

# Fraud in healthcare facilities: A Narrative Review

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## Abstract

Every country needs to develop Universal Health Coverage (UHC) to promote optimal levels of public health. But in realizing UHC, there must be some problems, one of which is fraud. Based on the Corruption Eradication Commission (KPK) data, potential fraud is detected from 175,774 claims of Advanced Referral Health Facilities (FKRTL) or worth Rp. 440 billion until June 2015. This review article describes the incidence of fraud in health care facilities. Out of a total of 12,736 cases of fraud, readmission occupies the most cases of fraud, which is 4,827 cases or 37.9%.

Keywords: fraud; healthcare; universal health insurance; delivery of health care; health facilities

## Background

Health development is an important aspect of a country. To improve the optimal level of public health, health development is a must (Setyawan, 2015). For this reason, every country needs to develop Universal Health Coverage (UHC) for its entire population to realize global commitments, such as the mandate of the 58th WHA resolution in 2005 in Geneva (Hartati, 2016). Universal Health Coverage (UHC) is a concept dealing with health service reform covering all communities in terms of accessibility and equity of health services, quality and comprehensive health services that cover preventive, promotive, curative to rehabilitative services and reduce financial limitations to obtain health services for every resident (Fathurrohman & Dewi, 2018).

To realize UHC, there must be several problems that occur, one of which is a fraud (Rizka et al., 2018). According to Davies and Jost (1996), fraud is an act to cheat or benefit from a health service program in an inappropriate way (Mahaputra; Santoso, 2018). Based on the Minister of Health Regulation No. 36 of 2015 concerning the Prevention of Fraud in the National Health Insurance Program (JKN) in the National Social Security System (SJSN), fraud in the Implementation of the Health Insurance Program in the National Social Security System, referred to as JKN Fraud is actions taken intentionally by participants, BPJS Health officers, health service providers, and providers of drugs and medical devices to obtain financial benefits from the health insurance program in the National Social Security System through fraudulent acts that are not in accordance with the provisions (Kementerian

Kesehatan Republik Indonesia, 2015).

Forms of fraud that have the potential to be carried out in health services, according to the National Health Care-Anti Fraud Association (NHCAA, 2007), are keystroke mistake, upcoding, phantom billing, service unbundling or fragmentation, repeat billing, canceled services, no medical value, standard of care, inflated bills, self-referral, type of room charge, time in OR, cloning, length of stay, and unnecessary treatment (Fathurrohman & Dewi, 2018). According to Shahriari et al. (2001), fraud in health services is caused by low salaries of medical personnel, imbalances between the healthcare system, and the burden of health services, inadequate incentives, lack of medical equipment, inefficient systems, lack of transparency in healthcare facilities, and cultural factors (Djasri et al., 2016).

In the UK, they created The Health Insurance Counter Fraud Group (HICFG) to prevent fraud in health care facilities. The Health Insurance Counter Fraud Group (HICFG) is an organization that is useful for detecting and preventing fraud in health care and health insurance. Meanwhile, America formed the National Health Care Anti-Fraud Association (NHCAA). The National Health Care Anti-Fraud Association (NHCAA) is an organization that is useful for fighting fraud in health services (Adisasmito, 2016). This article will discuss forms of fraud, factors causing fraud, and ways to prevent fraud in health care facilities.

## Fraud in Healthcare Facilities

Fraud in health services has the potential to cause losses to state health funds and reduce the quality of health services. Fraud in health care facilities occurs all over the world. In the United States, one of the factors causing soaring health care costs is fraud in health services (Agiwahyunto, 2019). The United States loses about 5-10% of its total health care spending to fraud (Nurfarida, 2014).

According to the Federal Bureau of Investigation (FBI), America loses an estimated \$70 - \$234 billion annually to healthcare fraud, while according to the National Health Care Anti-Fraud Association (NHCAA), America loses \$60 billion, or about 3%, to healthcare fraud (Dua & Bais, 2014). In 2018, the United States spent \$3.6 trillion on health care (Thompson et al., 2021). According to the European

Healthcare Fraud and Corruption Network (EHFCN), Europe loses £56 billion annually to fraud in healthcare (Sommersguter-Reichmann et al., 2018).

In Taiwan, fraudulent insurance claims are estimated at £2 billion per year (Jou & Heberton, 2007). Meanwhile, in Indonesia, the potential for fraud in health services has expanded since the implementation of the National Health Insurance (JKN) in 2014. This is due to the lack of supervision, a new financing system, and the justification for committing fraud (Mitriza & Akbar, 2019). Based on data published by the Corruption Eradication Commission (KPK), potential fraud was detected from 175,774 claims for Advanced Referral Health Facilities (FKRTL) or Rp. 440 billion to June 2015 (Sukma et al., 2018).

Fraud cases in health care facilities in Indonesia, Germany, Malaysia, and Portuguese are as shown in **Table 1**. The number of cases was obtained from research in various hospitals in Indonesia, Germany, Malaysia, and Portugal by looking at medical records and data obtained from BPJS. Most fraud cases were readmissions, with 4,827 total incidents. So then, upcoding is 4,600 cases. This is quite like the research results from Thompson et al. (2021), which states that upcoding, phantom billing, and kickbacks were the most frequent forms (Smit & Derksen, 2020).

In the results of previous research, it is estimated that the incidence of upcoding in America to be around 10,000 out of 60,000 cases (Bastani et al., 2019). Then followed by 1,278 cases of downcoding, 905 cases of keystroke mistake, 811 cases of unnecessary treatment, 243 cases of service unbundling or fragmentation, 63 cases of phantom billing, and 9 cases of canceled services.

Besides the fraud incidents above, no medical value or performing a health service that does not provide benefits to the patient; changing the day of patient care; extending the day of hospitalization to add to the claim; duplication of claims wherein the service provider receives two payments for the same claim; providing unofficial health service providers by utilizing unqualified and unregistered service providers when the doctor is not in place, the doctor will order a stand-in to replace him; inflated bills where providers provide products at low prices but claim them at high prices.

**Table 1** Fraud cases that occurred in healthcare facilities

| Study (year)                      | Country    | Forms of Fraud |              |           |            |            |          |              |            |
|-----------------------------------|------------|----------------|--------------|-----------|------------|------------|----------|--------------|------------|
|                                   |            | 1              | 2            | 3         | 4          | 5          | 6        | 7            | 8          |
| Atmiroseva and Nurwahyuni (2017)  | Indonesia  |                |              |           |            |            |          |              | 4,768      |
| Yuniati (2017)                    | Indonesia  | 16             | 77           |           |            |            |          |              |            |
| Zafirah et al. (2017)             | Malaysia   | 59             | 925          |           |            |            |          |              |            |
| Zafirah et al. (2018)             | Malaysia   |                | 160          |           |            |            |          |              |            |
| Hennig Schmidt et al. (2019)      | Germany    | 192            |              |           |            |            |          |              |            |
| Santoso (2018)                    | Indonesia  |                |              |           |            | 1          | 1        | 4            | 1          |
| Suryandari (2019)                 | Indonesia  | 1              | 3            |           |            |            |          |              |            |
| Palutturi et al. (2019)           | Indonesia  | 1,165          |              | 63        | 811        | 214        | 8        | 38           | 904        |
| Kusumawati and Pujiyanto (2020)   | Indonesia  | 142            | 113          |           |            | 28         |          |              |            |
| Machmud et al. (2020)             | Indonesia  | 18             |              |           |            |            |          | 5            |            |
| Samsulhadi and Chalidyanto (2020) | Indonesia  |                |              |           |            |            |          | 12           |            |
| Syafrawati et al. (2020)          | Indonesia  | 43             |              |           |            |            |          |              |            |
| Groß et al. (2021)                | Germany    | 48             |              |           |            |            |          |              |            |
| Souza et al. (2020)               | Portuguese | 2.916          |              |           |            |            |          |              |            |
| <b>TOTAL</b>                      |            | <b>4,600</b>   | <b>1,278</b> | <b>63</b> | <b>811</b> | <b>243</b> | <b>9</b> | <b>4,827</b> | <b>905</b> |

1 = Upcoding; 2 = Downcoding; 3 = Phantom billing; 4 = Unnecessary treatment; 5 = Service Unbundling or Fragmentation; 6 = Cancelled services; 7= Re-admission; 8 = Keystroke Mistake

**Table 2** Percentage of fraud in healthcare facilities

| Form of Fraud                       | Total Number of Cases | Percent (%) |
|-------------------------------------|-----------------------|-------------|
| Upcoding                            | 4,600                 | 36.1%       |
| Downcoding                          | 1,278                 | 10.0 %      |
| Phantom Billing                     | 63                    | 0.5%        |
| Unnecessary treatment               | 811                   | 6.4%        |
| Service Unbundling or Fragmentation | 243                   | 1.9%        |
| Canceled services                   | 9                     | 0.1%        |
| Readmission                         | 4.827                 | 37.9%       |
| Keystroke Mistake                   | 905                   | 7.1%        |
| <b>TOTAL</b>                        | <b>12,736</b>         | <b>100%</b> |

The percentage of upcoding is 36.1%. This is different from the upcoding percentage in the research of of [Lüngen and Lauterbach \(2000\)](#), where the results of their study are only 1% ([Syafrawati et al., 2020](#)). The percentage of downcoding is 10.0%. The percentage of phantom billing is 0.5%. The percentage of unnecessary treatment is 6.4% (**Table 2**).

In addition, the percentage of service unbundling or fragmentation is 1.9%. The percentage of canceled service is 0.1%. The percentage of readmission is 37.9%. This result is greater than the [Niu et al. \(2013\)](#) study results, which only stated that almost 20% of readmissions occurred in Medicare patients ([Machmud et al., 2020](#)). The percentage of keystroke mistakes is 7.1%.

## Discussion

Fraud in health care facilities can occur due to several things, including incomplete medical record files ([Yuniati, 2017](#); [Zafirah et al., 2017](#); [Zafirah et al., 2018](#); [Bastani et al., 2019](#); [Suryandari, 2019](#); [Kusumawati & Pujiyanto, 2020](#); [Machmud et al., 2020](#)). Then, doctors' writings that are difficult to read also make it difficult for a coder to code for a disease ([Yuniati, 2017](#); [Kusumawati & Pujiyanto, 2020](#); [Syafrawati et al., 2020](#); [Taslim et al., 2020](#)). It is also stated that the mistakes that coders usually make are incorrectly entering information, errors in reading medical records and typography, and the coder making ambiguous decisions due to inaccurate information ([Yuniati, 2017](#)).

Coders who have never received coding training and lack coder work experience (Yuniati, 2017; Bastani et al., 2019; Machmud et al., 2020) and lack knowledge about disease diagnosis codes and procedures (Kusumawati & Pujiyanto, 2020; Syafrawati et al., 2020; Taslim et al., 2020) affect the occurrence of fraud, according to Clark et al. (2009) experience is an important factor for the coder in determining the diagnostic code in the medical record (Yuniati, 2017). Then, the lack of understanding of the INA-CBGs System (Maidin & Palutturi, 2015; Mitriza & Akbar, 2019; Palutturi et al., 2019) and lack of knowledge about the latest coding rules also support the occurrence of fraud (Syafrawati et al., 2020).

Fraud can happen because of uneven socialization to all coders, allowing coders to code the diagnosis of patients that is not following the rules (Samsulhadi & Chalidyanto, 2020). Also, fraud can occur due to the dishonesty of health workers, such as manipulating the birth weight of babies to get higher costs (Hennig Schmidt et al., 2019). The lack of health services for patients during the first visit can also be a factor in fraud, readmission (Atmiroseva & Nurwahyuni, 2017).

Fraud prevention has not been optimal, and the lack of socialization related to fraud prevention policies is also one of the causes of fraud (Rizka et al., 2018). Furthermore, fraud can also cause by miscommunication between the coder and the Doctor in Charge of Service (DPJP) as well as the BPJS verifier (Mitriza & Akbar, 2019; Suryandari, 2019; Syafrawati et al., 2020; Taslim et al., 2020) problems about an uncoordinated fraud prevention system and no strict sanctions against fraud perpetrators (Rizka et al., 2018; Palutturi et al., 2019).

Besides the things above, fraud can also cause by an imbalance between the system and the burden of health services, service providers who do not provide adequate incentives, inadequate provision of medical equipment, system inefficiency, lack of transparency of healthcare facilities, and cultural factors (Sukma et al., 2018).

Several actions can apply to prevent fraud incidents in healthcare facilities, coding according to hospital coding guidelines (Zafirah et al., 2018), maximizing the implementation of organizational and clinical governance, and establishing regulations for Fraud

Prevention, Detection, and Enforcement (Rosyida, 2018). In addition, providing health services optimally and oriented to quality control and cost control, Minimum Service Standards (SPM), clinical service guidelines, carrying out clinical audits, submitting claims according to established procedures (Hartati, 2016; Sukma et al., 2018), applying clinical pathway (Hartati, 2016; Sukma et al., 2018; Mitriza & Akbar, 2019), and providing services by Standard Operating Procedures (SOP) can also prevent fraud (Mitriza & Akbar, 2019). Also, actions that can prevent fraud include verifying medical record files, refusing repeated readmissions or multiple card charges between the hospital (Maidin & Palutturi, 2015), implementing the Ministry of Health policy on fraud prevention (Taslim et al., 2020), and forming an anti-fraud team (Hartati, 2016; Mitriza & Akbar, 2019; Taslim et al., 2020) besides reporting incidents of fraud, this team educates coders about fraud in the National Health Insurance (JKN) program, trains and educates how to code correctly, and analyzing claims data (Hartati, 2016), and improve the ability of doctors and other health workers related to claims (Hartati, 2016; Rosyida, 2018).

This concludes that out of a total of 12,736 cases of fraud, readmission occupies the most cases of fraud, which is 4,827 cases or 37.9%, so it is important to find the causes of readmissions and make policies to reduce readmission cases and impose strict sanctions on health workers who do not complete medical records. In addition, it is necessary to evaluate the average length of stay by Employees Social Security System (BPJS) and provide comprehensive health care to patients.

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The authors declare no conflict of interest.

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#### **Author Contributions**

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