

Predictive Modeling

NEWS

CMS' PM Plans Attainable, Bode Well for Vendor Sector

by Clint Fuhrman, Director of Government Health Care Programs, LexisNexis Risk Solutions

The Centers for Medicare and Medicaid Services recently announced it would award two contracts by next month to expand Medicare's use of predictive modeling tools by July 1. One will be for, CMS says, "a risk-scoring solution that uses proven predictive models to generate alerts and triangulate the results to identify high-risk claims and providers most likely to be engaged in fraudulent or wasteful behavior, or abusing Medicare policy." The solution is also expected to include "an integrated case management system that will track the findings to ensure that appropriate, timely actions are taken."

The second award will be for "developing, testing and refining predictive models that can be incorporated into the fraud risk-scoring solution." CMS adds that "before applying the predictive models to claims pre-payment or taking action on providers, the models will be rigorously tested to avoid a high rate of false positives to ensure that claims are paid for legitimate providers without disruption or additional costs to honest providers; ensure there is no change in beneficiaries' access to care; and identify the most efficient analytics to appropriately target resources to the highest-risk claims or providers." That's a pretty tall order, so Predictive Modeling News asked an expert whether the federal government is likely find what it's looking for in the current predictive modeling marketplace. His remarks are followed by a Q&A to provide additional insights.

Finding a Vendor Shouldn't Be a Problem

CMS will have a wide variety of offerings to choose from. The claims predictive modeling field in healthcare has become crowded in a relatively short period of time. The end result is that CMS should be able to implement technology that truly changes the landscape from the current pay-and-chase model to a comprehensive pre-payment claims analytics solution.

The best predictive models take the approach that LexisNexis Risk Solutions has taken, which is to leverage external public records sources and identity analytics and excellent rules-based solutions to produce a comprehensive solution. The best models out there are transparent and configurable. Payers should avoid the "black box" approach, in which the algorithms and attributes which drive the model aren't readily visible. Building on this multi-layered approach helps to refine and target the model, ensuring accuracy. The inclusion of external data and analytics specific to identity can bring an entirely different perspective to a claim. We believe that gaining understanding of the "who" in a claim is often as important as understanding the "what".

LexisNexis Risk Solutions maintains one of the world's largest data repositories of information around people and organizations. The knowledge gained from that data helps us to understand with great clarity the backgrounds, relationships and associations of certain individuals and corporate entities and what that information means in terms of risk or opportunity. Our solutions in healthcare leverage this knowledge to help fight fraud, waste and abuse and manage identity. We offer solutions to our customers that enhance the provider enrollment and management process by validating critical data points in an efficient way and assessing risk; predictive claims analytics that produce actionable, focused results; and investigative tools that help target scarce resources and disclose critical answers instantaneously.

Pre-payment predictive modeling has been the "holy grail" of claims analytics for some time, but the downfall of predictive models has been their inability to limit false positives and produce actionable, focused results. The market is beginning to realize that the dynamics have changed, that effective predictive claims analytics systems of the type offered by LexisNexis Risk Solutions do now exist and that they are being utilized with great success in other lines of insurance and industries. There is tremendous agreement across the spectrum that the "pay-and-chase" model of combating fraud and abuse simply isn't good enough any-more, and there are many who believe that pre-payment predictive models that incorporate external public record data sets, the output of rules-based analytics and other components are the best way to move the needle in this area.

Healthcare payers must begin thinking about fraud prevention and comprehensive identity management not as one piece of their overall operations, but as an essential building block of their business foundations. A comprehensive risk mitigation model that includes effective pre-payment predictive modeling of claims represents a completely new approach to fighting fraud and abuse and provides the type of flexibility and advanced tools necessary to combat the increasingly sophisticated and organized fraud schemes that are attacking the system. LexisNexis Risk Solutions in this area speak to this comprehensive approach.

CMS' PM Plans Attainable ...continued

The LexisNexis ClaimFocus predictive modeling platform leverages both advanced algorithms and our vast data store of information on individuals and businesses to produce the actionable, focused results necessary for success. Through strategic alliance, we are able to deliver the best of both traditional methods and the power of predictive modeling. Many systems can identify a suspicious billing pattern, but determining which of these instances represents fraud and which is related to provider education or error can be a resource-intensive task. The ability to understand the external background of a provider -- recent financial stresses, criminal activity, associations to known fraudsters and similar attributes -- can help determine more accurately where true indications of fraud are present and devote limited resourced accordingly.

The true promise of predictive modeling isn't simply in the systems themselves, but in the ability to gather disparate information from the entire payer enterprise, analyze it in the context of the claim or claims history and make accurate decisions based on that understanding. In some ways, it is not that different from what the intelligence community is doing and, in fact, many of the models CMS will be looking at came from that world. The key to success is transparency -- understanding who the providers and patients who are associated with claims truly are, their relationships and backgrounds and how that relates to the services being delivered

Social network analytics offers tremendous promise in looking across broad groups of members and providers to understand complex relationships and target those individuals and groups at the core of fraud. Risk profiles for providers are being deployed that consider multiple variables. There are many predictive models out there, but only those that integrate these types of analytics and create a comprehensive approach will be truly reaching their potential to change the healthcare landscape.

We are seeing significant interest and activity related to adoption of these technologies in the government payer space. Congressional action has helped spur this, with language mandating predictive modeling for Medicare claims being included in the Small Business Jobs Act that was signed into law by President Obama in September 2010 and the anticipated re-introduction of the Fighting Fraud with Innovative Technology Act. Similar legislation has been filed in both chambers of the Minnesota legislature, and many states are expressing interest.

Predictive Modeling News: *What should payers remember when selecting a vendor? As the vendor sector matures, are any general "caveat emptor" issues starting to develop?*

Clint Fuhrman: Payers should carefully assess the approach that is being presented, as there is a wide variety of models in the market. The best models will take the approach outlined above by leveraging a variety of inputs from existing systems and external data to refine and target results. These models should be transparent and configurable -- no "black box" approaches in which the attributes and algorithms being employed are hidden from the client. The platforms should be easily integrated into the claims workflow and should be "plug-and-play" -- no massive system installation requirements, no requirements that would cause significant interruption to the workflow if the models were removed. Payers should expect to see previous results. While this approach has not been utilized heavily by health payers, other lines of insurance have been utilizing predictive modeling for some time and vendors should be able to offer proof points. Lastly, payers should watch out for systems that are labeled as predictive modeling but that are in truth just a re-packaging of current solutions. True predictive modeling platforms do not just combine other rules-based solutions and edits, but utilize the identification of risk factors, derive attributes based on these factors that contribute to a risk score and utilize decision trees, neural nets or other similar methods to arrive at a truly predictive conclusion.

PMN: *Does the market understand the value of "gaining understanding of the 'who' in a claim"? Is there a risk that payers will emphasize cheap instead of effective and use a product that doesn't solve the problem?*

CF: The concepts of true identity management and the integration of external sources of data are gaining great traction in the market. The increasing adoption of electronic records and information exchange is spurring the realization that better solutions need to be implemented for proving identity and assessing risk. The US Department of Health and Human Services recently issued enhanced provider screening standards for Medicare, Medicaid and SCHIP as required by the ACA, and that has helped to raise the bar a bit, although more needs to be done. The market is warming to the fact that the same solutions that are utilized to great effect in the financial services, credit and banking industries can be utilized in healthcare as well. Due to the wide variety and quality of predictive modeling solutions that exist, and how little adoption there has been in the healthcare market, payers have to be absolutely certain of what they're getting. Basing this decision on cost alone will be a dangerous strategy. The return on investment from a truly effective system will be significant and will more than justify the investment. There will be companies that attempt to "buy the market" with re-packaged solutions branded as predictive models. Choosing a substandard system based primarily on price will not only lead to a bad experience for the payer, it will diminish market excitement as well, particularly if that payer is an industry leader.

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PMN: *Characterize the development of "pre-payment predictive modeling". Is the technology there? Can payers realistically hope to implement a meaningful, effective pre-payment PM program? The healthcare payer market is not known for adopting "completely new approaches" to anything!*

CMS' PM Plans Attainable ...continued

CF: The technology absolutely exists to implement these solutions pre-payment. There is no real difference in technology that differentiates post- and pre-payment success; the trick is the approach that's used and the manner in which a decision is made on an individual claim. The downfall of previous systems has been their inability to reduce false positives. There are companies that claim to have implemented pre-payment predictive modeling, but have never actually denied a claim pre-payment based on the model because they can't attain an acceptable level of accuracy that doesn't disrupt the workflow inappropriately and run afoul of prompt-pay requirements. Utilizing all sources available as described earlier, filtering results through a series of other analytics and bringing best-of-breed, proven PM technology to the table can and will change the status quo. The reality is that reduced budgets, increased demand for services and regulatory changes have payers scrambling to address the weaknesses in their systems like never before. Two years ago, "near real-time" predictive modeling of Medicare claims seemed like a far-flung possibility. In July of this year it will be a reality, and CMS is not alone – some of the largest private payers in the country are actively looking at this technology as well.

PMN: *How big a problem could identity theft be under this type of program? Looking at the external background of providers would seem to increase the risk of "false positives." Are the predictive modeling solutions currently available able to minimize that risk?*

CF: Actually, exactly the opposite is true. The implementation of enhanced provider screening and development of risk profiles for providers that can be utilized within predictive modeling will reduce the identity theft and fraud that is currently occurring. External identity analytics such as those offered by Lexis-Nexis Risk Solutions have deep understanding of an individual's identity before they ever appear in a payer environment due to world-class linking and identity-resolution technology. This means that we can determine if someone is attempting to enroll utilizing a false identity or if an identity has been compromised. We've all heard the stories of pharmacies with listed practice addresses that are actually storage units or campgrounds. Identity analytics based on public and proprietary records can instantaneously identify this at the time of application or during the processing of a claim and raise the risk profile of that provider appropriately. Should a provider's background have a significant change post-enrollment, or should a member die, the identity solution can detect this in the broader public record and alert the modeling system. This is exactly what helps to reduce false positives, by intense refinement of results, and what differentiates best-of-breed solutions from their less-effective counterparts.

PMN: *How big a boon to the vendor sector is the recent activity around predictive modeling at the federal level? Does that government "seal of approval" boost the whole industry?*

CF: I don't think you can overstate the impact. Historically, the federal government has been a key driver of actions in the commercial healthcare sector, whether through payment policy or regulation. This is yet another example of that pattern. Policy makers have rightfully recognized that there is significant potential to tighten up the system and deploy technologies that are being utilized effectively in other industries. The need to reduce fraud and waste is supported by both sides of the aisle, and it's one of the few places in the healthcare debate where we've seen bipartisan cooperation. The CMS program will be watched carefully to see if this approach will be as successful as everyone believes on a very large stage. We're already seeing activity generated at the state level and in the commercial market as a result of all this, and if payers take the time and effort to make informed, wise decisions, the market will take off. One caveat – the medical loss ratio debate that is currently taking place will have tremendous impact. There is some confusion as to whether these types of pre-payment fraud efforts would fall into the 85% of dollars spent, which is defined as delivery of care, or if they will be considered as administrative costs. This will be a key factor in adoption by the commercial health plans, and policy makers should carefully consider how to resolve this issue.

Fuhrman joined LexisNexis in 2009 after serving as deputy secretary of the Florida Agency for Health Care Administration. There he helped direct Agency strategy and operations in the areas of legislative affairs, communications, Medicaid policy and health information technology. Contact him via Lizzy Feliciano MBA at leonides.feliciano@lexisnexis.com.