

Information Builders enables agile information solutions with business intelligence (BI) and integration technologies. WebFOCUS – the most widely utilized business intelligence platform – connects to any enterprise system or application and enables simple and intuitive interaction with information.

Poudre Valley Health System

Snapshot

Organization

Poudre Valley Health System provides a regional network of healthcare services throughout Colorado, Wyoming, and Nebraska. PVHS employs more than 5,000 healthcare professionals.

Challenge

Define metrics that help the organization grow, increase profitability, and provide excellent patient service.

Strategy

Create reports and dashboards to aggregate data, study trends, and gauge performance; deliver real-time data about hospital costs, patient safety, bed occupancy, infection rates, and other variables without deluging recipients with irrelevant information.

Results

PVHS rankings for inpatient mortality, heart attack care, patient and employee satisfaction, and physician loyalty are all in the top 10 percent; fees are consistently lower than its regional competitors.

Information Builders Solution

WebFOCUS, InfoAssist, ReportCaster, Education, and Professional Services.



Achieving Healthcare Quality With Business Intelligence Technology

WebFOCUS Helps Poudre Valley Health System Achieve Operational Excellence

Poudre Valley Health System (PVHS) provides a regional network of healthcare services throughout Colorado, Wyoming, and Nebraska. The locally owned, not-for-profit institution, which employs more than 5,000 workers, is taking a proactive approach to the Medicare Pay-for-Performance program by raising awareness of clinical improvements and patient safety. Poudre's clinical quality efforts center around medical chart audits, patient safety predictions, statistical analysis projects, and reports on clinical documentation compliance.

As the Medicare system moves toward reimbursing hospitals based on quality, rather than just the number of procedures, PVHS wanted to find new ways to improve efficiency and promote best practices, while maximizing reimbursements to offset rising healthcare costs.

“WebFOCUS enables PVHS to gather the necessary information and make adjustments to maximize reimbursements.”

The WebFOCUS business intelligence (BI) platform was deployed to help PVHS make sense of large amounts of data regarding patient safety and service quality from various clinical, financial, and human resources systems. The majority of staff members throughout the organization now have immediate access to important information that helps them track trends and evaluate performance at the facility, department, or employee level.

With WebFOCUS, PVHS has achieved its goals of improved care quality and enhanced operational cost-efficiency. In fact, it now ranks in the top 10 percent for inpatient mortality, heart attack care, patient and employee satisfaction, and physician loyalty, and its fees are consistently lower than its regional competitors.

Lower Payroll Costs

WebFOCUS presents clinical, financial, and human resources (HR) information through BI dashboards in conjunction with interactive drill-down reports and a balanced scorecard system. The BI environment is integrated with an application server that is used extensively by hospital administrators – not only to improve the quality of care, but also to reduce overhead costs.

For example, approximately 200 managers and directors use the WebFOCUS FTE/Payroll Dashboard to analyze premium pay scenarios such as overtime, double time, call backs, extra shifts, and on-call pay, all of which must be paid in addition to the staff’s regular salary costs. An HR dashboard helps managers compare budget amounts to actual expenditures to minimize these premium pay situations.

“The FTE/Payroll Dashboard saves the hospital money and helps us to offset declining reimbursements,” says DaRon Zimmerman, director of Decision Support, PVHS. “In the six months that have transpired since implementing it, we have decreased our overtime hours by 16 percent and decreased all premium pay hours by 25 percent, even though volume was over budget. The health system also saw improvements in IP Hours/Patient Day productivity.

More Accurate Clinical Reporting

PVHS is in the process of creating clinical care dashboards to examine clinical costs, patient safety efforts, and care documentation. Clinical information, derived from Meditech Hospital Information, is stored in a Microsoft SQL Server data warehouse.

“The insight we obtain from our clinical quality efforts guides corrective action within the organization and enables us to provide a higher level of care, such as a need for extra documentation or better training in certain areas,” Zimmerman explains. “WebFOCUS tracks compliance down to the facility, department, or user level to find recurring problems.”

In addition to the standard reports and dashboards, PVHS sees value in using WebFOCUS Report Assist to audit medical charts, review electronic health records, verify documentation compliance, and study statistics on intervention, care volume, and other clinical activity. Documentation compliance is especially important because if information is missing, the insurance companies

“WebFOCUS tracks compliance down to the facility, department, or user level to find recurring problems.”

won't pay the hospital. “Either we don't get paid or we have to spend time and money to re-bill the insurance company,” says Zimmerman. “Doing it right the first time is more efficient for everyone.”

A Safer Environment for Patients

Using BI to examine electronic health records enables the hospital staff to spot important trends and improve patient safety. Analysts use WebFOCUS to study five years of historical information contained in electronic health records. The ultimate goal of this research is to devise a safer environment for patients and to minimize costs for the hospital. WebFOCUS helps the hospital learn, adapt, and achieve better care and safer outcomes.

“Analyzing aggregate patient data helps the hospital spot trends easier, such as a higher than expected incidence of an unsafe situation,” says Mark Brown, a decision support specialist at Poudre. “The dashboard will display all of the data that's required for each research initiative. Researchers can monitor the performance of the clinical care staff to determine whether they are following documentation standards. It gives the organization the tools they need to control quality.”

Hospital directors take a macro view, assessing metrics such as cost per unit of service, a ratio that compares patient volume, current expenses, and monthly budget projections. Several factors go into this calculation, including the number of services provided and the direct and indirect costs associated with salaries, laboratory tests, and equipment. “All this information has to be pulled together in a meaningful way,” says Zimmerman. “While the director might note a variance in the scorecard, he still needs to see where the variance occurred and what caused it.” WebFOCUS allows that director to drill down to the item level to resolve the issue.

As more and more dashboards are completed and deployed, the number of WebFOCUS users across the organization continues to grow. “The staff is hungry for multi-click environments beyond static reports,” says Brown. “They want the flexibility of combining multiple sources of information from payroll, general ledger, and timecard management to give them multi-drill task scenarios.”

These managers can drill into various types of data and then create consolidated reports for their departments throughout the organization. Poudre uses WebFOCUS ReportCaster to share and distribute market data by e-mail, freeing people from having to log on to the system and look for it themselves.

Honoring Quality Initiatives

PVHS is one of only three organizations across the country to receive the 2008 Malcolm Baldrige National Quality Award, given by the National Institute of Standards and Technology to recognize manufacturing, small business, service, education, and healthcare organizations that demonstrate sustainable performance excellence. The award signifies a 10-year journey during which PVHS dedicated itself to improving every aspect of its healthcare business, including clinical quality, customer service, and staff, physician, and volunteer satisfaction. PVHS used WebFOCUS BI technology to measure and report on its progress.

Find Out More

To find out how our solutions can help your company succeed, talk to an Information Builders representative today.

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call **(800) 969-4636.**

"The award process involves analyzing a great deal of clinical and administrative information to benchmark progress against industry leaders, as well as to report on quality outcomes. Our goal was to be in the top percentile for quality, patient satisfaction, employee satisfaction, and other areas of concern," adds Zimmerman. "We will use business intelligence technology to assess our progress and measure areas of improvement within the organization."

Poudre received the award from Vice President Joe Biden on December 2, 2009 – the only healthcare provider in the U.S. to receive this prestigious distinction. Biden acknowledged that Poudre leads the country for both patient loyalty and physician satisfaction for one primary reason: the organization is motivated to truly help people.

"One of the outcomes of the Malcolm Baldrige project has been an awareness of the need to strive for quality in everything we do," concludes Zimmerman. "This motivation continues to drive us forward with our BI initiatives."

