

Regional Health Authority Enjoys \$152 Million Improvement to Bottom Line, Cuts Patient Wait Time by Over 67 Percent

Real Impact for
Better Health



Helse Vest is a regional governmental entity established in 2002 to raise the effectiveness of healthcare delivery and reduce administrative costs across 50 healthcare facilities in western Norway. To help meet those goals, Helse Vest deployed a business intelligence solution based on a platform of Microsoft technologies. With the help of the solution, Helse Vest has transformed the facilities' combined bottom line from a loss of US\$76 million to a surplus of that same amount. The organization also has reduced the time spent on preparing data for monthly reporting to the board from two days down to just 30 minutes, and for patients it has cut the average wait time for elective procedures by over 67 percent.

Summary

[Helse Vest](#) (Western Norway Regional Health Authority) is one of four entities created by the central government in 2002 to reduce the costs of healthcare administration and raise the effectiveness of healthcare delivery. Based in Stavanger, Norway, and with a workforce of just 50 people, Helse Vest is responsible for 50 hospitals and other facilities that serve a population of 1 million people who reside in three counties along the country's southwestern coast.

To help meet its established mandate, Helse Vest deployed a [business intelligence solution](#) based on a platform of Microsoft technologies. Today, the solution is used by thousands of people at Helse Vest and the facilities, primarily in finance and management but also on the clinical side, to access and report on more than 200 key performance indicators from a single, centralized portal. With regular enhancements to the solution to make it more powerful and accessible, Helse Vest has achieved impressive results: transforming the bottom line of its facilities from a loss of NOK455 million (US\$76 million) to a surplus of that same amount—a difference of NOK910 (\$152 million). The organization also has reduced the time that controllers spend preparing monthly reports to the board from two days down to just 30 minutes, and on the clinical side it has helped the facilities [deliver care more efficiently](#). Even as the patient load has grown by more than 50 percent in the years the solution has been in place, the average wait time for an elective procedure has been reduced by 144 days, an improvement of more than 67 percent.

According to Per Karlsen, Chief Financial Officer at Helse Vest, the organization will expand the solution even further to support comprehensive analyses of service lines and clinical pathways. "With these analyses we will improve our forecasting and planning as well as achieve further efficiencies for management of patient care at the Helse Vest facilities," Karlsen says.

"Over an eight-year period, our facilities moved from a loss of NOK455 million to a surplus of that same amount—a NOK910 million [US\$152 million] improvement."

Per Karlsen, Chief Financial Officer, Helse Vest



Company: Helse Vest
Website: www.helse-vest.no/english
Country: Norway
Industry: Healthcare
Employees: 50

Company Profile: Helse Vest is a state-owned entity that is responsible for operating some 50 healthcare facilities in western Norway. It employs 50 people and its 2012 operating budget was NOK21 billion (US\$3.5 billion).

Solution: At the outset, Helse Vest deployed a business intelligence (BI) solution based on a platform of Microsoft technologies, and since then has expanded and enhanced it regularly. The solution provides a centralized reporting portal for thousands of users at Helse Vest and the healthcare facilities.

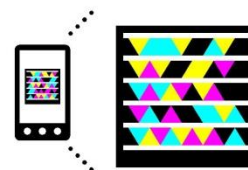
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The Full Story

A Powerful Mandate for Healthcare

Headquartered in Stavanger, Norway, Helse Vest (Western Norway Regional Health Authority) is a state-owned entity responsible for operating 50 healthcare facilities in three counties on the country's western coast. With a staff of just 50 people, Helse Vest oversees the operations of hospitals, clinics, and other facilities that themselves employ 30,000 people and that serve a population of 1 million.

Helse Vest is one of four such regional authorities across the country that were established in 2002 as part of a governmental reform that [called for more effective healthcare delivery and reduced administrative costs](#). To help the regional authorities achieve these goals, the government mandated that each of them implement a business intelligence (BI) solution to simplify reporting among the facilities under its purview.

Working initially with partners and then on its own, Helse Vest deployed a BI solution based originally on [Microsoft SQL Server 2003](#), [Microsoft Office Excel 2003](#), and a third-party reporting application. As Per Karlsen, Chief Financial Officer at Helse Vest, explains, he and his colleagues selected a Microsoft-based platform with a clear eye on the future. "We wanted a platform that we could update and expand without having to engage outside services," Karlsen says. "This led us to Microsoft technologies, which we already knew to be easy to enhance."

Enhancements for Efficiency and Value

Indeed, over the 10 years that Helse Vest has been in existence, Karlsen and his colleagues have enhanced the BI solution on a regular basis to deliver more powerful reporting capabilities and a more efficient user experience, and to return more value from the initial investment. These enhancements include expansion of reporting capabilities; delivery of a common, centralized reporting portal; development of a more intuitive user interface based on Microsoft Silverlight 4; and consolidation of BI solution activities on a single server.

Today, the BI solution at Helse Vest runs on Microsoft SQL Server 2008 R2, Microsoft SharePoint Server 2010, and Microsoft SQL Server Reporting Services, licensed through a combination of Enterprise and Select Agreements. The solution stores more than 200 key performance indicators (KPIs) on financial and clinical activities and accesses a national database three times yearly for data specific to the analysis of patient treatments.

The solution is accessed by thousands of people among the employees of Helse Vest and the facilities under its authority, including managers at all levels, staff directors, controllers, analysts, and others from the administrative and clinical realms. On a typical day, 200 people use the BI solution for reporting on everything from employee sick-leave usage to infection and readmission rates to waiting times for elective procedures.

From Two Days Down to 30 Minutes

Following each enhancement to the BI solution, Helse Vest has attained solid benefits. With work Karlsen's team did in 2008, for example, financial analysts in Helse Vest facilities are [better able to identify](#) departments that show the greatest deviations from budget so as to target those departments for improvement. "This insight has contributed to a significant turnaround in the combined finances of the facilities we oversee," Karlsen says. "Over an eight-year period, our facilities moved from a loss of NOK455 million to a surplus of that same amount—a NOK910 million [US\$152 million] improvement."

With an enhancement made in 2009, controllers at Helse Vest facilities enjoy a far easier approach to monthly reporting to the authority's board of directors. "For their monthly report to the board, controllers used to spend approximately two days emailing data among themselves and transferring it manually from one spreadsheet to another," Karlsen explains. "Today, they prepare the data for that report in just 30 minutes."

With the most recent enhancement to the BI solution, department managers also enjoy a more automated approach to reporting. "Managers viewing daily profit-and-loss statements can drill down to the invoicing level for information that in the past required back-and-forth emails with accounting personnel," Karlsen says. "This helps managers to identify problem areas and take corrective action much earlier than they could before."

Services Up, Staffing Constant, Costs Down

Such efficiencies go a long way in helping Helse Vest staff the facilities more effectively. "Since 2008, the patient load managed by the facilities within the Helse Vest region have grown by 50 percent as a result of growth in the population served and in the services offered to that population," Karlsen reports. "But thanks in large part to the BI solution and enhancements we made to it over the years, those facilities have avoided the need for new management staffing, enabling them to devote more resources to clinical staffing. As a result, the facilities have reduced waiting times for elective procedures by more than two-thirds—from an average of 214 days down to less than 70 days."

[IT costs are well-controlled](#), as well, thanks to server consolidation. "Even as the functionality of the BI solution has grown, it has run on fewer and fewer servers," Karlsen says. "That represents a savings of NOK1.5 million [US\$250,000] yearly in licensing, maintenance, and support costs."

In future plans for enhancement of the BI solution, Helse Vest will further integrate data from financial, clinical, human resources, quality, and procurement/supply-chain activities to provide even more comprehensive KPIs to managers and analysts—and perform thorough analyses of service lines and clinical pathways. As Karlsen explains, "With these analyses, we will further improve our forecasting and planning as well as our management and delivery of patient care at the Helse Vest facilities."

