PURDUE UNIVERSITY Discovery Park

Discovery Park Impact

Technical Assistance Benefits Indiana Healthcare Systems

NEED

Healthcare providers rarely have the personnel or time to analyze issues and develop plans for improvement in short, defined timeframes.

INITIATIVE

Discovery Park's Regenstrief Center for Healthcare Engineering obtained the support of the Indiana Hospital Association and Purdue's Technical Assistance Program to create the Healthcare Technical Assistance Program (Healthcare TAP). The program links faculty and students from engineering, nursing, pharmacy, technology, communication and management to healthcare providers. The Purdue teams provide in-depth analysis on identified issues and make recommendations for short-term implementation. They also provide on-site performance improvement education based on lean manufacturing principles.

IMPACTS

Since its inception, Healthcare TAP has served 33 Indiana hospitals and worked on 55 projects. It also has worked with the Indiana State Department of Health to analyze gaps in pandemic planning and implement quality improvement projects for local health departments.

- Example 1: A medium-sized hospital experienced significant delays transporting patients from the emergency department to other floors. Elapsed time periods ranged from 20 to 113 minutes. Healthcare TAP faculty and students from the College of Technology identified barriers to efficiency and worked with hospital staff to implement a "lean" healthcare program. Time between the emergency department to a floor for care decreased to an average of nine minutes.

- Example 2: A large hospital's clinical research revenue cycle routinely exceeded 45 days. The Purdue Healthcare TAP team from the Purdue school of Organizational Leadership and Supervision identified inefficient processes and helped the billing office implement a "lean" office program. The revenue cycle for the clinical research department was reduced by 33%.

- Example 3: A critical care hospital wanted to improve patient flow through the surgical process because 50% of all procedures began after the scheduled time. A Purdue team of nursing and industrial engineering faculty and graduate students analyzed surgical volumes, scheduling bottlenecks, staff availability and facility constraints. They made recommendations on schedule coordination, staff training and documentation. Implementation of these recommendations resulted in an improved rate of more than 75% on-time starts.