Industry
Healthcare

Business Issue
CBG needed a way to allow health care providers to interact with the data they collate to gain more insights that help identify any gaps in patient care.

Solution
SAS® Visual Analytics

Benefits
Subscribers to CBG’s HealthStat solution are able to interact with the data and conduct analyses in near real-time.

Data visualisation a ‘game changer’ in New Zealand healthcare

The health of New Zealanders is set to improve following the implementation of a solution that has been called a “game-changer” for the industry.

CBG Research, which produces the HealthStat database, has installed SAS® Visual Analytics, making it easier for primary health organisations (PHOs) to uncover gaps in patient care.

HealthStat provides analysis on health issues around the nation such as flu and gastroenteritis outbreaks and the national depression initiative. CBG founder Barry Gribben says previously health workers could only view this analysis in a static, read-only form but Visual Analytics has changed this.

“The ability for users to interact with the information makes this a game-changer for the industry as the data can be explored in near real-time,” Gribben says. “This is beneficial to New Zealanders as any gaps in health care can be identified and dealt with faster than ever before. For example, if there is a flu outbreak, PHOs can monitor how many patients are being treated by particular hospitals and what treatment they are being offered.”

Pro-active patient monitoring
Individual practices also benefit as they can incorporate their current data into the HealthStat database and compare with other practices on treatment effectiveness. “Rather than going through pages of reports and data, they can see at a glance if any of their patients need follow ups,” Gribben says. “If so, they can send them text messages reminding them that they are due for a treatment or a check-up.”

“Another great feature of Visual Analytics is the online exploration of data,” Gribben adds. This ability to offer data analysis via the cloud has meant that PHOs and individual practices can easily access this capability on their web browser without the need to install software.

Feedback from the PHOs about how quickly Visual Analytics can display data sets has been positive. “I recently demonstrated it to an organisation interested in diabetes management,” Gribben says. “I displayed the data based on diabetes management for different ethnic groups, of which there were about 20 variables. Then I changed the data set by overlaying which district health boards were performing well in each area, with boxplots showing confidence intervals and outliers.”

He says the results of the change were displayed in less than one second. “This demonstrates how rapidly the data is being analysed as there were more than a million records involved,” he says. “When you show health authorities how easily vast amounts of data can be analysed you can see their minds ticking about other possibilities for its use.”
The combination of the HealthStat randomly selected research panel and SAS Visual Analytics is a powerful research tool. “Many of the analyses we produce are publishable,” Gribben says. “A traditional research organisation might do a study based on collecting and analysing data from 500 doctors, requiring significant funding. We can do these analyses in half an hour, using this system out of the box. We can produce real results that can change policy.”

**Ease of use cuts down training time**

One of the main advantages of using Visual Analytics is the ease in which reports can be created. “The learning curve is not steep,” Gribben says. “You don’t need business analytics experience before you can use this solution, which is a real benefit as it cuts down on training time.”

He adds while PHOs are likely to be the first adopters of the new technology, the solution is being made available to individual practices. “We don’t want to overburden doctors – some are just one-doctor practices,” Gribben says. “But we are keen to make the service more accessible to them.”

While there are many benefits around providing greater and easier analysis of HealthStat data, Gribben says translating this knowledge into behavioural changes that improve New Zealand’s health is the critical part. “That is a trickier proposition,” he says. “It will be a longer-term gain but one that Visual Analytics will certainly make easier.”

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**Dr. Barry Gribben**

Medical Director and Founder