

Working to make Ohio Children's Hospitals the safest in the nation

Solutions for Patient Safety - Case Study



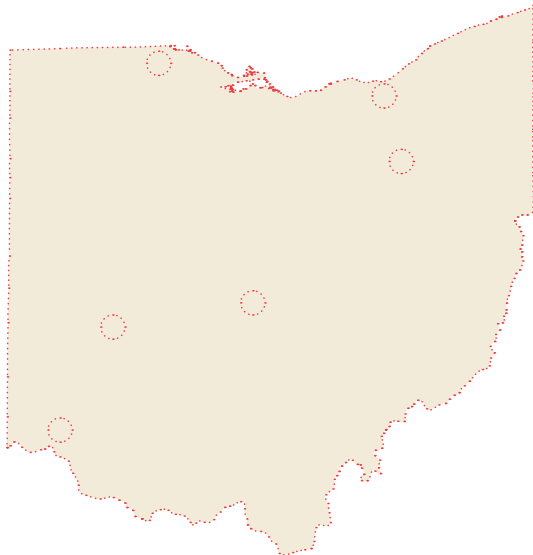
“At Cardinal Health, our focus is on improving the efficiency, cost-effectiveness and quality of healthcare. And we embrace programs designed to transform patient care and create long-lasting improvements in our healthcare system—programs like Solutions for Patient Safety. We are proud to be a founding sponsor and ongoing partner in this groundbreaking initiative that has and will continue to save lives—not only throughout Ohio, but across the nation.”

George S. Barrett
Chairman and CEO
Cardinal Health

50% reduction in SSIs

3,583 children helped

\$5.2M health cost savings



The mission

The Cardinal Health Foundation, along with the Ohio Business Roundtable, the Central Ohio Hospital Council, the Ohio Hospital Association and the Ohio Children's Hospital Association joined forces to improve quality and reduce costs of healthcare statewide. The partnership brought together 17 acute care adult hospitals and eight children's hospitals with a goal of building on past successes and making Ohio the safest place in the nation for healthcare. This report highlights the work of the children's hospitals in Ohio.

The children's hospitals goals

Over an 18-month period, eight Ohio children's hospitals worked to:

- Reduce surgical site infections (SSI) in designated cardiac, neurosurgery and orthopedic procedures by 50 percent
- Reduce overall adverse drug events (ADE) by 33 percent

The results: lives and dollars saved

Ohio's children's hospitals achieved their goals with a 50 percent reduction in surgical site infections (SSIs) and a 34.5 percent reduction in adverse drug events (ADEs) saving 3,583 children from unnecessary harm and more than \$5.2 million in unnecessary health costs.



How they did it

First, the collaborative identified processes to collect baseline data for ADEs and SSIs

- Preliminary data on SSIs indicated approximately four infections per month across the state, and approximately 82 percent of the time, antibiotics were administered in the appropriate timeframe. The average cost per case was approximately \$28,000.
- Preliminary data suggested an average of approximately 850 ADEs per month across the state at an estimated cost of \$650,000 – \$700,000 per month.

Second, the collaborative trained all eight hospitals in baseline data collection and standard processes using an ADE “trigger tool,” where hospitals used a random sample of charts, reviewed the charts for “triggers” and established an overall error rate.

- All followed a standard process to increase the reliability in the manner in which medication was ordered for each patient to reduce opiate over-sedations.
- All used a unique bundle of care for each surgical procedure group, including no razors in the operating room, use of the most effective prep for surgery and the appropriate timing for the administration of antibiotics.

Third, the children’s hospital collaborative created opportunities for participating institutions to build capacity for safety and quality improvement efforts by:

- Hosting three learning sessions for participating hospitals to learn about the quality improvement process and share best practices.
- Attending Institute for Healthcare Improvement (IHI) training programs that taught how to implement evidence-based practices that improve patient safety.
- Hosting monthly quality improvement webinars and conference calls
- Conducting site visits from a quality improvement coordinator to provide hands-on technical assistance.

Finally, the children’s hospitals promoted a culture of safety through leadership training and engagement. To be successful, providers at every level of care—starting with the uppermost levels of management—must embrace patient safety and integrate accountability for lives, dollars and care.

Taking it to the next level

A foundation for success—both in terms of clinical approach and infrastructure for implementation—has been established through the Solutions for Patient Safety Initiative. Ohio’s children’s hospitals are now embarking on their next effort, which is broader in scope and bolder in ambition. Their goal: to become high reliability organizations and eliminate all serious harm—including all Serious Safety Events (SSEs) in their institutions.

SSEs are deviations from standard care resulting in severe harm. Preliminary estimates based on data from five of the eight children’s hospitals in Ohio indicate that while visiting a children’s hospital, approximately 20 to 30 percent of children and families experience an adverse event. In addition to the impact on the patient, SSEs can cause severe emotional distress for families and hospital staff, and result in significant additional healthcare costs. This is the next critical step in the journey to make Ohio the safest place in the country for children to receive healthcare.

Cardinal Health understands the importance of high quality, cost-effective care. We impact the interactions between doctors, nurses, pharmacists and patients with products and services that eliminate errors and waste, streamline inventory, improve cash flow, reduce drug spend and advance patient care.

“In addition to saving the lives of our patients, quality improvement initiatives have improved the quality of these lives and reduced the expense of caring for these children.”

Dr. Ed Shepherd
Interim Section Chief of Neonatology
Nationwide Children’s Hospital

“Being a part of the SSI team has allowed us to assess our strengths and weaknesses as well as share ideas and benchmark with other children’s hospitals. This process has enabled us to utilize a standard, reliable process to help minimize surgical site infections and improve patient care. It has also allowed the operating room nurses, anesthesia care providers and surgeons to collaborate as a team on preventing SSIs.”

Debbie Hawk, RN, ONC, CNOR, RNFA
Clinical Coordinator – Orthopaedic
Surgery, Akron Children’s Hospital

“Because of our quality improvement efforts, we are preventing our sickest patients from developing additional infections while they are in the hospital. Every staff member has a heightened awareness of the guidelines he or she should follow to prevent these complications. These safety efforts have saved money, but more importantly, have saved lives.”

Jodi Mullen, MS, RN, BC, CCRN, CCNS
Clinical Nurse Specialist, PICU
The Children’s Medical Center of Dayton

Participating hospitals

Akron Children's Hospital, Akron

Cincinnati Children's Hospital Medical Center, Cincinnati

The Children's Medical Center, Dayton

Cleveland Clinic Children's Hospital, Cleveland

Nationwide Children's Hospital, Columbus

Rainbow Babies & Children's Hospital, Cleveland

St. Vincent Mercy Children's Hospital, Toledo

Toledo Children's Hospital, Toledo

About Cardinal Health

At Cardinal Health, we provide hospitals with everyday solutions that go beyond the pharmacy. From shelf space to product flow, we offer proven methods to optimize the management of their inventory, ensuring they have what they need when and where they need it.

With decades of supply chain expertise, we devise custom plans that improve cash flow, reduce unnecessary costs and open new revenue opportunities, so healthcare providers have more time to focus on what matters most—their patients.

Since 2001, Cardinal Health and the Cardinal Health Foundation have contributed more than \$150 million in cash and product donations to hundreds of non-profit organizations both domestically and abroad, focusing on improving healthcare and positively impacting hundreds of thousands of lives worldwide.

Together with our employees, we provide funding and volunteer resources to help innovative non-profit organizations directly improve the lives of those in their communities who need it most.

Like to know more?

For more information about Cardinal Health or Solutions for Patient Safety, go to www.cardinalhealth.com.

