ACADEMY FOR EXCELLENCE IN HEALTHCARE

IMPACT ASSESSMENT PAPER

Executive Summary

Reducing ED Throughput Time for Discharged Patients at Campbell County Health

Campbell County Health (CCH) in Gillette, Wyoming, is a 90-bed acute-care community hospital that includes a 14-bed emergency department (ED) that receives approximately 65 patients per day; medical group with nearly 20 clinics; and a 160-bed long-term care facility. The vision for CCH is to be the first choice for healthcare and wellness in Wyoming by providing excellence every day. CCH core values are centered on people (fairness and dedication), care (constant pursuit of safety and quality), service (care and compassion), and business (fiscal responsibility and integrity and transparency).

In many ways, CCH is following its vision and adheres to its core values, and has received numerous healthcare awards (e.g., the 2017 Mountain Pacific Quality Health Hospital Award). But one measure in the ED — throughput time (arrival to departure) — had routinely underperformed compared to national benchmarks. Long waiting times in the ED and delays could potentially lead to patient dissatisfaction (patient satisfaction scores and comments had begun to reflect this) and poor outcomes.

CCH formed an ED cross-functional improvement team that attended training at the Academy for Excellence in Healthcare (AEH) at The Ohio State University in January 2018, where the team learned about lean techniques, such as value-stream mapping, gemba observations, A3 reports, and data analysis. The team was expanded when back at CCH, and focused their work on throughput for discharged patients (by far the highest volume of ED patients). The team gathered robust data on the ED discharge process and mapped the current state of the ED. They then met for a three-day offsite kaizen, where they received support from leadership; associated departments (e.g., radiology, labs, patient-care technicians) were invited to observe, ask questions, and contribute ideas. During the kaizen, the team examined the root causes of the delays, such as batching when signing up for patients; triage process not standardized; constantly policing staff; techs overutilized or underutilized; RNs not available when needed; and patient access busy with other, non-registration duties.

The team's value-stream map recorded a total lead time across the ED (226 minutes); the hands-on time with a patient by a physician, nurse, or staff member (76 minutes, of which 57 minutes were value-added time and 19 minutes were non-valued added); and overall ED throughput time (150 minutes). On the map the team placed "storm clouds" where they found issues and used a fishbone diagram to prioritize the issues — batching, piece-meal ordering, and the triage process. A PICK chart (possible, implement, challenge, kill), further prioritized countermeasures, such as stop physician batching of patients; drop a

physician from patients if not seen in 20 minutes; simplify a quick registration screen; only do quick registrations and vitals in triage; direct bed patients; and create a sense of urgency when dealing with patients. The team believed their initial countermeasures to be fairly simple and set Phase 1 implementation to begin March 8, 2018. The team's goal was to reduce ED throughput time for discharged patients from the 150-minute average in 2017 to 120 minutes by March 31, 2018.

Once Phase 1 began, individuals notified the team of their displeasure, revealing how much staff did not want to change how they work, even when changes would benefit patients. The highly negative staff reactions forced the team to shift some time from Phase 2 preparations to regroup around Phase 1 (e.g., more communication of why change was needed). With the backing of executive sponsors who were familiar with lean methods and recognized the value of the changes, the team proceeded to Phase 2, determined not to give up. The sponsors' message to staff was simple and direct: "The process changes developed by the lean team are not recommendations. These changes are not optional."

Phase 2 began on April 4 and focused on the discharge process (timely physician assessment, timely discharge of patients, timely work/school notes, timely removal of patient from tracking board, improving bedside registration). Other Phase 2 activities included stopping piece-meal ordering by physicians, identifying and addressing lost or failed orders, establishing a team nursing approach, and monitoring staff to ensure adherence to changes being made. Phase 3 then went live on May 24, and included a number of process changes to keep staff better informed of conditions in the ED (e.g., visual management boards in huddles) and additional changes to minimize waiting by patients.

After Phase 1, the throughput time for discharged patients in March was 139 minutes (150 minutes prior to Phase 1). After Phase 2, the throughput time fell to 115 minutes in April and 129 minutes in May. Across the three months, patient volume was fairly consistent, most ED staff began to accept the changes, and patients expressed their pleasure at the speed of getting into a room and being seen by the nurse and physician. The team is confident of the improvements made to ED throughput, yet understands that no *single project* will help CCH significantly improve care. Rather, the organization will need to further develop the *process for improvement* that helps the entire hospital to get better — changing the way people think and empowering them to identify and solve problems and continuously improve.

Read the full study of the Campbell County Health project, which illustrates how hard it can be for individuals in any function, department, or organization to accept change, even when resistance contrasts with improving the satisfaction and welfare of patients. The ED project also highlights effective ways to wear down such resistance and achieve desired results, especially by keeping the project focused on the care of patients. The team's effort also was aided by detailed gemba observations, substantiated information to counter misperceptions among staff, and leadership's vocal support.

About the Academy for Excellence in Healthcare: AEH blends in-person class time with hands-on project work, interactive simulations, and recurrent coaching, all aimed at helping healthcare teams spark actionable change at their organization. To learn more about AEH, contact Beth Miller, Program Director.