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**Customer:** Helse Vest

**Website:** [www.helse-vest.no/english](http://www.helse-vest.no/english/Sider/side.aspx)

**Customer Size:** 26,500 employees

**Country or Region:** Norway

**Industry:** Healthcare—Hospitals

Customer Profile

Helse Vest is a state-owned regional health authority that manages 10 hospitals in Western Norway.

Software and Services

* Microsoft Office
* Microsoft Excel 2013
* Services
* Microsoft Office 365
* Power BI for Office 365
* Technologies
* Microsoft Power Query for Excel
* Microsoft Power View in Excel 2013

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|  | |  |  | Health Authority Can Easily View Hospital Data, Cuts Report Time by 93 Percent with Cloud BI Solution | |
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"Using Power BI, we can combine data from all of our hospitals and easily turn that data into powerful analytical reports.”

Anund Rannestad, Head of Innovation, Stavanger University Hospital

Helse Vest is a Norwegian regional health authority that operates 50 healthcare facilities. To meet requirements for a government patient safety program, the authority needed to find a way to more quickly create analytical reports based on surgery trends and other medical data. Helse Vest implemented Power BI for Office 365, a cloud-based business intelligence (BI) solution that employees use to visualize combined data from multiple hospitals. With the new solution, the staff reduced the time to build reports from 14 days to less than 1 day, and Helse Vest can quickly comply with government requirements.

Business Needs

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Helse Vest (Western Norway Health Authority), based in Stavanger, Norway, is a state-owned entity operating 50 healthcare facilities serving 1 million people in three Norwegian counties. Helse Vest is one of four regional authorities founded in 2002, when the government called for more effective healthcare delivery and lower administrative costs.

Recently, as part of a government-driven national patient safety program, Helse Vest hospitals and those in other regions were asked to collect, visualize, and share medical data to identify quality measures and reporting requirements across all care teams and hospitals. To do that, each of the 10 hospitals in the region needed to combine data from all facilities in its region for analysis by the program’s board and hospital managers.

Providing these reports was challenging, though, because none of the hospitals had an easy method of combining and visualizing the data. “We could get data on quality metrics from our planning systems, but it was a manual, time-consuming process,” says Anund Rannestad, Head of Innovation for Stavanger University Hospital, the second-largest hospital in the Helse Vest system. As a result, reports took up to 14 days to produce, making it difficult for hospital staff to assess performance because the data was not recent enough to act on.

Although Stavanger and the other Helse Vest hospitals had been using a Microsoft BI solution based on Microsoft SQL Server 2008 R2 software and SharePoint Server 2010 to create the reports, the organization sought a way to get the data faster and visualize it in greater detail. In mid-2013, Helse Vest decided to explore a BI solution that could build on its existing technologies.

Solution

“We were pleased with our Microsoft BI solution,” says Rannestad. “We wanted to see what more the technology could do for us.” That’s when Helse Vest learned about Power BI for Office 365, a cloud-based solution that gives users data analysis, visualization, and reporting capabilities from within Microsoft Excel 2013 spreadsheet software and Microsoft Office 365.

Power BI for Office 365 features Microsoft Power Query for Excel, a tool workers can use inside Excel to query data from both internal and external sources. The solution also includes Power View in Excel, which gives users interactive data exploration, visualization, and presentation capabilities.

Using Power BI, Helse Vest conducted a proof of concept (POC) to gather and analyze data around the region’s Safe Surgery indicator, one of several medical quality measures. The indicator is calculated by dividing the total number of operations where the prescribed checklist was completed by the total number of operations for a given surgery team. The score, or indicator, is then represented as a percentage.

In the POC, Power Query was used to pull checklist data from operating room information systems. The data was then displayed as a Safe Surgery indicator in Power View, where employees can compile the data and transform it into engaging visual reports that can be shared with others via SharePoint. Board members and hospital employees who view the reports can then quickly derive insights from the data to drive decisions more quickly.

The organization’s hope is that eventually, all 26,500 employees throughout Helse Vest will be able to use Power BI to gather data and report on all medical quality measures. “We will be able to use the solution to show regional reports to the government to demonstrate that we’re following procedures correctly and running a successful health system in our region,” says Rannestad.

Benefits

With Power BI, Helse Vest analysts can easily combine data from different sources in a familiar tool and build analytical reports in less than one day, effectively cutting reporting time to a fraction of the original time involved. As a result, the health authority can easily and quickly comply with national patient safety program requirements.

Employees Can Easily View Medical Data from Multiple Hospitals

Employees within Helse Vest can use Power BI to view and visualize data from multiple hospitals in the region. “With Power BI, we can combine data from all of our hospitals and easily turn that data into powerful analytical reports,” says Rannestad. “We can visualize our medical data much more quickly and easily than before. Our reports are more dynamic and more detailed than anything we’ve seen before.”

With the ability to view combined surgery data, Helse Vest workers can compare operating checklist trends from the different hospitals in the region. “Using Power View in Excel, I get a much clearer picture of what’s really happening with surgery statistics throughout the region,” says Rannestad.

**Analytical Reports Are Created in Less Than One Day**

Helse Vest employees can now prepare reports much faster, with the Microsoft BI toolset. “The Power BI solution makes it easy to collect, prepare, and report on the safe surgery quality indicators,” says Rannestad. “We now have real-time data, which means we get updated data metrics for the staff at each hospital. This will help us act on those metrics much sooner, while the metrics are still valid for the staff, and we believe this will have a significant and positive impact on patient safety measures.”

**Helse Vest Can Comply with National Safety Program Requirements**

Using its new BI solution, Helse Vest can easily and promptly provide up-to-date medical quality indicators to the patient safety program board. “The Power BI solution definitely meets our needs in terms of reporting on hospital quality indicators,” Rannestad says. “This helps us meet those requirements, and eventually we will be able to report on more indicators, so our physicians, nurses, and other health professionals can see how they are performing and compare their performance to other hospitals. This will ultimately contribute to improved quality of patient care. It’s a powerful solution for our region.”