

SHIFT

A New Approach to Improper Payment Detection: Beyond the Alert Queue

Introduction

Government and commercial payers estimate that healthcare fraud represents over 10% of all healthcare spend in the country—to a staggering sum of more than \$300 billion.¹ This figure is one that private health insurers are struggling with, but fraud, waste, abuse and improper payment detection isn't typically considered a core health insurance operation.

As such, many health insurers haven't iterated on the traditional approach to fraud detection, even as healthcare fraud schemes become more innovative and widespread. Typically fraud, waste, and abuse (FWA) falls under the responsibility of the Special Investigations Unit (SIU) or Program Integrity Unit (PI),

“ ... healthcare fraud represents over 10% of all healthcare spend in the country—to a staggering sum of more than \$300 billion.¹”

who are responsible for tackling fraud investigations through traditional alert-based detection tools.

The problem with this approach is that it is a recipe for churn. In other words, insurers usually spend more on investigations than they recover from improper payments. This stems from a limited capability to prioritize cases or focus on the most serious cases by provider specialty. An investigator might spend years pursuing cases worth hundreds of dollars, while only recovering 50% of the cases they are pursuing. Meanwhile, insurers are missing the chance to identify higher ROI opportunities that provide financial value immediately back to the organization.

By combining Business Intelligence and Automated Intelligence within a project-based approach, health insurers have the potential to reduce overpayments by millions—perhaps even billions—of dollars, turning the SIU into a source of positive ROI.

¹National Healthcare Anti-Fraud Association, "[The Challenge of Healthcare Fraud](#)," Accessed October 2021.

Why is the Traditional FWA Approach Failing?

In September 2021, the US Department of Justice (DoJ) announced that it was bringing charges against 138 individuals in the medical profession. These defendants were collectively responsible for fraudulent activities costing \$1.4 billion USD.² On average, each individual in this mass filing was responsible for over \$10.1 million in fraud. It is a fair bet that most private health insurers would enjoy an extra billion dollars added to the bottom line.

If the \$300 billion estimate from the introduction is correct, then the Justice Department's \$1.4 billion fraud case is just the tip of the iceberg.

Most investigative teams are spending their resource efforts on cases that provide no value back to the payer because they are using traditional approaches and user-driven tools. If the \$300 billion estimate from the introduction is correct, then the Justice Department's \$1.4 billion fraud case is just the tip of the iceberg. Insurers could potentially recover as much, if not more, revenue using a data-driven approach. For the most part, today's investigation units tend to follow this process:

- Investigators set out with their own hypothesis and extract large amounts of claims into a pivot table and drill-down on utilization metrics to find anomalies or;
- Suspected claims and/or providers are identified in an antiquated alert queue in some sort of chronological order.
- An investigator reviews the alert queue and begins to produce ad-hoc reports to drill down into the claim detail.
- They investigate to determine whether the case is fraudulent (or a false positive).

- In some cases, they request additional medical records to validate their findings and submit a recovery letter to the provider or prepare the case for prosecution.
- The provider can then file an appeal, which can take years.
- Anecdotally, the provider has an approximately 50% chance of winning

At the end of the process, the insurer has only a 50% chance of recovering an overpayment—but they have also just spent \$10,000 in person-hours investigating this case. There is no benefit to the insurer, and it is virtually certain that larger fraud cases are going unnoticed during the same period of time.

Here, the root of the problem is the traditional alert queue itself. The alert queue identifies anomalies that may represent a fraud case, but it does not prioritize them in order of severity. This means that a \$100,000 fraud case could find itself buried under dozens of \$100-\$1,000 overpayments.

²The United States Department of Justice, "[National Health Care Fraud Enforcement Action Results in Charges Involving over \\$1.4 Billion in Alleged Losses](#)" September 2021.

Shifting the approach increases SIU ROI

Realizing that the traditional alert queue is at the root of many FWA issues, Shift Improper Payments Detection revises the alert queue by making three improvements. First, it breaks down the alert queue into provider categories—physical therapy, oncology, family medicine, etc. Second, it ranks each opportunity by potential size as opposed to chronological order, presenting investigators with the top 30 alerts with the largest opportunities in every category.

Of equal importance is the fact that Shift Improper Payments Detection looks across the entire claims lifecycle, as opposed to just looking at individual claims. This makes it much easier for a single investigator to uncover entire fraudulent networks.

Let us look at a hypothetical orthopedic surgeon specializing in knee replacements. As the population ages, knee replacements are becoming more and more common, but research suggests that it is an overprescribed treatment — as many as one third of patients who undergo surgery do not have symptoms severe enough to justify the procedure.³ In short, there is significant opportunity for fraud.

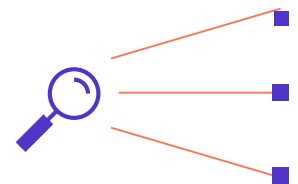
In this hypothetical, Shift Improper Payment Detection identifies an outlier—a surgeon who is receiving referrals for knee replacements at a rate an order of magnitude higher than their peers in the same region. This surgeon is either one of the medical industry's leading practitioners, or they are involved in a fraud network.

Shift Improper Payments Detection flags this practitioner. The solution places them into their own alert category and ranks them as a high-value target, placing the provider right at the fingertips of the investigative team. In addition, Improper Payments Detection alerts go beyond the traditional provider-only view. Here, the investigator can now see that there's another practitioner who is funneling patients into the same surgeon. They can also see that the surgeon is referring the patients into a single physical therapy practice. Finally, they can see that there is not a modality in which a patient is treated for knee pain before their referral to knee replacement—the conveyor belt only goes one way, from doctor to surgeon to PT.

Because of the preponderance of evidence, it is much easier to close this case—and the provider has a much smaller chance of winning on appeal. Once closed, the insurer can recover hundreds of thousands of dollars in improper payments.

Dismantling and reconfiguring the traditional alert queue yields significant benefits. A single investigator has access to far more information, can resolve cases faster, and can generate more revenue from a smaller caseload—thus bringing the SIU into a positive ROI territory.

**Improper Payments
Detection alerts go
beyond the traditional
provider-only view.**



³Arthritis and Rheumatology, “Using a Validated Algorithm to Judge the Appropriateness of Total Knee Arthroplasty in the United States: A Multi-Center Longitudinal Cohort Study,” August 2014

AI-Powered Fraud Detection for US Healthcare

Why does artificial intelligence make the difference when transforming the SIU?

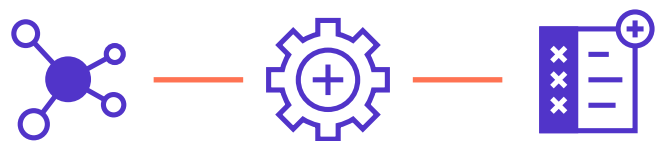
Artificial intelligence is technology that can learn automatically from a data set. The key differentiator, in terms of AI-powered improper payment detection, is the data set that the solution learns from. Other vendors use models and/or business rules on improper payment data sets. Shift trains its AI to think like an investigator. When the client identifies questions, the machine interrogates data to provide the answer. Many traditional vendors will compare utilization and billing patterns to find anomalies, producing a significant amount of false positives. To pull from an example above, this method cannot distinguish between a skilled provider with multiple patients and one that's committing fraud.

Shift Improper Payments Detection uses contextual information to identify improper payments significantly reducing false positives. The Shift approach integrates risk indicators, analyzing each treatment, the patient's characteristics, and their claim history. As one example, if a large group of patients suddenly begins receiving treatment for severe psychiatric problems without a history of receiving therapy, the solution would include this within the alert queue for medical and/or network review. This might prompt an investigator to ask whether the claims are in the best interest of the patients, or is additional provider education required?

With Shift, end users can quickly identify the domains and specialties that contain the most serious alerts,

and then focus on the Top 30 most serious alerts within three clicks. This increases their efficiency and increases their success across important metrics, including: increased revenue opportunities, provider management, and most importantly patient outcomes. Each successful case continues to train the AI, making it smarter, faster, and more effective. In short, when health insurers arm themselves with data insights, they're able to create continuous improvements that power their organizations while generating massive goodwill.

The traditional approach to identifying improper payments is failing SIU and PI Units across the globe. Bad actors have realized that their opportunities are large and that there is a low likelihood of getting caught. With \$300 billion on the table, there is no point in wasting investigators' time by having them go after low-level fraud. With AI-powered tools from Shift Technology, health insurers can point their investigators at big game, recapturing tens of millions of dollars every year.



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About Shift Technology

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Shift Technology delivers the only AI-native fraud detection and claims automation solutions built specifically for the global insurance industry. Our SaaS solutions identify individual and network fraud with double the accuracy of competing offerings, and provide contextual guidance to help insurers achieve faster, more accurate claim resolutions. Shift has analyzed billions of claims to date, and is the Frost & Sullivan 2020 Best Practices Award Winner for Global Claims Solutions for the Insurance Industry.

Learn more at www.shift-technology.com