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Creation of an award-winning Harm Index to track and reduce adverse incidents

54% and **48%**

Reduction in harm incidents at two primary GHVHS facilities in a three-year period

Systemwide reduction in readmission rates, understanding and addressing underlying causes

GHVHS
GREATER HUDSON VALLEY HEALTH SYSTEM

Greater Hudson Valley Health System Improves Outcomes and Reduces Readmissions Using Kaufman Hall's Peak Software

Background

Greater Hudson Valley Health System (GHVHS) is a not-for-profit organization headquartered in Middletown, New York. Together with two member hospitals—Orange Regional Medical Center and Catskill Regional Medical Center—GHVHS employs more than 4,100 professionals and 850 medical staff members. GHVHS' mission is to be operationally excellent, improving the health of community members by providing exceptional healthcare and an impeccable healing environment.

"To reach clinical performance goals and maintain our quality-focused Det Norske Veritas accreditation, our leaders recognized the need to have a single source of truth for credible and accurately attributed data and analytics, seeking one place to develop queries and present uniform information," said Rose Baczewski, chief clinical officer for GHVHS. Leaders believed having this centralized data access would help providers improve patient outcomes by reducing readmission rates and approaching a goal of zero harm incidents—both of which also improve financial performance.

Solutions

In 2012, GHVHS adopted the advanced data and analytics capabilities of Kaufman Hall's Peak Software to support its goals for inpatient performance improvement. From the beginning, leaders valued the ability to identify opportunities by comparing their organization's performance against thousands of benchmarks at the national, all-payer, state, and hospital levels.

System leaders believed Peak Software aligned with the organization's strong quality focus and approach. According to Baczewski, "We selected Peak Software to get a handle on things that reach the patient—our highest priority."

Robust analytics were among the capabilities key to adoption. "Peak Software offers the ability to perform query-based calculations and risk-stratified analysis," Baczewski said. "With the evolution of pay-for-performance programs across all payers and an increasingly complex patient population, we need these risk-stratified measures to accurately capture performance in real time."

The health system assesses the impact of care variation on the bottom line as well and uses the financial reporting in Peak Software to determine how clinical quality impacts cost. "Peak Software let us track both good performance (eligible for bonuses or incremental payment) as well as sub-optimal performance (e.g., performance that may trigger readmission penalties)," Baczewski said. "Analytics and reporting around potentially Preventable Readmissions, a quality-of-care measure required by the Centers for Medicare & Medicaid Services, are also invaluable."

Created an Award-Winning Harm Index

Leveraging data from Peak Software and other sources, leaders at GHVHS created a Harm Index that tracks adverse incidents among patients in its care and helps the health system reduce such incidents.

Figure 1: *Harm Index Improvement at the Orange Regional Medical Center & Catskill Regional Medical Center, 2015-2018*
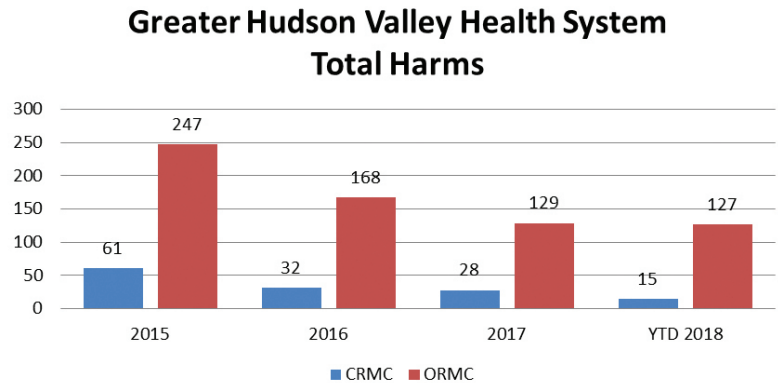
"We take a top-down approach to patient safety," Baczewski said. "Our Harm Index is a board-level tool that monitors 16 quality measures and compares performance against expected mortalities. Using a detailed template of the Patient Safety Indicators report, we have documented significant improvement at both of our facilities, with 54 percent and 48 percent reduction in harm incidents from 2015 to 2017 at two facilities."

> ❝ *Our health system leaders recognized the need for a single source of truth for credible and accurately attributed data.* ❞

The Harm Index is a key part of the GHVHS compliance management system, which received the 2018 Partners in Performance Excellence (PiPEX) Process Recognition Award from the U.S. Commerce Department's National Institute of Standards and Technology. The highly coveted award is based on the Malcolm Baldrige Performance Excellence Framework, established by Congress in 1987. Further, GHVHS received systemwide recognition, achieving Gold-Level Malcolm Baldrige status.

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Reduced Readmission Rates

The most extensive use of Peak Software at GHVHS has been to support a systemwide goal of reducing readmission rates. "Comparing benchmarks from the hospital to national level lets us identify improvement opportunities," Baczewski said. "We then use Peak capabilities such as the Frequent Readmissions Report to drill down for a better picture of underlying causes that can be addressed." Since the system began employing these tools, readmission rates in our two facilities have dropped 1 percent and 1.5 percent, respectively."

This year, health system leaders are laser-focused on further reducing readmissions. Peak Software offers GHVHS department-level scorecards to drill into related performance areas, providing reports that include length of stay analysis, readmissions, risk-stratified mortalities, and Peak Physician Practice Evaluation reporting.

Streamlined and Enhanced Quality Reporting

Early in the implementation of Peak Software, the GHVHS integrated various information sources with the Peak Software system. By combining data such as electronic medical records, patient satisfaction data, and external statistics from the Agency for Healthcare Research and Quality, leaders are able to streamline quarterly reporting. "Peak Software has become our single source of truth for developing queries and producing uniform reporting," Baczewski said.

One report type of particular value to the health system is Peak Software's standard scorecard for physician departments, providing high-level, departmental, and physician-level metrics that allow leaders to identify care variation and hone in on performance opportunities. For example, the physician service details section offers physician-level reporting aggregated at the chargemaster level, with the ability to drill down to physician preference trends by individual physician. Likewise, the pharmacy analytics section focuses on medication utilization and practice trends across service lines as well as by individual physician.

A Partnership for Health and Safety

"Peak Software analytics and reporting, supported by the team at Kaufman Hall, have been a key component in developing our Harm Index and supporting our improvements in patient outcomes and hospital readmissions," Baczewski said.

Looking forward, system leaders are beginning to examine orthopedics and emergency department analytics to identify additional improvement opportunities. "We are making forward progress in our focus on the most important number: zero harm," Baczewski said.

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