

LITERATURE REVIEW: CHALLENGES AND IMPLEMENTATION OF MEDICAL SERVICE PAYMENT IN THE NATIONAL HEALTH INSURANCE SYSTEM (JKN)

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Abstract

This study aims to examine the challenges and implementation of medical service payments within the National Health Insurance (JKN) system in Indonesia through a literature review. The implementation of JKN demonstrates significant efforts to strengthen healthcare governance, including through the implementation of INA-CBGs-based payment mechanisms, the use of the Mobile JKN application, and strengthening the membership system. However, the literature review reveals that various challenges remain, such as barriers to socialization in certain regions, limitations in the usability of digital applications, the potential for fraud in the claims system, inefficiencies in drug planning and procurement, and issues with the sustainability of membership and the implementation of the tiered referral system. These findings confirm that the effectiveness of medical service payments within JKN is determined not only by the claims mechanism but also by social, technological, regulatory, and healthcare governance factors. Therefore, strong synergy is needed between the government, BPJS Kesehatan (Social Security Agency for Health), healthcare facilities, medical personnel, and the community to ensure the achievement of JKN's primary objectives, namely equitable access and sustainable improvement of healthcare quality.

Keywords: *National Health Insurance, medical services.*

INTRODUCTION

The National Health Insurance (JKN) is one of the Indonesian government's strategic programs, implemented through the Social Security Administering Agency (BPJS Kesehatan), with the goal of ensuring equitable, high-quality, and equitable access to healthcare services for all. Since its launch in 2014, this system has become a key pillar of national healthcare financing. One of the most crucial aspects of JKN's sustainability is the payment mechanism for medical services, which not only impacts the program's sustainability but also the quality of healthcare services, medical staff satisfaction, and hospital management efficiency (Mariawati et al., 2023). Several structural issues still limit the performance of BPJS Kesehatan as a service purchaser, including suboptimal participant participation, complaints about service quality, limited funding, and the potential for fraud. The Corruption Eradication Commission (KPK) noted that up to 30% of JKN funds, or approximately IDR 20 trillion, are at risk of improper use, far exceeding the reported JKN deficit of IDR 9 trillion (Tarigan & Lestari, 2022). Meanwhile, the policy on the use of capitation funds, as stipulated in Minister of Health Regulation No. 21 of 2016, requires a minimum allocation of 60% for services and the remainder for operations, including the purchase of drugs and equipment. This proportion is highly dependent on the needs of the population and the capacity of the health facility in question ((Gutama et al., 2023). Although the National Health Insurance (JKN) has expanded access to services nationwide, the implementation of a capitation-based payment system still faces challenges in improving the quality of primary care. Ideally, capitation fund implementation requires a strong understanding of planning from community health center human resources, consistent management commitment, and supportive internal regulations (Arimbi et al., 2022). However, in practice, limited funding, resources, and governance often hinder optimal service outcomes. In the BPJS Kesehatan strategic planning document, updating the strategic purchasing system is a key component of health financing reform. The reform agenda includes integrating DRG-based payments with global budgets, utilizing credentialing results for service capacity projections, and developing evidence-based payment guidelines for readmissions, referrals, and outliers (BPJS Kesehatan, 2021). These steps are aimed at creating an

adaptive, equitable, and sustainable financing system. Therefore, a literature review on the challenges and implementation of medical service payments within the National Health Insurance (JKN) system is crucial to provide a comprehensive overview of the issues faced and opportunities for improvement. This study is expected to identify key issues, such as tariff adequacy, medical personnel satisfaction, service efficiency, and financing sustainability, while also providing input for the development of health service management policies and practices in Indonesia.

LITERATURE REVIEW

Definition of JKN

National Health Insurance (JKN): Part of the National Social Security System (SJSN) which is organized with a mandatory Social Health Insurance mechanism based on (Law No. 40 of 2004 concerning SJSN) (Ahmadi et al., 2025). JKN is a program to guarantee the health of the community as a whole, starting from January 1, 2014. National Health Insurance (JKN) is part of the National Social Security System (SJSN) which is organized using a mandatory social health insurance mechanism to guarantee the health of the community as a whole so that they can live healthy, productive, and prosperous. According to the Presidential Regulation of the Republic of Indonesia Number 82 of 2018 concerning Health Insurance, the definition of Health Insurance is a guarantee in the form of health protection so that participants obtain health care benefits and protection in meeting basic health needs provided to everyone who has paid their contributions or whose contributions are paid by the government. JKN is a social security program that guarantees health care costs and the fulfillment of basic health needs which is organized nationally through mutual cooperation and is mandatory for all Indonesian residents by paying premiums periodically or paid by the government to the Social Security Administering Body (BPJS). Therefore, it can be concluded that the National Health Insurance (JKN) is a social security program of the Republic of Indonesia government that provides certainty of guarantees for the Indonesian people by paying premiums periodically or paid by BPJS (Yuditia et al., 2021). In accordance with Presidential Decree No. 82 of 2018, every participant has the right to receive health insurance benefits in the form of individual health services, including promotive, preventive, curative, and rehabilitative services, including drug services, medical devices, and disposable medical materials according to the required medical needs. The benefits of promotive and preventive services include the provision of services:

- a) Individual health counseling;
- b) Routine immunization;
- c) Family planning;
- d) Health history screening and certain health screening or screening services; and
- e) Health improvement for participants suffering from chronic diseases.

METHOD

This study uses a literature review approach to analyze the challenges and implementation of medical service payments within the National Health Insurance (JKN) system in Indonesia. Literature was collected from various sources, including international scientific databases such as PubMed, Scopus, and ScienceDirect, as well as national databases such as Garuda Ristekdikti and Google Scholar. In addition, official government documents, laws and regulations, and policy reports from the Ministry of Health and BPJS Kesehatan were also used as supporting materials. The inclusion criteria used were journal articles, proceedings, research reports, and official documents published in the last five years (2019–2025), written in Indonesian or English, and relevant to the issues of medical service payments, capitation rates, and the INA-CBGs mechanism within the JKN scheme. Meanwhile, literature that did not have full access, had not gone through a peer-reviewed process, or only discussed health insurance in general without a direct link to JKN was excluded from the analysis.

The selection process was carried out in stages, starting with the screening of titles and abstracts, followed by a full content review to ensure compliance with the research criteria. All literature that passed the selection was then analyzed using thematic analysis techniques, grouping the findings into main themes such as the adequacy of medical service payment rates, their impact on the motivation and satisfaction of healthcare workers, implications for service quality and efficiency, the sustainability of hospital financing, and regulatory and implementation challenges in the field. Data validity was maintained through the use of literature from trusted sources and information triangulation by comparing academic research findings with official government documents and reports from relevant institutions.

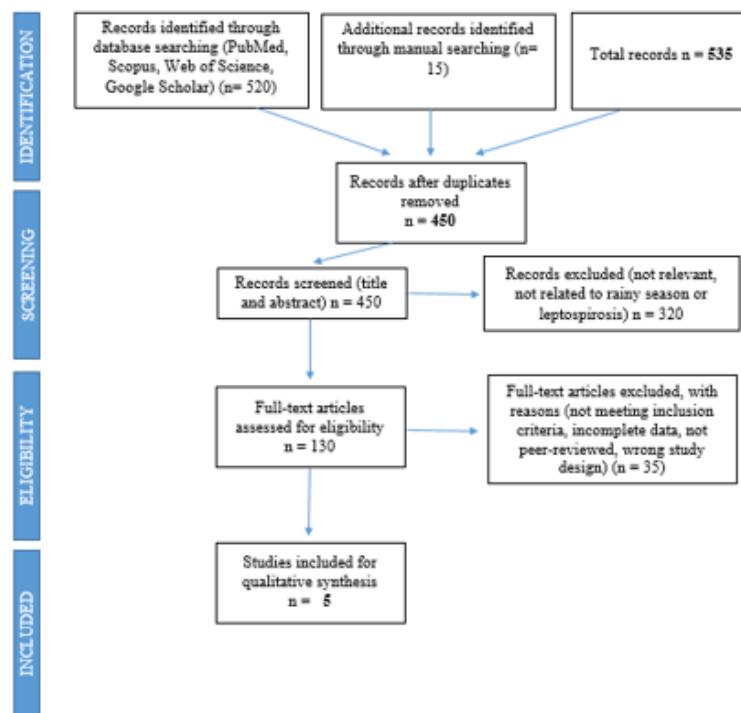


Figure 1. Prisma Flow Diagram

RESULTS AND DISCUSSION

Table 1. Results of Eligible Articles

NO	Author and Year	Title	Method	Research Findings
1	Akbar and Imran	Study of the Implementation of the National Health Insurance Program in Muna Regency	Qualitative research with a phenomenological approach	The socialization of the JKN program in Muna Regency began in 2013. Obstacles to the socialization process included the regency's geographic location and low public awareness. Meanwhile, BPJS participants faced barriers, including those without ID cards or family cards, and those registering as foreign nationals.
2	Nur Annisa, et al.	Evaluation of the JKN Mobile Application in Malang City in Terms of Usability	Quantitative research with an evaluation research approach	Based on observations of 100 respondents from Malang City, the quality of the JKN mobile application requires improvement and refinement. Three aspects scored low: efficiency, learnability, and control. This is because users are still dissatisfied with the three aspects provided by the software.

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3	Sari, et al.	Implementation of Fraud Prevention Policy in the Implementation of Health Insurance Program at Diponegoro National Hospital, Central Java	Qualitative research with a case study approach	The development of a fraud prevention culture at Diponegoro Hospital has been implemented, but the fraud prevention team does not yet clearly measure its success. This is due to a lack of coordination regarding the division of tasks and responsibilities, as there have been no meetings or discussions specifically on fraud prevention.
4	Anggriani, et al.	Evaluation of Drug Planning and Procurement in the Era of National Health Insurance at the Cianjur Regency Community Health Center	Observational non-experimental quantitative research	Drug planning and procurement at the Cianjur Regency Community Health Center (Puskesmas) have a low average. Drug procurement is still inconsistent with planning due to suboptimal budget allocation. Inappropriate budget allocation can lead to low drug availability at the Puskesmas. Drug procurement based on the e-catalog is also low, resulting in inefficiency in drug management. With limited JKN funds, if drug procurement is not based on the e-catalog, there will be fewer drugs available.
5	Sinaga, et al.	Evaluation of the implementation of the National Health Insurance Program (JKN) in DKI Jakarta Province	Mixed methods design, combining qualitative and quantitative elements	Jakarta Province has achieved its JKN coverage target thanks to support from BPJS Kesehatan (Social Security Agency for Health), the Health Office, the Social Service Office, the Regional Development Planning Agency (Bappeda), hospitals, and community health centers (Puskesmas) for JKN participant data collection. Health facilities and human resources meet standards, except in the Seribu Islands. However, there are still inactive JKN participants or those in arrears, particularly among government and private sector wage earners.

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				Furthermore, there are challenges in the tiered referral and reverse referral systems due to patient preferences in choosing health services.
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DISCUSSION

The implementation of medical service payments within the National Health Insurance (JKN) system is fundamentally designed to support efficiency, transparency, and equity in healthcare services. The *Indonesia Case-Based Groups* (INA-CBGs) payment scheme serves as the primary instrument for allocating hospital service costs, while capitation is used for primary care services at community health centers (Puskesmas) or clinics. Literature findings indicate that JKN implementation has been successful at various levels, supported by policy, technology, and cross-sector collaboration. For example, research by Sinaga et al. (2021) shows that in DKI Jakarta Province, JKN coverage is relatively high due to the synergy between BPJS Kesehatan (Healthcare Social Security Agency), the Health Office, the Social Affairs Office, the Regional Development Planning Agency (Bappeda), and healthcare facilities. This implementation demonstrates that the success of medical service payments depends not only on policy design but also on coordination among stakeholders in managing membership, funding, and claims distribution.

From a digital perspective, Nur Annisa et al. (2020) demonstrated that the Mobile JKN application is part of an implementation strategy to facilitate participant access to services and information. The application's presence reflects efforts to modernize medical service payment administration, particularly in terms of registration, membership checks, and easy access to claims data. Although there are still weaknesses in the usability aspect, the implementation of the digital application still reflects a significant shift towards a technology-based service system. This is crucial in supporting data transparency, process efficiency, and real-time traceability of medical service payments. Implementation is also evident in aspects of service quality control and fund management. A study by Sari et al. (2022) revealed that hospitals have begun developing a culture of fraud prevention to maintain accountability for claims-based payment systems. This effort demonstrates the seriousness of healthcare facilities in adapting to the demands of the National Health Insurance (JKN) regulations. Similarly, research by Anggriani et al. highlighted the drug planning and procurement process in the JKN era, where the use of e-catalogs and JKN budget-based procurement mechanisms are integral to the implementation of medical service payment policies at the primary care level. Thus, it can be seen that JKN implementation has penetrated various aspects: participant administration, service digitization, hospital governance, and drug procurement.

A literature review shows that the implementation of medical service payments within the National Health Insurance (JKN) system still faces various challenges related to program socialization, the use of digital applications, fraud prevention, drug availability, and the sustainability of participation. Findings from Akbar and Imran emphasize that geographic issues and low public understanding are the main obstacles to the socialization of the JKN program in the regions, particularly in island regions such as Muna Regency. Obstacles to participation due to limited identity documents and the involvement of foreign communities are also important considerations, as these can directly impact low active participation in the program. These conditions illustrate that the success of medical service payments within JKN is highly dependent on the administrative aspects of participation, which, if not well-organized, can disrupt the flow of claims and funding for health services. Another finding from Nur Annisa et al. highlighted the technological dimension through an evaluation of the Mobile JKN application.

Although the application was designed to facilitate access to services, weaknesses in usability aspects such as efficiency, learnability, and control indicate that digitalization has not fully met user needs. These weaknesses have the potential to reduce public interest in using digital services, thus hampering the transparency of membership and claims information. In the context of medical service payments, limitations in the digital system have implications for delays in claims administration, inaccurate participant data, and user dissatisfaction with BPJS Kesehatan services. The issue of fraud prevention in the implementation of the National Health Insurance (JKN), as outlined by Sari et al., is also an unresolved strategic issue. Diponegoro National Hospital has attempted to develop a culture of fraud prevention, but unclear success indicators and weak internal coordination create loopholes that can be exploited for irregularities. This is crucial given that the INA-CBGs-based payment scheme has the potential for abuse by both the hospital and medical personnel. The unclear division of duties and weak monitoring system could result in significant financial losses for BPJS Kesehatan and reduce the quality of medical services provided to patients.

Meanwhile, research by Anggriani et al. (2020) shows that drug planning and procurement are also weak points in the implementation of the National Health Insurance (JKN). Poor alignment between planning and budget allocation, along with minimal use of e-catalogs, results in limited drug availability in primary healthcare facilities. This situation not only leads to patient dissatisfaction but can also hamper the effectiveness of the medical service payment system, as drug claims often do not comply with JKN regulations. With budget constraints, non-e-catalog-based drug procurement further exacerbates inefficiencies, which in turn burdens hospital finances and the JKN system as a whole. On the other hand, a study by Sinaga et al. illustrates that although participant coverage in DKI Jakarta has reached its target thanks to inter-institutional collaboration, challenges remain in the sustainability of participation and the tiered referral system. Many JKN participants remain inactive or in arrears with their contributions, particularly among salaried workers. This situation indicates a problem with the program's financial sustainability, which could impact the stability of medical service payments.

Furthermore, patients' desire to choose healthcare services without following tiered referrals demonstrates a mismatch between policy design and patient preferences. This can lead to an imbalance in the workload between primary and secondary healthcare facilities and impact the distribution of medical service payments across service levels. Overall, the results of this discussion demonstrate that the challenges of implementing medical service payments within the National Health Insurance (JKN) system are not only technical and administrative, but also encompass social, cultural, technological, and regulatory aspects. Barriers to regional socialization, limited usability of digital applications, weak fraud prevention systems, low drug procurement efficiency, and issues with participant sustainability demonstrate that optimizing JKN requires a multidimensional approach. Efforts to improve the quality of medical service payments cannot rely solely on improving the claims mechanism but must be accompanied by improvements to the participant system, enhancements to digital infrastructure, strengthening hospital governance, and regulatory adjustments to be more adaptive to the needs of the community and healthcare workers.

CONCLUSION

The conclusion of this literature review indicates that the implementation of medical service payments within the National Health Insurance (JKN) system has brought significant changes to healthcare governance in Indonesia through the INA-CBGs-based payment scheme, the use of digital applications such as Mobile JKN, and the strengthening of the membership system. However, various challenges remain in practice, ranging from weak socialization in certain regions, limited usability of digital applications, potential fraud in claims, inefficiencies in drug procurement, to issues of membership sustainability and a tiered referral system. This situation emphasizes that the success of the medical service payment system within JKN is largely determined by the synergy between the government, BPJS Kesehatan (Social Security Agency for Health), healthcare facilities, medical personnel, and the community. Therefore, continuous improvements in administration, technology, governance, regulations, and increased community participation are key to ensuring the achievement of JKN's goals, namely equitable access and sustainable quality of healthcare services.

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