

# CANADIAN Healthcare Technology

www.canhealth.com

## SAS produces business analytics solution tailored for healthcare users

BY PAUL BRENT

Hospitals are prodigious producers of data. But making sense of it, and transforming that massive flow of information into a format that can be acted upon in a timely fashion, has long been the real challenge for healthcare providers.

"We think there are tremendous opportunities in making more effective use of IT in healthcare in Canada," says Pat Finerty, vice-president of business development with SAS Canada. "The challenge is in being able to integrate data effectively so providers can help manage more proactively, rather than reactively."

Building a software solution to make sense of the surging stream of clinical data started a year and a half ago and has resulted in the SAS Data Integration for Healthcare software and services solution. The program has focused upon key performance indicator (KPI) reporting to aid facilities in measuring their progress in achieving Canadian Institute for Health Information benchmarks.

"One of the things that SAS does very well is solve complicated problems, so we decided to build the systems with the first wave going right at the clinical indicators," says Finerty. "We designed for the 48 most common clinical indicators, and we pre-built the calculations so that any hospital or region can automatically calculate their performance based upon results they have submitted to both the government and agencies like CIHI."

Measuring those clinical indicators is harder than it appears at first blush, SAS says. "When most people think about an indicator, they think of financial indicators

or volumetric indicators, like the number of sick days or number of patients served," says Finerty. "While those are important, they are relatively straightforward. But for clinical indicator calculations, the definition of the calculation can be 10 pages long." These calculations also change regularly, which poses a constant challenge to hospitals with manual systems.

"SAS has developed this so that with a single point of contact you can change the calculation when the standards change. It saves person years of effort within the system every time there is a change."

SAS says that currently too many individual hospitals lack the resources to process the data, and even groups of

**Time to implement is fast – getting the system up and running in Alberta is expected to take six months.**

healthcare providers are bogged down in assembling reports, rather than having the time to use the information to analyze and optimize their operations.

"Right now, those organizations usually have to wait anywhere from 12 to 18 months to understand how they are performing versus their peer set against these indicators."

Besides simple data overload, hospitals can face the hurdles of 'siloed' information systems which make it difficult for many to utilize government-provided benchmark data, as well as unreliable reporting from units or hospitals using different processes to accomplish the same tasks and trying to put the results in one report.

Designed to easily scale, the SAS solution can be used by a single hospital, a healthcare region, or can be implemented province wide as it will later this year in Alberta.

The SAS solution has had its first test in southern Ontario, where it has been utilized by the eight-hospital Niagara Health System. The network required a single source of enterprise information to support its clinical performance management. SAS software has successfully filled its mission to aggregate information, generate reports and allow the hospital amalgamation to measure its performance against provincial targets. SAS also says the solution has improved data quality and "significantly reduced errors and created greater confidence in reports."

That opinion is shared by Niagara Health Systems, where it requested a system able to capture data on 18 clinical indicators. The SAS solution has given it "timely, detailed, accurate insights into key performance indicators," says Teresa Struk, director of finance and decision support services with Niagara Health. "With SAS, we can monitor key performance indicators easily, which helps us identify areas to improve for the greatest positive impact on both the quality of patient care and efficient hospital operations."

Time of implementation of the solution depends on the size of the organization and the number of clinical indicators to be reported upon. It took SAS 18 months to build and implement the solution for Niagara Health and SAS estimates it can now build that capability for a similar-sized network in 20 weeks. Getting the system up and running in Alberta is expected to take six months.