



Nova Scotia Department of Health secures funding with evidence-based decision making

The Nova Scotia Department of Health is successfully using SAS® to remove the guesswork from its planning and analysis activities. Its biggest success to date is related to long-term bed care planning – an area in which funding requirements need to be highly quantified and competition for dollars among healthcare facilities can be fierce.

Industry

Government

Business Issue

The Continuing Care Branch of the Nova Scotia Department of Health needed modeling and analysis capabilities to accurately determine the funding requirements for its long-term bed care facilities.

Solution

SAS®9 and SAS Enterprise Guide®, on the Windows platform, support policy development, planning and performance management activities.

Benefits

Evidence-based decision making replaces arbitrary means of fund allocation and eliminates the guesswork in planning.

With 20,000 clients in long-term care, home care and nursing homes – and a \$74 million budget – a lot is at stake. Enter what is called “evidence-based decision making.” This concept replaces more arbitrary means of fund allocation and eliminates the guesswork.

“By using the right software tools, you can’t argue with the evidence,” says Kevin Druhan, a researcher and statistician for Nova Scotia Department of Health, Continuing Care Branch.

“It used to be that funding went to the squeakiest wheel; now it goes where the beds should go, with a concrete reason as to why.”

Recently, the Continuing Care Branch undertook a major planning project in new long-term care facilities to provide quality care for an aging population. After four months of planning and implementation, recommendations were made about the number of beds that should be built and where they should be located. Furthermore, all of this work was done under the premise that needs would be best determined by understanding the health statistics of the population.

According to Druhan, SAS was a key part in developing and validating a fairly sophisticated methodology based on population, frailty and bed allocation – a methodology that integrated data from many different sources, including Statistics Canada (StatsCan) and the Canadian Institute of Health Information.

“I needed to analyze a lot of data quickly, and SAS was used to calculate many key components of the model,

including wait times, demand drivers, population projections and the pattern of frailty in seniors across the province,” says Druhan. “You need good information to do that, right down into the individual community.”

For example, by adding population projections supplied by StatsCan, “We are able to project where the highest needs are in each area of the province,” he adds. “With SAS, it doesn’t matter where the data is from. It has all the tools you need to extract, clean, filter and finally report the information.”

He also likes its flexibility to handle add-ons (some of which are custom-built) like the complex algorithm macro he uses to calculate wait times that, he says, would have been difficult to implement using other tools.

Druhan first started using SAS on OpenVMS to perform data quality analysis on large population-health data sets (hundreds of millions of records).

“These days, I use SAS®9 and SAS Enterprise Guide on the Windows platform to provide decision support to government. It’s become an indispensable tool for policy development, planning and performance management activities,” he says.

In some cases, he explains, policy has changed because of a statistical analysis. For example, one previous practice had been to reassess clients every 90 days for their level of care, but that took a lot of resources. By using SAS software and monitoring the policy,

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it was discovered that there tends to be very little change in healthcare status after the first 90 days, so the policy was changed to reflect the discovery.

It is another example of evidence-based decision making at work, says Druhan, and the results of this methodology are so comprehensive and convincing that they were accepted with minor changes by politicians and healthcare officials.

“The buy in is from all stakeholders: CEOs of health districts, politicians and ultimately the public,” he says. “It’s an all-win situation.”

Count Druhan among the winners, too. His work was recently honored by the Canadian

Institute of Health Information with the Innovation Award for Excellence and Creativity in Supporting Quality Care Across the Continuum. “I couldn’t have done it without SAS,” he says.

And, he’s always on the lookout for new and creative ways to use the tool. Being part of a larger community of SAS users is helpful in this regard. Beyond supplied training and support, he is active in the local SAS users group, where he can exchange ideas with peers and help evolve the use of SAS within the department.



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