

AHRQ Quality Indicators Case Study: Vanderbilt University Medical Center

Key Findings

- Vanderbilt University Medical Center (VUMC) achieved a 28 percent improvement in performance on AHRQ's Patient Safety Indicators (PSIs), largely as a result of improved collaboration across departments and increased attention to documentation.
- In 2017, VUMC earned the top ranking in the nation from a third-party evaluator for patient safety in trauma care, based on its performance as derived from the AHRQ's PSIs.

Reporting and Financial Incentives Lead to Focus on AHRQ QIs

Vanderbilt University Medical Center (VUMC) first began using AHRQ's Quality Indicators (QIs) to track its quality performance in 2003. In 2015, VUMC launched a more concerted effort to improve its performance across the AHRQ QIs, with an enhanced focus on the Patient Safety Indicators (PSIs). VUMC's interest in its AHRQ QI performance led the medical center to seek out best practices from peer facilities across the country that had a track record of better scores on select indicators.

Vanderbilt University Medical Center: At a Glance

- VUMC is a 1,000-bed medical center with more than 2,000 medical staff, 60,000 admissions and 120,000 emergency room visits annually.
- VUMC has hospitals, clinics, physician practices and affiliates covering nine hospital systems and 48 hospital locations.
- VUMC serves regions from Western Kentucky to Northern Alabama.

VUMC's effort to examine its AHRQ QI performance more closely was motivated by its desire to compare its own performance to that of peer organizations via publicly available data. As a nationally-ranked Level 1 Trauma Center and academic medical center, VUMC found that local facilities did not provide a suitable comparison. In addition, VUMC had entered into contractual arrangements with several commercial payers, which included financial incentives related to VUMC's performance on the PSIs.

Data Clarity and QI Initiatives Lead to Improved Patient Care

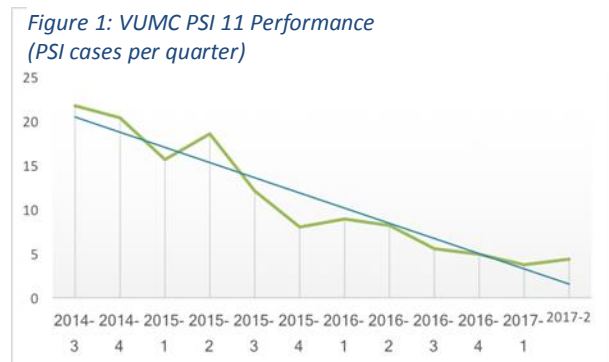
When VUMC turned its attention to improving its performance on the AHRQ QIs, it began by forming a team of documentation experts, nurse abstractors, and physician reviewers. By focusing first on data accuracy, the medical center was able to build trust among its clinical staff, and then identify the subset of cases that needed attention to patient care, as opposed to corrections in documentation. Initially, the medical center devoted about six months to clarifying its coding procedures, and ensuring data accuracy.

"We will continue to use the AHRQ QIs – especially the PSIs – to push clinical quality improvement throughout the organization."

Marc Bennett, MD, Quality Director

VUMC's focus on its PSI performance spurred several quality initiatives, including efforts to reduce the incidence of pressure ulcers (PSI 03). In order to improve its PSI 03 performance, VUMC increased initial

admission screening for pressure ulcers, and instituted clinical rounds to assess for pressure ulcers. The medical center has also engaged nursing leadership in techniques to reduce the progression of ulcers.



For Postoperative Respiratory Failure (PSI 11), VUMC has achieved better performance through standardized perioperative protocols and by working with the anesthesiology department to ensure proper documentation. This improvement is reflected in the Figure 1 trend report for VUMC's PSI 11 performance over a three-year period (2014 - 2017).

Commitment to Patient Safety Leads to National Recognition

VUMC has undertaken several efforts to promote collaboration across its system in order to improve its performance on the AHRQ QIs. Most notably, the medical center aligns the personal performance goals of its clinical leaders with improved performance on specific PSIs. Departmental performance on the AHRQ PSIs are displayed publicly on whiteboards that are easily visible in units across the medical center so that staff and patients can see the results. Results displayed at the unit level are updated weekly and reflect current performance as well as future target goals. Two years into its renewed focus on the AHRQ QIs – motivated by its desire to compare its performance to peer institutions and to respond to commercial payer contract incentives – VUMC's organizational culture is well aligned with its quality improvement efforts. Marc Bennett, MD, Quality Director, commented that "everyone is now on the same page and driving towards improvement."

VUMC's renewed focus on its AHRQ QI performance yielded positive results. In 2017, VUMC was ranked the Number 1 hospital in the nation for patient safety in trauma care by CareChex 2017 Hospital Quality Ratings Analysis.¹ The award is based on patient safety performance derived from the AHRQ PSIs.²

Interview Participants

Vanderbilt: Marc Bennett, MD, Quality Director, Quality Risk Prevention Office, Audrey Kuntz, EdD, RN, Manager Quality, Robin Holberg, Quality and Safety Advisor

AHRQ: Mia DeSoto

StollenWerks, Inc.: Diane Stollenwerk, Suzanne Sherif

¹ Click [here](#) for a VUMC press release about the ranking.

² CareChex Hospital Quality Ratings are based on a nationally representative database of nearly 40 million discharges from nearly 5,000 hospitals across nationwide. Hospitals do not apply or pay to be included in CareChex ratings. Click [here](#) for more information.

About the AHRQ Quality Indicators (QIs)

The AHRQ QIs include four sets of measures—Patient Safety Indicators, Inpatient Quality Indicators, Prevention Quality Indicators, and Pediatric Quality Indicators—which address quality of care for patients hospitalized for a broad range of procedures or conditions that are high risk, problem prone, and/or high volume. The AHRQ QIs represent a national standard and are publicly available at no cost to the user. Many of the indicators are endorsed by the National Quality Forum (NQF), suggesting that stakeholders across the healthcare enterprise view the measures as “best in class.” They can be used to support quality improvement efforts, public reporting, and accountability programs, and ultimately to help provide safe, effective care to patients. Many of the AHRQ QIs are used by the Centers for Medicare and Medicaid Services (CMS) and other payers for quality monitoring, pay-for-performance, and value-based purchasing initiatives. Hospitals and health systems can use AHRQ QIs as part of an overall performance initiative to improve the quality of care. For more information about the AHRQ QIs visit <http://www.qualityindicators.ahrq.gov/>.