



TEMPLE UNIVERSITY HEALTH SYSTEM

EHR Implementation: Efficiency Deterioration and Recovery

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Quality, Noteworthy Project

OVERVIEW

Temple University Health System launched a multi-pronged initiative to improve hospital efficiency by targeting complex and outlier patients.

PROBLEM IDENTIFIED

After Temple implemented an electronic health record (EHR) in August 2016, health system efficiency metrics declined. By fiscal year 2018, both observed and expected length of stay (LOS), as measured by Vizient methodology, increased significantly. Additionally, observed cost increased 21 percent, and expected cost increased only nine percent.

METHODS

To reverse this trend, leadership convened the health system's C-suite leaders and select chairs, who categorized admitted patients into three buckets:

- mainstream patients (93 percent);
- complex patients (six percent); and
- outliers (the top one percent).

Efficiency initiatives focused on complex and outlier patients, and included:

- creating lower level of care contracts to improve relationships and service;
- increasing palliative care consults;
- referring patients to homeless shelters and housing support;
- connecting patients with opioid use disorder (OUD) to peer recovery programs and outpatient clinics;
- facilitating family decision-making processes; and
- decreasing intra-hospital delays.

During multidisciplinary rounds, attending physicians were asked to identify one goal or step to progress the patient's care and track progress on an electronic tracking board. The health system harnessed Unit-Based Medical Directors—physicians who manage throughput and quality metrics for their floor and service line—to develop solutions for these goals.

ENGAGEMENT

Temple created an electronic tracking board to chart patient progress and developed a skilled nursing facility (SNF) collaborative with the Center for Population Health. These SNFs were asked to consider new types of patients who would have been denied previously, such as patients with OUD. Working with the Public Health Management Corporation, Temple connected patients with affordable housing and medical respite facilities. The health system also partnered with suboxone clinics to treat patients with OUD.

Temple created two patient and family advisory councils tailored to patient populations with traditionally long lengths of stay (LOS)—cardiovascular patients and injured patients—and consulted these councils in developing strategies to reduce LOS. A council member also served on the Performance Improvement and Patient Safety Committee.

RESULTS AND DATA

These efforts led to a \$2,000 decrease in observed cost per case, and the cost index recovered to its pre-EHR implementation level of 0.88. As expected LOS continued to increase, the LOS index fell to a four-year low of 0.85.

