Massachusetts Executive Office of Health and Human Services

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Tricia Spellman, CFO Massachusetts Executive Office of Health and Human Services

The Massachusetts Executive Office of Health and Human Services (HSS) provides financial oversight to 16 different state agencies with a total annual budget of more than $12 billion – more than half the entire public purse for the State of Massachusetts.

Over time, the size of HSS operations led to each component agency operating as an island of information and making it difficult for HSS to provide effective budget line authority across the organization. The rising costs of Medicaid fall within the HSS purview and the National Association of State Budget Officers predicts this area could consume more than 75 percent of all state revenues by 2009. Not surprisingly, more than 60 percent of state governments in the US identify reform of their health and human services as a main priority. In response, Massachusetts HSS initiated a re-organization in 2002 to simplify core administrative functions for more businesslike operations, and to connect and increase access to its existing data. Two key components of this process are a data warehouse and analytics support project, and a financial management system.

Problems faced

The HSS system architecture was originally designed in the 1980s. Incompatible systems meant consumers and health care providers alike were often forced to complete redundant applications and processes for each of HHS's 16 member agencies. In turn, each agency required its own data processing and support staff. HSS is tackling several issues to resolve reporting problems. According to Tricia Spellman, the Chief Financial Officer for HSS, "we have to link program data without unique user IDs across multiple systems; we have to prioritize all the data sets; and we need common definitions for common reporting. How do you want it to look and how do you structure the data for cross agency analysis?" The lack of information sharing was compounded by the real privacy and security concerns associated with health

records. "In some cases we're talking about AIDS or substance abuse issues," says Spellman, "The need for security is paramount."
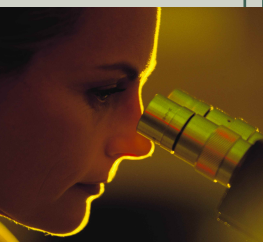
Strategy followed

To address these issues, Spellman's team kicked off its data warehouse and decision support project in 2002 and assumed the role of executive sponsor for the enterprise-wide analytics and decision-support project. The project team started with business intelligence tools and services that included data modelling, the migration of its existing SQL data warehouse to an Oracle Applications environment, developing new report templates, and rolling it all out to users.

"So far, we have eight years worth of Medicaid claims data, six years of data from managed care organizations, and two and a half years of Medicaid managed care payment system data," says Spellman. "With about 24,000 employees across HHS…we want more people using data in their decision-making."

By 2004, HSS had transformed its environment into 44 data cubes and 104 reports. "We have it organized by type of data," Spellman explains. "For example, we use a cube to merge claims and eligibility data and can use it to take a quick look at how much we're spending in Medicaid by type of client. Users like the query tools because they can more easily slice and dice the data."

In addition to reporting and analysis, HHS needed a new approach to budgeting. "Once we have a budget we want to be able to track budget and spending so we've created the Executive Financial Management Reporting System with Cognos to allow us to track against the budget," says Spellman. "Every agency goes in and develops a forecast. Then, with workflow, it comes through this office for review and approval before it goes to the Executive Office for Administration and Finance. Historically our Medicaid forecast was written

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In 2006, HHS is adding standardized federal reporting to its Cognos business intelligence system so it no longer needs to rely on ad hoc reporting for these requirements.

To address the ongoing need for data security, HSS relies on another solution. "We use Cognos access manager which has a tremendous amount of security built in to the product. We can add security at a folder level, at a data entry level, at a cube level or even within the cube, says Dave Smaldone, Data Warehouse Business Analyst and Trainer for HHS. "We can specify that certain data elements are hidden from other users. There are multiple levels of security in the product that we take advantage of."

Benefits realized

"Robust analysis leads to robust answers," says Spellman. "Today we're very much data- driven and want to see the financial data before we make any decisions."

According to Spellman, one lesson HSS has taken away from its data warehouse and financial management projects is that user participation is central to success. "We have 129 power users doing 35,000 queries a month which is great. But your priorities and requirements need to be driven by the business users. They're the ones using these tools and data on the front lines."

HSS has managed to make more data more available across agencies and has gained a cross agency view of both its own spending and the utilization of its services by consumers and healthcare providers. Looking into the future, Spellman sees Cognos executive dashboards as the next logical step in improving the HSS IT environment. "We want to consolidate our data so we can make it easily accessible to our executives so they can monitor and track throughout the year."

About Cognos

Cognos is the world leader in business intelligence and enterprise planning software. Our solutions for corporate performance management let organisations drive performance with planning, budgeting, and consolidation, monitor it with scorecarding, and understand it with business intelligence reporting and analysis. Cognos is the only vendor to support all of these key management activities in a complete, integrated solution. Founded in 1969, Cognos now serves more than 23,000 customers in over 135 countries.

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(12/06)