

Data-Driven Patient Safety Improvements Save Millions in Excess Costs



RESULTS

- **Millions** in excess costs avoided annually.

PRODUCTS

- **Health Catalyst® Data Platform**
- **Health Catalyst Pop Insights™**

EXECUTIVE SUMMARY

Preventable hospital-acquired conditions (HACs) compromise patient safety and drive-up healthcare costs, making prevention a top priority for health systems. Memorial Hospital at Gulfport (Memorial) faced challenges in identifying ways to reduce HACs and improve patient safety due to outdated data. To access real-time data and insights, Memorial used the Health Catalyst® Data Platform and Pop Insights™ application to identify opportunities for improvement, resulting in process improvements that effectively reduced HACs and enhanced care quality.

IMPACT OF PATIENT SAFETY ON HEALTHCARE COSTS

Hospital-acquired conditions (HACs) pose a significant threat to patient safety and healthcare quality, leading to billions in excess costs annually.¹ Effective strategies for preventing HACs are essential to enhance patient outcomes and reduce healthcare costs.

ENHANCING PATIENT SAFETY: THE NEED FOR TIMELY DATA AND INSIGHTS

Memorial was committed to delivering high-quality patient care and improving patient safety, but outdated and insufficient data hindered its efforts. The organization relied on widely used hospital safety grade data, but because the information could be up to two years old, it was difficult to identify real-time improvement opportunities. Without timely and actionable insights, Memorial struggled to quantify risks and assess the effectiveness of its patient safety initiatives. The hospital needed a modern, data-driven solution to support its commitment to safer, higher-quality care.

ACCESS TO REAL-TIME DATA TRANSFORMS PATIENT SAFETY

Memorial used the Health Catalyst® Data Platform to address these challenges and gain real-time insight into patient safety indicator performance. The platform enabled the organization to visualize performance, automate key calculations, and identify critical improvement opportunities while also determining the organization's patient safety "grade."

Memorial uses the Health Catalyst Pop Insights™ application to calculate and visualize patient safety indicator performance automatically, generating performance insights. The application provides a self-service solution that empowers users to visualize, monitor, share, quantify, and report performance. Armed with this technology, Memorial's improvement teams drilled into detailed, high-quality data to understand performance trends, identify root causes, and prioritize improvement activities.

Memorial identified numerous opportunities to enhance practices to prevent HACs, implementing process changes to improve performance and patient safety. Opportunities and process changes included:

- **Surgical site infections (SSIs)** – Memorial updated processes to ensure clear, consistent, and accurate patient assessment documentation, improved antibiotic prophylaxis—including selection, dosing, timing, and duration of prophylaxis—and streamlined patient handoffs.
- **Pressure injuries** – Standard processes were implemented to ensure each patient receives a thorough skin assessment using a standardized tool upon admission and skin findings are clearly documented. Memorial also streamlined and automated wound care nurse consults, decreasing the number of steps registered nursing staff had to complete to establish and implement the plan of care.
- **Hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA)** – The organization implemented standard practices and policies for MRSA screening and testing, test results checking, decolonization, and infection prevention/isolation precautions.

Memorial uses the analytics application to monitor performance and provide clinical teams feedback, ensuring adherence to standard processes.



ABOUT MEMORIAL HOSPITAL AT GULFPORT

Memorial Hospital at Gulfport is a public, not-for-profit medical complex in Gulfport, Mississippi, jointly owned by the City of Gulfport and Harrison County. As a leader in regional healthcare, Memorial offers some of the most comprehensive clinical programs on the Coast.



Patient safety isn't just a goal; it's a commitment. Through data-driven innovation, collaboration, and a focus on process improvement, we continue to improve care quality and patient safety.

Kelley Salvetti, BSN, MSCIS, Quality Performance Improvement Analyst II, Memorial Hospital at Gulfport

RESULTS

Memorial's data-driven improvements have enhanced care quality and patient safety. By using real-time insights and targeted interventions, the organization has achieved the following results:

- **Improved its Leapfrog Hospital Safety Grade from a "C" to a "B," reflecting significant improvements.**
- **Recognized by *U.S. News & World Report* as a Best Regional Hospital for Coastal Mississippi.**
- **Avoided millions in excess costs annually, the result of decreasing HACs, including:**
 - **0.17 Clostridioides difficile standardized infection ratio (SIR), an 80 percent relative reduction.**
 - **0.23 colon surgical site infection SIR, a 92 percent relative reduction.**
 - **0.4 hospital-acquired pressure injury rate, an 80 percent relative reduction.**
 - **0.41 MRSA SIR.**
 - **0.5 central line-associated blood infection SIR.**
 - **0.67 catheter-associated urinary tract infection SIR.**



WHAT'S NEXT

Memorial is committed to building upon its patient safety improvements and plans to continue to advance initiatives supporting patient safety and the well-being of every person entrusted to its care.



The insights generated from the analytics platform enabled us to transform patient safety, ensuring every patient receives the highest standard of care while reducing hospital-acquired conditions.

Darlene Howard, Data Scientist, Memorial Hospital at Gulfport

REFERENCES

1. Office of Disease Prevention and Health Promotion. (n.d.). *Healthcare-Associated Infections Workgroup*. Healthy People 2030. U.S. Department of Health and Human Services. Retrieved from <https://odphp.health.gov/healthypeople/about/workgroups/healthcare-associated-infections-workgroup>

ABOUT HEALTH CATALYST

Health Catalyst is a leading provider of data and analytics technology and services that ignite smarter healthcare, lighting the path to measurable clinical, financial, and operational improvement. More than 1,000 organizations worldwide rely on Health Catalyst's offerings, including our cloud-based technology ecosystem Health Catalyst Ignite™, AI-enabled data and analytics solutions, and expert services to drive meaningful outcomes across hundreds of millions of patient records. Powered by high-value data, standardized measures and registries, and deep healthcare domain expertise, Ignite helps organizations transform complex information into actionable insights. Backed by a multi-decade mission and a proven track record of delivering billions of dollars in measurable results, Health Catalyst continues to serve as the catalyst for massive, measurable, data-informed healthcare improvement and innovation.

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