Quinte Uses Benchmark Analytics to Reduce Costs and Improve Business Outcomes

For decades, health plans routinely paid for treatments and procedures without excessive scrutiny. However, Ontario’s new healthcare funding approach, Health System Funding Reform (HSFR), provides the government with an evidence-based method for distributing funds. Every year, healthcare takes a more significant portion of the tax base, so the Canadian government seeks to mitigate the variation in care and outcomes across the country’s hospitals. Because patients quickly released from hospitals recover faster, funds are shifting from hospitals to home care.

**Challenge**

The result of these funding trends was that QHC no longer received a predictable amount of money from the government. Sixty percent of its funding is now based on demographics, referral patterns, and outcomes. While this is a positive step towards improving patient care, it requires the organization to identify opportunities that align with this new model. Initial estimates called for the company to find $10 million in savings from its $160 million budget.

To meet these needs, QHC used TIBCO to build a data warehouse and deliver analytics via a user-friendly portal. More than 300 people throughout the organization, from nurses to executives, rely on this tool to measure fundamental processes and analyze critical patient data trends. TIBCO technology has helped the company measurably improve operations, meet financial requirements, and increase favorable outcomes in patient care.
Quinte Health Care (QHC)
Quinte Health Care (QHC) provides a wide range of healthcare services to 160,000 residents of Prince Edward, Hastings, and Northumberland Counties in Ontario, Canada via four hospitals: QHC Belleville General Hospital, QHC North Hastings Hospital, QHC Prince Edward County Memorial Hospital, and QHC Trenton Memorial Hospital. QHC has 1,600 employees, 300 medical staff, and 260 beds.

Solution
QHC purchases benchmarking data gathered from healthcare providers across Canada. It then uses TIBCO’s platform to integrate its data and systems for additional analysis.

“We can compare our results to the aggregate data from other hospitals to understand why costs differ for similar procedures. We can compare data among our four hospitals to see which of them is the most efficient, and then use those insights to enforce best practices,” says Peter Papadakos, director of decision support and analytics.

For example, TIBCO’s analytics platform revealed that one of QHC’s smaller facilities had demonstrably lower costs and better recovery rates for treating chronic obstructive pulmonary disease (COPD). The data showed that larger hospitals tend to order more tests, partly because there is less interaction between the COPD specialist and the family physician, and thus less knowledge shared.

“The platform underscored the fact that the best practice is to get personal physicians more closely involved in the circle of care,” Papadakos explains. “In many cases, we need to drill down into the data to understand these opportunities fully.”

Benefits
Papadakos and his team used the TIBCO platform to rebuild QHC’s data warehouse with better data standards. New data is moved into the warehouse to provide current information for analytics reporting. “The new platform delivers detailed data and high-level analytics,” Papadakos explains. “For example, if congestive heart failure is on the rise in a particular area, we get the right specialists into that area to treat it.”

QHC also used TIBCO’s analytics platform to create key performance indicators (KPIs) that help clinicians and administrators measure a huge variety of cost and quality factors. A combination of dashboards and reports deliver KPIs such as Percent Alternate Level of Care Days, Inpatient Satisfaction, and Emergency Department Length of Stay.
Users can quickly drill down into reports on patients, physicians, and materials—or filter the data using custom views. More than 300 people, from nurses to executives, view these metrics through the portal, which shows all reports on a single page for a corporate overview. Each report has a page that enables users to interact with the data. Also, TIBCO’s analytics platform sends daily and weekly updates. Project teams continually receive performance metrics to know what they need to do and see how their initiatives measure up.

Some project managers build custom reports for their departments. Papadakos and his team make the reporting objects that support these custom reporting initiatives, and the departments take it from there. He plans to use TIBCO’s analytics platform to create models that will permit fine-grained statistical analysis.

“There is a lot of room for predictive analytics in healthcare,” he says. “The dataset supports it. When it comes to essential tasks, like improving outcomes and reducing costs, we can look at what is happening and predict what might happen. Our new platform supports initiatives and projects throughout the organization, saving millions of dollars, as we improve the overall quality of care.”