Healthcare & Life Sciences

Improve claims anomaly identification and tracking

fractal

INTELLIGENCE FOR IMAGINATION

The Big Picture

A top 5 US payer wanted to improve its ability to identify and track claims anomalies. Its existing process was business rules-driven, significantly manual, applied only in a post pay scenario and lacked a visual solution to track improvements and business impact. As such, a few of the most common anomalies were being only partially addressed and unknown anomalies were not getting identified.

The 'partially addressed' common anomalies included: billing services not provided, billing non-covered services or items, improper billing practices, and billing unnecessary services and items. Many uncommon anomalous patterns such as high cost out-of-network claims without prior authorization, ambulatory claims without ER visits, were getting missed. As a result, on an average, only $1-2M annual opportunity was identified for recovery or better utilization management in previous years.

Transformative Solution

To solve the organization's challenges, the solution addressed the situation along three key components:

- Better problem solving: The approach considered both aspects of anomaly detection – known anomalies and unknown anomalies. Additionally, several hypotheses were generated to prioritize claims selection for review by anomaly detection huddle group.
- Sophistication: The solution applied predictive analytics, AI and unsupervised methods to drive detection effectiveness.
- Accelerated consumption: An interactive tool was developed to identify new patterns, track anomalies and recoveries, and monitor and evaluate the impact from interventions. Also, data refreshes and metrics generation were automated.

The solution primarily focused on identifying unknown anomalies, starting with business rules-based prioritization of claims for review. Many hypotheses were created to identify a set of business rules for claims prioritization, such as high cost thresholds, ambulatory claims with certain procedures, behavioral health related claims, outpatient surgeries, and more.

The solution was further complimented by applying AI and predictive analytics for even better prioritization. Several algorithms were used in the analysis of claims characteristics, RX characteristics, member lifestyle and demographics, provider characteristics and external data.

The Change

The solution led to superior outcomes compared to the previous year, majorly through identification of new and unknown anomalies in 2017. These included:

- Overpaid dollar recovery, e.g., high cost out-of-network claims without prior authorization
- Better utilization management, e.g., members with consecutive day ER visits
- Network optimization, e.g., in-network facilities transferring patients to out-of-network facilities

Identification of new / unknown anomalies led to a higher business impact in savings opportunities. The new business rules and POC predictive model identified 4X more opportunity in the subsequent year. This additional savings helped business self-fund a s Identification of new / unknown anomalies led to a higher business impact in savings opportunities. The new business rules and POC predictive model identified 4X more opportunity in the subsequent year. uite of advanced analytics and AI-based solutions proposed for realizing future benefits.