



Steward Health Care Transforms Care Through Digital Innovation

Steward Health Care partnered with Insight to reduce patient length of stay at its network of hospitals, optimize its clinical workforce and improve care coordination. Learn the role real-time data analytics played in the process.

The average length of stay for hospital patients is a good indicator of operational efficiency. Inefficient care coordination can prolong stay duration and contribute to more costly discharges. Conversely, discharging patients prematurely can be harmful and increase the chance of readmission.

With a network of hospitals and clinics across North America and Europe, Steward Health Care had much to gain by reducing patient length of stay at its facilities while ensuring optimal care. The organization needed a modern IT platform to provide pervasive intelligence at scale, so it partnered with Insight to pilot a new length-of-stay monitoring system.

"Our zest for innovation comes from the very top," says Laura Tortorella, executive vice president of operations at Steward Health Care. "Our CEO, Dr. Del La Torre, has challenged everybody who works for him to think differently, challenge the status quo and to really think about how we can be smarter and more effective about the way that we manage our hospitals and take care of our patients."

Creating a length-of-stay monitoring system

Insight needed to construct a robust, unified data platform to conform and host data from dozens of production systems. Additionally, an array of highly secure applications was needed to provide visibility and intelligence — from the hospital floor to the C-suite.

Insight proposed a combined solution that would take advantage of Microsoft® Azure-native Role-Based Access Control (RBAC) and encryption to provide HIPAA-compliant security at every level, leveraging cloud-enabled real-time business data and analytics.

"Our mission is to help healthcare and life sciences companies digitally transform into continuously learning health systems," says David Le Penske, vice president of healthcare and life sciences at Insight. "We specialize in identifying the most valuable data and prioritize that data in its transformation into a data asset that informs critical business and clinical decision-making and also enhances the patient experience, which drives greater organization growth and profitability."

Industry:

Healthcare

The challenge:

Implement modern IT platform to inform decision-making and enhance operational efficiency

The solution:

A new data-driven monitoring system that informed all areas of the business, increasing efficiency and driving cost savings

Insight provided:

- A unified data platform that maintained HIPAA compliance
- A real-time cloud-enabled data and analytics solution
- A real-time clinical data monitoring system

Insight services:

- Consulting Services
- Cloud services

Addressing care gaps

Using the length-of-stay monitoring system, Steward Health Care was able to identify and address crucial time gaps in patient care. Inefficiencies included downtime between lab results and provider consultations and between when patients were cleared to go home and when they were finally discharged.

"We are now at a point where we can predict with a 98% accuracy our census out to a week — seven days — and continue to improve beyond that."

Equipped with this knowledge, the next step was to find a solution to close those time gaps — and that meant rethinking patient management.

"What we've done is reprioritize patients," Tortorella explains. "We're able to flag a patient who can go home today. Similarly, we have the ability to page providers."

For example, a provider may visit his or her first patient of the day, order a test and then move on to the next patient. When the results of the test come back, administration can page the provider so he or she can return to that patient and review the test results in a timely manner.

"The providers are happier about it. The patients are happier about it. And our length of stay has dropped by about a day and a half since we started doing this initiative," says Tortorella.

Predictable staffing reduces operational costs

The new monitoring system had a waterfall effect that did more than reduce patient length of stay. With the cumulative data collected and analyzed from every department and health center, Steward Health Care was able to adapt its length-of-stay model to staffing as well.

One of the greatest operational expenses for health centers is the clinical workforce. Clinicians are often stretched thin while organizations do their best to schedule not just the right number of staff, but also the right areas of expertise.

The data-driven staffing model took the guesswork out of scheduling. Now, Steward can dynamically staff every unit of every floor of every hospital. Administrators know in advance which patients are coming and which clinical capabilities they'll need to have on the floor for an optimized workforce.

"We are now at a point where we can predict with a 98% accuracy our census out to a week — seven days — and continue to improve beyond that," says Tortorella.

Rethinking patient management

Together with Insight, Steward Health Care created a pervasive platform for intelligence and decision support, which helped the organization rethink its approach to patient management and transform the way it does business.

By embracing the cloud from the onset, Steward Health Care was able to leverage the elasticity and cost savings of a more agile environment — and strategically apply powerful analytics to every part of the business, from volume prediction and staffing to billing and claims.

Steward Health Care's deep commitment to digital innovation has led to multiple care and financial improvements, saving millions of dollars per hospital, per year.

Benefits & outcomes:

98%

accurate prediction of patient load out to a week at a time

Reduced patient length of stay by

1.5 days



Optimized workforce via predictable staffing model

Reduced operational costs saving millions of dollars per hospital, per year

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