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Decision Intelligence

America's challenges with healthcare costs

The U.S. healthcare system is one of the country's largest industries, comprising over 18% of our GDP.¹ With an annual spend of \$4.3 trillion, we have some of the highest healthcare spending in the world.² Unfortunately, not all healthcare spending effectively improves Americans' health. Studies suggest that up to 30% of healthcare expenditures are considered waste.³ A significant portion of this spending waste is due to administrative costs. Economist David Cutler defines healthcare administrative spending as, "the nonclinical costs of running a medical system."⁴ 15-30% of all healthcare spending in the US is attributable to administrative needs, and half of this administrative spend is deemed waste.⁴

The Core Challenge

Complexity	Uncertainty	Opacity	Regulatory	High-Frequency Changes in Consumer Demands
Payors are facing increasingly complex challenges in determining medical necessity or standards of care resulting from technological advancements, changes in healthcare delivery, and evolving coding standards. They are searching for a comprehensive solution to identify, manage, and monitor abnormal practices, which can significantly impact the quality of care and affordability.	There is a lack of cohesive processes between payors and providers to harmonize their interpretations of contracts. This disconnect leads to denials, disputes, and managerial diversions to address these issues. Consequently, trust has been undermined and has impeded collaborative problem-solving within the healthcare industry.	A comprehensive reimbursement process is rarely communicated to providers and beneficiaries. This information asymmetry leaves those impacted by these opaque decisions unsatisfied. There is more room for disputed errors and drawn-out appeals processes.	Billing for healthcare services lacks pricing transparency, leaving consumers of healthcare services at a disadvantage to payors and providers. Additionally, issues with prior authorization can prevent consumers from receiving the medical services they need in a timely manner.	How consumers constantly interact with the healthcare system is evolving. These consumer changes give way to new claim patterns and challenges, which manual reviewers rarely recognize. As the market rapidly shifts, so should the administrative processes.

Manifestation of Core Challenges:

Cost of Care Market Comparison

For payors to remain financially healthy, they must understand how much they are reimbursing for specific medical procedures and services. Most often, fee-for-service reimbursement occurs after a patient receives care.⁵ Combined incorrect payments from Medicare and Medicaid to hospitals were \$100B in 2020.⁶ Since Medicare and Medicaid patients make up most of hospital utilization, this problem may only worsen.⁶ This is exacerbated by hospitals not keeping up with inflation due to the fixed reimbursement rates from Medicare and Medicaid.⁶

Additionally, monitoring the cost of care for specific services allows plans to measure the value of new therapies. This activity is essential given the exorbitant costs of developing specific new therapies. Drug manufacturers can set any price they want for brand-name prescription medications.⁷ The median annual price of the 17 novel drugs the U.S. Food and Drug Administration (FDA) approved since July 2022 is \$193,900.⁸ These new drugs are only worth the high prices for the sickest of patients (e.g., late-stage cancer patients).⁹

Payment Accuracy

Payment Integrity audits are often conducted after a claim has been paid, resulting in a larger financial and resource burden for payors and providers.¹⁰ 20% of claims are submitted inaccurately, resulting in over \$15B of administrative waste.¹¹ Up to 3% of all claims are overpaid, of which only a fraction is captured back in recovery.¹² Moving as much to pre-pay is ideal. However, certain scenarios like eligibility, coordination of benefits, and contract retro updates will always have to be reviewed post-pay. Surfacing hard-to-detect complex scenarios

with an effective and focused audit and recovery effort is crucial to healthcare organizations' cost containment programs.

Adding a robust root cause analysis for future mitigation actions as part of the program will ensure that continuous improvement for newly emerging issues is being addressed.

Claims Processing

Additional challenges and opportunities exist within the claims review process:

- **Appeals and Grievances:** Often, appeals and grievances are unsuccessful: 59% of appealed denials are upheld.¹³
- **High Dollar Claim:** High dollar claims have increased in the wake of COVID-19, as researchers have found long-term testing and treatment plans to manage the virus.¹⁴ Million-dollar claims per million covered employees rose 45% from 2019 to 2022.¹⁵ From 2018-2021, 20% of self-insured employers had at least one member with over \$1M in claims.¹⁵ From 2018-2021, 11% of employers had a birth-related stop-loss claim.¹⁵

Cogitativo's Decision Intelligence

Cogitativo's Decision Intelligence was developed using machine learning models and payors' unique datasets. With these insights, payors are empowered to avoid overpayments, identify billing anomalies and abusive billing practices, as well as optimize auditing efficiency by determining which claims are most likely to be denied.

Decision Intelligence combines signal detection, game theory, and network theory. Signature detection allows real-time event matching and anomaly identification to establish a baseline for normal behavior and detect deviations. Game theory is used to analyze competitive, conflictual, cooperative, and interdependent behavior, identifying behaviors under specified rules or contracts. The managed service adapts to evolving situational rules to spot new "zero-sum" behaviors and leverages network theory to assess entity relationships in the healthcare market to determine connectivity among providers and patients. Decision Intelligence evaluates the interconnectedness of anomalous events in the healthcare system.

Avoiding Overpayments

Decision Intelligence identifies emerging anomalies that could result in substantial health plan costs. By harnessing these insights, health plans can take practical steps to prevent overpayments in previously unnoticed areas. Additionally, plans can remove providers engaging in abusive billing practices from their networks. As a result, health plans substantially reduce medical and administrative costs associated with identifying and preventing overpayments.

Identifying Abnormalities & Abusive Billing Practices

Cogitativo's Decision Intelligence, with both structured and unstructured data integration, enables real-time identification of emerging abnormal coding patterns, root-cause analysis, and continuous monitoring. Decision Intelligence uncovers previously unseen anomalies,

including abusive coding practices, excessive modifier usage, upcoding, and contract exploitation. Through advanced data modeling techniques, Cogitativo detects payment anomalies stemming from the payor's unique operating policies, procedures, provider contracts, benefit plans, standards of care, and historical reimbursement practices. Our goal is to reveal previously undefined "unwritten rules," integrating this detailed understanding of typical behaviors into our machine learning memory. The managed service's capabilities extend to identifying previously unknown payment anomalies caused by inconsistencies or inaccuracies in various areas, such as payor payment processing policies, procedures, community standards of care, specific payor-provider contracts, state Medicaid/Exchange policies, and new or unusual clinical practices by providers.

Optimizing Claims Review

Decision Intelligence includes a pre-adjudication denial prediction system. Cogitativo harnessed the power of historical claims data and the operational guidelines of payors and applied proprietary clinical effectiveness review to assess the probability of claims being denied. Additionally, Decision Intelligence pinpoints the reasons behind these projected denials. Armed with this newfound insight, providers can proactively address and rectify potential issues with their claims before submitting them to the payor. This process reduces inefficiencies and rework on the provider's end, resulting in a substantial decrease in the workload for the payor. Historically, this claims review optimization is over 97% accurate in recommending work for automation while eliminating over 40% of the manual workload on average.

Cogitativo's Decision Intelligence

Actionable insights guided by nationally recognized data scientists, clinicians, and health system operators



Cogitativo's Decision Intelligence reduces unnecessary costs, improve operational effectiveness and situational awareness while providing insights into undesired operating anomalies. Additionally, Decision Intelligence allows payors to identify which healthcare services are necessary and financially feasible, especially in comparison to competitors.

Cogitativo's Decision Intelligence is the key to maintaining a healthy, resilient competitive operating infrastructure.

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