



FICO health care fraud analytics uncover vast savings for Highmark

success story:
health care Insurance



- Client** Highmark, Inc., a leading health insurer serving 4.7 million people
- Challenge** Dramatically reduce losses and improve operational efficiencies with a new approach to detecting and preventing fraud, waste and abuse in submitted claims
- Solution** FICO® Insurance Fraud Manager, a full scale application using predictive analytics for detecting claim-level fraud, abuse and errors, and an integrated Enterprise Case Management module for claims investigation
- Results**
 - In first 13 months, found 263 new pursuable cases over and above cases identified through other methods, including SAS models
 - Realized strong results in just over 13 months of use
 - Found that the identified savings from 12% of cases exceeded monthly operating costs
 - Gained insight on medical policies that needed modification



"We're extremely excited with the results of the FICO claims scoring models. The solution has already exceeded our expectations, and we expect to see even more value from it."

— Denny Latsha
Highmark

Highmark Inc., a leading Pennsylvania health insurer, is dedicated to identifying potential losses from fraud, abuse and errors in claims processing. But its dedication is not just in principle—it's in action. By taking a leadership role in adopting advanced analytic scoring models, today Highmark has impressive numbers to show how much that dedication is paying off.

Working with FICO over the past five years, Highmark has taken advantage of two types of FICO analytic scoring models within FICO® Insurance Fraud Manager to improve its fraud and abuse detection. Highmark wanted to test the models' effectiveness compared to its former use of rules and other approaches such as manual reviews and hotline tips.

First, in 2006, Highmark accessed a FICO model to score health care providers for fraud risk. Highmark was impressed with the results: Of 83 cases identified for investigation, nearly half were new cases of which Highmark was not previously aware. So, in 2010, when Highmark used an additional set of models—to score claims—its expectations were high, but not nearly as high as the ensuing results: Highmark quickly identified more than 263 new pursuable

cases that previously went undetected using other methods. It is also important to note that many of the cases found ended up involving multiple providers which led to additional recoveries.

As Highmark Program Manager Denny Latsha points out, dollar savings from the claims models' detection is achieving a very positive rate of return on investment. According to Latsha, Highmark's work so far with FICO is just scratching the surface.

"With just a five-person review team, we're seeing very positive results by reviewing high-scoring claims," says Latsha. "The claims models' detection strength gives us a lot of flexibility to adapt to the findings and put other workflows in place to realize much more value from the system."

» Claims scoring advances a successful plan

For decades, Pittsburgh-based Highmark has maintained a mission to make quality health care coverage available and affordable for its members. One way it works toward that goal is to protect the dollars that have been entrusted to it by its customers—including employers and

their employees, and individual members—from fraud, abuse and error in provider claims processing. Five years ago Highmark decided that it wanted to target fraud and abuse more aggressively by combining its rules-based and manual claims review processes with an analytic approach.

Highmark initiated the project with an evaluation of 13 different vendors. Highmark selected a FICO solution at the outset of the project, and has recently upgraded to FICO's latest and more refined FICO® Insurance Fraud Manager solution. As Latsha points out, Highmark selected FICO for its ability to deliver a true predictive analytics-based solution.

"We found that a lot of vendors say they have predictive analytics, but they don't," says Latsha. "They have rules-based solutions based on data, but not true analytic models. Their rules-based solutions don't have the level of sophistication in analyzing data that FICO models provide. They can't catch as much existing suspicious behavior, and they don't have the flexibility to adapt and catch new types of aberrant behavior. When behavior changes, then your rules are outdated, and you find nothing."

FICO trained the models based on Highmark's historical data. The models analyze hundreds of data points and relationships simultaneously to spot care and billing patterns that are unusual compared to the peer group, or suspicious in regard to care the patient is receiving from other providers. Unlike rules-based systems, FICO Insurance Fraud Manager models organize and process raw data into behavioral features to create high quality and comprehensive variables. The variables, once derived, are used to build a complete profile for the target entity to describe not only the behavior of that entity, but also the behavior in relation to other entities. In this way, FICO's dynamic profiling technology continuously detects new sources of suspicious behavior.

In addition to FICO's analytic expertise, Highmark selected FICO for its ability to eliminate dependency on IT and all associated costs. "We wanted a tool to detect potential

fraud automatically," says Latsha. "We give FICO our data extracts, and they run the scoring technology and return the results. We didn't have to add any technology, turn our investigators into programmers, or hire additional IT resources."

Over the past five years, Highmark and FICO significantly augmented Highmark's ability to detect potential fraud. Highmark first ensured that it captured all available claims data by constructing a web-based data aggregation application spanning all its claims repositories. The FICO provider scoring model was then put into use in 2006, followed by the claims scoring models in 2010.

» Results exceed expectations

Highmark began using the claims scoring models in June 2010, after assembling a claims team of five staff members. The claims team was staffed by Highmark employees previously working in other departments, and each with a category of expertise needed to review the results of the claims scoring model.

In just 13 months, the team opened 263 brand new cases based on scores provided by the model. "I was very surprised with how many cases we opened that were previously unidentified," Latsha says. "In just thirteen months of using the solution, the results greatly exceeded our expectations."

Highmark currently sends an average of 250,000 claims per day to scoring, and requests returns for investigations on those scoring between 500 and 999 (the higher the score, the more likelihood of fraud and abuse). On average, the FICO models return 7,000 claims per day. With a five-person team, Highmark is currently able to review only about 3% of these claims on a daily basis. Therefore, each day the team reviews high-scoring claims looking for suspicious behavior. Once a suspicious claim/provider is detected, potential savings for the claim and a potential case are logged. Highmark has significantly raised the dollar threshold of cases it will review. As staff members have become more accustomed to the models, they've increased their speed in reviewing cases. As a result, over the course of

2010, the team has significantly increased the number of claims they are able to review each day.

"We're very impressed with what we're able to show management based on the team we have in place today. These are great numbers, and they show the potential for greater value realization," says Latsha.

In fact, to date, results show that potential savings found by the claims models is far outpacing total overhead costs of the claims team. In 2010, the team found almost 17 times more identified savings opportunities than the total of its overhead costs.

The claims models have also helped Highmark identify cases that impact multiple providers: In 2010, based on the models, Highmark opened 43 cases which ended up impacting multiple providers.

Latsha says that the models have also helped his team uncover savings from non-fraudulent cases. "We can quickly spot mistakes, such as claims with mis-keys, and pursue the related dollars," he says. "The sum of these errors adds a significant return to our bottom line."

In addition, staff has been able to gain insight into medical policies that need modification. "Now we can more easily identify opportunities to collaborate with our Medical Policy area and systemic weaknesses that result in inflated and unnecessary payments. This gives us the insight to reevaluate policies once we know the sometimes unintended consequences that the policies cause."

» Moving forward

Latsha says that his team is now discussing with executive management how they might modify their use of FICO® Insurance Fraud Manager moving into the future. "We have plenty of options for optimizing workflow," Latsha says. "The solution's potential gives us a lot of flexibility in shaping the right value realization process."



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