

Health Care System

Jefferson Health

Hospital Name

Jefferson Einstein Philadelphia

Title of Initiative

Incidence Drives Improvement

Abstract

Hospital acquired pressure injuries (HAPIs) present a significant risk to patients harming 2.5 million individuals and leading to 60,000 deaths per year. HAPI rates at a large academic, critical access facility serving a low-income, high-risk adult population have been an organizational challenge for years. This hospital relied only on HAPI prevalence data to understand HAPI performance however prevalence data and CMS performance were not aligned.

Methods: In July 2016, prevalence data demonstrated that most clinical units were performing at or below national benchmarks. To understand the problem, a HAPI incidence data collection process was created where injuries were tracked and validated daily. Escalation algorithms were developed to mitigate disagreement. Incidence data provided great insight into anatomical location and type of medical device related injuries. Strategies were then developed to address individual issues and drive performance.

Results: HAPI incidence data for FY 2017 was 2.79% 460 patients with HAPIs. Utilizing HAPI incidence data, FY 2023 closed with a rate of 1.78% or 247 patients harmed. This methodology demonstrated a decrease of 46 percent patients harmed. Based upon the detail of the incidence data, the Hospital Quality Board adopted the incidence tracking as a methodology to compliment the prevalence data that has been always reported.

Implications for Practice: Utilizing prevalence data is often not enough for organizations to impact HAPI rates and does not provide enough information on targeting improvement efforts. Implementation of an incidence data collection process, has provided this organization the detail necessary to to decrease patient harm.

What were the goals of your initiative?

To reduce patient harm by reducing hospital acquired pressure injuries.

What was the baseline assessment and/or data that indicated there was an opportunity for improvement?

HAPI rates at a large academic, urban facility serving a low-income, high-risk population have been an organizational challenge for years. This hospital relied only on HAPI prevalence data which was collected one day per month to understand PI performance. Pressure injury prevalence outcome data and CMS PSI-3 outcomes were not aligned. Most units were outperforming PI prevalence benchmarks however this hospitals HAPI incidence for FY 2017 was 3.32%, 417 patients with HAPIs. Further, the CMS Care Compare Patient Safety Indicator

03 (PSI 03) rate for July 2016 – June 2018 was 2.58, statistically worse than the National Ratio 0.52. The TR-HAPI incidence rate decreased from 18.8% (40 patients harmed/ 220 tracheostomies inserted). The NGT HAPI rate decreased from 2.12 NGT HAPIs per 10,000 patient days or 54 patients harmed (pre-intervention July 2016 to June 2019).

Describe the interventions that were instrumental in achieving the results for your initiative.

Trying to understand pressure injury performance, a HAPI incidence data collection process was created in 2016. All HAPIs are reviewed and any new HAPI is tracked daily by anatomical location, HAPI stage and type of medical device. Upon identification of a new injury (documented greater than 24 hours from admission), an email is sent to the unit manager, Nurse Educator/Clinical Nurse Specialist, wound care team, Clinical Director, Associate Chief Nurse and Chief Nursing Officer with the findings of a new injury. Each injury is validated by the team within 48 hours. If there is disagreement an interdisciplinary huddle takes place and includes the Attending Physician. The final determination is documented in the Physician Progress Notes. This level of data has allowed the organization to implement targeted PI prevention strategies to address injuries on specific anatomical locations such as heel and sacrum and take a closer look at the medical devices causing the highest HAPI incidence such as tracheostomies and nasogastric tubes. For tracheostomy related pressure injuries, a non-bordered thin dressing was implemented post operatively and the tracheostomy tube type was standardized. For nasogastric tube injuries, a large digit generic bandage was implemented for tube securement.

What were the results of your initiative that demonstrate a notable level of improvement?

HAPI incidence for FY23 was 1.68%, 202 patients harmed, an overall decrease of 49.4%. The CMS Care Compare PSI 03 rate for July 2019–June 2021 was 0.54, better than the National Ratio of 0.62. The TR-HAPI incidence rate decreased to 3.04%, 10 patients harmed out of 330 tracheostomies inserted, 83.8% reduction. The NGT HAPI rate decreased to 0.28 NGT HAPIs per 10,000 patient days or 9 patients with NGT-HAPIs (post intervention July 2019 – December 2022).

Explain how the initiative demonstrates innovation.

To decrease patient harm from hospital acquired pressure injuries, a new pressure injury tracking system was created. Daily tracking and validation of patients with pressure injuries allowed this organization to implement creative strategies such as using a generic large digit bandage for NGT securement to prevent patient harm.

How was health equity embedded into your initiative to improve health outcomes in marginalized communities?

This critical access hospital primarily serves patients within a five mile radius. The zip codes around this hospital have a median income of \$34,651 and are primarily Black or African American. Findings indicate that people with darker skin tones are more likely to develop

higher stage pressure injuries. Reasons for this is that early damage arising from pressure are more difficult to recognize in persons with darker skin tones. This is one reason that it so important to create strategies to prevent HAPIs in this population.

How did your initiative engage patients and families?

To make this initiative successful, patient engagement and education was critical. When the 5 layered dressing was applied to the patients heel and sacrum, it was important to engage both the patient and family in understanding the importance of compliance with the products and how the interventions could prevent injuries.

How does this initiative demonstrate collaboration across care settings within your health system?

This initiative touches every area of the hospital caring for acute care patients which required collaboration with the nurses, physicians and leaders. Implementation of pressure injury prevention strategies starts in the Emergency Department and then continues on the inpatient floor and extends to the surgical areas. We have also implemented portions of this initiative in Behavioral Health and Rehab.

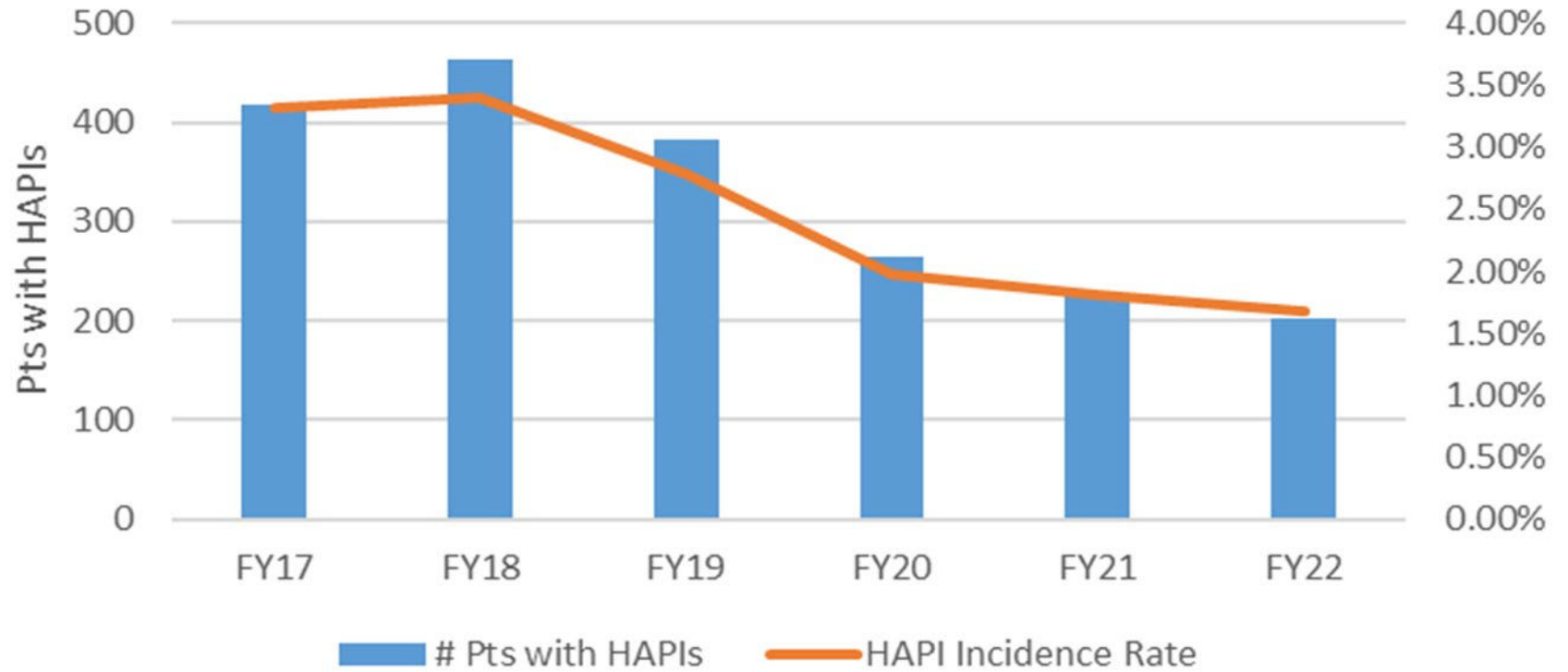
Explain ways in which senior leadership exhibited commitment to the initiative.

Prior to this initiative, this hospital utilized primitive pressure injury prevention strategies. Moving to new, evidence-based products cost money. In a financially challenged hospital, our Chief Nurse Executive became our biggest cheerleader. With the support and advocacy of Executive Nursing Leadership, the Hospital Quality Board of Directors adopted monthly pressure injury incidence data reporting on the Hospital Safety Scorecard.

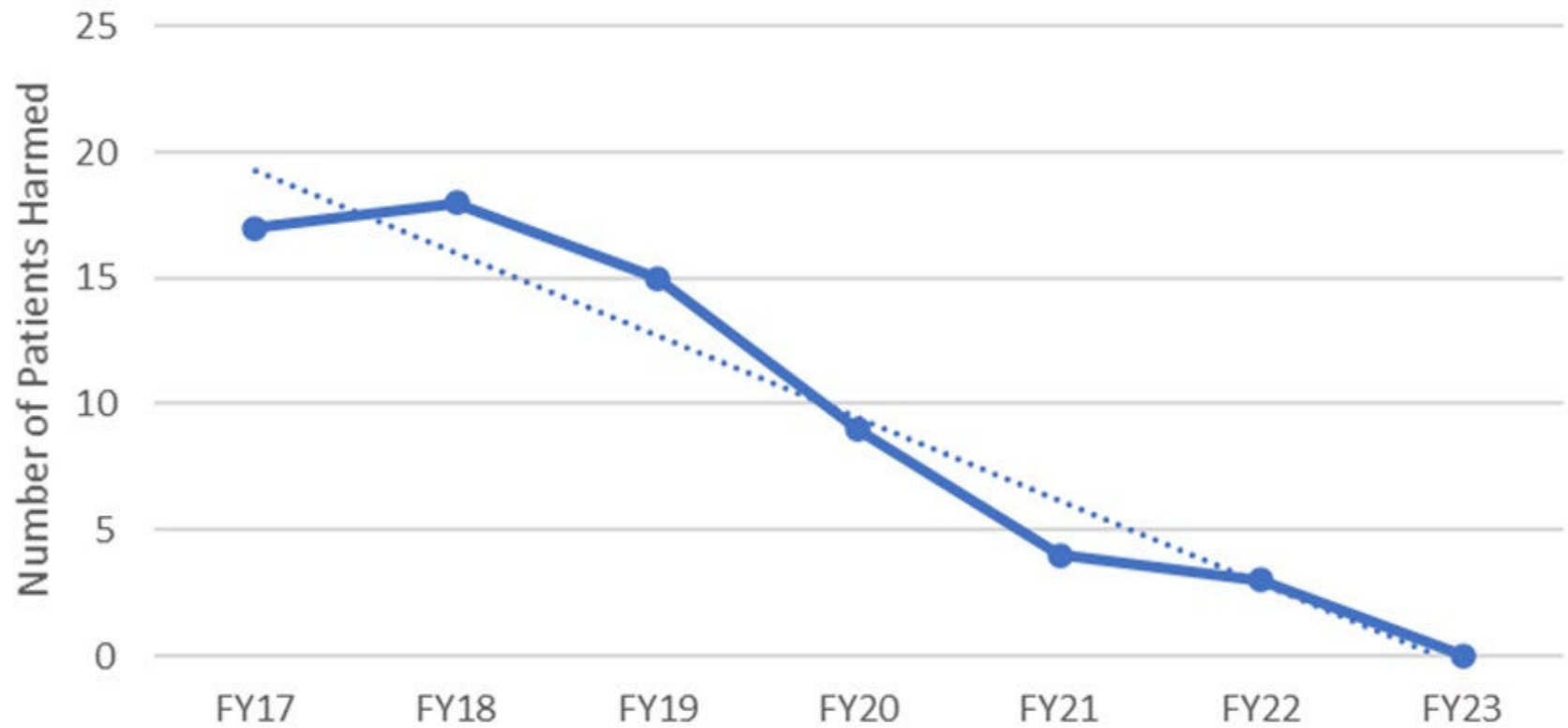
Describe the key steps required to successfully replicate this initiative throughout the region.

Engage key stakeholders, build your team of supporters, replicate this hospitals incidence data collection/validation process (can be provided), implement evidence based pressure injury prevention strategies, use incidence data to show improvement and return on investment.

Hospital Acquired Pressure Injuries FY17-FY22



Tracheostomy Related Pressure Injuries July 2016 - January 2023



Nasogastric Tube Related Pressure Injuries per 10,000 patient days

