The Power of Data: Identifying and Sharing Best Practices to Improve Care

As part of its work leading the local Aligning Forces for Quality (AF4Q) initiative, Better Health Greater Cleveland analyzes data collected for its public reports on the performance of physician practices to lay the foundation for quality improvement. Better Health examines year-to-year trends to identify what is working and shares these strategies for other practices to replicate.

When reviewing reports on diabetes care, Better Health identified the MetroHealth System, a regional safety net provider with more than 400 physicians, as a top performer in providing pneumonia vaccinations to diabetes patients. With a little legwork, Better Health discovered that MetroHealth implemented a process that raised vaccination rates from 27 to 70 percent in the first year. Better Health then asked MetroHealth to share its protocol so other practices could replicate it to improve their rates. As a result, vaccination rates for diabetes patients seen in clinics in the other systems climbed from 70 to 82 percent in just three years.

To gain greater insight into the project’s success, we sat down with the leader of the project, Kathleen Lehman, RN, MHA, BSN, senior clinical efficiency analyst in MetroHealth’s Department of Strategic Planning.

What brought pneumonia vaccination rates to your attention and made you decide to take it on as a project?

In 2005, the hospital system notified us that our pneumonia vaccination rates were extremely low and did not meet the standards of the Centers for Disease Control and Prevention (CDC). The MetroHealth Department of Internal Medicine, where I was working at the time, looked into information from the CDC to see which patients met the criteria to be “high risk,” and ran a report from our electronic health records (EHRs) to see how many of our high-risk patients with coronary artery disease, diabetes, liver disease, pulmonary disease, and chronic renal failure had been immunized.

About 6,000 patients in a single clinic within the system were considered high-risk, but only 1,500 had been immunized. It was obvious we had room to improve, so we decided to take it on as our next project.

How did you decide on the course of action?

We started by figuring out how to measure the improvements. We turned again to the CDC, which had just published its Healthy People 2010 goals. For pneumonia vaccinations, it listed the goal of immunizing 90 percent of patients 65 and older, and 60 percent of high-risk patients under 65. We ended up using these as our project goals.
When we sat down to brainstorm what we were going to do, we decided to find a way to customize the reports from our EHRs to help us identify patients who met the high-risk criteria and had not been immunized. We then focused on using technology to flag patients who had upcoming appointments and were in need of the immunization.

**How did you work with patients once they were flagged?**

We took a multidisciplinary approach that involved front desk staff, medical assistants, and nurses. A report was generated and automatically printed every Friday identifying all patients coming in the following week. The nurses went through and flagged those patients in the system eligible for the vaccine. The following week, when patients on the list checked in at the front desk, registration folks would see that flag and hand them a brochure about the benefits of getting the vaccine and the dangers of contracting pneumonia. Medical assistants also saw the flag and talked to the patients about the vaccine when they brought them back to the exam room, so patients were learning about the vaccine more than once.

The doctors also wrote a standing order for nurses to be able to give the immunization to patients who met the eligibility criteria. Nurses documented patient consent and administration of the vaccine in the EHR. It was important that we empowered nurses to follow the criteria and automate the process.

**So you met the 60 percent target that the CDC recommended for high-risk patients?**

Yes, and in a relatively short amount of time. Since the CDC’s Healthy People Goals are presented as a five-year plan, we thought it would take every bit of that time. We were surprised that it turned around much more quickly. When I first got the updated scores I thought I had run the report incorrectly. I went to a few doctors in the internal medicine department to review the results and they also found that the vaccination rates were turning around rather quickly. We hit the CDC’s targets fairly early on.

It was about this time that Randall D. Cebul, MD, director and president of Better Health Greater Cleveland, noticed our increase in scores from the public report. He approached me to find out what we were doing to prompt the change, so we shared the project with him.

**How did the improvements begin to spread?**

After seeing our results, the nursing department at MetroHealth thought it would help other departments improve if they could replicate the whole process. Since we were working in the same EHR system, the format for the reports we had been running was already saved; other departments just needed to adapt it for their specific patients. We began to see improvements across clinics, and at least seven of the independent departments at five of our hospitals’ satellite sites showed significant improvement.

**How did you work with Better Health Greater Cleveland to develop and disseminate the replicable best practices?**

Dr. Cebul asked if we could share our project throughout the community. So we presented at one of the Better Health community meetings and the results were printed in Better Health's printed and online reports. Better Health also has several events throughout the year and a lot of lunchtime phone conferences to share best practices across different institutions.
How have you improved the process since the start of the project?

In 2009, we started our medical home program, and as it evolved we found ways to pre-identify candidates, not only for the pneumonia vaccination but all health maintenance issues. It is now the responsibility of the medical home health care teams to review what tests and procedures a patient needs the night before he or she comes in for an appointment and determine what to do that day and what can hold off until the next visit.

For example, when a patient with diabetes comes in for a visit, the diagnosis is flagged for the health care team so we know to create a care plan for the patient. The medical assistant then pulls up a care plan while they are getting the patient’s vital signs, weight, and so forth, so the medical assistant can look it over before the physician comes into the exam room.

What feedback have you received from others who implemented the protocols?

I’ve found that practices with EHR systems have a better response to our project and protocols than those who do not have EHRs in place. The key to the project is to be able to pre-identify patients using data and review information on any health issues the day before an appointment. The EHR allows us to do so.