

Information Builders enables agile information solutions with business intelligence (BI) and integration technologies. Flexible, scalable, and secure, WebFOCUS – the most widely utilized BI platform – permeates every level of the extended enterprise through a simple and intuitive user experience.

Plexus Medical Group

Snapshot

Organization

Plexus Medical Group is a technology consulting firm operating in the healthcare sector in the Netherlands.

The Challenge

Improve visibility into healthcare facilities, finances, and clinical processes for hospitals and physicians.

The Strategy

Transform national regulatory information into balanced scorecard reports to enable healthcare providers to measure and analyze the quality and efficiency of their primary care processes.

The Results

Cost savings of up to 10 percent of hospitals' annual budgets; overall improvements in quality of care; streamlined administrative processes; better communication between physicians and hospital administrators.

Information Builders Solution

WebFOCUS and Professional Services.



Plexus Medical Group Makes Hospitals Accountable for Quality Care

Business Intelligence Solution Improves Visibility Into Healthcare Facilities and Processes

Today's hospitals and medical specialists need more than just surgical skill to uphold Hippocrates' age-old promise: "To practice and prescribe to the best of my ability for the good of my patients." They also need accurate information. In one corner of the world, Plexus Medical Group has created a business intelligence (BI) solution that delivers precise information when and where it is needed, helping to keep providers accountable.

In medical jargon, a plexus is a group of nerves that controls an essential physical function, like regulating the heart or moving the legs. That's an apt moniker for Plexus Medical Group, a technology-consulting firm that has become an information nerve center for healthcare providers throughout the Netherlands.

“We used WebFOCUS to develop an information management system for hospitals so we could present healthcare data in a clear and comprehensible fashion.”

Plexus has created a BI solution called π (Pi), which delivers information about costs, reimbursement rates, physician profiling, treatment success rates, and many other key performance indicators (KPIs). Created with Information Builders WebFOCUS platform, Pi enables providers to analyze the quality of care.

The WebFOCUS-based solution enables medical professionals to analyze data about diagnoses and treatments to help understand, track, and communicate clinical and financial performance. Over time, this gives them valuable insight into illness trends and the quality of care they deliver in response to these illnesses. It also tells them where improvements can be made and reveals the types of services competing providers offer.

“All healthcare organizations strive to provide high-quality care for an equitable price,” says Erik-Jan Vlieger, senior consultant at Plexus Medical Group. “But how do these organizations know if they are achieving this goal without precise measures of performance? Hospitals and physicians need more than just medical skill to deliver quality care. They also need accurate information.”

Diagnosing Healthcare Performance

Plexus owes much of the inspiration for Pi to a government project. In 2005, the Netherlands established a new registration system for hospitals, similar to the Diagnosis Related Group (DRG) in the United States. Hospitals in the Netherlands are required to provide detailed information to a national regulatory organization. This registration data is used to calculate healthcare costs and regulate the prices that hospitals can charge. The registration system benchmarks the primary processes that doctors at various facilities use and aggregates the results.

Plexus began by asking hospitals for their registration data, and then decided to standardize the process. “We identified this new registration system as a way of improving the quality and efficiency of healthcare providers,” Vlieger explains. “We receive data from hospitals, which is used anonymously in conjunction with our BI tools to help medical facilities compare the quality of their services to industry standards.”

WebFOCUS presents performance information through role-based balanced scorecards, including stats about the delivered and experienced quality of care, financial results, and market position. This gives hospital administrators and physicians a level of visibility into their facilities and processes that was formerly difficult to achieve. They can then use that information to help them improve the quality and value of their services.

“We used WebFOCUS to develop an information management system for hospitals so we could present healthcare data in a clear and comprehensible fashion,” Vlieger says. “Our BI system provides more information than most hospitals obtain from their data warehouses and management information systems put together, for a fraction of the cost.”

The Anatomy of a Healthy Reporting System

With the help of Information Builders Professional Services, Plexus began building Pi in April 2007 and rolled it out in September of that year. "The queries needed to turn this data into useful information are very complex," Vlieger says. "This project was more complicated than we initially anticipated. But WebFOCUS delivered the results we had hoped for. It was the right choice for us."

"We are not IT specialists; we are consultants," he adds. "So we hired IT specialists at Information Builders to assist with BI, reporting, and analytics. We had the high-level insight in-house and we retained technical resources to help realize our vision and create a workable system."

In the early stages of deployment, beta customers supplied their raw clinical and financial data in exchange for free usage of the system for a limited period of time. "Once we had verified that it was working as expected, we began to roll it out to other customers," Vlieger says.

An Infectious Set of Benefits

Today, ten hospitals in the Netherlands are actively using the system. These participating hospitals do not need to gather additional data; the data is taken from the registration information they already provide to the national regulatory board. The solution is platform-independent and is continually accessible as long as there is an Internet connection in the hospital.

Directors at these institutions know that developing KPIs and monitoring patient trends is vital to their organization's continued health. KPIs let hospital administrators monitor effectiveness across the continuum of care. Carefully tracking these measures leads to better management, which results in greater patient satisfaction and quality control.

Hospital administrators and medical practitioners access the BI dashboard via a standard Web browser. The server can deliver content in HTML, DHTML, XML, Excel, and PDF for Web browsers and wireless devices. "Hospitals can use Pi in combination with existing business intelligence software," Vlieger explains. "If they already have WebFOCUS, then the integration will be completely seamless."

Curing Organizational Limitations

Hospitals throughout the Netherlands use Pi to evaluate the performance of their departments and improve the quality of their healthcare services. The solution also provides administrative information to help them cut costs and manage resources more effectively.

According to Vlieger, there has traditionally been very little communication between hospital administrative departments and medical practitioners. Pi connects the worlds of physicians and hospital directors to create a more competent organization. "Because the information is so easy to access and analyze, physicians and administrators use the system to evaluate the success rates of various medical processes," he says. "They are communicating more with each other."

Pi also delivers detailed analysis of financial results and market position. This makes it a valuable managerial tool for hospital administrators and directors. Hospitals using Pi have reported cost reductions of up to 10 percent of annual budgets from using the system. The system also

"WebFOCUS delivered the results we had hoped for. It was the right choice for us."

Find Out More

To find out how our solutions can help your company succeed, talk to an Information Builders representative today. Contact your local Information Builders office, visit us at **informationbuilders.com**, or in the U.S. and Canada, call **(800) 969-4636**.

automatically generates performance indicators for health inspectors and insurance suppliers, saving time and resources.

Participating hospitals now have a wealth of information available to help them fine-tune the quality and efficiency of the care they deliver to patients. For example, the Plexus BI dashboard might reveal that one department in a hospital has a consistently superior treatment success rate. Further examination of the data may disclose that the leading department always staffs a higher nurse-to-patient ratio than other departments. Administrators can then adjust staff schedules to improve other divisions of the facility.

Looking ahead, Plexus anticipates growing its user base from 10 percent of the hospitals in the Netherlands to 30 or 40 percent. The company is also exploring opportunities to expand globally. "As we consider expanding internationally, we will need to analyze how healthcare is administrated in other countries," Vlieger says. "Countries that have registration systems similar to the DRG system in the United States are good candidates for us. We will be investigating that over the next year to see how we may expand."

