

MAKING DATA MEANINGFUL

►The 2009 HITECH Act put an unprecedented emphasis on using health information technology to improve healthcare quality, delivery and efficiency. And the Meaningful Use program, which offers incentive dollars to providers and physicians to adopt electronic health record systems, has propelled healthcare into the digital age.

Not all organizations are using data to its full potential. In fact, some are still struggling to do the minimum required under Meaningful Use.

But there's a growing group of organizations that have moved beyond the basics. They're finding new ways to use the massive amount of data from their EHRs and other sources and devices to improve patient outcomes, increase efficiency and gather actionable information to prevent adverse events, improve care, avoid readmissions and more.

Chicago's NorthShore University HealthSystem, for example, is using Stage 2 Meaningful Use requirements and second-generation analytics to "make the system dance," says Associate Chief Medical Information Officer Ari Robicsek, M.D. Actionable data has helped the organization identify patients at risk for hypertension and reduce hospital-acquired infections.

At Sharp HealthCare system in San Diego, the focus is on clinical decision support—seven of the system's eight hospitals already have reached Stage 2 Meaningful Use compliance thresholds for computerized physician order entry associated with electronic health records.

And Florida's Broward Health has looked beyond the hard-and-fast definition of Meaningful Use to explore how data can help them innovate and improve quality. "I don't know how we would have done that without the EHR," says CIO Doris Crane.

To learn more about how to take your EHR to the next level—and not just "check the boxes"—read on, as these organizations and others share their best practices and lessons learned in their journey to Meaningful Use ... and beyond.

BY GIENNA SHAW
EDITOR-IN-CHIEF /// FIERCEHEALTHCARE

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How Broward Health Uses EHR Data to Track Core Measures

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'Holistic' approach combines clinical, financial, and administrative data

► Now in its second stage, the Meaningful Use incentive program has no doubt increased the number of hospitals and physicians who are using electronic health record systems. Still, some say there is a danger that Meaningful Use program participants will simply "check the boxes" to get their incentive payments.

But there is so much more organizations can do with the data.

A more "holistic" approach

to data mining includes clinical data from electronic health records combined with financial and administrative information to provide a more well-rounded view of the quality and efficiency of patient care—and then using that information to make strategic decisions, according to market research firm Frost & Sullivan.

"At Broward Health we don't really think of Meaningful Use as Meaningful Use. We were doing Meaningful Use before there was such a thing," says Doris Crane, senior vice president and CIO of the eight-hospital system in South Florida. "It was the right thing to do for patients, the community, for the physicians and really for the IT



"We were doing Meaningful Use before there was such a thing."

DORIS CRANE, CIO, BROWARD HEALTH

staff," she says.

Although most organizations do use data from their EHR systems, not all of them do so well. It's not enough to just run reports on that data. You have to use it to improve healthcare quality and delivery, Crain says.

"We're more focused on using the data that's being generated in managing some of the core measures for the Joint Commission," Crain says. "It's driven by the nurses. Their assessment route generates a plan that our predictive modeling tool uses to mine the data and remind them to do things like administering aspirin. It even predicts the people who may be at risk for falls. It also helps us with value-based purchasing, because one of the things that, as a public facility, we're very concerned about is more money being taken away. So we are using [data as a] tool to get our arms around quality improvement."

To that end, the organization produces a monthly dashboard to help executives, board members, nurses, doctors and others to recognize quality problems and work to solve them.

"Innovation is about bringing value; it's not about inventing something new, necessarily, but it's about finding a new way to measure the value within the value. When we forced—and we did force—the nurses to begin doing documentation in the EMR, over the

course of time they really saw value in what we had done," Crain says.

"We've seen a huge change in people not just using the data but putting a plan around how to improve the care. I don't know that they would ever have been able to do it without the EMR."

Frost & Sullivan predicts that the use of advanced health data analytics solutions in hospitals will grow significantly to 50 percent adoption in 2016—up from about 10 percent last year. That's a 37.9 percent compound annual growth rate and an increase of 400 percent over the baseline.

"Hospitals will increasingly invest in advanced data analytics solutions to monitor end-to-end care delivery across a variety of settings," Frost & Sullivan analyst Nancy Fabozzi said. "Due to growing competitive pressures, hospitals need to provide comprehensive reporting on performance and quality measures to a variety of stakeholders. Advanced analytics capabilities are absolutely critical for survival—there is no way to avoid it." ●

The Case For Better Use of Data—With a Personal Touch

► As the National Coordinator for Health Information Technology, Farzad Mostashari, M.D. heads up the government agency that is responsible for incenting providers to use technology—including electronic health systems under the Meaningful Use program.

But just before he embarked on that journey, he had a personal experience that brought home the role of good, actionable data in improving patient care. He told his story at a recent gathering of health IT executives.

"I joined the Office of the National Coordinator in the summer of 2009. I was supposed to join them right after I quit my job in the New York City health department, where I helped doctors, clinics and health centers adopt electronic health records," he said.

Mostashari's plans were disrupted when his mother, after undergoing an elective surgery, developed multiple complications.

"We went to the best hospital. Really an amazing institution. The surgeons—so skilled. The fellows brilliant, the residents so hard-working, the medical students the best in the country," he said.

But things didn't start off well.

"We show up and they say 'You stopped the aspirin seven days ago, right?' And my mom said 'No, was I supposed to?' And I thought 'Damn, I failed her. I'm the doctor—why didn't I check on that?'"

The surgery went forward, but his mother had vascular, bleeding and other complications. She spiked a fever and got an infection. Mostashari looked on as different physicians put their heads down, each bringing their own specialty expertise to the bedside, but not sharing the information with each other or their patient and her family.

"It's not that they don't want to do

the right thing," Mostashari said. "They felt terrible. I could see it in their faces, everyone walking in feels terrible. But the systems are failing them. The systems fail our patients and our doctors every day."

The solution, he said, is a combination of technology, people, processes and culture. And data, of course.

We're talking about "the basic stuff," Mostashari said. "Not the National Institutes of Health research ... the stuff that we already know. We already know that if you control someone's blood pressure, they're much less likely to have a stroke. We have medicines that work. Statins work for lipid-lowering. How often do our systems do that?"

"You add up those faulty processes and you get to a point where a patient with diabetes has a 7 percent chance in a paper-based world of having the five no-brainer things they need to have done. They need to have their sugar checked and their lipids checked and a pneumonia shot. No doctor said 'Oh, in my incredible diagnostic wisdom, this patient with diabetes doesn't need a pneumonia shot.' No, they forgot. They don't have a system."

But current systems only ensure that happens about half the time, he said.

"We're dealing with a lack of systems, a lack of incentives, a lack of information that is killing people today."

Meaningful Use, EMRs and data are changing all that.

"We know how to do this," Mostashari said. "We can do this. There are institutions that are doing it. And they're doing it with technology, they're doing it with processes, they're doing it with culture, they're doing it with systems, and they're doing it within new models of payment that finally say the way to make more money is not to do more." ●

