
Small U.S. Hospital Employs Data Analytics To Improve Performance



A small, rural hospital in Georgia has implemented its own business intelligence strategy that employs data analytics to help clinicians and case managers pull together and analyse disparate data sources.

The Union General health system, that includes the 45-bed Union General Hospital in rural Blairsville, the 25-bed Chatuge Regional Hospital, as well as two nursing homes and several outlying medical clinics, saw a need to enhance the organisation's analytical and reporting system for healthcare operations and care management, as well as finance operations

"The electronic health record (EHR) system was woefully lacking in its reporting capability and the initiative to start looking for another solution really originated with our chief financial officer when he finally crossed the pain threshold. He was doing a lot of Excel spreadsheets and pivot tables, which was extremely limiting and time-consuming," Karen Reff, manager of decision support at Union General told [HCI Healthcare Informatics](#).

The hospital worked with Sisense, a business intelligence software vendor, to develop and implement a data analytics technology platform that enabled Reff and her team to employ a browser-based HTML data visualisation tool to build dashboards for various clinical and business analytics.

As larger hospitals and health systems invest significant resources into analytics initiatives, smaller healthcare groups are often challenged with limited IT resources when tackling analytics projects.

When it came to vetting the vendors, Reff said they chose a company that would meet all of Union General's core requirements, and "the time to deployment and the effort required was very compelling as well."

"One of our core requirements when we were looking for a BI (business intelligence) solution is that we couldn't be dependent on or further burden our IT department to support it," said Reff.

Sisense provided an end-to-end solution, referred to as self-service data analytics technology, which does not require significant IT resources or the creation of data warehouses and allows users to "drag-and-drop" data to combine large data sets.

For one initiative, Union General's case management team is using the BI platform and data analytics to examine variables in 30-day patient readmissions with the aim of driving readmission reductions and improve patient outcomes.

The analytics platform also enables more efficient reporting and BI functions and improves workflow.

"To get the information that we can now get in one dashboard, people used to run multiple reports and merge them manually out of our system," said Reff.

In the emergency department, the use of the new dashboards has resulted in significant improvements in efficiency and workflow, often cutting hours off a single work day, explained Connie Rhodes, manager of the emergency department.

"When we send cultures out of the ED, it takes three to five days to get those results back and the ER has to follow up. Some of those were getting missed and were harder to find. With the dashboards, what used to take from two to three hours a day now takes about two to three minutes."

According to Sisense, the in-chip analytics engine enables increased speed in analytics processing, documentation improvement, and a range of hospital processes from quality improvement to billing to clinical outcomes.

For Cheryl Curtis, manager of risk management, and her staff the dashboards have proven to be a valuable tool for monitoring physician quality reporting, as well as staffing issues such as managing overtime and watching turnover rates.

According to Jeremy Sokolic, vice president of product at Sisense, while the healthcare analytics market is growing, an ongoing barrier for many organisations to deploy analytics programmes is one that is more cultural than technical.

"One of the biggest barriers is having the right focus and intention of what you're trying to do, and with data analytics it takes intention from the top down. You want a senior executive that recognises the value and is willing to make the investment, so a champion in the project, and you need people in the field at the care delivery level that are responding to it and are willing to change their behaviour," he said.

