

Giving Kansas City Providers a New Tool for Quality Improvement

In the past, physicians in the Kansas City area didn't have an easy way to validate the accuracy of the data from their electronic medical record (EMR) systems. The Kansas City Quality Improvement Consortium (KCQIC), which leads the greater Kansas City area's AF4Q initiative, believed if the physicians in their community could verify their EMR data, they could identify gaps in care and improve patient outcomes.

"When health care providers have good, accurate data, they're able to move forward with quality improvements with a greater assurance that they're focusing on the right things," said Catherine Davis, APN, PhD, executive director of KCQIC.

KCQIC teamed up with Health Metrics Systems, Inc., the developer of a software platform called Solutions for Quality Improvement (SQI). It works by extracting and merging data from

a medical practice's EMR, billing, laboratory, pharmacy, or practice management system, as well as other relevant databases. Physicians can use SQI to view their data and produce reports in a wide variety of ways. For example, they can create lists of patients grouped according to a chronic disease, such as diabetes or asthma, and filter those for particular variables, such as diabetics who also are hypertensive. "SQI is like a patient registry on steroids," Davis said.

With funding from AF4Q, KCQIC began

offering the SQI software platform to local physicians in the spring of 2011. Since then, more than 200 primary care providers in the greater Kansas City area have signed on to use SQI. As part of the project, Health Metrics Systems has been working to customize the software platform to suit the needs of particular medical practices.

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After the software platform is installed at a participating clinic and key staff members have received training on how to use it, Health Metrics Systems conducts a series of reviews to validate the accuracy of the clinic's EMR data. During phone calls or webinars with the clinic staff, they go over the harvested data and discuss potential inaccuracies. The clinic staff can then make corrections.

"It's an easy way for doctors to find the mistakes they would not normally find if they only have an EMR system," Davis noted. "And when we're validating the data, we come across some very interesting things."

Clinics had records, for instance, of a 17,000-pound patient with a BMI of 2,000, a patient who was 5.2 inches tall, and a newborn who weighed 24 pounds. One physician had not documented the foot exams he conducted for his diabetic patients, even though it was required that he do so because it's a standard quality measure. It turned out he had been typing notes about the foot exams into the EMR system rather than recording them using a drop-down menu, and that's why they weren't showing up correctly.

In addition, the staff of a primary care practice with 22 physicians discovered their EMR system wasn't sending all their immunization records to the Missouri Immunization Registry as required by the Missouri

Department of Health and to demonstrate meaningful use. Health Metrics Systems worked with the practice to upload the more than 30,000 missing immunization records into the Missouri Department of Health's registry.

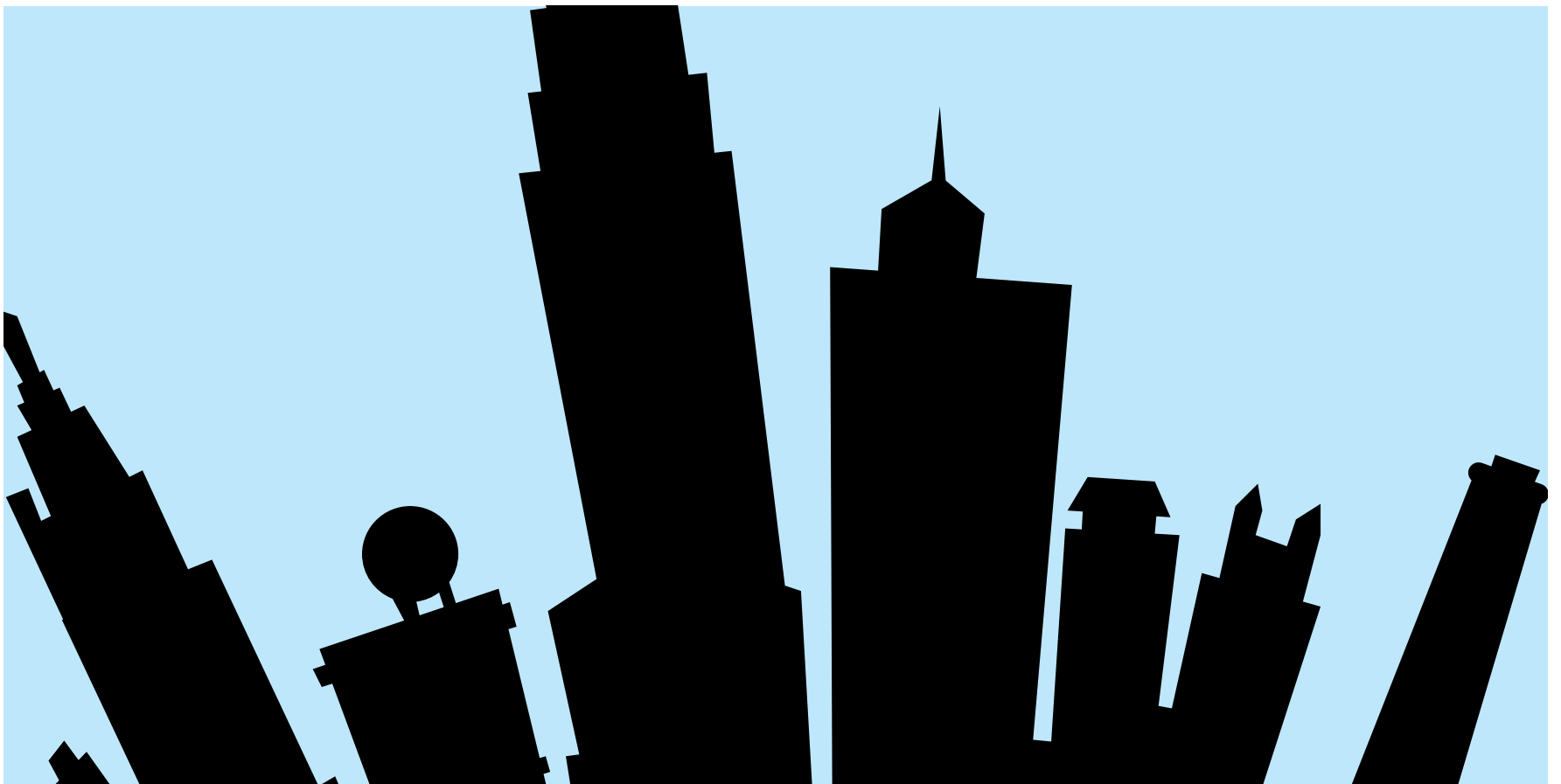
Not only can physicians detect mistakes and missing data using SQI, they also can use it as a tool to improve patient care and reduce avoidable hospitalizations. The SQI software can, for example, send them a reminder that a patient needs a mammogram or colonoscopy at a particular time and can notify the appropriate staff member to follow up with patients who

don't complete lab work or refill their medication. Physicians can print out a trend line on a patient to see if his or her blood pressure or A1C levels are increasing over time. They also can track whether a patient's condition is being treated according to clinical guidelines, such as the ATP III guidelines for treating high cholesterol in adults.

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"We think that working with SQI can lead to better performance scores and improved care," Davis said. She pointed to a recent analysis conducted by her team at KCQIC. They compared benchmark data from their 2011 public report of Kansas City area physicians (drawn from the Healthcare Effectiveness Data and Information Set and based on claims health plans received from primary care practices) to data from practices in the Kansas City area that are using the SQI platform and have verified their EMR data. A sampling of providers that have SQI showed the percentage of their patients who had an A1C level of 8 percent or less was on average ten percent higher than that of other providers.

In addition, the data from the providers with SQI showed that



69 to 78 percent of their patients with diabetes had an LDL cholesterol level of 100 mg/dL or less. By contrast, an average of 55 percent of patients at the other primary care practices had an LDL cholesterol level of 100 mg/dL or less.

Kansas City Internal Medicine (KCIM), a multi-specialty practice with five clinics, is one of the local medical groups exploring how to use SQI as a tool for quality improvement.

“We’re thrilled to have the SQI software—it will allow us as an organization to monitor our progress, set goals, identify needs, and move toward improving quality,” said Marianne Hudgins, MD, a physician at KCIM.

KCIM’s quality committee recently decided to use SQI to create lists of its patients with diabetes who were not meeting treatment goals, Hudgins said. The physicians will go over these lists to make sure the correct diagnostic codes are being used and identify patients who are no longer pursuing treatment. Next, the team will contact these patients and encourage them to actively pursue diabetes education and treatment. “We want to reach out to this patient population and let them know that we would like to take further steps in their care,” said Hudgins. In the future, Hudgins wants to use the SQI software to help monitor the care of patients with high blood pressure, congestive heart failure, chronic obstructive pulmonary disease, and asthma.

KCQIC is providing the SQI software platform to medical practices for free for two years. After that, practices will need to pay a small fee for access. Davis said it’s been gratifying to see how excited the local providers are to start using their newly verified data. She also feels KCQIC strengthened its relationships with the providers in the community by working together on this project.

“They’re telling us that they see so much potential for how they can use the data,” she said. “And they’re enjoying sharing the data with the other doctors in their practices and showing them the potential, too.”



Lessons Learned

Choose the right vendor to develop your software platform. KCQIC teamed with Health Metrics Systems because they understood how to work with physicians and how to improve health care quality. They were very patient and open to feedback about their software platform and more than willing to customize it for different types of medical practices—for example, for pediatricians and OB-GYNs.

The staff at medical practices may be reluctant at first to admit there are problems with the data from their EMR. A good process for validating the data from the EMR should be established up front.

Once a data validation process is initiated, clinic staff will be empowered to recognize data inaccuracies and their impact on quality of care. KCQIC found staff members were eager to receive training and correct inaccurate data after they learned more about the problem.

Working with the SQI software platform helped motivate some physicians to focus more on quality improvement. Physicians said they are excited to brainstorm about all the potential uses of the validated data.