Quality Improvement in Primary Care: Reducing Emergency Department Visits in Children with Asthma

Overview
Nationwide Children’s Hospital sought to decrease asthma-related ED visits in their Primary Care Network (PCN). The project increased the value of care provided to demographically at-risk asthma patients by improving the quality of care while decreasing the cost of that care. If the emergency department (ED) visitation rate had remained at the baseline level, more than 850 additional ED visits would have occurred in this population.

Objective
Decrease asthma-related ED visits for patients within the PCN by 3 percent each year, starting with the baseline average of 2008-2010, then decrease 3 percent annually.

Methods
The project team used Institute for Healthcare Improvement (IHI) methodologies throughout the initiative. Each goal had balancing, as well as process-related performance metrics, to provide an in-depth view of the interventions while supporting data-driven decision making.

Key Drivers
- Global aim measured by calculating asthma-related ED visits in a year per 1,000 PCN clinic patients and tracked monthly
- Best-practice alert for asthma patients added to the EMR system
- Aimed to provide action plans to patients during asthma visits
- Added an orange zone in an attempt to have patients call the clinic first when symptoms worsened
- Asthma control tests provided to patients at all visits, regardless of visit reason

Lessons Learned
Process matters. The hospital has expanded processes from this QI project to other areas of the PCN. Each process involved with this project has formed the foundation for other initiatives.
- Each step is important and vital to achieve long-term maintenance of successful interventions.
- Executive and administrative support is critical.
- Staying accountable to each goal, at the project leader and provider level, is an important part of long-term success.

Improved outcomes

- $5.2M reduction for asthma ED costs
- 24% drop in asthma-related ED visits

“Excellent documentation of processes that others could easily follow. The complexity of the intervention and outcomes achieved implies that there are many lessons in a multi-layered project.”

—2017 PQA judge

Hospital Contact
Dane Snyder, MD, FAAP
Chief, Section of Ambulatory Pediatrics, Clinical Associate Professor

Find this project and others at childrenshospitals.org/award