



Delivering sustainable ED operational efficiency for Connecticut Children's

Connecticut Children's Medical Center is a Level I Pediatric Trauma and Academic Medical Center with a 38-bed emergency department supporting 61,000 annual visits. To support significant year-over-year volume increase, they asked Philips to help improve their ED operational efficiency and patient throughput.

A comprehensive, onsite assessment was completed and Philips consultants provided ED interim leadership and a 6-month performance improvement consulting engagement. The consultants became an integrated part of the Connecticut Children's ED team and collaborated to improve operational performance.

The interim leader consultant was originally requested for a short-term engagement. However, Connecticut Children's soon realized the value of staff management and process expertise – and requested the consultant to remain with their team with a long-term commitment.

Results included*



↓ **Reduced arrival-to-triage by 80.5%**
(10.99 to 2.14 mins)



↓ **Reduced LWBS by 55.8%**
(2.04% to 0.90%)



↓ **Reduced arrival-to-provider by 52.7%**
(69.2 to 32.8 mins)



Reduced length of stay by 16.1% (184 to 154.3 mins)



Reduced vital signs completion by 16.7% (18 to 15 mins)

\$380,000+
in additional annual collectable revenue generated from reduced LWBS

Philips consultants became part of the Connecticut Children's Medical Center ED team and collaboratively worked with staff and leadership to increase operational efficiency with new processes, communication methods, educational programs, and more.

Exceptional Interim Leadership

To support a shortage in the emergency department leadership team, Philips provided a consultant to serve as an Interim ED Manager. The focus was on providing day-to-day operational leadership and staff management, but she also provided strategic guidance on performance improvement opportunities.

As Interim ED Manager, the consultant worked with staff members to implement new and revised processes to improve team communications, staff development, daily rounds, patient flow, as well as management reporting. Transformational and staff-oriented focus supported the hard-wiring of change. Connecticut Children's was pleased with the expertise, dedication, and effect the consultant had on the team.

Assessment

Included with the long-term interim engagement, a comprehensive assessment was completed to provide recommendations for additional performance improvement opportunities.

Our assessment team analyzed operational data, reviewed governance, roles, and responsibilities, agreed upon baseline performance metrics, and recommended an action plan. Opportunities for improvement were identified for front-end processes, patient flow, staff communication, training on ESI 5-level triage system with inter-rater reliability, and standardization of the charge nurse role.

Based on the recommendations from the assessment, Connecticut Children's requested a second onsite consultant to lead a 6-month performance improvement consulting engagement.



Improved ED performance

As a first step in the performance improvement (PI) program, the PI consultant recommended prioritizing areas of focus to include charge nurse development, direct bedding, triage/front-end process improvement, and throughput.

The PI consultant developed an individualized charge nurse training curriculum focused on improving patient flow and providing methods to assist with resource management, change management, how to manage crucial conversations, and conflict intervention.

Existing triage competency was assessed. The consultants recommended and helped to implement new ESI triage processes which aligned with the American Academy of Pediatrics standards.¹ Training on the new ESI processes was provided and inter-rater reliability was introduced to validate triage assessments.

Communications were distributed to all stakeholders on the new processes and education was created for the clinical staff. ED patients were triaged according to the new ESI processes.

Other change initiatives were agreed upon to support direct bedding, improve front-end processes, and support overall performance improvement.

The staff appreciated and supported the process changes and improvement in care efficiency was quickly realized.

“The Philips consultants were essential in helping us to work together and implement process changes which improved our ED performance and throughput significantly. They became part of our ED team.”

Cheryl Hoey, RN, BSN, MBA
Senior Vice President, Clinical Services & CNO
Connecticut Children’s Medical Center

New Vital Signs processes

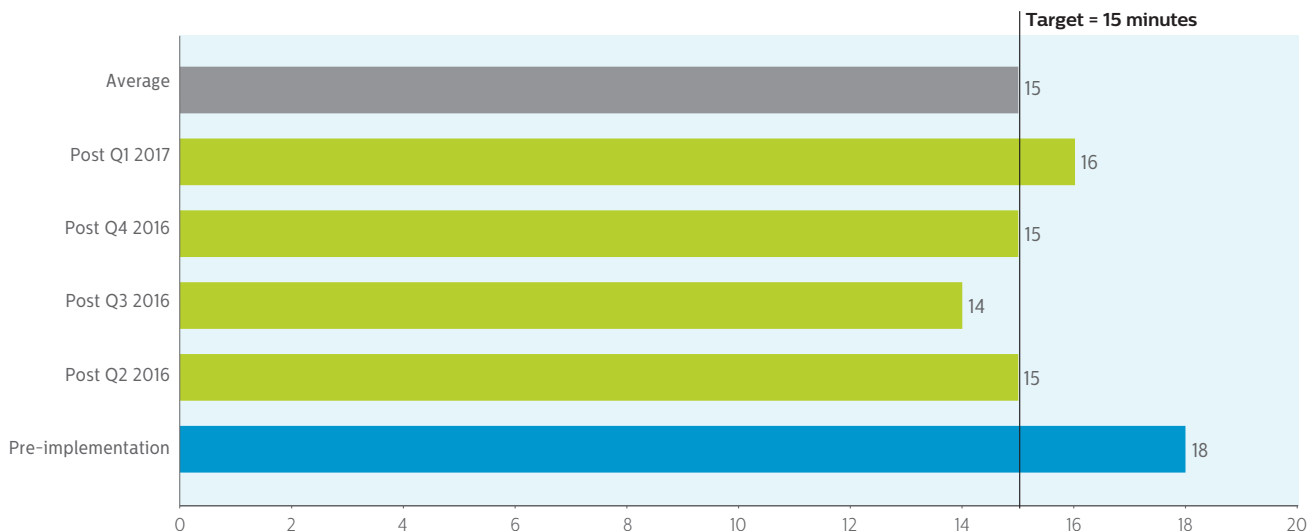
The ED Staff had previously reported that a full set of pediatric vital signs (VS) was taking longer than it should and occasionally not completed due to patient discomfort.

According to the new ESI triage processes, blood pressure (BP) measurement and pulse oximetry was not necessary in all patients. Once the new processes were implemented (in Q2 2016), the pediatric VS issue dissipated. Nurses retained the autonomy to obtain a BP as clinically indicated if outside the established parameters.

Vital Signs completion decreased from 18 to 15 minutes – a 17% improvement – which was sustained at the 3, 6, and 12-month post-project period. An unanticipated outcome of the project was a reduction in missing VS documentation.

Arrival to vital signs – quarterly (MEAN)

Emergency department data



1. American College of Emergency Physicians. Clinical & practice management: guidelines for care of children in the emergency department. Retrieved from www.acep.org/content.aspx?id=29134.

New requests for interim leadership

A year following the first interim assignment, Connecticut Children's ED Director resigned and the consultant was asked to transition to that role as an interim resource. Another year later, the consultant was asked to extend her oversight responsibilities to both ED and PICU, and to continue the enhanced interim leadership with a long-term commitment.

Magnet submission

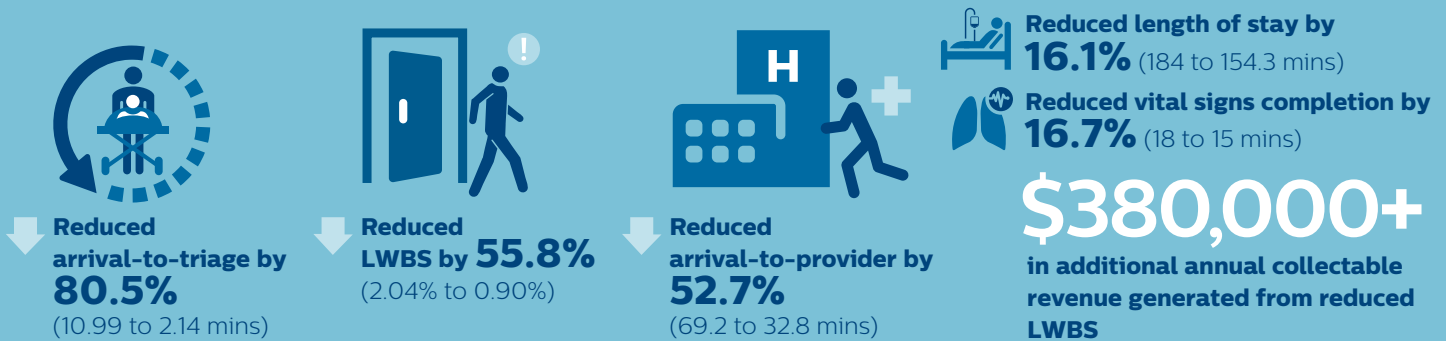
As the interim ED and PICU Director, the Philips consultant provided significant contributions to Connecticut Children's Magnet documentation and submission process to the American Nurses Credentialing Center (ANCC).

The achievement and sustainability of performance efficiency improvements and quality of new and revised nursing practices supported a strong submission for Magnet designation. Examples include:

- The 55.8% decrease in LWBS was used to support the 'Nurses use internal and external experts to improve the clinical practice setting' requirement.
- Identification and approval of an alternative clinical space for minor care patients, improving the LOS and LWBS rates was used to support the 'Nurses are involved in the design and implementation of work flow improvements and space design to enhance nursing practice' requirement.
- The changes to the ED Vital Signs processes was used to support the 'Resources, such as professional literature, are readily available to support decision making in autonomous nursing practice' requirement.

Results

Connecticut Children's Medical Center has sustained improved ED performance and increased patient throughput, including the below results:



At the Emergency Nurse's Association's (ENA) 2017 conference, Connecticut Children's was one of only 22 EDs across the US to receive the prestigious Lantern Award for their commitment to quality, safety, a healthy work environment, and innovation in nursing practice and emergency care. They credit Philips as being instrumental in helping them to achieve this honor.

Learn more

Through collaborative and people-focused engagements, Philips Healthcare Transformation Services can help develop innovative solutions to solve your most complex challenges of care delivery. We can help you achieve meaningful and sustainable improvements in clinical excellence, operational efficiency, care delivery, and financial performance to improve value to your patients.

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