

LOS Improvement Efforts Saves \$24M Annually



\$24M in savings with a 0.6-day reduction in LOS across the health system.

PRODUCTS

- ▶ Health Catalyst® Data Operating System (DOS™)
- ▶ Leading Wisely



By using a data-driven improvement methodology, we've empowered our teams, who were able to successfully reduce length of stay, saving \$24M annually. Our teams now have the skills, and the data and analytics, to help them sustain the gains.

June Altaras, MN, NEA-BC
Senior Vice President &
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EXECUTIVE SUMMARY

At MultiCare Health System (MultiCare), inconsistent application of improvement methods, differing competencies, misaligned projects, and inefficient performance data collection were impeding the organization's ability to improve, leaving quality and operational metrics below expectations. Using a data platform and a robust suite of analytics applications, MultiCare has integrated analytics support into its improvement teams, reducing hospital length of stay (LOS) and achieving significant cost savings.

REDUCING HOSPITAL LENGTH OF STAY: A SUBSTANTIAL IMPROVEMENT OPPORTUNITY

U.S. hospitals see more than 35.7 million stays each year, costing more than \$417 billion. The average LOS is 4.6 days, with the average cost per day at \$11,700.¹ Even a minor reduction in LOS can produce substantial cost savings. Reducing LOS also benefits patients, as long hospital stays increase the risk for hospital-acquired conditions, such as a pressure injury or infection.

A PLAN FOR CONTINUOUS DATA-DRIVEN IMPROVEMENT

In pursuit of continuous process improvement, MultiCare sought to build a best-in-class culture in which nurse leaders use the best data and methods to continually drive improvement at a unit level. Despite this desire, the organization had not yet achieved its goals.

Inconsistent application of improvement methods, differing levels of competency, misaligned projects, and the time-consuming performance data collection were impeding the organization's ability to improve. Quality performance and operational metrics, such as LOS, were not meeting the organization's expectations. MultiCare needed a plan that would enable its nurse leaders to consistently use improvement science and data to drive continuous improvement.

USING A DATA-DRIVEN APPROACH AND STANDARD IMPROVEMENT METHODOLOGY

MultiCare partnered with Health Catalyst to build a best-in-class culture, with nurse leaders effectively driving unit-level improvements. The organization established a governance system for improvement work, ensuring that improvement activities are aligned with the larger organizational goals. MultiCare and Health Catalyst clinical and process improvement subject matter experts developed and implemented a standard improvement methodology.

MultiCare provided development opportunities to increase its nurse leaders' competency and effectiveness in leading continuous process improvement. With training and 1:1 at-the-elbow support for improvement work, Health Catalyst clinical and process improvement experts imbedded at various MultiCare facilities coached the nurse leaders in learning and applying the correct methods to understand complex challenges and drive evidence-based improvement.

Nurse leaders at MultiCare applied their learning to LOS challenges, using a data-driven approach to enable the organization's standard improvement methodology to improve patient flow and progression of care. The organization implemented standard work, including the following:

- Direct bedding in the emergency department (ED). When ED beds and staff are available, patients are immediately taken back to a bed in the ED, rather than sent to the waiting room following triage.
- "Huddles" at change of shift to pass on relevant information regarding patient needs.
- Identification, documentation, and communication of the expected date of discharge. Care is then organized to progress the patient to meet the desired date of discharge.
- Daily assessment of the patient's mobility and interventions to improve mobility and ensure readiness for safe discharge, including early mobility in the intensive care units.
- Interdisciplinary rounds. Members of the care team meet to discuss patient needs, including the expected date of discharge. Barriers to discharge are identified and escalated, and the team works to resolve barriers. The organization also conducts complex care rounds for patients with complex medical, social, or financial situations, engaging care managers and social workers to assist in addressing patient's unique discharge needs.



ABOUT MULTICARE

MultiCare, a not-for-profit healthcare organization, is the largest community-based, locally governed health system in the state of Washington.



*Nurse leaders do not have time to go find and analyze the data required for effective improvement efforts. Using **Leading Wisely**, we are able to provide the nurse leaders the data they need to create a culture of continuous improvement.*

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MultiCare uses the Health Catalyst® Data Operating System (DOS™) platform and a robust suite of analytics applications for its data and analytics needs. The organization integrates analytics support into its improvement teams, ensuring that analytics drive outcomes.

The organization uses the Leading Wisely analytics application to efficiently monitor the effectiveness of its improvement efforts (see Figure 1). The analytics application does not require extensive technical skills, empowering leaders at all levels to visualize, monitor, share, and report information.

Figure 1.
Leading Wisely analytics application sample visualization



- 1 LOS data.
- 2 Total admissions and discharges.
- 3 Patient census.
- 4 Average LOS.
- 5 Process measures.

Nurse leaders can use the analytics application to monitor quality and operational data, including data for catheter-associated urinary tract infections, central line-associated bloodstream infections, hospital-acquired pressure injuries, hospital-acquired Clostridioides difficile infections, fall events, LOS, and patient satisfaction.

RESULTS

MultiCare’s efforts to create a data-driven, continuously improving organization are delivering the desired results, including a:

- \$24M in savings, the result of a 0.6-day reduction in LOS across the health system.

WHAT’S NEXT

MultiCare plans to spread and scale its data-driven improvement methodology across the entire organization. 🚀

REFERENCES

1. Freeman, W. J., Weiss, A. J., & Heslin, K. C. (2018). Overview of U.S. Hospital Stays in 2016: Variation by Geographic Region, HCUP Statistical Brief #246. *Agency for Healthcare Research and Quality*. Retrieved from www.hcup-us.ahrq.gov/reports/statbriefs/sb246-Geographic-Variation-Hospital-Stays.pdf

ABOUT HEALTH CATALYST

Health Catalyst is a leading provider of data and analytics technology and services to healthcare organizations, committed to being the catalyst for massive, measurable, data-informed healthcare improvement. Our customers leverage our cloud-based data platform—powered by data from more than 100 million patient records, and encompassing trillions of facts—as well as our analytics software and professional services expertise to make data-informed decisions and realize measurable clinical, financial, and operational improvements. We envision a future in which all healthcare decisions are data informed.

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