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Management Consultant,
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The Quebec Public Health Institute boosts Infocenter with SAS®

■ Industry

Government

■ Business Issue

Cumbersome data management processes and variable analytical capabilities were restricting the dissemination of vital health information across the various health regions in Quebec.

■ Solution

SAS® data management and analytics.

■ Benefits

Insight into emerging health problems, effective and efficient interventions with a customized health profile for their citizens.

The Institut national de santé publique du Québec (INSPQ) is the Quebec Public Health Institute, a provincial government organization founded in 1998 to improve the coordination, development and use of expert information in public health. From collection and dissemination of reportable disease outbreak alerts to health policy analysis, INSPQ provides critical health information services to its citizens, the media and governing bodies. INSPQ was created by combining expertise from the Canadian province's principal public health laboratories and staff from a number of regional public health departments as well as the Canadian Ministry of Health and Social Services.

One of INSPQ's vital programs is the Public Health Infocenter Portal. This portal provides a holistic picture of the health status of Quebec's population, from infectious disease monitoring to occupational health factors. INSPQ recently turned to SAS for data management and analytics to support its health information portal. After 15 months of using SAS software, André Simpson, Management Consultant, Information Resources, was surprised to learn that the consolidated information available through the Infocenter had gained the support of most public health network employees in Quebec, along with members of the province's Ministry of Health and Social Services.

"The Ministry had planned the rollout of health network computerization over several years," explains Simpson. "The feedback we received concerning the network's computerization plan was that

we delivered value immediately, giving us a five-year lead over future deliverables."

The Infocenter's first project for the portal included 200 health indicators based on 60 different data sources. These indicators are integrated and analyzed with SAS to reveal trends over time and the correlation between the different health factors. This provides the institute with a current status of the general health of its citizens, insight into emerging health problems, and the analysis of the most effective and efficient interventions. In addition, the portal enables health researchers in each region of the province to generate – using SAS – a customized health profile for their citizens.

"We know that, pursuant to Quebec's public health legislation, the regions are supposed to monitor the health condition of their population and be able to present a picture of the regional health," Simpson says. "The old process consisted of centrally generated databases being sent to all the regions, which required significant manual efforts.

"The regions would perform the required work, which often was quite painstaking due to the scarcity of resources and technical expertise in this area. Each region would receive raw data that they tried to put together and analyze based on their best knowledge available."

Today, with the new SAS software environment, researchers have direct access to the information they need

“SAS is helping the public health network revolutionize its monitoring of Quebec’s health condition.”

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to support their actions and decisions and no longer have to spend half of their time generating data. And they can now dedicate that time savings to producing useful insights about the best interventions to improve the citizens’ health. Using SAS, the Public Health Infocenter provides the data integration and standardized analysis functions for all regions via the Web. As a result, when the Infocenter sends an indicator on the information portal, users can be assured of consistent quality and results because the public health methodology has been applied by the subject matter experts.

As an example of the portal’s importance and usefulness, the online system supports the province’s breast cancer screening program, which helps to ensure that at least 70 percent of women between the ages of 50 and 69 receive a mammogram every two years. SAS helps INSPQ accurately track the program’s performance in each region to ensure the province’s goals are met and lives are saved.

“Now, more than a thousand employees of the public health network in Quebec have access to Infocenter,” adds Simpson. “We have created a dynamic online complement to Quebec’s health research infrastructure picture. We are now able to convert the highlights of trends and analysis into insights, such as the main causes of death or disease in Quebec.”

Pleased with the selection of SAS and with the support the company has provided, Simpson said: “SAS was by far the software platform environment best suited for the type of production we wanted and in-depth statistical analysis needed. It would be impossible to get this type of functionality without the SAS technology we implemented. As far as we know, there are no other similar systems, especially in light of the distributed service we wanted to make available.

“In the public health sector, significant data analyses are performed so that researchers have insight into the population’s health

condition. But in order to implement this as part of a collective infrastructure – in a high-capacity server environment – SAS technology was by far the best suited and virtually the only one enabling us to generate the high level of statistical modeling and analyses we needed.”

What impressed Simpson most was the extent of SAS software support, which included application customization based on the Infocenter’s specific requirements. “This type of contribution and support is not common in today’s market, and people were surprised with the potential insight to issues we created,” says Simpson. “SAS is helping the public health network revolutionize its monitoring of the health status of the population of Quebec.”



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