served. Local data sharing can be a valuable step in creating value from the EHR or a first step in building workflow and processes to support an eventual EHR when the practice is ready.

Scott Joslyn, senior vice president and CIO at Memorial Care in Long Beach, CA, a four-hospital system with 3,000 independent physicians, pushes results to physician offices using a software-as-service model.

“We have moved past paper and fax delivery to dropping results electronically into the [EHR] system,” he says. “Our physicians deeply appreciate the convenience and security of this approach. It’s faster and more economical. And, from a customer satisfaction perspective, where better to invest dollars and resources than in the local community?”

Regional

Technology advancements, initial grant funding, and the commitment of regional leadership has meant that today’s regional exchanges are doing better than their predecessors of the ’90s, the community health information networks. Regional data exchange organizations, commonly referred to as RHIOs, have been particularly successful in bringing competing organizations together to define regional needs and develop a neutral governance process for the good of economics and patient care.

The Louisiana Rural Health Information Exchange (LARHIX) has seen this value firsthand. Jamie Welch, CIO, says, “The benefit to rural patients is one that can’t be tangibly measured, unless you count the immense relief a patient has when told there’s no 2–3 hour road trip for an appointment, no cost of gas, no need to seek childcare for a day.”

However, Welch says, “The benefit to the rural provider can be measured and is just as important-they get the reimbursement money that is desperately needed in community hospitals, they get the added ‘lift’ to the hospital’s reputation in the community, [and] they get the benefit of building relationships with experts in a vast array of specialties. When we compound the tangibles with the intangibles, HIE and telemedicine are exactly what’s needed to drastically transform healthcare for our most vulnerable citizens.”

A few states, such as New York, have invested substantially in regional exchanges, with the vision that once regional connectivity is flourishing, they will progress to statewide data sharing.

“While focusing first on local connectivity, the concept of a region needs to expand when thinking about healthcare delivery in New York City. Individuals receive healthcare-and wind up in emergency rooms-throughout the city, not just in the borough or county where they live,” notes Irene Koch, executive director of the Brooklyn Health Information Exchange.

“Referral patterns and provider affiliations indicate provider networks span beyond geographic borders,” Koch says. “To meet those needs, BHIX is expanding its participant base and working together with other HIEs to build a broader network that serves the entire greater New York population.”

There could be a speed bump ahead for regional exchanges, as there are concerns about how regional data exchanges will prosper with the federal financial support of state data exchange. However, it is more likely that the regional exchange market will continue to flourish, particularly in heavily populated states such as New York, California, and Florida.

State

While limited statewide data sharing has been around for several years, the concept got a major boost with $547 million in awards to states and territories through the HITECH Act. Funds will be dispersed to state designated entities (SDEs) over the next four years, creating a frenzy of planning, policy development, and technology deployment.

Time is of the essence, as data sharing is one of the key tenets of qualifying for the meaningful use EHR incentive program. Additionally, the requirements for state matching funds increase dramatically in the third and fourth years of the HITECH grant funding.

Within the funding requirements are activities that include coordinating with Medicare, Centers for Disease Control and Prevention, state Medicaid agencies, and maternal and child health systems. SDEs will be required to use approximately one-third of the implementation funding for data sharing with federal agencies including the Veterans Administration, Department of Defense, and Indian Health Services. Additionally, these funds may support interstate data sharing, and this will be particularly challenging given the current variation in privacy and consent laws. Clearly the burden on the SDE is significant.

Several regional data exchange organizations, including LARHIX and Lovelace Clinic Foundation in Albuquerque, NM, are providing the technical platform for statewide data exchange. Operating regional exchanges that become the technical platform are particularly well suited to accelerate the requirements since they have already defined the technology, worked through some governance challenges, and secured the cooperation of multiple stakeholders.

Federal

Federal data sharing takes many different avenues with perhaps the highest profile being nationwide data sharing through two major trial implementations in 2006 and 2008. The 2008 project, which included the RHIOs Carespark, MedVirginia, and Long Beach Network for Health, tested diverse use cases including medication management, quality review, emergency responders, and consumer empowerment.

Significant work addressing the variability in privacy and security regulations ran a parallel pathway, conducted by the Health Information Security and Privacy Collaborative. A major NHIN deliverable was the draft Data Use and Reciprocal Support Agreement, or DURSA.

DURSA has been executed by the Social Security Administration (SSA), Veterans Administration, Department of Defense, Kaiser Permanente, and the MedVirginia RHIO. Additionally, interagency federal data sharing faces the hefty security requirements of FISMA, the Federal Information Security and Management Act.

Funding for a federal health architecture has led to the development of the Connect Gateway that is now used in a limited fashion by private healthcare providers or data exchange organizations when sending information to the Social Security Administration.

In the next year significantly more traffic should flow via the Connect Gateway as a result of $17.4 million in SSA awards announced in February 2010. The intent is to “electronically pull health records of disability applicants from local health practices, sort them through a state health information exchange and get them rapidly into the hands of SSA adjudicators.”[3]

Health information professionals should be particularly excited about this activity since this electronic data sharing has the potential to substantially improve efficiency in sending disability information to SSA.

Liesa Jenkins, executive director of CareSpark, an SSA awardee, says, “With a high number of disabled patients who travel across state lines for health services, the Connect Gateway will make it much easier for providers to respond quickly to requests for records. We are glad to see our work result in better services to patients and providers.”

Meaningful use also spurred development of NHIN Direct, a new concept of direct, point-to-point data sharing recommended by the NHIN workgroup of the Health IT Policy Committee. The objective is to simplify data sharing for parties that may already have trusted relationships. This implies that HIPAA requirements are being addressed through the treatment, payment, and operations provisions. NHIN Direct is not anticipated to include services for addressing identity resolution, common standards, and patient look-up.

By late 2010 the specifications, requirements, and use cases for NHIN Direct should be documented, and testing of the approach will be completed. Industry comments and test results will determine how (or if) this new approach progresses.

Two key federal providers-the Veterans Administration and Military Health Services-are testing data sharing via direct exchange supporting the Virtual Lifetime Electronic Record. The vision is a virtual record that offers a seamless transition for an active duty soldier to the Veterans Administration.

Common Challenges

All approaches to data sharing must address managing patient consent for data sharing, patient and provider matching, and governance. The wider the geography and legal boundaries, the harder these issues are to address.

While the Health IT Policy Committee ponders some of these points, particularly in the NHIN and privacy and security workgroups, the rubber is hitting the road in all venues of data sharing. Given the lack of immediate answers, we will likely see a long on-ramp for interstate data sharing, as this is a frontier that requires federal guidance. Otherwise, activities will be continuously repeated, which means high costs and delays.

Without strategic planning and leadership in the next decade, the intersection of all data sharing routes might look like a four-way intersection without traffic controls. The challenge is to provide guidance that works like synchronized stop lights that keep that traffic moving without impeding progress.

Achieving this potential requires federal leadership on harmonizing consent management, full adoption of EHRs, and continued technology innovation. Consumers and the high cost of healthcare demand that we continue this journey and do so expediently while we drive defensively to manage the numerous hazards along the way.

Notes

1. Markle Foundation. "Collaborative Comments on the Centers for Medicare and Medicaid Services' Notice of Proposed Rulemaking for the Electronic Health Record Incentive Program (CMS-0033-P)." March 15, 2010. Available online at www.connectingforhealth.org.
2. Robert Wood Johnson Foundation. "Albuquerque Coalition 4 Healthcare Quality Joins Effort to Dramatically Improve the Quality of Health Care." Press release. April 28, 2009. Available online at www.rwjf.org/qualityequality/product.jsp?id=42113.
3. Social Security Administration. "Social Security Awards Nearly $20 Million in Recovery Act Contracts for Electronic Medical Records." Press release. February 1, 2010. Available online at www.ssa.gov/pressoffice/pr/nhin0210-pr.htm.

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