



Good health and good sense are two of life's greatest blessings.

—Publilius Syrus



Medical Newsletter

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TOPIC 1: FRAUD, WASTE & ABUSE

FWA inflicts substantial financial, health, and mortality losses on individuals, employers, insurers, governments, and societies. This misconduct increases insurance premiums, exposes patients to unnecessary medical interventions, and diverts crucial funds from community well-being.

Globally, healthcare fraud is estimated to range from US\$250bn to US\$480bn per year. In the United States, conservative estimates indicate an annual average of US\$60bn in fraud losses. The Middle East reportedly faces annual health insurance fraud losses exceeding US\$1bn.

Health insurance fraud typically occurs at the patient or provider level, involving practices such as individuals using false identification or filing deceptive claims, providers unbundling procedures, and billing for incomplete treatments. ¹

COMMON TYPES OF HEALTH CARE FRAUD COMMITTED BY MEDICAL PROVIDERS

Double Billing:

Submitting multiple claims for the same service.

In August 2022, the U.S. Department of Justice revealed that private hospital agreed to a \$2 million settlement due to allegations of submitting false claims. The charges centered on excessive cost outlier payments and double billing for COVID-19 tests. Private hospital was accused of submitting duplicate bills for COVID-19 tests on the same patients within a single day, violating Medicare and Medicaid billing guidelines. This settlement underscores ongoing efforts to combat healthcare fraud, even in recent times.²

Phantom Billing:

Billing for a service visit or supplies the patient never received.

In October 2023, private hospital reached a \$25 million settlement to resolve accusations of submitting false claims to Medicare and Medicaid for services that were never provided. The government asserted that the company billed for personal care services, such as bathing, dressing, and medication management, that were not rendered—referred to as phantom billing. This case underscores the persistent difficulties in addressing healthcare fraud and emphasizes the crucial role of vigilant oversight and patient awareness.³

Unbundling:

Submitting multiple bills for the same service.



Upcoding:

Billing for a more expensive service than the patient received.

In January 2023, a Florida doctor and clinic were sentenced for a \$15 million upcoding scheme involving mental health medications. They billed for higher dosages or quantities than prescribed, leading to inflated charges to Medicare and Medicaid—a form of upcoding fraud. These examples highlight the diverse ways FWA can occur and the ongoing efforts to hold healthcare professionals accountable for fraudulent billing practices.⁵



COVID-19 CORONAVIRUS DISEASE

TOPIC 2: IMPACT OF THE COVID-19 PANDEMIC ON HEALTHCARE FRAUD

Two significant areas of fraud, waste, and abuse (FWA) expansion during this period involve Telehealth and COVID-19 related laboratory testing add-on services.



Telehealth Fraud

The widespread adoption of Telehealth benefits during the COVID-19 emergency period provided opportunities for fraudulent billing, with some taking advantage of expanded telehealth services to bill for non-existent or unnecessary virtual visits.



Lab Testing Frauds

The COVID-19-related laboratory testing add-on services have also become susceptible to fraudulent activities, both before and after the pandemic.

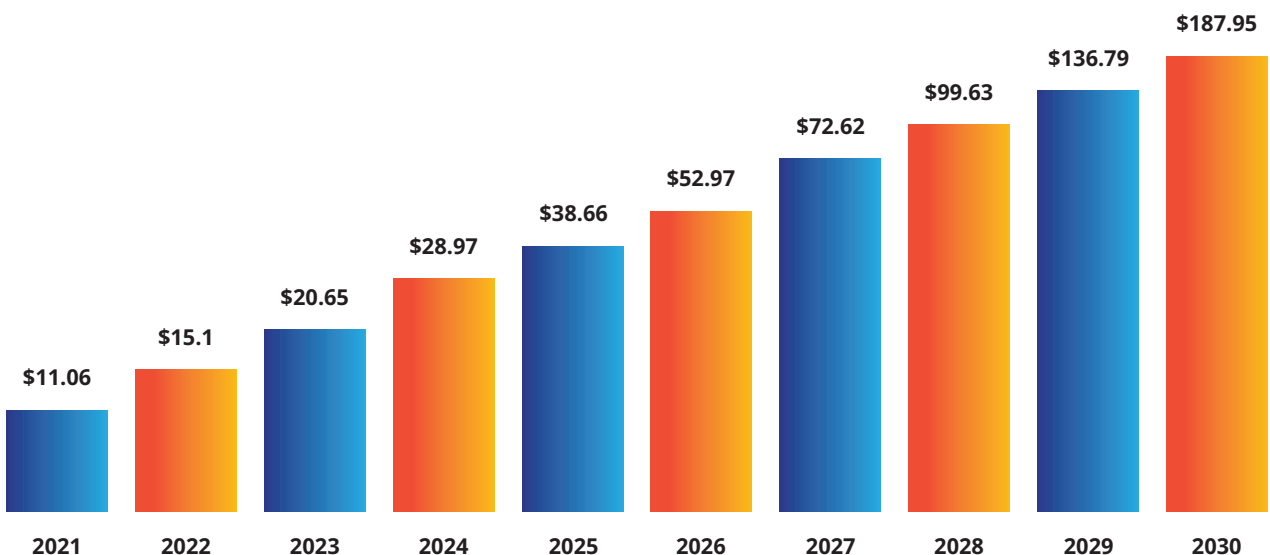
In both pre and post-COVID scenarios, effectively detecting and preventing fraud, waste, and abuse requires a combination of strong regulatory frameworks, advanced technological solutions, vigilant monitoring, and public awareness initiatives. While the specific challenges and trends may evolve, the commitment to combating fraud and ensuring the integrity of healthcare services remains a crucial aspect of healthcare management. ⁶



TOPIC 4: AI'S PIVOTAL ROLE AGAINST SURGING FWA AND ESCALATING HEALTHCARE COSTS

Recent strides in artificial intelligence (AI) offer a practical route to cut healthcare costs. This includes curbing overbilling, rewarding trustworthy providers, and channeling more resources into patient care. By aiding healthcare payors in detecting and preventing fraudulent billing practices on a larger scale and before payments, it's anticipated that the U.S. healthcare system could save up to \$1 trillion by 2030.

The graph shows the global artificial intelligence (AI) in healthcare market size was estimated at USD 15.1 billion in 2022 and it is expected to surpass around USD 187.95 billion by 2030, growing at a CAGR of 37% during the forecast period 2022 to 2030. ⁷



Artificial intelligence (AI) can be instrumental in developing advanced tools and techniques for FWA detection. Here are some specific methods and approaches:

Telehealth Fraud

Use machine learning algorithms to analyze historical data and identify patterns associated with fraudulent activities. Predictive modeling can assign risk scores to claims, providers, or beneficiaries based on historical behaviors, helping insurers prioritize their investigations.

Anomaly Detection

Implement AI algorithms to identify unusual patterns or outliers in claims data, provider billing practices, or patient behaviors. Detect deviations from normal behaviors to highlight potential instances of fraud or abuse.

Pattern Recognition

Employ AI to recognize complex patterns and relationships between various entities in the healthcare ecosystem, such as patients, providers, and facilities. Identify abnormal networks or collaborations that may indicate fraudulent activities.

Real-time Monitoring

Implement AI-driven systems for real-time monitoring of claims data, provider activities, and other relevant information. Promptly flag suspicious activities for immediate investigation and intervention.

Behavioral Analytics

Utilize AI algorithms to understand typical behaviors of individuals within the healthcare system, such as patients, providers, and payers. Detect deviations from expected behaviors, signaling potential FWA activities.

Rule-based Systems

A Rule-Based System (RBS) for detecting Fraud, Waste, and Abuse (FWA) in healthcare follows a systematic process. It collects relevant data, establishes predefined rules targeting FWA indicators, and analyzes patterns and anomalies. The system generates alerts, prioritizes cases using a scoring mechanism, and supports investigations by providing valuable information. Incorporating machine learning ensures continuous adaptation to emerging fraud tactics.⁸



TOPIC 5: FRAUD, WASTE ABUSE IN MENA REGION

Combining AI and advanced technologies with human expertise is a vital frontline defense against healthcare fraud in the MENA region. This powerful combination can save millions annually by using AI algorithms to analyze extensive data for detecting fraudulent patterns and anomalies. Additionally, the technology aids in streamlining the claims process, reducing administrative costs for insurance companies.⁹

UAE:

Medical insurance fraud poses a major challenge in the UAE, estimated to result in multimillion-dollar losses for insurers annually. Authorities in the UAE suggest that around 5% of paid claims are fraudulent, contributing to a surge in insurance premiums by 20% to 30%.¹⁰



As the healthcare industry grows in the UAE, the incidence of medical insurance fraud will also increase. There must be firm and intensive efforts by the industry and regulators to make sure that fraud is eliminated or reduced effectively.

A report by the consultancy on August 20, 2023, estimated that the UAE was losing more than AED 3.67 billion a year due to health insurance abuse or fraud.

In the UAE, initiatives like GHAFI and the Global Health Fraud Hub involve collaboration among insurers, healthcare providers, and regulators. GHAFI focuses on transparency and fraud prevention, while the Global Health Fraud Hub shares information and strategies regionally. These efforts are crucial for a reliable health insurance market, actively tackling fraud, waste, and abuse for a healthier and sustainable healthcare system in the UAE. ¹¹

Recently, In 2023, a Dubai-based healthcare tech startup, specializing in value-driven solutions, has partnered with Zayed University researchers in Abu Dhabi. They secured a two-year AED 300,000 Research Innovation Fund grant for a project titled "Fraud detection in medical claims using Graph Neural Networks." The focus is on developing GNN algorithms to identify healthcare fraud, creating a visual decision support system, and reducing the workload for institutions, aiming to prevent abuse of medical services. ¹²

KSA:

In Saudi Arabia, the healthcare system is set for a significant shift in line with Saudi Vision 2030. The Saudi Arabia Council of Cooperative Health Insurance has introduced a policy focusing on fraud, waste, and abuse in private health insurance. The policy mandates detailed records of health claims fraud, specifying the type, method, procedural weaknesses, perpetrator information, and history, along with records of fraud monitoring audits.



According to research in 2020, Saudi Arabia had 196 reported fraud cases, resulting in a 15% claim rejection rate due to fraudulent activities. Dental services topped the list, often linked to invalid card usage. Obstetrics-gynecology services reported 47 cases related to obstetrics and 113 to gynecology, with females frequently involved in deceit cases, highlighting a substantial level of abuse. ¹³

According to a study on data of five providers, Annually, 113 moral hazard cases were reported from dental services investigations, and more than 14 cases were detected because of treatment plan claim detection. Within 99 cases reported from the providers, females represented the majority (51%). However, as a means of moral hazard, misleading information was higher among males than females (56%, 44%, respectively). The study highlighted a greater inclination for females to be involved in fraudulent activities compared to males. ¹⁴

The Saudi government utilizes AI techniques like random forest, logistic regression, and artificial neural networks to supervise machine and deep learning analytics for detecting healthcare

insurance fraud. Researchers delved deeper into fraud detection classification techniques, applying logistic regression (LR) with an accuracy of 92% and random forest (RF) with an accuracy of 88%. To better understand LR and RF's potential in addressing healthcare fraud detection, exploring the underlying statistical techniques for both is crucial. Additionally, researchers utilized Brazilian real-world data (RWD) to assess various machine learning models for detecting fraud in insurance claims. Among the nine models compared, the RF algorithm demonstrated the highest accuracy.¹⁵

Other than MENA region:

Healthcare fraud data is scarce, but the World Health Organization highlights successful approaches in countries with strong financial and medical accountability systems.

In Norway, healthcare providers use software to prevent fraudulent billings, leading to the detection of approximately 60% of abuses in the healthcare system.

China has implemented micro measures to combat healthcare fraud, including preventing doctors from receiving kickbacks through centralized drug procurement at hospitals.

The Centers for Medicare and Medicaid Services (CMS) in the United States employ predictive modeling technologies developed by the private sector to identify patterns of healthcare fraud proactively.¹⁶

USA:

In the USA, defrauding healthcare programs can lead to criminal or civil consequences, including fines, imprisonment, and loss of licensure. Healthcare organizations risk losing federal funding and community trust. The U.S. Department of Justice estimates healthcare fraud costs taxpayers over \$100 billion annually, diverting funds from patients in need of life-saving services.



Preventing Fraud, Waste, and Abuse

In the USA healthcare, the Following are the federal laws adopted to combat fraud, waste, and abuse:

Federal False Claims Act

The federal False Claims Act (FCA) makes it illegal to knowingly submit false or fraudulent claims for payment to Medicare or Medicaid. This includes false records or statements used to obtain payment and the failure to fulfill obligations or repayments to the government.

Federal Anti-Kickback Statute

The federal Anti-Kickback Statute prohibits offering remuneration for patient referrals covered by federal health care programs, like Medicare or Medicaid. It also restricts exchanges between USA Health and healthcare providers for designated Health Services (DHS) referrals, including gifts or discounts intended to influence business. Violating this statute may result in criminal sanctions, including up to five years of imprisonment, fines, or both.

Federal Stark Self-Referral Law

Under the federal Stark Law, if a physician or their immediate family has a financial tie to an entity, they cannot refer patients for certain healthcare services covered by Medicare or Medicaid. The entity is also prohibited from billing Medicare or Medicaid for the designated health service unless it meets specific exceptions.

Federal Program Fraud Civil Remedies Act



Alabama Medicaid Regulations



SOME REAL-LIFE FALSE PATIENT DIAGNOSES, TREATMENT AND MEDICAL THEORIES

Recently in 2024 a man from New York, aged 54, was sentenced to 12 years in prison and ordered to pay over \$336 million in restitution for his involvement in a lengthy fraud scheme. Alongside his co-conspirators, which included physicians across the country, he defrauded multiple health insurance companies of hundreds of millions of dollars. As per court documents and trial evidence, Mathew James of East Northport operated medical billing companies that offered billing services to physicians, predominantly plastic or orthopedic surgeons nationwide. He utilized these companies as a front to orchestrate a large-scale scheme aimed at defrauding insurance companies.

In an ongoing 2019 case, a Virginia OB/GYN was arrested for allegedly conducting unnecessary surgeries on female patients to claim insurance payments. Numerous concerned former patients have contacted federal authorities, prompting the establishment of a hotline for potential victims. Alleged medically unnecessary procedures include hysterectomies, dilation and curettages, and the removal of ovaries and fallopian tubes.¹⁸

In December 2015, an Ohio cardiologist received a 20-year federal prison sentence for performing unnecessary procedures and surgeries, causing Medicare and insurers to be overbilled by \$29 million.



BADRI EXPERIENCE:

Based on our experience reviewing claims samples, we've identified multiple potential FWA (Fraud, Waste, Abuse) cases. We noticed a trend of duplicate billing in following areas:

- *We've noticed instances where individuals are billed within a 7-day timeframe, with only minor alterations in the secondary ICD codes for the same claim. Charging for follow-up services within this specified period may breach slight changes of regulations, indicating either an accidental oversight or a potentially more significant problem. This leads to a rise in costs of approximately 2-3%.*
- *We've observed instances where providers submit the same claim for a single service multiple times on the same day. This practice is wasteful and could lead to overpayments.*
- *In certain instances, we've noticed a rise in the utilization of laboratory tests and radiology services, with individuals often being directed towards costly tests. This trend not only contributes to potential instances of fraud, waste, and abuse but also raises concerns about unnecessary medical expenses and overutilization of healthcare resources.*
- *The company should examine the prolonged Length of Stay (LOS) among specific Inpatient and Maternity providers, as it indicates a potential for Waste or Abuse of company benefits.*
- *Our analysis shows a trend where branded drugs are being claimed in most cases, even when generic versions are available. This may result in unnecessary expenditure, given that generics are usually substantially more cost-effective.*
- *In the UAE, it has been observed that when individuals switch healthcare providers for checkups, they are often provided with a full box of medicine rather than the necessary units for their course of treatment. This practice leads to the wastage of drugs, as the medicines often remain unused.*

For example, if a patient switches providers after only completing a portion of their medication, the remaining drugs may go unused, contributing to unnecessary waste and potentially increasing healthcare costs.
- *The proportion for C-section deliveries is high in UAE, the company should investigate such providers and clinicians with high claims paid. In our recent analysis, we noted that the overall rate of C-section cases was significantly exceeding the ideal rate recommended by the World Health Organization (WHO), which stands at 10-15%.*

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How we can help



Pricing and Predictive Analysis



Fraud Waste and Abuse



Cost Containment Alternative



Performance Monitoring and Analytics



Profit Optimization



Provide Network Structure

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