The field of health care compliance is in the midst of a sea change leading to wide use of data mining and analysis in government oversight, even while many in the industry remain confused as to what exactly it is. No longer will the major findings for questioned costs arise solely from traditional OIG audits based upon statistical sampling. The expansion of data mining and analysis throughout the Medicare and Medicaid is now a part of every major Medicare/Medicaid recovery program. Providers should be preparing now for anticipated recovery efforts by the new contractors, particularly the Recovery Audit Contractors (RACs). Sitting back hoping they won’t find problems at your institution is not an option. It is time for taking proactive action to reduce the risk of serious interference with your revenue cycle by huge demands from these entities.

From our experience to date, many hospitals have not come to grips with what data mining is all about and how it can affect them. At its most basic, data mining and analysis can be defined as the use of techniques and technology to derive or predict patterns from large amounts of data. These results can involve the use of databases, statistics, computer analysis, prior research, and group discussion. Data mining can be used not only to uncover specific results (such as an overpayment or “never event”) but to spot and predict the situations surrounding those events in order to increase proactive prevention of the event in the first place.

Not surprisingly, the CMS and its contractors have integrated data mining in their enforcement strategy to prevent waste, fraud, and abuse. Most recently, in March 2009 CMS announced a clarification of the rules that impact the manner by which the RACs will conduct their work. RACs review Medicare claims to identify over- or underpayments, and receive a percentage of any overpayment they identify. During the RAC demonstration project, RACs were unable to receive the entire contingency fee for overpayments identified through data extrapolation. The March 2009 announcement from CMS made it clear that the rules to allow RACs to receive full contingency payments for overpayments identified through these methods. This announcement will encourage the expanded use of extrapolation techniques.

The Comprehensive Medicaid Integrity Plan of the Medicaid Integrity Program (MIP) will also be using data mining as part of their plan to prevent Medicaid fraud, waste, and abuse. This will include the institution of a “national claims registry” that will provide increased access to beneficiary, provider, and claims data. The MIP will also be pilot testing various data mining algorithms throughout the states as a tool to identify fraud, waste, and abuse. As the MIP program evolves it will utilize the data mining techniques to better combat these issues.

Medicaid Integrity Contractors (MICs), a specific part of the MIP, will also be employing Data Mining techniques. They are tasked with auditing Medicaid providers and health plans to flag inappropriate payments. MICs also educate providers and plans on how to correctly file claims. Review-of-providers MICs will review the practices of individuals and organizations furnishing Medicaid services to identify questionable claims to receive follow-up review. Audit-and-identification MICs will examine the targeted Medicaid
Data Mining and Analysis: The Future Has Arrived

claims and identify overpayments. Education MICs will supply education and resources for providers. MIC Review Contractors will be using data analysis techniques on both the national and multi-state level as part of their near and long term approaches. Near-term data analysis will include identifying fraudulent and inappropriate payments in specific states and scanning for national or multi-state trends. Long-term data analysis will include reports detailing general high risk areas for providers and conducting simulations using real-world data to “predict aberrant provider patterns to identify and rank by risk providers to be audited.”

The CMS zone integrity program contractors (ZPICs) are tasked with the goal of aggressively responding to fraud, abuse, and overpayment matters. The ZPICs perform program integrity functions for Medicare. They will have access to a new data warehouse that collapses Medicare Part A, B, C, and D into a single database, along with DME, home health, hospice and the Medi-Medi programs. They will operate in seven designated areas across the country. Explicitly included in the ZPIC contract goals is the need to “develop data analysis methodologies for preventing abusive use of services early.” To achieve this goal, the ZPICs will utilize massive databases of Medicare claims to identify billing patterns and high risk areas of fraud. Data mining and analysis is a direct part of the ZPIC mission.

While there might be uncertainty in regards to exactly how the Medicare and Medicaid recovery programs will use data mining and analysis, there is no longer uncertainty as to the prevalence of use of data mining in the programs themselves. Providers can and should follow the lead of the government to take the necessary steps of using the technology for their own benefit. By data mining internally and observing the results and techniques of government investigations, providers can put themselves in a place of increased certainty of compliance and save costs down the line.

Government results can be used not only as a template for in-house data mining projects but as a means to an end when re-designing company models, procedures, and systems to meet federal standards. It is imperative that providers keep up to date on the latest published government investigations. Government techniques will be constantly evolving to increase effectiveness, so for a compliance program to truly use internal data mining effectively, they must do what they can to stay one step ahead of published reports. If a new technique, focus area, or formula is part of a government agency investigation involving data mining, a provider might theoretically be on the receiving end of a similar government query.

With the prevalence of data mining and analysis programs now in place for Medicare and Medicaid recovery programs, at this point no provider can say they have not already been warned. Data mining and analysis might remain a field with considerable question marks, but providers, like the recovery programs themselves, can no longer afford to wait on incorporating the techniques. Providers should be developing defensive measures now, such as conducting internal data analysis following the same issue areas that have already proven to be a major return on contractor investment during the pilot period. Providers should also develop a process and tracking system to
Data Mining and Analysis: The Future Has Arrived

keep up to date with the latest reports and updates as these data mining programs evolve. Upon obtaining the information, providers should work to prioritize the findings and develop hypotheses based on what information they determine is most essential. With adequate resources providers can then develop and analyze the hypotheses into possible queries and report on their own analysis internally to management officials. Furthermore, this process should be extended to other likely areas of review. Clues to where these other contractor opportunities exist can be found where they are looking, the OIG and CMS websites.

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