



## PRIMARY HEALTH CARE IMPROVEMENT STRATEGY: STEPS TOWARDS SUSTAINABLE NATIONAL HEALTH SECURITY

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### Abstract

The Jaminan Kesehatan Nasional (JKN) scheme, launched in 2014, aimed to achieve universal health coverage in Indonesia by providing comprehensive healthcare services and reducing out-of-pocket expenses. Despite progress, challenges persist in the primary healthcare system, including disparities in access and quality between urban and rural areas, financial sustainability, and the need for continuous improvements in service delivery. This study employed a systematic literature review (SLR) methodology to evaluate the effectiveness and challenges of JKN in strengthening primary healthcare services, focusing on the period 2013–2024. The primary healthcare framework in Indonesia, centred around community health centres (Puskesmas), sub-district health centres (Pustu), and village health posts (Posyandu), plays a pivotal role in delivering accessible and comprehensive care. However, the unequal distribution of resources and inadequate training of healthcare providers remain significant obstacles. Recent reforms and initiatives aimed at strengthening the primary healthcare system have focused on improving access, quality, and sustainability through infrastructure enhancements, healthcare worker training, service integration, technology utilization, and community participation. The SLR process involves identifying research questions, conducting literature searches, selecting studies based on inclusion and exclusion criteria, extracting data, and synthesizing findings. The results of SLR are expected to provide insights into the effectiveness and challenges of JKN, forming a foundation for enhanced policy development within the national healthcare system. This study underscores the importance of comprehensive and sustainable strategies for strengthening primary healthcare to ensure the sustainability of JKN and equips policymakers and healthcare practitioners with evidence to strengthen the national healthcare system towards sustainable resilience.

**Keywords:** Jaminan Kesehatan Nasional, Universal Health Coverage, Primary Healthcare, Healthcare Disparities, Healthcare Policy

## INTRODUCTION

The healthcare landscape in Indonesia has undergone a significant transformation in recent years, primarily driven by the implementation of the Jaminan Kesehatan Nasional (JKN) scheme. Launched in 2014, JKN aims to achieve universal health coverage (UHC) by providing comprehensive healthcare services to all Indonesian citizens, thereby reducing out-of-pocket expenses and ensuring equitable access to essential health services (Mboi, 2015). This initiative represents a critical step towards improving the overall health outcomes of the population, addressing both preventive and curative healthcare needs.

Despite the progress facilitated by JKN, several challenges persist within the primary healthcare system. These challenges include disparities in healthcare access and quality between urban and rural areas,

financial sustainability issues, and the need for continuous improvement in healthcare service delivery (Wenang et al., 2021). The disparity in healthcare resources and infrastructure, particularly between rural and remote regions, underscores the importance of targeted interventions to bridge these gaps. Furthermore, ensuring the long-term financial sustainability of JKN is paramount, necessitating diverse funding sources and efficient management (Atim et al., 2021).

This study employed a systematic literature review (SLR) methodology to address these challenges and build a resilient healthcare system. The SLR method allows for a comprehensive evaluation and synthesis of findings from various relevant studies, providing insights into the effectiveness and challenges of JKN in strengthening primary healthcare services in Indonesia (Ekawati & Claramita, 2021). This approach aims to inform policy development and implementation strategies, ultimately contributing to the sustainability and effectiveness of the national healthcare system.

The primary healthcare framework in Indonesia, centred around community health centres (Puskesmas), sub-district health centres (Pustu), and village health posts (Posyandu), plays a pivotal role in delivering accessible and comprehensive care. These facilities are integral to providing essential health services, preventive care, and health education to the population. However, the unequal distribution of healthcare resources and inadequate training of healthcare providers remain significant obstacles that must be addressed to enhance the effectiveness of primary healthcare delivery (Ekawati et al., 2017).

This study also explored recent reforms and initiatives aimed at strengthening the primary healthcare system. These efforts have focused on improving healthcare access, quality, and sustainability through infrastructure enhancements, healthcare worker training, service integration, utilization of technology, and community participation. By examining these strategies, this study provides a robust foundation for policymakers and healthcare practitioners to strengthen the national healthcare system towards achieving sustainable resilience.

## **METHOD**

This study employed a Systematic Literature Review (SLR) method to explore the effectiveness and challenges of the Jaminan Kesehatan Nasional (JKN) scheme in strengthening primary healthcare services in Indonesia. The SLR method facilitates the collection, evaluation, and synthesis of findings from various relevant studies and provides a comprehensive overview of the topic.

The SLR process begins with the identification of research questions focused on evaluating JKN's effectiveness in improving the accessibility, quality, and equity of primary healthcare services, as well as the challenges affecting the program's sustainability. Literature searches are conducted in databases such as PubMed, Scopus, and Google Scholar using keywords like "National Health Insurance," "primary healthcare," "Indonesia," "healthcare accessibility," "healthcare quality," and "healthcare equity." Studies

were selected based on specific inclusion and exclusion criteria to ensure that only relevant high-quality studies were included in the review between 2013-2024 as shown in Figure 1. Data were extracted using a structured form that included information on the study objectives, methods, key findings, conclusions, and recommendations. The synthesis of findings is conducted narratively and identifying key themes such as healthcare accessibility, service quality, equity, and challenges in JKN implementation.

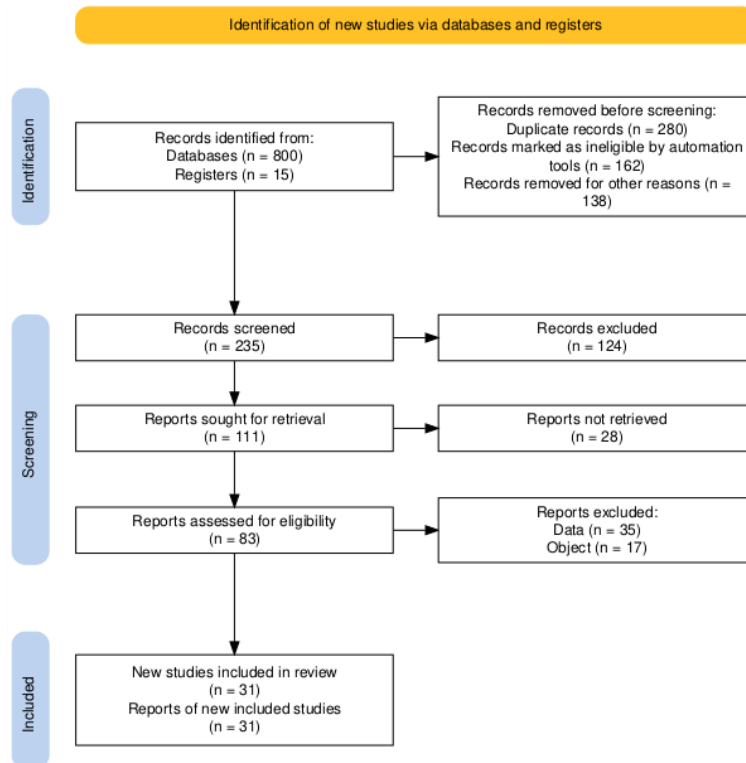


Figure 1. Data Collection Process

The results of the SLR are anticipated to provide profound insights into the effectiveness and challenges of JKN, forming a foundation for enhanced policy development within the national healthcare system. This study underscores the importance of comprehensive and sustainable strategies for strengthening primary healthcare to ensure the sustainability of JKN. These strategies include infrastructure improvement, healthcare worker training, service integration, technology utilization, and community participation. Thus, this study aims to equip policymakers and healthcare practitioners with robust evidence to strengthen the national healthcare system towards achieving sustainable resilience.

## RESULT AND DISCUSSION

### Role of National Health Insurance in Strengthening Primary Healthcare

#### 1. Overview of Jaminan Kesehatan Nasional (JKN)

The Jaminan Kesehatan Nasional (JKN) initiative represents a comprehensive effort by the Indonesian government to establish universal health coverage (UHC). Since its inception in 2014, JKN has significantly expanded access to healthcare services across the nation. The program's primary structure is built on a mandatory social health insurance model, which ensures contributions from both employers and employees in the formal sector while providing government subsidies for the poor and near-poor populations (Ahsan et al., 2021). This inclusive approach has facilitated the provision of a wide range of healthcare services, encompassing preventive, primary, secondary, and tertiary care. Notably, the focus on primary healthcare services delivered through community health centers (Puskesmas) underscores the program's commitment to early intervention and health promotion (Ekawati et al., 2017).

JKN's benefits package is extensive, covering outpatient care, inpatient care, maternal and child health services, immunization, and essential medications. The inclusion of chronic disease management is particularly pertinent given the rising prevalence of non-communicable diseases in Indonesia (Anggriani et al., 2019). Additionally, the scheme's referral system ensures that patients requiring specialized care can access higher-level healthcare facilities without financial hardship (Gunardi & Suastika, 2020). This extensive coverage aims to reduce out-of-pocket healthcare expenses, which have historically been a significant burden on Indonesian households (Ahsan et al., 2021).

The JKN program's impact on healthcare access and equity has been widely studied, with numerous evaluations highlighting its successes and challenges. Studies have indicated that JKN improved healthcare utilization, particularly in outpatient and inpatient services, contributing to enhanced health system equity (Erlangga et al., 2019). The capitation payment system implemented for primary healthcare services under the JKN is crucial for achieving UHC and bridging the gap between healthcare theory and practice (Putri et al., 2024). However, this payment model requires continuous evaluation to ensure its effectiveness and sustainability, particularly in maintaining the satisfaction and motivation of primary care physicians (Maharani et al., 2019).

Despite these achievements, challenges remain, particularly concerning the participation of informal sector workers and the classification of patient blood samples (Deng et al., 2023; Muttaqien et al., 2021). The willingness of informal sector workers to engage in the program was a critical factor for its long-term sustainability. Furthermore, ensuring that all participants had adequate knowledge and awareness of their obligations and benefits under JKN was essential for fostering active engagement and payment compliance (Nugroho et al., 2021; Rahmadiane, 2022). Efforts to address these issues are crucial for the continued success and expansion of JKN, particularly in reaching vulnerable populations and promoting health equity (Nopiyani et al., 2015).

The findings underscore the significant role of JKN in strengthening primary healthcare and advancing UHC in Indonesia. By addressing income disparities and promoting equitable access to healthcare, JKN contributed to improved public health outcomes and reduced the financial burden on households. The comprehensive coverage provided by JKN, including preventive care and chronic disease management, is critical in addressing the rising burden of non-communicable diseases, thereby enhancing the resilience of the overall health system (Anggriani et al., 2019).

## 2. Integration of Primary Healthcare and JKN

The integration of primary healthcare services within the Jaminan Kesehatan Nasional (JKN) framework was fundamental to achieving the scheme's goal of universal health coverage. Primary healthcare facilities, especially Puskesmas, play a crucial role as the first point of contact in the healthcare system, providing preventive, curative, and chronic disease management services and facilitating referrals to higher levels of care when necessary (Ekawati & Claramita, 2021). This integration ensured that healthcare services were accessible to all segments of the population, including those in remote and rural areas.

JKN employs a capitation payment system for primary healthcare providers, where Puskesmas receives a fixed amount per registered beneficiary. This system incentivized primary healthcare centers to focus on preventive care and effective chronic disease management, promoting cost efficiency, and emphasizing population health maintenance (Putri et al., 2024). As a result, primary healthcare services under the JKN saw increased utilization, leading to the early detection and treatment of diseases, which improved overall health outcomes (Ekawati & Claramita, 2021).

Integrating primary healthcare services into JKN was met with both success and challenges. The capitation payment system implemented under the JKN was effective in promoting preventive care and managing healthcare costs, aligning with similar global health strategies (Putri et al., 2024).

However, the quality of care provided by Puskesmas varied significantly. Some centers deliver high-quality services, while others struggle because of inadequate infrastructure, limited medical supplies, and insufficient trained personnel (Firori & Wisana, 2023). This disparity affects the overall effectiveness of integration.

In urban areas, Puskesmas generally have better resources and infrastructure than their rural counterparts. Rural Puskesmas face greater difficulties in attracting and retaining qualified healthcare professionals, which impacts their quality of care (Firori & Wisana, 2023). Furthermore, logistical challenges, such as poor transportation infrastructure, further hindered access to services in remote areas. These challenges mirror those seen in other countries implementing similar universal health coverage programs, where rural healthcare delivery often lags urban areas in terms of quality and accessibility.

Nevertheless, the integration of primary healthcare into the JKN has led to notable improvements in healthcare utilization. Reduced financial barriers result in more people seeking medical attention, contributing to early disease detection and better health outcomes (Ekawati & Claramita, 2021). Experiences from other regions with universal health coverage initiatives highlight the importance of continuous investment in healthcare infrastructure and workforce development to overcome these challenges (Asyary, 2018).

The findings underscore the critical role of primary healthcare in achieving the objectives of JKN and advancing universal health coverage in Indonesia. The successful integration of primary healthcare services into the JKN has significant implications for public health, emphasizing the need for a strong primary care foundation to improve health outcomes and reduce healthcare costs. By incentivizing preventive care and chronic disease management, the capitation payment system aligns with global best practices and promotes sustainable healthcare financing (Putri et al., 2024).

### 3. Financial Sustainability of JKN

Ensuring the financial sustainability of Jaminan Kesehatan Nasional (JKN) is critical for the long-term success of Indonesia's universal health coverage program. JKN was primarily funded through premiums collected from formal sector employees and employers alongside government subsidies for the poor and near-poor populations (Budiono et al., 2020). Contributions from the informal sector were also part of the funding mechanism, although maintaining consistent collection rates in this sector was challenging. The extensive coverage and comprehensive benefits provided by JKN led to increased healthcare utilization, but this also put significant financial pressure on the scheme.

One of the major financial challenges facing JKN is the imbalance between contributions and healthcare costs. The rising cost of healthcare services, driven by increased utilization and the growing burden of chronic diseases, has created concerns about the long-term viability of JKN (Atim et al., 2021). Additionally, the capitation payment system used for primary healthcare providers, while promoting cost efficiency, sometimes led to providers prioritizing cost-saving measures over quality of care (Putri et al., 2024).

The financial sustainability of JKN was comparable to the challenges faced by other countries implementing similar universal health coverage programs. For instance, the rising cost of healthcare services is a common issue that threatens the viability of health insurance schemes globally. In the case of JKN, the increasing burden of chronic diseases exacerbates this challenge, necessitating effective cost-control measures and efficient fund utilization (Atim et al., 2021). Similar concerns were observed in other nations, where the balance between contributions and expenditures was crucial for maintaining financial stability.

Strategies to address these challenges in JKN include improving the efficiency of fund collection, particularly in the informal sector. Enhancing compliance through better enforcement and incentivizing voluntary participation are key approaches (Budiono et al., 2020). This mirrors the efforts of other health systems to secure stable funding streams, such as the use of health technology assessments to cover cost-effective treatments and interventions (Chavarina et al., 2023).

Despite financial challenges, JKN has made significant strides in improving healthcare access and utilization. While presenting some issues, the capitation payment system generally promoted preventive care and efficient healthcare delivery. This was consistent with global trends, where preventive care and early intervention were emphasized to manage long-term healthcare costs (Putri et al., 2024).

The financial sustainability of JKN was pivotal not only for the continuity of the program but also for the broader goal of universal health coverage in Indonesia. Ensuring that JKN remained financially viable was crucial for maintaining extensive coverage and comprehensive benefits that improved healthcare access for millions of Indonesians. Addressing financial challenges requires a multifaceted approach that includes enhancing fund-collection efficiency, implementing stricter cost-control measures, and exploring alternative funding sources (Budiono et al., 2020; Chavarina et al., 2023).

Investing in preventive care and health promotion is particularly important. By focusing on prevention and early intervention, JKN reduced the overall burden of disease and associated healthcare costs, aligning with the best practices observed globally (Kartinawati et al., 2022). Additionally, the government's exploration of alternative funding sources, such as allocating local tobacco taxes to subsidize JKN, represents a proactive approach to securing the program's financial future (Ahsan et al., 2021).

## **Strategies for Strengthening Primary Healthcare**

### **1. Capacity Building and Workforce Development**

Capacity building and workforce development are essential components for strengthening primary healthcare systems, particularly in resource-limited settings. Continuous training and education of healthcare professionals are vital for maintaining high standards of care. In Indonesia, the primary healthcare workforce, which includes doctors, nurses, midwives, and community health workers, requires ongoing professional development to stay current with medical advancements and best practices (Ekawati & Claramita, 2021). Regular training programs have been implemented to update clinical skills, understand new healthcare policies, and improve patient communication. These programs ensure that practitioners are proficient in managing common health issues and providing effective preventive care.

One key initiative involves partnerships with educational institutions and international organizations to enhance the quality of training programs. These collaborations provided access to advanced training modules, simulation-based learning, and global best practices. Cross-sectional studies among public health students, such as those conducted by Ainy and Pujiyanto (2023), demonstrated the potential for scaling up these initiatives to include a broader range of healthcare professionals.

Addressing workforce shortages through incentive programs, task shifting, and telemedicine is crucial for ensuring equitable healthcare delivery. Financial incentives and career advancement opportunities attract healthcare professionals to underserved areas, while task shifting empowers mid-level providers and community health workers to handle basic health issues and preventive care, thereby broadening access to healthcare services (Firori & Wisana, 2023). Telemedicine has further bridged the gap in regions with limited healthcare personnel, enabling remote consultation and support (Wenang et al., 2021).

## 2. Infrastructure and Technological Advancements

Improvements in infrastructure and technological advancements are critical for enhancing primary healthcare services in Indonesia. Upgrading healthcare facilities ensures that they are equipped to provide high-quality care. Many primary healthcare centers, especially in rural areas, lack essential medical equipment, clean water, and adequate sanitation facilities. Addressing these deficiencies requires substantial investment and strategic planning. For instance, investing in the renovation and expansion of existing healthcare facilities has significantly improved service delivery. This included ensuring that all centers had the necessary medical equipment, pharmaceuticals, and diagnostic tools to provide comprehensive care (Esti et al., 2019).

Incorporating sustainable practices in healthcare infrastructure development, such as using renewable energy sources and ensuring water conservation, reduces operational costs and environmental impacts. These practices have made healthcare facilities more resilient and capable of delivering consistent care. The electrification of rural primary care facilities using solar energy, for instance, has been shown to improve service availability, enhance health worker motivation, and increase community satisfaction with healthcare services (Javadi et al., 2020).

The role of technology in enhancing primary healthcare services cannot be overstated. Health Information Technology (HIT) has significantly improved the quality and efficiency of primary health care. For example, HIT increases adherence to guidelines, enhances disease surveillance, and reduces medication errors (Chaudhry et al., 2006). Similarly, the implementation of Electronic Health Records (EHRs) streamlined patient data management, making it easier for healthcare providers to access and share patient information. This improves the continuity of care and reduces the likelihood of medical errors (Rahmawati & Hsieh, 2024).

Telemedicine and Mobile Health (mHealth) applications provide significant benefits, especially for patients in remote or underserved areas. Telemedicine platforms allow patients to consult healthcare providers remotely, while mobile health applications provide patients with health information, appointment reminders, and medication management tools. These technologies enhance patient engagement and adherence to treatment plans, leading to better health outcomes (Qahar et al., 2024). This was similar to initiatives in other low-income countries, where mobile technologies were used to track health commodity inventory and notify stock levels, address commodity shortages, and improve health service delivery (Agarwal et al., 2020).

Developing robust health information systems that integrate data from various sources supports better decision making and policy formulation. These systems track disease outbreaks, monitor healthcare delivery, and evaluate the impact of health interventions, providing valuable insights for continuous improvement (Chavarina et al., 2023). The use of innovative diagnostic tools and wearable devices for early detection and continuous monitoring further enhances the capacity of primary healthcare services to address health issues promptly and effectively.

### 3. Community Engagement and Health Promotion

Community engagement and health promotion are integral to strengthening primary healthcare in Indonesia. Effective community involvement ensured that healthcare services were responsive to the community's needs, enhancing the impact of health promotion efforts. Community involvement in health care significantly improves health outcomes by involving local populations in health-related activities. Communities that understand their health status and take preventive measures are more committed to maintaining their health facilities and services (MacCormack, 1983).

Community Health Workers (CHWs) play a critical role in bridging the gap between healthcare providers and the community. They provide culturally appropriate health education, support, and services; disseminate health information; encourage preventive health behaviors; and facilitate access to healthcare services (Ekawati et al., 2017). Participatory approaches, such as involving community members in the planning, implementation, and evaluation of health programs, ensured that the interventions were relevant and effective. Building trust between healthcare providers and the community through transparent communication and respect for cultural norms is essential for successful health service delivery (Raharja et al., 2022).

Public health campaigns on topics such as immunization, nutrition, and disease prevention are effective in raising awareness and motivating individuals to adopt healthier lifestyles. These campaigns were delivered through mass media, social media, and community events (Ainy & Pujiyanto, 2023). Integrating health education into school curricula and implementing workplace health programs also

reached significant portions of the population, promoting healthy habits from an early age and among the adult workforce, respectively (Kartinawati et al., 2022; Khoirunurrofik & Raras, 2021).

## CONCLUSION

This study highlights the pivotal role of Jaminan Kesehatan Nasional (JKN) in advancing universal health coverage (UHC) in Indonesia. The JKN initiative significantly expanded healthcare access and equity, particularly through its extensive benefits package, which covered outpatient and inpatient care, maternal and child health services, immunization, and chronic disease management. By addressing income disparities and promoting equitable access, JKN improved public health outcomes and reduced the financial burden on households.

The integration of primary healthcare services within the JKN framework is fundamental to achieving UHC. Primary healthcare facilities, especially Puskesmas, play a crucial role as the first point of contact, providing preventive, curative, and chronic disease management services. The capitation payment system incentivizes preventive care and cost efficiency, contributing to better health outcomes. However, challenges such as variability in the quality of care and disparities between urban and rural healthcare services require ongoing attention.

Ensuring the financial sustainability of JKN is critical for its long-term success. Addressing the imbalance between contributions and healthcare costs, enhancing fund collection efficiency, and exploring alternative funding sources are essential strategies. Investing in preventive care and health promotion has reduced the overall burden of disease and associated healthcare costs, aligning with global best practices.

Capacity building and workforce development are vital for strengthening primary healthcare systems. Continuous training and education of healthcare professionals, coupled with infrastructure improvements and technological advancements, significantly enhance service delivery. Telemedicine and mobile health applications offer substantial benefits, particularly for remote and underserved areas, by improving healthcare access and patient engagement.

Community engagement and health promotion are integral to strengthening primary health care. Effective community involvement ensures that healthcare services are responsive to local needs, thus enhancing the impact of health promotion efforts. Strategies such as public health campaigns, school-based health education, and workplace health programs are crucial for improving health literacy and encouraging healthy behaviors.

Overall, the study provides a robust foundation for policymakers and healthcare practitioners to strengthen the national healthcare system towards sustainable resilience. By addressing existing challenges and leveraging the lessons learned from JKN's implementation, Indonesia has built a resilient and equitable healthcare system capable of meeting the diverse needs of its population and improving health outcomes. Future research should focus on evaluating the long-term impact of JKN, exploring the effectiveness of various health interventions, and integrating new digital health technologies to further enhance healthcare delivery and patient outcomes.

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