Current State of Health Data Interoperability in the U.S.
Trends, Challenges and Strategies for Success

In the wake of the Affordable Care and HITECH acts, interoperability has become a mission-critical capability for hospitals and other healthcare providers. Interoperability will drive better, timelier access to health information and enable clinicians to provide higher-quality patient care and coordination – resulting in better outcomes, more effective population health management, enhanced patient safety and operational efficiencies. While the Centers for Medicare and Medicaid extended the deadline to meet meaningful use Stage 2 criteria from 2014 to 2016, hospitals and health systems must push forward with their initiatives, given the complexity of the implementation, time-intensive demands and required investments.

With that in mind, HIMSS Analytics conducted a focus group and interviews with hospital and health system executives in January 2014 to identify key interoperability trends and understand the challenges they face in their efforts to exchange patient information with other healthcare organizations. The executives, who represent hospitals ranging in size from 275 beds to 722 beds, addressed the importance of interoperability in their strategic planning initiatives, as well as their challenges and strategies in areas such as clinical summary data exchange, connectivity with physicians and meaningful use Stage 2 interoperability requirements. Despite frustration over the lack of standardization and readiness of other entities, among other issues, hospitals are forging ahead with the knowledge that interoperability is vital to delivering optimal patient care and maintaining their ability to be robust, flexible enterprises in the continually evolving healthcare market.
Interoperability: A top priority

Many hospitals view interoperability as a key driver for their continued growth and ability to better serve their patients. In prioritizing interoperability among their strategic initiatives, the director of IT applications at a Pacific Northwest hospital said, “[I]t is at the very top of our list, particularly to remain a viable entity in this competitive environment.” Likewise, the information systems (IS) director at a Southern hospital noted that, “it is the top item from the perspective of physician satisfaction, nursing satisfaction and community satisfaction of providers. We all know sharing information is necessary and the right thing to do for our patients.”

From an industry-wide perspective, most hospitals possess the tools they need to meet meaningful use Stage 2 criteria. More than two-thirds of U.S. hospitals have purchased technology that complies with the 2014 Edition certification criteria, according to a September 2013 HIMSS study. The study found that 70 percent of respondents are “actively moving toward meeting meaningful use Stage 2” mandates, while 60 percent have met the requirements for at least nine core metrics. The focus group participants generally fell into these categories. Despite some significant hurdles and uncertainties, most of the participants had attested to Stage 1 criteria and expect to attest to Stage 2 criteria by the end of second quarter 2014 or during the first half of 2015.

Challenges to align multiple stakeholders

While hospitals recognize the promise of interoperability, that promise often conflicts with current realities. Federal mandates are in place for the healthcare industry to adopt health information exchange; however, not every stakeholder in the process can establish the infrastructure needed to support the capability in a timely manner. This lack of readiness among key players has resulted in participants, who currently can send and share required data, having to wait for other participants to catch up.

One of the most frequently cited challenges in this area was the inability of some statewide health information exchanges (HIEs) to accept certain data sets that hospitals are required to provide under meaningful use. One Midwestern hospital, for example, has the capability to submit Continuity of Care Documents (CCDs) and is in the process of preparing its LOINC codes. Its statewide HIE, however, cannot accept either data set. “The state cannot do anything with this information, yet it’s a requirement of meaningful use that we exchange them,” noted the hospital’s CIO. “Instead of buying an MRI, we are going to have to spend money on something that is not going to be used because we have to check off a box [under meaningful use criteria].”

A key pain point for a Pacific Northwest hospital is the lack of a Master Patient Index (MPI). Historically, the argument against the creation of an MPI has focused on the potential mismanagement or fraudulent use of patient identifiers. Without a reliable index in place, however, ensuring the accuracy of shared data becomes difficult to impossible. According to the hospital’s director of IT applications, “We were part of the technical analysis group around our state’s attempted HIE, but we have some difficulty with their product in that they don’t have a centralized MPI. So we haven’t been able to take advantage of it, even though we are members.”

A misalignment of requirements and protocols has hampered all the participants’ interoperability efforts. “The concept of interoperability is good, but you have got to get everyone lined up – not just the hospitals,” said the IS director of a hospital in the South. “That’s the greatest challenge to interoperability.”
Despite frustrations in this area, other participants noted that states are making progress, albeit slowly. Various HITECH Act programs and initiatives spearheaded by the Office of the National Coordinator are focused on coordinating and aligning efforts at the state level and accelerating standards to support the widespread sharing of data. Eventually, all the stakeholders should be at the same level of functionality, but reaching the overall goal will take years.

**Connectivity strategies**

Hospitals are taking action to overcome these challenges. Some have responded to the lack of state readiness by creating their own private or enterprise-level HIEs and building out other solutions to help ensure greater connectivity among the providers with whom they work. These hospitals see the private HIE as a more reliable way to leverage their significant investments in interoperability in order to efficiently and effectively coordinate care as patients visit various providers and healthcare facilities within a geographical healthcare market. They also see private HIEs as a potentially more profitable model that they can sustain over the long term as the industry moves toward a values- and outcome-based healthcare delivery model.

The Pacific Northwest hospital worked with its IT vendor to build a regional HIE. Approximately 16 to 18 clinics in the surrounding community now use devices in their practices that allow the hospital to send documentation from its EMR to the clinics’ EMRs. Its IT vendor is also helping the hospital to enable secure provider-to-provider messaging. Meanwhile, the hospital in the South is set to go live with its patient portal and a physician portal to exchange data. “The hope is that if we have a portal that is available and inexpensive to connect to, providers will connect to it. That will free up resources on our team and help us manage interfaces much better,” said the hospital’s IS director.

Most of the hospitals are focused on resolving issues related to connectivity with non-affiliated physicians as well as employees in order to seamlessly and efficiently coordinate care across the continuum. Consider the Midwestern hospital, which is looking to reach out to the local physician community to help differentiate it from several nearby large health systems. It offers a cloud-based service to non-credentialed doctors that is fully encrypted and gives authorized individuals the ability to share information appropriately and securely. They can also share clinical images via encrypted files and viewers, if needed. Affiliated physicians can view information via remote-access systems with virtual desktops, regardless of whether they are in the hospital, at their practice or at home. This service enables the hospital to provide information on a vendor-neutral platform.

Not surprisingly, providers see the value of having single-vendor application solutions where possible, provided that suitable levels of interoperability for physicians and departments alike are available. For example, shortly after one hospital chose an application vendor for its HIE patient portal, a group of approximately 40 physicians in the area responded by selecting the same vendor in order to facilitate smoother data exchange. Similarly, a large university hospital in the South is in the process of deploying a common application among all of its referring physicians to facilitate data exchange with patients. “The ease of integration of data across the enterprise that a single-vendor solution offered was probably the biggest driving factor in our choice of vendor,” noted the hospital’s senior clinical program manager.

Outreach and collaboration also play important roles in connectivity efforts. One hospital, which owns 20 clinics, has created an advisory group of physicians – 70 percent of whom are non-employees – to solicit ideas from the broad physician community as

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the hospital builds out its EMR. “They are actively engaged in our design and build from a physician perspective, which will prove useful as we send data to them or as they ‘remote in’ to our system,” said the hospital’s IS director.

Consolidation’s role in interoperability
In addition to these and other IT-centric approaches, mergers and acquisitions have become a key part of hospitals’ strategies to share data with a wide range of physicians, remain competitive and deliver on the promise of high-quality, patient-centered healthcare. From 2007 through 2012, 10 percent of community hospitals merged or were acquired, while overall, 551 hospital acquisitions occurred during that period, according to the American Hospital Association and the Center for Healthcare Economics and Policy. This trend will undoubtedly continue. The CEO of Baylor Scott and White, the largest not-for-profit healthcare system in Texas, recently stated in the Dallas Morning News that “in 10 years, there may be only 150 large, integrated healthcare delivery systems in the nation able to be accountable for and able to take risk for a significant population of patients.”

For some hospitals, acquiring other providers is seen as the easiest, most direct path to achieving interoperability. To cement their footprints and make interoperability easier, hospitals are buying clinics – many of which are still paper-based or using non-meaningful-use-certified EMRs – and bringing them onto their EMRs. In some cases, hospitals are being approached by the clinics themselves. “We are not soliciting clinics. Three years ago, we had three clinics and now we have about 20,” an IS director said. “Most of these providers have come to us saying they want to join us. They want to get the meaningful use dollars, but they don’t want to deal with the headache of managing it.”

Clear commitment to achieving patient-centered care
Despite the challenges, hospitals understand that their ability to exchange patient data will help them deliver on the promise of healthcare reform – empowering them to make better clinical decisions in real time at the point of care, improve the quality of care in an efficient and effective manner, and generate better health outcomes. With the ability to securely share patient information across the continuum of care, they will also be equipped to adopt new delivery and payment models and nimbly respond as the healthcare industry continues its transformation. Ultimately, what drives these initiatives, regardless of demographics of the healthcare market or size of the hospital or health system, is the focus on the patient. As one focus group participant noted earlier, interoperability is “the right thing to do” for their patients.