

# Akron Children's Hospital

The following case study is based on information gathered from interviews with David Karas, MD, a pediatrician with Akron Children's Hospital for over 15 years. Interviews with Dr. Karas were conducted on January 11 and 31, 2018.

Akron Children's Hospital is a pediatric health care system in northeast Ohio, operating 2 pediatric hospitals, 27 pediatrician offices, 4 Urgent Cares, and 60 primary and specialty locations across the region. In late 2015, the health system obtained the capability to determine their vaccination rates at the provider level from their electronic health record (EHR) system, Epic Systems Corporation. In doing so, Akron Children's became aware that their vaccination rates were not only below the *Healthy People 2020* goal, but also below national rates.

Akron Children's set out to improve their vaccination rates for a specific adolescent vaccine through a series of interventions. The organization recently conducted successful large projects on developmental and depression screenings, making the concept of quality improvement and implementation a familiar one. Providers were used to receiving regular reports based on specific metrics, knew the institutional priorities that were in place, and were primed to approach new initiatives with a continuous improvement mindset.



2 Pediatric Hospitals



27 Pediatrician Offices



60 Primary and Specialty Locations

## Pre-Implementation

### Define the Initiative

Akron Children's looked to raise their vaccination rates for a specific adolescent vaccine to match national rates by centralizing reporting through the Health Maintenance feature in Epic. Using the data collected through Epic, Akron Children's established a baseline of current vaccination rates across the system and provided tools that would allow individual providers to be informed about appropriate vaccine schedules to use with their patients.

The implementation team could also share this data across the system, which created further motivation for continuous improvement. By providing these resources and expanding education for all levels of the system, leadership believed that providers could increase adolescent vaccination rates.

### Identify the Barriers

At the start of the process, leadership anticipated the potential for resistance to change among pediatricians throughout the system. Prior to 2017, timely access to data was limited, which allowed individual providers to practice – and vaccinate – independent of others.

According to Dr. Karas, this was the first time that Akron Children's would begin distributing provider-

level data on vaccines, which meant that each physician throughout the system could see where their patient vaccination rates stood in respect to their peers'. "That was challenging. It changed that culture a little to understand that we were going to make these numbers public throughout all our offices, and people were going to see where they stood."

Ultimately, by helping pediatricians understand why these numbers would be made visible throughout all offices, leadership helped to gain acceptance for the idea. In the hospital's experience, transparency became a strong motivator among individual providers overall, rather than a deterrent.

Despite this shift in acceptance, some individuals in the organization remained hesitant about publishing this level of data, according to Dr. Karas.

The potential for barriers also existed among patients themselves. Patients and their families are rarely enthusiastic about receiving shots of any kind, so a vaccination reminder may be met with disappointment. Additionally, some families hesitate about vaccines in general.

Dr. Karas explained, "Because there are more adolescent vaccines on the market today than there were decades ago, today's parents may not have

received the same vaccinations as their children. This leads to the potential for hesitation among parents due to unfamiliarity or misinformation about individual vaccines.”

## Increase Awareness

Even with the increased capabilities of Epic, Akron Children’s risked lack of adoption from its providers due to inexperience with electronic reporting and a resistance to move toward a centrally controlled system.

As a result, the implementation team knew strategies needed to be simple, cost effective, and designed specifically to avoid adding a heavy workload for the provider. Ultimately the team wanted to educate them on focusing on adolescent vaccination as part of their preventive care practices.

## Establish Ongoing Goals

On a broad scale, the goals of this implementation were to reach national vaccination rate averages for adolescent vaccines, while aligning with the expectations of *Healthy People 2020*.

Akron Children’s sought to shift the procedures and culture away from having each pediatrician establish best practices individually. In the hospital’s experience, using available new data, setting systemwide expectations that are consistent with CDC recommendations may help to increase accountability among all providers.

Further, as this is just one of many quality initiatives, intentional focus on adolescent vaccination rates was expected to help foster a culture of continuous improvement, ultimately resulting in increased adoption and vaccination rates, according to Dr. Karas.

## Implementation:



### Initial Intervention

After activating the Health Management system in Epic and stating the organizational priority of raising adolescent vaccination rates for a specific adolescent vaccine, Akron Children’s looked to make simple changes that required minimal provider effort.

#### ✉ MONTHLY EMAILS

Monthly emails initially included only office-level rates, but over time expanded to include individual

provider rates as well. The emails specified whether a patient was seen for a well visit, whether they were due for a vaccination, and whether the pediatrician administered the vaccine, resulting in a vaccination rate for each pediatrician. For example, Dr. Karas said, if a provider saw 20 patients who were overdue for a specific vaccine during their wellness exam in a given month, the email might show that 10 patients received the vaccine, resulting in a vaccination rate of 50% for the month.

The messages also included helpful information and news updates about vaccine-preventable diseases and adolescent vaccination. They were designed to educate staff about why this initiative remains critically important for the organization.

#### ▶ EDUCATIONAL VIDEO

In another effort to educate providers and staff, Akron Children’s hosted a movie night for providers and staff, showing a vaccination-focused video. The evening had a high turnout rate and included discussions about the importance of vaccination. This was the first of several conversations over the next few months about how to present vaccines to families.

#### 💬 CHANGING THE CONVERSATION

A clear recommendation from a health care provider is the single most important reason adolescents get vaccinated. As such, increased efforts were made to educate providers on how to communicate recommendations to families. In practice, this means giving families a clear recommendation and incorporating all recommended adolescent vaccines as part of the well visit instead of highlighting just one vaccine. For example, the physician might list each of the CDC’s recommended vaccinations that the adolescent will receive at that visit, and then pause to provide time to answer any questions the patient and their parents might have. According to Dr. Karas, taking some of the hesitancy out of the provider’s recommendation and answering parents’ questions has gone a long way in helping parents feel more comfortable with the recommendation.

## Expanded Interventions

#### ♥ CONCEPT CARE TEAM

By utilizing the patient-centered medical home (PCMH) concept of a care team, Akron Children’s is ensuring everyone on the team, from front office to physicians, is involved in the care and care coordination for the families. Additionally, all practices receive consistent in-office adolescent vaccination training for the entire staff. As an example of how an expanded care team works at

Akron Children's, vaccines are now included in their pre-visit planning. Administrative and medical assistants read through the patient list during the day to identify which vaccines each patient needs. As they walk patients back to an examination room, the assistants can begin talking to the patient about the vaccines and provide vaccine information statements (VISs), so that families are receiving educational resources even before the doctor enters the room.

Additionally, through data provided by Epic, Akron Children's began identifying patients who started a vaccine series but had not finished. Based on their physicians' observations that families of patients who have received the initial dose are more likely to accept the vaccine, Akron started to implement prompts to finish the series. Now, once eligible patients are identified, provider staff members are given talking points to make phone call reminders and schedule follow-up appointments, according to Dr. Karas.

Ultimately as the process is refined, Akron Children's will identify the approach, plan for expected outcomes, and expand the program throughout the organization.

## More touch points and outreach

While providers were able to show which patients were overdue for vaccination, the system wasn't being used to help with large-scale outreach. "Now

Previous to the expanded capabilities in Epic, the process for identifying overdue vaccines was manual and time consuming. Utilizing the reminder functionality in Epic, pediatricians could easily see all vaccines that a patient might need, making the process easier at the point of care.



with the push of a button, in 30 seconds I can get a list of every patient we've seen in the last 3 years who is still overdue for their [vaccines]. That makes it much easier to reach out to those families," said Dr. Karas. Akron Children's is exploring how best to accomplish the outreach: talking to families when they're in the office, personalized phone calls, automated calls, text messages, the MyChart feature (patient portal) in Epic, or a combination of approaches. By rolling out these processes on a

small scale, Akron Children's can test to predict which option might be most effective for outreach.

## Sustainability:

Adolescent vaccination will be one of Akron Children's top 3 quality improvement goals for primary care for 2018.

Each office has identified a lead physician, who will be involved in continuing efforts and outreach of the quality projects that are given priority. Additionally, efforts are in place to involve the operation supervisors at each office to share that responsibility. There are now expectations that these individuals are actively talking to their staff about the importance of the projects and also generating ideas on what they can do locally to help improve rates. Daily staff meetings during which the day's patient list is discussed offer another time to talk about quality project priorities.

Centrally, Akron Children's utilizes a quality director, a nurse manager who works with all RNs, and a quality initiative specialist who helps with quality improvement. PCMH consultants, project managers, and analysts can help with data as well, so the burden no longer rests solely on the core team that launched the initiatives. Additionally, more focus has been placed on developing stronger relationships with vendors and external partners, so everyone involved with Akron Children's system understands their goals.

The result is more people in all aspects of the system talking about vaccine-preventable diseases, the science behind vaccination, and why it's important for eligible patients to be vaccinated. In the hospital's experience, when everyone understands why Akron Children's is emphasizing the importance of adolescent vaccination, they're much more likely to recommend vaccination to patients and their families. If a patient's family receives that consistent message throughout their visit, Akron Children's expects that it will positively impact completion rates as well.

Sustained success will ultimately depend on continuing to build on the current interventions while increasing expectations.

Dr. Karas has stated that Akron Children's is looking to build talking points into Epic, specifically for

adolescent vaccination. “So if the family says I’m concerned about safety, there are talking points the provider can access [through Epic] and can actually print out on the patient’s after-visit summary,” explained Dr. Karas.

In addition to providing increased resources for providers, Akron Children’s continues to gather feedback from physicians, utilize regular forums where providers can discuss barriers that may deter vaccination, and share established best practices for ongoing improvement.

The implementation team also visits offices that have outstanding rates. The goal is to identify why these locations have been so successful, including specific messaging and best practices that can be shared throughout the organization. Conversely, the implementation team visits offices with lower rates to help identify additional barriers and challenges.

Plans are also in place to conduct anonymous surveys for capturing more candid feedback from providers throughout the system regarding adolescent vaccination.

Through a commitment to continuous quality improvement, Akron Children’s was able to rapidly transform the adolescent vaccination process throughout the entire organization. Efforts took into account individual provider’s strengths and concerns to build a process that could be implemented and maintained. By continually testing new implementation strategies, Akron Children’s is learning what is effective. Provider-level reporting has also had a measurable impact on vaccination rates, and Akron Children’s will continue the process on other large-scale projects, such as asthma control tests for children.

The success of the adolescent vaccination initiative also demonstrates the impact a small team can have in implementing organizational change. Akron Children’s experience highlights the importance of leadership and motivation, along with identifying passionate individuals who believe in the project and who can share that passion with staff members.

“ We have seen quality improvement projects fail when there has not been a true champion to lead them. In order to be successful, you need someone who is passionate about the work and can share that passion and that vision with their peers. ”

– David Karas, MD

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