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Louisiana Rural Health Information Exchange Provides Lessons in Success

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Louisiana seems an unlikely place for a health IT success story in light of the state's high healthcare costs, elevated rate of chronic disease and limited resources. It's even more surprising that the project in question involves health information exchange, given the rapid failure of so many of the regional health information organizations that sprang up in the last few years.

The Louisiana Rural Health Information Exchange, or LARHIX, which includes a well-developed telemedicine network, may not be financially self-sufficient just yet, but it has shown remarkable results on other counts.

So far this year, telemedicine patients report saving an average of 5 hours in travel and waiting time, 199 miles of round-trip driving and $117 in travel expenses by not having to find their way to Shreveport, according to to Jamie Welch, IT Director of LARHIX and CIO of the Louisiana Rural Hospital Coalition, one of the exchange's sponsors. The program has scored 98 to 100 percent in all categories on patient and physician satisfaction surveys, Welch adds.

Based at the Louisiana State University Health Science Center in Shreveport, LARHIX connects 24 rural critical access hospitals in the northern part of the state. There are some community clinics in the vast area between Baton Rouge and Shreveport, but few specialists. Some patients were forced to travel hundreds of miles to see a specialist, even after waiting months for the appointment.

Worse, Hurricane Katrina effectively destroyed Charity Hospital of New Orleans in 2005, leaving LSU Shreveport as the only Level 1 trauma center for the uninsured in the entire state. Hospital traffic in other Louisiana cities swelled literally overnight with Katrina evacuees. "It was a big burden on Shreveport," Welch says.

In the aftermath of Hurricanes Katrina and Rita, the Shreveport hospital was running at 100 to 110% capacity six days a week. About 20 percent of inpatients were from rural areas that couldn't get specialty care, according to Welch. For those patients from outside Shreveport, the average wait for a neurologist or cardiologist appointment at LSU Shreveport had been 84 days. Now those same patients can get a remote consultation within two days.

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Even before the network launched in 2007, the Rural Hospital Coalition, a lobbying group that includes the state's Department of Health and Hospitals, knew that shortening wait times would create another problem: specialists having to see patients via telemedicine before existing medical records got to the hospital. "It would be kind of hit or miss for patient records to wind up in the hands of the specialist in time for the consultation," Welch says.

The coalition decided that an information exchange could automate the whole process, so members deployed LARHIX with both telemedicine and a longitudinal electronic medical record, whenever possible. "Telemedicine [alone] doesn't bring in a longitudinal medical record," says Andrew Hurd, chairman and CEO of Carefx, the Scottsdale, AZ, company that provides the data aggregation software for LARHIX. "When a specialist in Shreveport has to make a decision, they have all the data."

Since 2007, the state of Louisiana has spent $35 million between the coalition and LSU Shreveport on building the telemedicine network, expanding the reach of EMRs and putting together LARHIX, according to Welch. To date, 14 of the 24 hospitals have implemented EMRs and are sharing data on the network.

Welch says the institutions behind LARHIX decided that a federated data-sharing model would be the only way to go, given the crisis Louisiana faced with its healthcare. "If they had something other than a federated model, it would take 2-3 years just to work out the data repository. We didn't have time for that," Welch says.

The coalition put out a request for proposal in 2007, and Welch says Carefx was the only company to propose a true federated system. Others had data move from the original system at some point in the process.

"The main challenge is still the politics of data," Hurd says. The "endgame," he says, is providing real-time data for the doctor at the point of care, not arguing over who would "own" a central database. "People are stuck in the trap of aggregating back ends," Hurd explains. This is expensive and subject to endless politicking over control. "How maddening for a physician."

Carefx installed its SOA-based Fusionfx suite and brought the system up in 4½ months, putting the first seven hospitals online last year. The key to making that work was an electronic master patient index, the Achilles' heel of some failed RHIOs. "You really need to have a good EMPI," says Karen Friedrich, Carefx VP for national accounts.

According to Friedrich, LARHIX has resulted in a 93 percent reduction in duplicated testing at participating hospitals, since the EMPI helps track which patients have been to multiple facilities.

The LARHIX network is fully implemented at the 14 hospitals with EMRs, pulling in patient records from eight different brands of clinical systems. All 24 participating health systems are able to send laboratory and imaging reports, as well as non-diagnostic PACS images.

"We're trying to keep various data elements the same" for each physician who uses the system, Friedrich says, so Carefx has attempted to standardize diagnosis information and problem lists across the network. "These are the two things clinicians have asked us for so far," she explains.

LARHIX plans to add full data sharing with the other 10 hospitals in the coalition, build a patient portal and start a program to help telemedicine patients and their local clinicians manage chronic diseases. Also on the agenda are kiosks in the rural hospitals for patients to access personal health records. “We’ll expand it just as soon as there’s money,” Welch says.

That money could soon be on its way. Just this month, the Louisiana State Legislature passed legislation that earmarks $5 million for a state health IT loan fund, which, thanks to a 5:1 federal match authorized by the economic stimulus plan, will swell to $30 million. At press time, the bill was awaiting the signature of Gov. Bobby Jindal.

A registered nurse at Shreveport coordinates each case and documents time and monetary savings by not having to send physical documents to the remote sites. Welch says having some hard data on the early successes of LARHIX helped get the new funding passed, and others involved in the project are highly optimistic.

“People in rural Louisiana today have access to world-class medical care,” says Hurd. That’s something that may have seemed impossible just a couple of years ago.■

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