

Implementing Fraud Prevention and Detection Strategies in Indonesia's National Health Insurance: A Case Study at BPJS Kesehatan Yogyakarta

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ABSTRACT

Fraud in public health insurance systems poses an escalating threat to fiscal sustainability, service quality, and public trust. In Indonesia, the National Health Insurance Program (JKN) managed by BPJS Kesehatan operates within a decentralized healthcare system, exposing it to complex fraud risks, particularly in claim processing. This study examines how the BPJS Kesehatan Yogyakarta City Branch implements fraud prevention and detection strategies in accordance with Ministry of Health Regulation No. 16 of 2019 and BPJS Regulation No. 67 of 2021. Adopting a qualitative case study approach, analysis was conducted using NVivo 12 based on in-depth interviews with four key informants. Findings reveal that while fraud control mechanisms are formally established and aligned with national policy, key operational gaps persist, most notably, the inconsistent use of fingerprint-based biometric verification at primary care facilities (FKTP) and the absence of a local Internal Supervision Unit (SPI), which hampers timely oversight. Moreover, identified fraud risks such as claim manipulation, upcoding, and claim fragmentation illustrate the ongoing challenges in translating national anti-fraud regulations into effective local practice. These insights highlight the need for stronger cross-sector coordination and localized audit capacity to enhance fraud governance at the branch level. By offering localized insights into the practical application of national policies, this study contributes new perspectives to the literature on health insurance fraud prevention and provides practical implications for improving accountability in Indonesia's universal healthcare system.

Kecurangan dalam sistem asuransi kesehatan publik merupakan ancaman yang semakin meningkat terhadap keberlanjutan fiskal, kualitas layanan, dan kepercayaan publik. Di Indonesia, Program Jaminan Kesehatan Nasional (JKN) yang dikelola oleh BPJS Kesehatan beroperasi dalam sistem layanan kesehatan yang terdesentralisasi, sehingga menghadapi risiko kecurangan yang kompleks, khususnya dalam proses klaim. Penelitian ini mengkaji bagaimana BPJS Kesehatan Cabang Kota Yogyakarta mengimplementasikan strategi pencegahan dan pendeteksian fraud sesuai dengan Peraturan Menteri Kesehatan No. 16 Tahun 2019 dan Peraturan BPJS No. 67 Tahun 2021. Dengan menggunakan pendekatan studi kasus kualitatif, analisis dilakukan melalui perangkat lunak NVivo 12 berdasarkan wawancara mendalam dengan empat informan kunci. Temuan menunjukkan bahwa meskipun mekanisme pengendalian fraud telah dibentuk secara formal dan selaras dengan kebijakan nasional, masih terdapat celah operasional yang signifikan, khususnya belum konsistennya penggunaan verifikasi biometrik berbasis sidik jari di fasilitas kesehatan tingkat pertama (FKTP) serta belum adanya Satuan Pengawas Internal (SPI) di tingkat cabang yang menghambat pengawasan secara tepat waktu. Selain itu, risiko kecurangan yang diidentifikasi seperti manipulasi klaim, upcoding, dan fragmentasi klaim mencerminkan tantangan yang terus berlangsung dalam menerjemahkan regulasi nasional anti-fraud ke dalam praktik lokal yang efektif. Temuan ini menegaskan pentingnya penguatan koordinasi lintas sektor dan kapasitas audit lokal untuk meningkatkan tata kelola pencegahan fraud di tingkat cabang. Dengan memberikan wawasan

kontekstual tentang penerapan kebijakan nasional di tingkat operasional, penelitian ini menawarkan perspektif baru dalam literatur pencegahan fraud asuransi kesehatan dan memberikan implikasi praktis bagi peningkatan akuntabilitas dalam sistem jaminan kesehatan nasional di Indonesia.

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Introduction

Fraud represents a serious threat to the effectiveness of public services, the efficiency of state budgets, and public trust in institutions (Tawai et al., 2023; World Bank, 2021). While commonly associated with the financial and governmental sectors, fraudulent practices have also become increasingly prevalent in social service domains, including healthcare. According to the Association of Certified Fraud Examiners (2024), the healthcare sector ranks fourth globally in the number of fraud cases, following banking, manufacturing, and government. Although it is not the sector with the highest number of cases, the median loss per healthcare fraud incident is estimated at USD 100,000, underscoring the financial significance of this issue.

Globally, healthcare fraud is estimated to cause annual losses of up to USD 455 billion, out of a total global healthcare expenditure of USD 7.35 trillion (National Academies of Sciences et al., 2018). These losses are largely attributed to the complexity of healthcare systems, the high volume of transactions, and the asymmetry of information between patients, service providers, and payers. Such circumstances make healthcare fraud not only a financial issue but also a critical concern in ensuring fair and equitable access to essential public services.

In Indonesia, healthcare fraud has drawn increasing public attention, particularly within the implementation of the National Health Insurance Program (Jaminan Kesehatan Nasional or JKN), which is administered by the Health Social Security Agency (BPJS Kesehatan). Identified fraud schemes include phantom billing, diagnostic manipulation, and abuse of the claims system. According to Timofeyev and Jakovljevic (2022), BPJS Kesehatan reported a potential fraud value of IDR 866 billion in 2023. Earlier, a 2015 study by PKMK FK UGM found IDR 440 billion in suspected fraud from 175,774 hospital claims (Dwi, 2024). A notable case in North Sumatra and Central Java revealed that three private hospitals submitted false claims for physiotherapy and cataract surgeries, resulting in state losses of approximately IDR 35 billion (Tarmizi, 2024).

To address this issue, the Indonesian government issued Ministry of Health Regulation No. 16 of 2019 concerning the Prevention and Management of Fraud and the Imposition of Administrative Sanctions within the JKN Program. This regulation provides a legal framework to strengthen oversight and build a more comprehensive fraud control system (Fadliana et al., 2023). Besides regulatory policies, strategic efforts have also been made through cross-sector collaboration in preventing and addressing fraud. In 2024, the Anti-Fraud Forum for National Health Insurance (Forum Anti-Fraud Jaminan Kesehatan/FAF-JK) was formed as a collaborative initiative involving BPJS Kesehatan, the Corruption Eradication Commission (KPK), Ministry of Health, Financial Services Authority (OJK), Financial and Development Supervisory Agency (BPKP), and professional associations to strengthen joint efforts in combating fraud. The forum aims

to share information on fraud patterns, formulate comprehensive anti-fraud policies, and organize professional training and accreditation in the healthcare sector.

The Special Region of Yogyakarta is particularly vulnerable to healthcare fraud due to its high concentration of healthcare facilities and significant JKN participation (Jayanti, 2024). A 2018 case in Gunungkidul District, as reported by Tim Tugu Jogja via Kumparan, revealed duplicated claims for a single maternity patient and prolonged hospital stays to increase claim amounts. This fraud was revealed through a joint audit by BPJS Kesehatan and the local health office, leading to restitution of overpaid claims by several facilities. Beyond financial losses, this incident highlights the need for tighter supervision, even in regions with relatively high levels of education and information access.

Yogyakarta was selected as the study site due to the complexity of its healthcare service ecosystem, which includes teaching hospitals, private clinics, and a diverse JKN participant base. This complexity presents both opportunities and challenges in implementing anti-fraud strategies. Furthermore, the existence of an anti-fraud team at BPJS Kesehatan Yogyakarta City Branch makes it a representative site to evaluate the practical application and effectiveness of fraud prevention policies.

Based on this background, this study aims to analyze the implementation of fraud prevention and detection strategies within the JKN Program at BPJS Kesehatan Yogyakarta City Branch. Specifically, it examines how national-level policies, Ministry of Health Regulation No. 16 of 2019 and BPJS Regulation No. 67 of 2021 are interpreted and applied at the local operational level, while addressing implementation barriers and coordination dynamics. Although fraud in national health insurance systems has become a global concern, most existing studies have focused on high-level regulatory frameworks or quantitative assessments of financial irregularities (Nabrawi & Alanazi, 2023). Other local studies in Indonesia, such as those by Sari et al. (2022), Fadliana et al. (2023), and Hartati (Hartati, 2016), have primarily investigated fraud prevention at the hospital level, often highlighting challenges like weak coordination and lack of SOPs.

This study offers a different institutional focus by exploring how fraud prevention and detection strategies are managed from the perspective of the main JKN operator, BPJS Kesehatan itself. By using a qualitative case study approach and NVivo 12 software to thematically analyze internal stakeholder narratives, this research addresses the gap in literature regarding the operational translation of anti-fraud policies at the branch level. In doing so, it contributes localized insights that complement broader national discussions, offering practical implications for strengthening fraud control systems within Indonesia's national health insurance scheme.

Literature Review

A. BPJS Kesehatan and the National Health Insurance Program (JKN)

BPJS Kesehatan (the Health Social Security Agency) is a public legal entity responsible for administering Indonesia's National Health Insurance Program (Jaminan Kesehatan Nasional, or JKN) since its official launch in 2014, based on the mandate of Law No. 24 of 2011. Prior to this, the national health coverage scheme was managed by PT Askes (Persero), which was later transformed into BPJS Kesehatan on January 1, 2014. The primary goal of BPJS Kesehatan is to ensure equitable, just, and sustainable access

to health protection for all Indonesian citizens, including vulnerable and low-income populations, through a government-subsidized insurance scheme (Putri, 2014).

JKN operates under the principles of social insurance and equity, funded through a contributory system involving employees, employers, self-enrolled individuals, and government subsidies for the Penerima Bantuan Iuran (PBI) group. Enrollment in JKN is mandatory for all Indonesian residents and is administered through the issuance of the Kartu Indonesia Sehat (Healthy Indonesia Card). As of January 2023, BPJS Kesehatan reported over 249 million registered participants, with more than 44% of them classified as PBI members financed through the national state budget (Tawai et al., 2023).

In its operations, BPJS Kesehatan carries out several core functions, including participant registration, data verification and validation, contribution management, and payment of claims to healthcare providers. According to BPJS Board Regulation No. 67 of 2021 on the Guidelines for Managing Health Insurance Contributions, BPJS Kesehatan also administers the Social Security Fund (Dana Jaminan Sosial, DJS) to maintain financial balance and service continuity. To ensure transparency and accountability, the fund is independently audited and regularly reported to the government and the public. Claims from healthcare facilities are systematically verified to prevent service misuse, and payments are disbursed based on service categories and capitation mechanisms.

B. Fraud Triangle Theory

The Fraud Triangle Theory, developed by Donald Cressey (1953), identifies three core elements that contribute to fraudulent behavior: pressure, opportunity, and rationalization. These elements interact in a manner that creates an environment conducive to fraud, especially in systems with complex financial transactions and weak oversight.

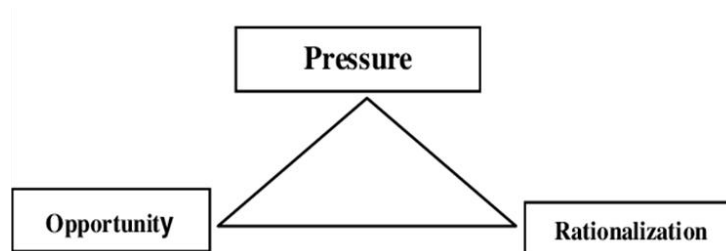


Figure 1. Fraud Triangle Theory

Source: Principles of Fraud Examination, Wells, J.T. (2005)

Opportunity arises when there are weaknesses in an organization's internal control systems. According to Putri (2012), individuals in positions of authority, such as management, are often exposed to greater opportunities to commit fraud due to their access to information and resources. Typically, perpetrators begin with minor infractions to test control gaps before escalating to larger fraudulent activities. For this reason, eliminating opportunity is considered the most direct and effective strategy for fraud prevention (Hendriani, 2013).

Pressure, whether financial or non-financial, is another major factor driving fraudulent behavior. It can stem from debt, lifestyle expectations, performance targets, or socio-political pressures (Hidajat, 2020). When individuals perceive that legitimate options are no longer viable, they may turn to dishonest means as a coping mechanism. Rationalization follows as a cognitive process that allows perpetrators to justify their actions and alleviate moral guilt. Arens et al. (2015) argue that fraudsters often convince themselves that their behavior is not truly criminal. Preventing rationalization involves fostering an ethical organizational culture, supported by clear written policies, leadership by example, and continuous reinforcement of integrity. An effective fraud prevention strategy focuses on weakening or removing at least one of the three elements in the triangle. In practice, eliminating opportunity has been found to be the most actionable and impactful approach (Cendrowski et al., 2007).

C. Fraud in the National Health Insurance Program (JKN)

Fraud within Indonesia's National Health Insurance Program (JKN) poses a significant challenge that threatens the effectiveness, efficiency, and integrity of the public health insurance system. According to the Indonesian Ministry of Health Regulation No. 16 of 2019, fraud in the JKN program is defined as a deliberate act committed by participants, BPJS Kesehatan personnel, healthcare providers, or other parties to obtain unlawful financial gains. Common forms of fraud include fictitious claims, manipulation of service data, falsification of participant identities, and upcoding, wherein the severity of a diagnosis is inflated to increase claim value. (Agustini et al., 2025; Thornton et al., 2015).

The high complexity of healthcare delivery systems, the substantial volume of financial transactions, and the inherent asymmetry of information between patients, providers, and BPJS Kesehatan create an environment susceptible to fraudulent activity (Kumaraswamy et al., 2022; Major, 2019). Therefore, fraud risk management should not rely solely on reactive responses but must be supported by a robust internal control system and comprehensive preventive strategies.

To prevent fraud, BPJS Kesehatan adheres to the regulatory framework outlined in Ministerial Regulation No. 16 of 2019 and BPJS Board Regulation No. 67 of 2021. Its prevention strategies include risk identification, know-your-employee (KYE) practices, leadership commitment, the establishment of dedicated anti-fraud teams, signing of integrity pacts, and continuous education and outreach for all stakeholders. The implementation of good governance principles and the development of quality and cost control measures are also essential components of this preventive approach.

On the other hand, fraud detection efforts focus on the organization's ability to uncover irregularities that may not be captured through standard procedures. One such initiative is the Whistleblowing System (WBS), which allows employees and affiliated partners to report suspected fraud anonymously. In addition, BPJS Kesehatan conducts routine audits of healthcare provider claims and leverages information technology tools to improve detection speed and accuracy. Other key activities include premium payment monitoring, real-time participant data updates, compliance checks, and the strengthening of internal supervisory functions through the Internal Supervisory Unit (SPI).

Ultimately, the implementation of fraud prevention and detection strategies must be simultaneous, complementary, and supported by institutional commitment, inter-

sectoral collaboration, and the integration of appropriate technologies (Putri & Anhari, 2024). Such a multidimensional approach is essential not only to minimize financial losses but also to maintain public trust in the sustainability of the national health insurance system.

Method

This study employed a qualitative approach using a case study method to explore the implementation of fraud prevention and detection strategies within the National Health Insurance Program (Jaminan Kesehatan Nasional, JKN) at the BPJS Kesehatan Branch Office in Yogyakarta City. The case study design was chosen to obtain an in-depth understanding of policy implementation and anti-fraud strategy execution at the institutional level (Crowe et al., 2011; Yin, 2018).

Data collection was conducted through in-depth interviews, participatory observation, and document analysis. Interviews were held with four purposively selected key informants. These informants were chosen based on their direct involvement in fraud monitoring, detection, and prevention within the BPJS Kesehatan Yogyakarta office.

Table 1. Interview Sources

Source person	Gender	Position	Education	Age Group
NV	Woman	Head of Benefits and Utilization Division	Master's degree	40–50 years
LT	Woman	Representative of the Anti-Fraud Team (AK-JKN) & Risk Management Division	Bachelor's degree	30–40 years
DA	Woman	Claim Advisor Staff	Master's degree	30–40 years
RA	Woman	Claim Verifier Staff	Bachelor's degree	30–40 years

Source: Data from BPJS Kesehatan Yogyakarta Branch Office

The interviews were semi-structured to allow flexibility in exploring practical experiences, implementation challenges, and perceptions of policy effectiveness. The researcher served as the main instrument in data collection, supported by audio recorders and a camera to accurately capture interview content, with prior consent from the participants (Eisner, 1991; Sugiyono, 2012).

Primary data were obtained from interviews, while secondary data were sourced from official documents such as the Ministry of Health Regulation No. 16 of 2019 concerning the Prevention and Management of Fraud and the Imposition of Administrative Sanctions, and BPJS Kesehatan Regulation No. 67 of 2021 on the Administration of the Health Insurance Program. Observations were conducted during interview sessions and through direct engagement with workflows and internal documentation at the BPJS Kesehatan office.

During qualitative data analysis, data was transcribed into text and then analyzed using coding techniques. According to Hammersley (2013), coding involves interpreting and

grouping data into specific categories to make it easier to understand and analyze. Coding helps researchers address their research questions by organizing large amounts of interview data (Auerbach & Silverstein, 2003). In the coding process using the Computer-Assisted Qualitative Data Analysis Software (CAQDAS), NVivo 12 Pro, the researcher utilized interview transcripts and relevant regulatory content to generate categorized data representations known as nodes. These nodes stored all relevant excerpts from the data, which served as references for understanding key concepts and identifying relationships. Each node was aligned with the research questions and problem formulation, enabling targeted insights into the key issues. In addition, the researcher mapped relationships between nodes covering challenges, constraints, and strategic recommendations to improve the implementation of prevention and detection strategies at BPJS Kesehatan Branch Office in Yogyakarta City.

The coding results stored in nodes were visualized through analytical maps to illustrate the mechanisms, deficiencies, and opportunities for improvement in fraud prevention and detection strategies. As noted by Miles et al. (2018), analytical maps help researchers identify patterns, relationships, and emerging themes from complex data. Furthermore, matrix coding was conducted using tables with rows and columns representing different codes or themes to analyze interrelationships across sources. A framework matrix was also constructed to compare and summarize findings from various sources, such as interviews, documents, and observations, in a systematic and structured manner (Miles et al., 2018).

To ensure the credibility and trustworthiness of the findings, the researcher employed data verification strategies including member checking and triangulation. Two types of triangulation were applied, technical triangulation and source triangulation. Technical triangulation involved validating findings by cross-checking similar questions through different methods, interviews, observations, and document analysis. Source triangulation, on the other hand, involved obtaining perspectives from different informants to verify the consistency of data regarding the focus of the study (Miles et al., 2018). Member checking was conducted by presenting the findings back to BPJS Kesehatan Branch Office in Yogyakarta City to confirm the accuracy and ensure alignment with participants' actual experiences.

Result and Discussion

This study found that the implementation of fraud prevention and detection strategies in the National Health Insurance (JKN) Program at BPJS Kesehatan Cabang Kota Yogyakarta demonstrates both institutional commitment and regulatory compliance. However, it also reveals significant operational challenges that undermine the system's effectiveness. Based on qualitative interviews, document analysis, and thematic coding using NVivo 12 Pro, several key points of discussion emerged and are elaborated in the following sections.

A. Fraud Risks in the JKN Program at BPJS Kesehatan Yogyakarta

The results presented in this study are derived from a content analysis of coded interview transcripts, conducted using the NVivo 12 software. Figure 2 illustrates the data coding process and summarizes the analytical results, depicting how key themes and relationships between fraud risks in the JKN program at BPJS Kesehatan Yogyakarta were structured based on field data.

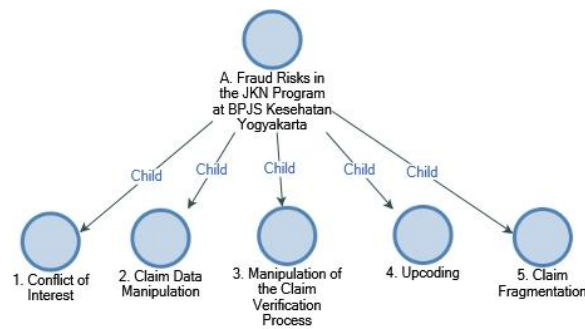


Figure 2. Fraud Risks in the JKN Program at BPJS Kesehatan Yogyakarta

Source: processed by the author

Based on the analytical map shown in Figure 2, one of the notable fraud risks in the JKN program is conflict of interest. This arises when individuals hold dual roles or conflicting obligations that may compromise the objectivity of their decisions. NV (2025) observed that internal interests at healthcare facilities often relate to increasing institutional revenue, which may obstruct fraud prevention initiatives.

"The challenge with healthcare facilities is that they still have internal interests. Their focus on increasing revenue often causes a conflict of interest in fraud prevention efforts." NV (2025).

LT (2025b) elaborated further, explaining the potential for dual roles, such as a BPJS Kesehatan employee also working at a partner facility, or serving as a verifier while simultaneously submitting claims.

"If someone is a BPJS Kesehatan employee and also practices at a facility that partners with BPJS, it creates a conflict," said LT (2025b).

In response, BPJS Kesehatan has implemented a policy prohibiting employees from collaborating with affiliated facilities. RA (2025) emphasized that violations result in resignation, while LT (2025b) noted efforts to monitor physician practices via medical licensing data. DA (2025) added that exceptions are allowed if the practice occurs at non-partner facilities.

Claim data manipulation emerged as another significant concern, involving practices like altering diagnosis codes or inflating billing information. NV (2025) and DA (2025) reported that verification is aided by digital systems that automatically flag anomalies and rely on electronic medical records.

DA (2025) described the layered review process, *"If there's added billing or diagnosis changes, we compare it with the previous data and rely on original documentation"*.

RA (2025) noted that BPJS Kesehatan may request hospital access to patient records to ensure claim validity. This multi-pronged verification, technological filters, document review, and medical audits is supported by internal controls such as whistleblowing systems and mandatory integrity pacts.

The manipulation of the claim verification process is also a critical risk. Although verification is regulated under partnership agreements requiring internal checks and statements of accountability, NV (2025) highlighted that some fakes bypass these procedures. For instance, DA (2025) observed patients attempting to misuse

emergency services to access non-covered treatments, or hospitals submitting multiple claims for a single episode. To address these issues, BPJS Kesehatan conducts monthly post-claim verifications (VPK) as part of its routine audit process. However, due to the use of a sampling method in the verification process, there remains a risk that certain fraudulent claims may not be detected. RA (2025) acknowledged this limitation, noting that the nature of the sampling system inherently allows for the possibility that some claims may slip through the verification process undetected.

BPJS Kesehatan counters this risk with layered defenses, including audit reviews by the Internal Supervision Unit (SPI), application-based filters, and referrals to the Medical Cost and Quality Control Team (TKMKP) for disputed cases.

Upcoding, wherein facilities report a more severe diagnosis or treatment than was actually performed, is another prevalent risk.

DA (2025) described it as a means to inflate claim values, *" We often confirm the diagnosis and procedures. If they don't match, it could be upcoding."*

DA (2025) provided examples, such as outpatient cases being submitted as inpatient, or unnecessary hospitalization prolonging patient stays. These practices, if undetected, could lead to significant financial losses for the JKN system.

Lastly, claim fragmentation was identified as a potential fraud pattern where providers divide a single treatment episode into multiple claims. Though not always deliberate, this can distort payment calculations.

DA (2025) remarked, *" There's also serial fragmentation, like something that should be filed once a month but is submitted several times."*

This behavior, while different from upcoding, requires similar scrutiny through administrative limits and clear claim period policies. Strengthening verifikator training and enhancing rule clarity at the facility level is vital to addressing this risk.

These findings highlight that managing fraud risks in the JKN program is a complex challenge that requires strong collaboration, continuous system improvement, and updated technology. BPJS Kesehatan Cabang Yogyakarta has shown serious efforts in implementing fraud prevention and detection strategies. However, some technical and structural limitations still need to be addressed to strengthen the system and maintain public trust in Indonesia's national health insurance program.

B. Prevention and Detection Strategies Implemented by BPJS Kesehatan Yogyakarta

The analytical map presented in Figure 3 illustrates the coding structure and synthesized analysis of the interview data related to fraud prevention and detection strategies implemented by BPJS Kesehatan Cabang Kota Yogyakarta.

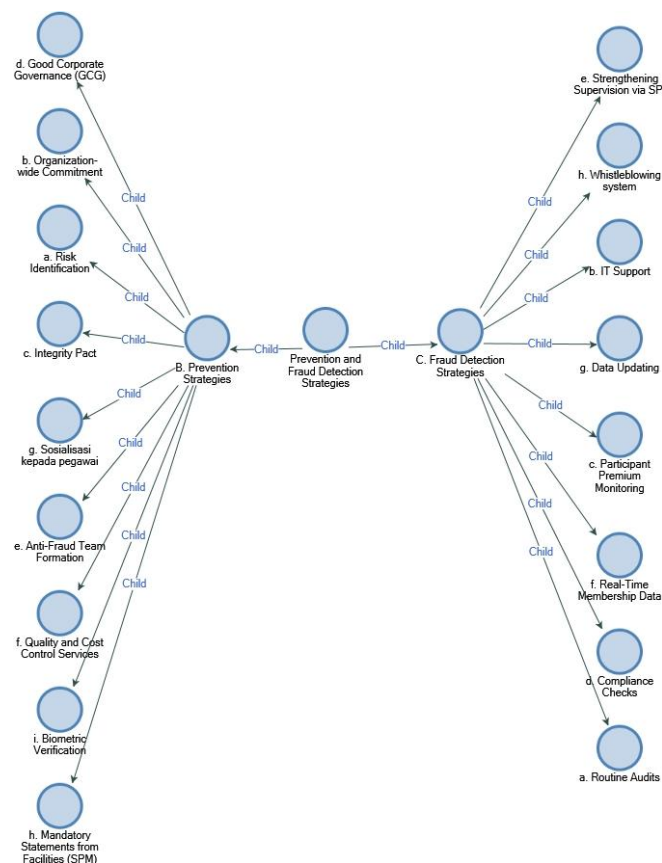


Figure 3. Prevention and Fraud Detection Strategies in the JKN Program

Source: processed by the author

Based on the analytical findings, BPJS Kesehatan Yogyakarta has adopted a range of strategic measures to prevent and detect fraud within the National Health Insurance (JKN) program. These strategies are guided by regulatory frameworks, including the Ministry of Health Regulation No. 16 of 2019 and BPJS Regulation No. 67 of 2021. The implementation involves both internal mechanisms and collaborative efforts with external stakeholders to ensure accountability, transparency, and sustainability in health service delivery.

The following subsections elaborate in detail on the specific prevention and detection strategies practiced at the branch level.

Prevention Strategies Implemented by BPJS Kesehatan Yogyakarta

The preventive strategy begins with structured annual risk identification conducted by BPJS Yogyakarta to detect potential fraud. This includes mapping risks, analyzing impacts, identifying causes and stakeholders, and setting measurable mitigation goals. As LT (2025a) explains:

“At the beginning of each year, we hold a meeting to identify potential risks that may arise in the BPJS Kesehatan Branch Office, including fraud risks. We usually identify the impact, the cause, the stakeholders, and our goals. Every month, we have a progress report to see whether the risk has decreased or not.” LT (2025a).

This process is not static. Risks are reviewed monthly, and mitigation is continuously refined using both manual analysis and integrated risk systems.

Institutional commitment is central to fraud prevention. BPJS Kesehatan enforces this through formal declarations of integrity and joint cooperation with external entities such as local governments and professional associations. NV (2025) emphasized that this commitment is not symbolic but embedded within operational practices and managerial accountability. All staff and affiliated faskes are required to sign notarized integrity pacts as a formal declaration of ethical conduct. Each employee signs a notarized integrity pact annually, reinforcing the commitment to uphold anti-fraud values.

“Every January 2, there will be a reading of the director’s message for the beginning of the year, followed by the signing of the integrity pact and fraud prevention declaration. The integrity pact is stamped. This is our collective commitment. It must be submitted on the same day. It’s a busy day.” NV (2025).

RA (2025) also explained that this measure strengthens internal control and acts as a deterrent to potential violators by binding them legally and morally.

BPJS Kesehatan also institutionalizes Good Corporate Governance (GCG) principles such as transparency, accountability, and risk management. Risk assessments are conducted annually and documented in monthly progress reports (LT, 2025a), ensuring decision-making is aligned with ethical and legal frameworks. To further support fraud mitigation, BPJS Kesehatan operates two anti-fraud teams: AK-JKN for internal operations, which consists of cross-functional members from each department, and PK-JKN involving external stakeholders such as local governments, the Health Office, and professional associations, formalized via regional decrees.

“The AK team is our internal office team, while the PK team is external, including the Health Office, professional associations, and others. The SPI is independent... and is supervised by BPK, BPKP, OJK, KAP, and KPK.” LT (2025b).

Each health facility and the Health Office also have their own fraud prevention units (DA, 2025).

Fraud prevention is also supported by continuous employee training and socialization, conducted at least twice a year. NV (2025).explained:

“Usually the AK JKN branch team holds socialization about fraud prevention at the beginning of the year, and sometimes we remind again mid-year during another meeting.” NV (2025).

These sessions cover updates in regulation, fraud detection techniques, and ethical standards to reinforce organizational vigilance.

BPJS Kesehatan coordinates with the Quality and Cost Control Team (TKMKB), comprising medical specialists who mediate disagreements and assess complex claims.

RA (2025) stated, *“If there is no agreement with external parties... we usually escalate the issue to the TKMKB.”*

This team reviews medical justifications and treatment appropriateness to ensure claims are clinically justified.

Each health facility must submit a binding statement guaranteeing the accuracy of submitted claims. NV (2025).emphasized:

“There is a document called the Surat Pertanggungjawaban Mutlak from the hospital management, stating that the submitted claims are accurate. If there are findings during an audit, the hospital must be willing to return the excess funds.” NV (2025).

DA (2025) confirmed:

“We have the Surat Pertanggungjawaban Mutlak signed by the health facility and their internal PK-JKN team. Before submitting a claim, they ensure it is accurate. If discrepancies are found, we use the SPM as a basis for accountability.” DA (2025).

Fingerprint verification is employed to prevent identity fraud and ensure patients are physically present.

“BPJS Kesehatan now uses fingerprint verification. Every patient receiving service uses fingerprint, which confirms that the patient is indeed present. It reduces identity fraud.” DA (2025).

However, DA (2025) noted that while effective, this method has yet to be adopted widely at primary care facilities (FKTP), creating identity-related fraud vulnerabilities.

Fraud Detection Strategies Implemented by BPJS Kesehatan Yogyakarta

Fraud detection strategies at BPJS Kesehatan Cabang Kota Yogyakarta rely heavily on the integration of advanced information technology systems. Information technology plays a pivotal role in fraud detection efforts. According to NV (2025), BPJS Kesehatan utilizes a sophisticated verification application embedded with AI-based filters to detect abnormal claims patterns.

“The application is already capable of identifying which coding entries are appropriate and which are not. It also includes automatic filtering features,” NV (2025) explained.

Hospitals and BPJS Kesehatan use integrated yet separate platforms to maintain a controlled verification process. While public access to these applications is restricted, participants may submit fraud-related complaints via the Mobile JKN app, which links to the centralized complaint handling system (SIPP).

Routine audits are also crucial in mitigating fraudulent risks such as claim manipulation, upcoding, and collusion. NV (2025) confirmed that every hospital claim must first undergo internal verification, validated by a Statement of Absolute Responsibility (SPM). If discrepancies are found post-audit, the facility must refund any improper claims.

“If any findings arise during audits, whether internal or external, the hospital must be ready to return the funds,” NV (2025) emphasized.

Monthly post-claim verifications (VPK) audit up to 85% of paid claims. SPI (Internal Audit Unit) leads these evaluations, supported by external oversight bodies such as BPK, BPKP, and KPK.

BPJS Kesehatan also conducts monthly monitoring of participant contributions, especially for self-employed participants and those funded by local governments.

“There is always a monthly review. For those who delay payments, the collections team will follow up online.” NV (2025).

This measure ensures that claims are submitted only for eligible, active participants, minimizing manipulation risks.

Compliance is further verified through routine inspections of both participants and healthcare providers. NV (2025) noted that BPJS Kesehatan regularly visits employers to validate employee data and salary information. Internally, compliance with BPJS Kesehatan regulations is also audited to ensure service delivery aligns with organizational standards.

Strengthening of supervision and internal audits is a key component of BPJS Kesehatan's fraud detection framework. The SPI conducts internal performance audits and reviews suspected anomalies flagged by IT systems. RA (2025) shared that internal audits are conducted annually by SPI to examine service delivery and claims accuracy.

"Each year, we undergo an internal audit where auditors ask why certain claims passed verification or didn't comply with guidelines," RA (2025) explained.

Despite this structured system, LT (2025b) acknowledged a limitation, noting that SPI operates centrally from the national office, reducing responsiveness to local fraud cases.

"SPI is managed at the central office," LT (2025b) confirmed.

This is also supported by RA (2025), who indicated that while SPI oversight is robust, its centralization limits responsiveness at the regional level.

To address identity fraud, BPJS Kesehatan ensures real-time updates of participant data before monthly capitation payments to facilities.

NV (2025) shared, *"We always update participant data prior to capitation payments to ensure accuracy,"*.

Through integrated applications, FKTP and FKRTL now access real-time data. This powerful data integration empowers healthcare facilities to validate participant eligibility quickly at the point of service, which significantly lowers the risk of identity fraud. In line with regulatory mandates, BPJS Kesehatan performs monthly updates on participant records to prevent fraud involving inactive or fictitious members. NV (2025) confirmed that this process prevents ghost claims and improves accuracy in service delivery.

Another essential component is the Whistleblowing System (WBS). BPJS Kesehatan empowers internal and external stakeholders to report suspected fraud via a confidential Whistleblowing System.

NV (2025) stated, *"Everyone knows how to report because the system is introduced directly from the center. The contact and website are shared with all employees."*

Reports submitted through the WBS are handled discreetly by the central SPI team.

"They operate discreetly, so no one knows what's going on because it's confidential," NV (2025) added.

The WBS allows anonymous reporting of suspected fraud by staff and the public. NV (2025) stated that the system is managed by SPI and has successfully facilitated investigations by providing early warnings of irregularities.

C. Implementation Gaps and Challenges

Despite the comprehensive fraud prevention and detection strategies implemented by BPJS Kesehatan Cabang Kota Yogyakarta, several implementation gaps and

operational challenges persist, posing threats to the effectiveness and integrity of the JKN program. The analytical map presented in Figure 4 illustrates the data coding process and the analytical results, highlighting systemic disconnects and operational limitations that undermine the existing framework.

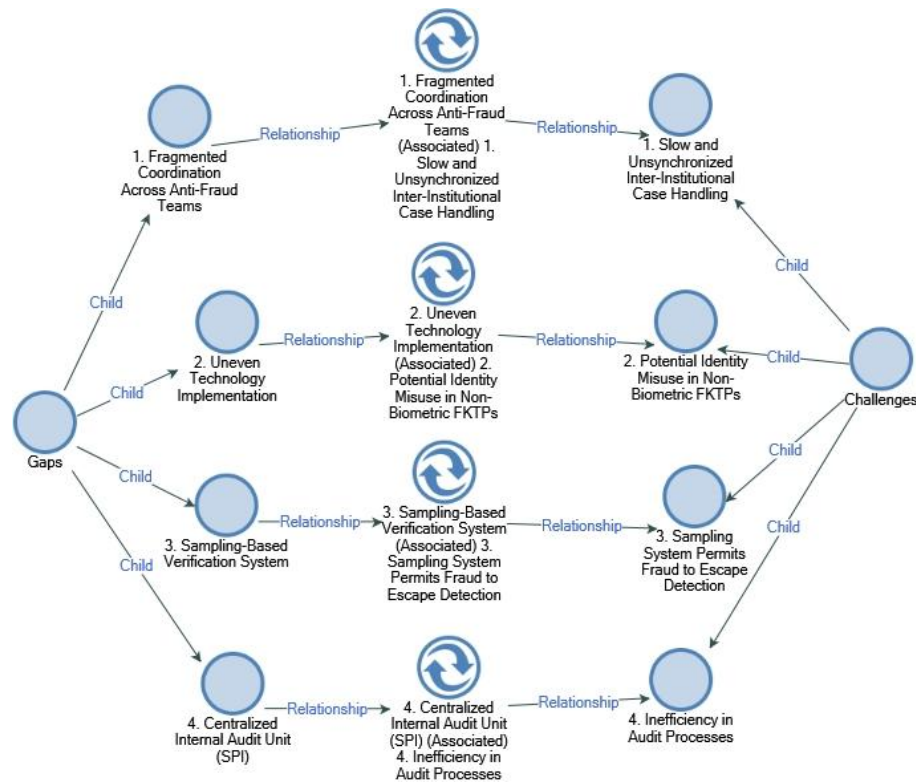


Figure 4. Implementation Gaps and Challenges in the Implementation of Fraud Strategies

Source: processed by the author

Implementation Gaps

Although formal anti-fraud teams have been established across institutions, including BPJS Kesehatan, healthcare facilities (faskes), and local health offices, their operations often occur independently.

DA (2025) confirmed, *“Each institution has its own anti-fraud team. BPJS Kesehatan has one, faskes has another, and so does the Health Office.”*

This fragmentation results in limited information sharing, creating gaps in oversight and responsiveness, especially in detecting risks like conflicts of interest and collusion, as described earlier.

NV (2025) added that BPJS Kesehatan often cannot verify whether internal anti-fraud education at faskes is effectively implemented:

“We’re not sure if the follow-up training actually happens because we’re not in a position to enforce it,” NV (2025).

These disconnected mechanisms limit the systemic impact of coordinated fraud prevention strategies and create vulnerabilities in monitoring and control.

Biometric verification, such as fingerprint scanning, is a key element in fraud prevention. However, DA (2025) noted its adoption remains inconsistent:

"Fingerprint verification is available at referral hospitals (FKRTL) but not yet in most primary care facilities (FKTP),"

This technological gap compromises identity verification and opens opportunities for identity fraud, highlighting a misalignment with the prevention strategies previously outlined. This issue also impedes efforts to address risks such as data manipulation and upcoding.

BPJS Kesehatan employs sampling methods for claim verification to manage workload, reviewing up to 85% of submissions monthly. However, this leaves room for undetected irregularities (RA, 2025).

This statement signals a need for a more risk-based verification model to better align with the goals of early fraud detection. While post-claim verification (VPK) offers a second layer of scrutiny, it still cannot guarantee full coverage, leaving fraud risks inadequately addressed.

The Internal Supervision Unit (SPI) operates from BPJS Kesehatan's central office, which slows down local fraud response.

"SPI is based at the central office; we don't have a local unit." LT (2025b).

This centralized structure limits real-time supervision and delays local-level investigations, undermining the timeliness of detecting fraud incidents.

Challenges

Handling fraud cases that involve multiple institutions is also time-consuming. NV (2025) explained that when disputes arise with partner faskes and internal resolution fails, the case must escalate to the Quality and Cost Control Team (TKMKB)). However, the lack of synchrony between institutions delays resolution. Cases involving multiple institutions suffer from slow response and lack of coordination. This inefficiency dilutes the impact of fraud detection strategies and increases the risk of unresolved fraud.

DA (2025) observed that without fingerprint systems in FKTPs, *"There's a chance the patient didn't actually come, but claims were submitted anyway."*

This weakness underscores how uneven technology implementation creates opportunities for fraud. The absence of fingerprint systems in many FKTPs increases the likelihood of patient identity misuse, a fraud risk highlighted in the first research problem. While biometric systems have proven effective in some settings, their partial implementation remains a loophole.

Because only a subset of claims is reviewed in detail, some fraudulent claims may pass undetected. This weakness, acknowledged in RA (2025)'s testimony, underscores the system's vulnerability and aligns with the risk of verification manipulation discussed in the first research problem. The limited coverage of sampling-based verification systems results in undetected fraud. This weakness is critical because it undermines both prevention and detection strategies.

Due to audit backlogs and centralized oversight, the process of following up on fraud indications becomes inefficient. Local offices must wait for central SPI reviews, delaying immediate action. Audits are often delayed or incomplete due to centralized operations and manual procedures. This gap compromises the timeliness and effectiveness of fraud detection, suggesting the need for more agile, locally empowered audit units.

D. Suggestions and Improvements

In light of the identified implementation gaps and challenges, several strategic improvements are proposed to enhance the effectiveness of fraud prevention and detection efforts at BPJS Kesehatan Cabang Kota Yogyakarta. The analytical map presented in Figure 5 illustrates the data coding process and the analytical results, synthesizing key recommendations derived from empirical findings.

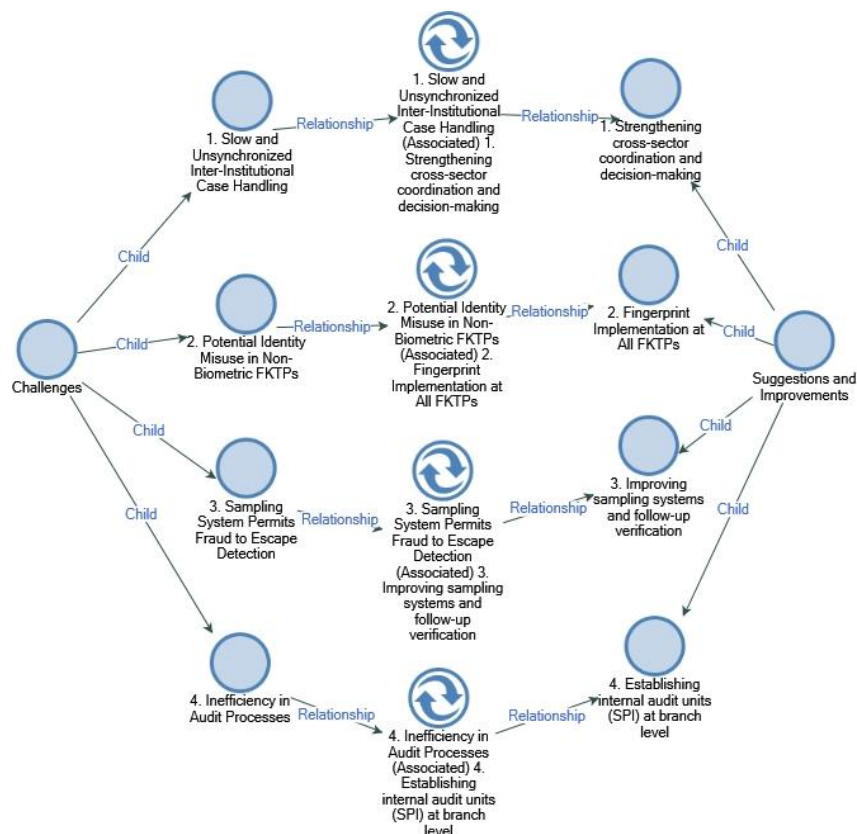


Figure 5. Suggestions and Improvements for BPJS Kesehatan Yogyakarta

Source: processed by the author

One of the core recommendations centers around strengthening cross-sectoral coordination and accelerating decision-making processes. Although collaborative anti-fraud teams (AK JKN and PK JKN) have been established at the district or city level, the study found that coordination across institutions remains suboptimal. Challenges arise especially in cases involving multiple stakeholders, where fragmented responses can delay investigation and reduce transparency. As emphasized in the first and third research problems, systemic fraud risks such as conflicts of interest can only be effectively mitigated through robust, synchronized oversight. Therefore, enhancing the

operational role of AK and PK JKN is essential, this includes harmonizing perceptions between institutions, streamlining reporting procedures, and expediting responses to suspected fraud. Cross-supervision, stakeholder engagement, and periodic evaluations are necessary to ensure more objective and accountable fraud management. Strengthened coordination will not only reduce delays and miscommunication but will also foster collective responsibility and build trust in the integrity of the JKN monitoring system.

Another critical enhancement involves the full implementation of fingerprint verification at all First-Level Health Facilities (FKTP). While the technology is already available at referral hospitals (FKRTL), uneven deployment at FKTP limits the effectiveness of biometric verification in confirming patient attendance and preventing identity misuse. This technological gap was a key limitation discussed in earlier sections. Broad adoption of fingerprint systems at FKTP aligns with the provisions in Ministry of Health Regulation No. 16 of 2019 and will enable more reliable and tamper-proof verification processes. A comprehensive biometric verification system will not only prevent identity fraud but also enhance claim accuracy, support audit trails, and help detect irregularities linked to unauthorized access, upcoding, or false claims. By digitizing every service transaction and linking it with biometric records, the system gains a more solid foundation for real-time validation.

Additionally, the sampling-based verification system, while efficient in terms of resource management, requires refinement. The current system reviews approximately 85% of claims each month, leaving the remainder at potential risk of undetected fraud. This was evident in NV's (2025) testimony and aligns with broader concerns from the second research problem. To address this, the study recommends strengthening the verification system by adopting a risk-based sampling approach. This includes prioritizing claims for verification based on high-risk indicators such as a facility's past violations, unusually frequent claims, or suspicious diagnostic codes. Integrating AI and historical claim data can support this strategy, allowing targeted verification that improves fraud detection accuracy and efficiency. Furthermore, expanding the sample size or implementing semi-automated screenings for high-cost services will reduce vulnerabilities in the current system.

Finally, the establishment of branch-level Internal Supervision Units (SPI) is proposed as a strategic measure to reinforce local oversight. While BPJS Kesehatan branch offices currently conduct various audits, including Post-Claim Verification (VPK), Administrative Claim Audit (AAK), and medical audits, the absence of a structurally embedded SPI at the branch level limits internal control capacity. As Etengu & Amony (2016) point out, effective internal controls require clearly defined roles across all organizational levels. The COSO Framework (2017) also stresses the importance of enterprise-wide internal control structures, including at regional units. Establishing a local SPI would allow for more independent and context-specific audits, early-stage investigations, and rapid response to fraud indicators. These branch-level SPIs could complement central SPI oversight by enabling localized accountability, supporting whistleblower systems, and strengthening anti-fraud governance overall. The presence of SPI at the branch level is fundamental in protecting public funds, accelerating fraud detection, and maintaining trust in the JKN system at the regional level.

Conclusion

This study explored the risks of fraud in the implementation of the National Health Insurance Program (JKN) at BPJS Kesehatan Cabang Kota Yogyakarta. The findings indicate the presence of several potential fraud risks, including conflicts of interest, claim data manipulation, irregularities in claim verification, upcoding, and claim fragmentation. Although no confirmed fraud cases were found during the fieldwork, these risks were identified based on narrative insights from internal stakeholders and an analysis of systemic vulnerabilities. These patterns emphasize the importance of strengthening the anti-fraud ecosystem through preventive and adaptive mechanisms to safeguard the transparency, financial sustainability, and integrity of the JKN system.

BPJS Kesehatan Yogyakarta has already implemented various fraud prevention and detection strategies aligned with national guidelines such as Permenkes No. 16 of 2019 and BPJS Regulation No. 67 of 2021. Preventive measures include risk identification, integrity pact enforcement, Good Corporate Governance (GCG) principles, the formation of internal and external anti-fraud teams, employee socialization, quality and cost control initiatives, the requirement of Surat Pertanggungjawaban Mutlak (SPM) from health facilities, and biometric verification. Meanwhile, fraud detection efforts are executed through whistleblowing systems, IT support systems, routine audits, participant contribution monitoring, compliance inspections, real-time membership verification, regular data updates, and internal supervision mechanisms. These strategies reflect a structured and multi-layered approach designed to mitigate fraud risks at both administrative and operational levels.

Despite these efforts, several implementation challenges remain. These include fragmented coordination among stakeholders, partial deployment of biometric verification at primary healthcare centers (FKTP), potential gaps in the sampling-based verification system, and the absence of a branch-level Internal Audit Unit (SPI). These issues may reduce the system's capacity to respond quickly and accurately to fraud risks. Additionally, delays in cross-sectoral fraud case resolution and limited local control over oversight functions present challenges that could affect the overall effectiveness of anti-fraud measures.

To address these limitations, the study recommends enhancing inter-institutional coordination through a unified anti-fraud task force, expanding biometric systems to all FKTPs, shifting toward risk-based claim verification, and establishing SPI units at the branch level. Although the study faced limitations in accessing sensitive case data and a limited number of specialized informants, it offers valuable insights into improving fraud mitigation strategies in the JKN program. Future research may consider broader geographical coverage and employ quantitative approaches to deepen the national understanding of health insurance fraud and support more responsive policy innovation.

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