

Predictive Modeling

NEWS

Hospitals Globally Use Predictive Analytics for a Host of Applications

Audrey Fisher of Sequoia Hospital in California and Vincent McFarlane of Wesley Research Institute in Brisbane, Australia, offer unique insights

by Russell A. Jackson

Patient safety and evidence-based medicine are what it's all about today, and SPSS Inc. (NASDAQ:SPSS), a Chicago-based global provider of predictive analytics software and solutions, says it's at the forefront of both important movements. Indeed, the company says, "when healthcare organizations have the opportunity to use technology to enhance new medical techniques, streamline efficiencies and reduce costs, the investment is a true life-saving asset" -- and the growing use of its products by healthcare organizations worldwide, it adds, "supports the new trend of evidence-based medicine by providing an innovative way to improve patient care and risk management."

Evidence-based medicine combines existing information from healthcare databases, medical precedents and real-world medical cases with a patient's medical history and existing ailments to recommend and improve decisions on care. By using the portfolio of SPSS predictive analytics software -- which includes data mining, text analytics, data collection and statistics, and which the company calls "PASW" -- doctors, surgeons and clinical researchers can enhance evidence-based medicine through using better treatment options, improving recovery time or more appropriately allocating healthcare staff, the company says. Additionally, SPSS adds, "healthcare organizations improve their risk management by giving administrators and doctors a stronger view of patient safety, surgical complications and mortality rates."

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Medicaid Expert Details New Uses for PM in Ensuring Program Compliance

From fraud detection to interpreting quality scores, there's a slew of new ways to assess the data heap

by Russell A. Jackson

Jim Sheehan, New York State's Medicaid Inspector General, is one of the nation's leading experts on all things Medicaid -- and especially on best practices for using data in the massive federal-state healthcare coverage program. One of the increasingly important ways states use data, Sheehan points out, is in predictive analytics to help improve program compliance. Sheehan is formerly with US Attorney's office, so he's an expert in healthcare fraud. *Predictive Modeling News* talked to him recently about new ways Medicaid programs can use, are using and will use predictive modeling in their states. The complete interview is available in an exclusive *PMN* podcast, available at <http://www.mcol.com/podcasts/sheehan0509.mp3>. Here's an edited transcript.

Predictive Modeling News: Medicaid calculates each state's payment error rate. Does the program use statistical sampling to do that? What kind of modeling tools does it use to determine payment error rates?

Jim Sheehan: Medicaid, currently -- that is, the federal Medicaid organization, which is the Center for Medicare & Medicaid Services' Medicaid Integrity Group -- uses a system, a very traditional system, to determine error rates. Essentially what the organization does is it takes a statistically valid sample of claims over a given year, quarter by quarter, and it then analyzes each of those claims and requires records from the provider to support the claim that was submitted. So it's your old-fashioned sampling methodology, and the calculation is based on standard statistical analyses.

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