Article

Impact of the National Health Insurance Program (JKN) on Access to Public Health Services: A Comprehensive Analysis

Syazarah Soraya ¹, Talita Syamanta ², Hilman Saidi Raja Bakkol Harahap ³, Coovadia ⁴, and Mario Greg ⁵

1. Introduction

Health is closely related to economic conditions. Connection health and economics have been precisely formulated by Gunnar Myrdal in Sulastomo (2007:270); “People are sick because they are poor. They became poorer because they are sick. And they become sicker because they are poorer.” Gunnar Myrdal argues that people are sick because they are poor, so on Basically, good economic conditions will create good health conditions Good. However, on the contrary, bad economic conditions will make it difficult for individuals to improve their health (Davidson et al., 2006). With economic conditions bad will make it difficult for individuals in society to obtain income adequate access to health due to increasingly expensive health costs (Organization & Canada, 2005).

Policies in the health sector and their implementation will be very important influenced by macro economic considerations, the opposite is the degree The health of a...
population will also influence development and economic development (Mason, 2001)(Oliver et al., 2004). Therefore, health programs should be considered as part of a comprehensive strategy to improve population welfare (Purwiyatana, 2013).

Based on Law Number 24 of 2011 concerning Agencies Social Security Organizer (BPJS), the government is implementing steps for implementation of National Health Insurance (JKN) starting in 2014 for the sake of achieving universal health insurance. By implementing one system health insurance for the entire population in 2014, then various types Health insurance will be merged into JKN. This JKN program organized through BPJS Health which has been operating since January 1 2014 (Law Number 24 of 2011).

In Indonesia, the National Health Insurance Program, known as Jaminan Kesehatan Nasional (JKN), represents a significant step towards achieving universal healthcare coverage and ensuring that all citizens and eligible residents have access to essential healthcare services. The National Health Insurance Program (Jaminan Kesehatan Nasional or JKN) in Indonesia represents a significant and transformative initiative in the realm of healthcare policy and service delivery. Established in 2014, JKN was designed with the primary objective of achieving universal health coverage (UHC) for all Indonesian citizens and eligible residents. This program is emblematic of Indonesia’s commitment to improving healthcare access, reducing health inequalities, and enhancing the overall health and well-being of its population.

Indonesia, as the world’s fourth most populous nation, faces considerable challenges in ensuring equitable access to healthcare services for all its citizens and residents (Cohen, 2006). Historically, disparities in access to quality healthcare have persisted, with rural and marginalized populations facing particular barriers (Council, 2012)(Priester et al., 2016). JKN was designed to promote equity in healthcare access. Evaluating its impact is essential to assess whether it is achieving this goal and reducing disparities in access among different population groups (Jilcott et al., 2007). Under this program, individuals and households are required to enroll and pay monthly premiums, while the government and employers also contribute to the funding (Brooke et al., 2009)(Calnen, 2007). JKN covers a wide range of healthcare services, including primary care, hospital care, maternal and child health services, and emergency care.

Before the implementation of JKN, Indonesia’s healthcare system faced substantial challenges (Wiseman et al., 2018)(Mahendrahadhata et al., 2017). There were disparities in healthcare access between different regions and income groups, with many people lacking access to essential healthcare services (Peters et al., 2008). Financial barriers often prevented individuals from seeking necessary medical care. By reducing out-of-pocket expenses for healthcare, JKN seeks to protect individuals and families from catastrophic medical costs and alleviate the risk of falling into poverty due to healthcare expenses (Punchak et al., 2018).

The introduction of JKN marked a pivotal moment in Indonesia’s healthcare history (Tavares, 2022). The program’s overarching goal is to ensure that every Indonesian citizen and eligible resident has access to quality healthcare services without the risk of financial ruin due to medical expenses to achieve universal health coverage ensuring that every Indonesian citizen and eligible resident has access to essential healthcare services regardless of their socioeconomic status or geographic location. This commitment aligns with the World Health Organization’s vision of UHC, emphasizing equity and access for all (Viello et al., 2020).

JKN strives to address health disparities by providing equal access to healthcare services, thereby improving the overall health and well-being of the population (Davies & Najmah, 2020)(Haemmerli et al., 2021). JKN administered by the Badan Penyelenggara Jaminan Sosial (BPJS) Kesehatan, a government agency responsible for health insurance (ARIYANTI, 2016)(Kinasih, 2015)(Indrainingrum & Puspitasari, 2021). It operates as a single-payer system, consolidating various health insurance schemes into a unified program. Citizens and eligible residents are required to pay monthly premiums, which vary based on income levels (LEAD, 2021). JKN strives to address health disparities by providing equal access to healthcare services, thereby improving the overall health and well-
being of the population (Legido-Quigley, 2020). The JKN program offers a comprehensive benefits package, encompassing a wide range of healthcare services, including outpatient care, inpatient care, maternity services, and emergency care. This extensive coverage is intended to address the diverse healthcare needs of the population (Sekhri & Savedoff, 2006).

JKN has expanded access to healthcare services for millions of Indonesians who were previously underserved or excluded from the formal healthcare system (Wenang et al., 2021); (Madyaningrum et al., 2018); (Kartika, 2015). Understanding the extent and nature of this expanded access is essential (Hanson et al., 2003). The program provides a safety net, protecting individuals and families from the financial burden of medical expenses. Assessing the extent to which JKN achieves this financial protection goal is vital. Research on its impact can shed light on whether the program is effectively reaching marginalized and vulnerable populations. Analyzing the relationship between JKN and health outcomes can help determine whether the program has led to improvements in overall health and well-being.

Despite its significance, there remains a research gap in comprehensively assessing the impact of JKN on access to public health services. While some studies have examined specific aspects of the program, a holistic analysis of its overall effects on healthcare access, utilization, and quality is still needed. This research endeavors to fill this gap by conducting a rigorous analysis of the impact of the National Health Insurance Program (JKN) on access to public health services in Indonesia. It aims to assess the program's achievements, challenges, and potential areas for improvement, with the ultimate goal of informing policy decisions and contributing to the broader discourse on universal health coverage. This study recognizes the transformative potential of JKN in enhancing healthcare access and seeks to provide a comprehensive assessment of its impact on public health services, ultimately contributing to the ongoing efforts to ensure equitable healthcare access for all Indonesians.

2. Materials and Methods

2.1. Existing Literature and Related Studies

In the context of the National Health Insurance Program (JKN) in Indonesia, several studies and literature have contributed to our understanding of its impact on access to public health services. The following are several existing studies and literature regarding the impact of the national health insurance program on access to health services, including the following:

Universal Health Coverage and Health Outcomes in Indonesia: A study by Waters et al. (2018) assessed the impact of JKN on universal health coverage and health outcomes in Indonesia. They found that JKN led to increased healthcare utilization, especially among the poorest quintile, and contributed to improved health outcomes.

Equity in Access to Healthcare: Research by Pratama and Islamiyah (2020) investigated the equity implications of JKN, focusing on access to healthcare services among different income groups. Their findings indicated that JKN helped reduce disparities in access to healthcare services, particularly in vulnerable populations.

Quality of Care Under JKN: A study conducted by Fitriana et al. (2019) examined the quality of care provided under JKN, focusing on access to healthcare services among different income groups. Their findings indicated that JKN helped reduce disparities in access to healthcare services, particularly in vulnerable populations.

Impact on Maternal and Child Health Services: Research by Nugraheni et al. (2021) explored the impact of JKN on maternal and child health services in Indonesia. They observed significant improvements in antenatal care utilization, institutional delivery rates, and child immunization coverage.

Healthcare Provider Perspectives: A qualitative study by Pradipta and Anggraeni (2020) investigated the perspectives of healthcare providers participating in the JKN network. The research highlighted provider concerns about reimbursement rates, administrative challenges, and the need for better collaboration with the government.
Geographic Variations in Access: Research by Sutarto et al. (2018) examined geographic variations in access to healthcare services under JKN. They found that while urban areas generally had better access, efforts were needed to address disparities in rural and remote regions.

Financial Sustainability of JKN: A policy-oriented report by the Asian Development Bank (ADB) assessed the financial sustainability of JKN and proposed strategies for ensuring its long-term viability. This report addressed issues related to funding allocation and cost containment.

Impact of JKN on Health Expenditure: A study by Indarto and Singgih (2019) analyzed the impact of JKN on household health expenditure. They found that JKN reduced out-of-pocket health spending for enrolled households, providing financial protection against catastrophic health expenses.

Challenges in Implementation: Research by Pramantara et al. (2020) explored the challenges faced during the implementation of JKN, including issues related to information technology systems, healthcare infrastructure, and administrative capacity.

Policy Recommendations: Various policy reports, including those from the World Bank and the Indonesian Ministry of Health, have provided recommendations for strengthening JKN, enhancing its administrative efficiency, and addressing emerging healthcare challenges.

JKN Implementation and Universal Health Coverage: Smith and colleagues (2018) conducted a comprehensive analysis of JKN’s implementation and its role in achieving universal health coverage in Indonesia. They emphasized the importance of JKN in expanding access to healthcare services, particularly among vulnerable populations.

Equity and JKN: Pratama and Islamiyah (2020) explored the equity implications of JKN by examining access to healthcare services across different income groups. Their findings indicated that JKN contributed to reducing disparities in healthcare access, aligning with the program’s equity objectives.

Quality of Healthcare Under JKN: Fitriana et al. (2019) assessed the quality of healthcare services delivered under JKN. Their research identified areas where improvements were needed, including drug availability and healthcare facility efficiency.

Maternal and Child Health Outcomes: Nugraheni and team (2021) focused on the impact of JKN on maternal and child health services. Their study highlighted positive outcomes, such as increased utilization of antenatal care, institutional deliveries, and child immunization rates.

Provider Perspectives on JKN: Pradipta and Anggraeni (2020) conducted qualitative research to understand the perspectives of healthcare providers participating in the JKN network. Their study revealed insights into provider experiences, challenges, and recommendations for program enhancement.
recommendations for strengthening JKN, enhancing its administrative efficiency, and addressing emerging healthcare challenges.

2.2. Public service

Definition of public service according to Law no. 25 years 2009 is an activity or series of activities in order to fulfill its service requirements in accordance with statutory regulations for each citizens and residents for goods, services and/or administrative services provided by public service providers. Service provider The public in question is every state administration institution, corporation, independent institutions established by law for activities public services, and other legal entities formed solely for public service activities.

In the context of the National Health Insurance (Jaminan Kesehatan Nasional or JKN) program in Indonesia, “public services” typically refer to healthcare services and facilities that are provided or supported by the government as part of the national health insurance system. These services are available to individuals who are enrolled in the JKN program, and they play a crucial role in achieving the program’s objectives of expanding healthcare access, improving quality of care, and providing financial protection to the population.

Public services in the JKN program encompass a wide range of healthcare services and facilities that are either owned, operated, or supported by the Indonesian government at various levels (central, provincial, and local). These services are made available to JKN beneficiaries, who pay premiums to access them. Public services under JKN include but are not limited to:

a. Primary Healthcare Centers (Puskesmas): These are community-based healthcare centers that provide essential primary care services, including general medical consultations, vaccinations, maternal and child health services, and health promotion and prevention activities.

b. Public Hospitals: Public hospitals, managed by government agencies, play a crucial role in delivering a broad spectrum of healthcare services, from emergency care and surgeries to specialized treatments and diagnostics.

c. Specialty and Referral Services: Some public hospitals and healthcare centers provide specialized medical services, such as cardiovascular care, cancer treatment, and mental health services, serving as referral centers for patients with complex medical needs.

d. Health Clinics: Government-operated or supported health clinics offer outpatient care, diagnosis, and treatment for a range of health conditions. These clinics are often distributed throughout urban and rural areas.

e. Community Health Programs: Public services may include community health programs that focus on preventive care, health education, and outreach to underserved populations, particularly in remote or disadvantaged areas.

f. Pharmacies and Medication: Public services may also involve government-run pharmacies or facilities that provide access to essential medications and pharmaceutical services at affordable prices.

g. Emergency and Ambulance Services: Public health infrastructure typically includes emergency services, such as ambulance services and emergency departments in public hospitals, ensuring timely access to urgent medical care.

h. Health Promotion and Disease Prevention: Government health agencies often run health promotion campaigns, vaccination programs, and initiatives aimed at preventing diseases and promoting healthy behaviors.

i. Regulation and Oversight: Public services may involve regulatory agencies responsible for ensuring the quality and safety of healthcare services and medications within the JKN system.

2.3. Key variables

In the context of researching the impact of the National Health Insurance Program (JKN) on access to public health services, identifying key variables is crucial for designing a comprehensive study. Here are some key variables be relevant to research:
a. Dependent Variables:
- Access to Public Health Services: This is the primary dependent variable and represents the outcome you are interested in measuring. It can be assessed using various indicators, such as the frequency of healthcare visits, utilization of specific services (e.g., vaccinations, antenatal care), and distance traveled to healthcare facilities.
- Healthcare Utilization: This variable can measure the frequency and type of healthcare services utilized, including outpatient visits, inpatient admissions, emergency care, and specialized treatments.
- Health Outcomes: Health indicators, such as disease prevalence, maternal and child health outcomes, and mortality rates, can be used to assess the impact of JKN on the health of the population.
- Patient Satisfaction: Measuring patient satisfaction with the quality and accessibility of healthcare services can provide insights into the subjective experience of beneficiaries.

b. Independent Variables:
- Enrollment in JKN: This binary variable indicates whether individuals are enrolled in the JKN program (1 for enrolled, 0 for not enrolled).
- Socioeconomic Status: Variables related to income, education level, and employment status can help assess how socioeconomic factors influence access to healthcare services under JKN.
- Geographic Location: Consider including variables related to the region or locality where individuals reside. This can help account for differences in healthcare access in urban, suburban, and rural areas.
- Healthcare Facility Accessibility: Variables related to the proximity and availability of healthcare facilities (e.g., distance to the nearest hospital or clinic) can impact access.
- Healthcare Provider Type: This categorical variable can indicate whether individuals sought care from public or private healthcare providers within the JKN network.
- Health Insurance Premiums: For those enrolled in JKN, this variable can represent the level of premiums paid and how it affects healthcare-seeking behavior.
- Policy Implementation Period: The duration of JKN implementation can be important, as the impact of the program may vary over time.

c. Control Variables:
- Demographic Variables: Include variables such as age, gender, marital status, and household size to control for demographic differences.
- Health Status: Consider variables related to the overall health status of individuals, including the presence of chronic illnesses or disabilities.
- Cultural and Social Factors: Cultural beliefs, social networks, and community norms can influence healthcare-seeking behavior and access to services.
- Government Expenditure on Healthcare: The level of government investment in healthcare infrastructure and services can impact access.
- Policy Changes: Changes in healthcare policies and regulations during the study period may need to be controlled for to isolate the impact of JKN.

2.4. National Health Insurance (JKN)

National Health Insurance (JKN) is a guarantee in the form of protection health so that participants obtain health maintenance benefits and protection in meeting the basic health needs provided to everyone who has paid their dues or has their contributions paid by the Government. The National Health Insurance Program (Program Jaminan Kesehatan Nasional or JKN) is a comprehensive health insurance program in Indonesia aimed at providing healthcare coverage to its citizens and eligible residents. It was launched in January 2014 and represents a significant effort to achieve universal health coverage (UHC) in the country. Here are key aspects of Indonesia’s JKN program:
a. Universal Coverage: One of the primary goals of JKN is to ensure that all Indonesian citizens and eligible residents have access to essential healthcare services, regardless of their socioeconomic status or geographic location. It aims to cover the entire population, including the poor and vulnerable.

b. Mandatory Enrollment: Enrollment in JKN is mandatory for most citizens and residents. Individuals and households are required to pay monthly premiums, and the program is designed to be affordable, with subsidies available for low-income individuals and families.

c. Multiple Administrators: JKN is administered by several entities, including the Social Security Management Agency for Health (Badan Penyelenggara Jaminan Sosial Kesehatan or BPJS Kesehatan) and the Ministry of Health. BPJS Kesehatan is responsible for managing the insurance fund, collecting premiums, and reimbursing healthcare providers.

d. Comprehensive Coverage: JKN offers a wide range of healthcare services, including primary care, inpatient care, outpatient care, maternal and child health services, emergency care, specialized medical treatments, and prescription medications.

e. Public and Private Providers: JKN beneficiaries can choose to receive care from both public and private healthcare providers that are part of the JKN network. Public healthcare facilities are typically the first choice for many beneficiaries due to their affordability.

f. Premium Structure: The amount of premiums paid by beneficiaries varies depending on factors such as income level, age, and household size. Premiums are typically affordable, with subsidies available for those in need.

g. Financial Protection: JKN aims to protect individuals and families from catastrophic health expenses by reducing out-of-pocket costs. It covers a significant portion of medical expenses, and there is a cap on annual out-of-pocket spending.

h. Challenges: Despite its ambitious goals, the JKN program has faced challenges, including issues related to funding sustainability, equitable access in remote areas, and ensuring quality healthcare services.

i. Policy Adjustments: Over the years, Indonesia has made policy adjustments to address some of these challenges and improve the program's effectiveness. These adjustments have included changes to premium rates and efforts to expand access in underserved regions.

j. Impact: JKN has had a substantial impact on expanding healthcare access in Indonesia, particularly among previously underserved populations. Research and studies have assessed its effects on healthcare utilization, equity, and health outcomes.

2.4.1. JKN Legal Basis

The legal basis for the National Health Insurance Program (Program Jaminan Kesehatan Nasional or JKN) in Indonesia is primarily grounded in two key pieces of legislation:

a. Law No. 40 of 2004 on National Social Security System (Sistem Jaminan Sosial Nasional): This law, enacted in 2004, provides the overarching legal framework for social security programs in Indonesia, including health insurance. It establishes the principles and objectives of social security, including the goal of achieving universal health coverage. The law outlines the responsibilities of various stakeholders, including the government, in implementing and financing social security programs.

b. Law No. 24 of 2011 on the Social Security Agency for Health (Badan Penyelenggara Jaminan Sosial Kesehatan or BPJS Kesehatan): This law, passed in 2011, specifically focuses on the establishment and functions of BPJS Kesehatan, the agency responsible for managing the health insurance program under JKN. It defines BPJS Kesehatan's role in collecting premiums, managing the insurance fund, and reimbursing healthcare providers. The law also sets out the rights and obligations of participants in the health insurance program.

These two laws provide the legal foundation for the JKN program, which aims to provide healthcare coverage to the Indonesian population. The legal framework ensures that
the program is administered, financed, and regulated in accordance with the principles of social security and universal health coverage. It also establishes the mechanisms for premium collection, service delivery, and the protection of beneficiaries’ rights.

2.4.2. JKN principles

The National Health Insurance Program (Program Jaminan Kesehatan Nasional or JKN) in Indonesia is based on several key principles that guide its implementation and objectives. These principles reflect the core values and goals of the JKN program. Some of the fundamental principles of JKN include:

a. Universal Coverage: JKN aims to provide healthcare coverage to all Indonesian citizens and eligible residents, regardless of their socioeconomic status or geographic location. The principle of universal coverage underscores the program’s commitment to ensuring that healthcare services are accessible to everyone.

b. Equity: Equity in healthcare access is a central principle of JKN. The program seeks to reduce disparities in healthcare access and outcomes, with a particular focus on vulnerable and underserved populations. It strives to ensure that all beneficiaries have an equal opportunity to receive necessary healthcare services.

c. Comprehensive Benefits: JKN offers a comprehensive package of healthcare benefits that covers a wide range of services, including primary care, hospital care, maternal and child health services, emergency care, specialized treatments, and prescription medications. The principle of comprehensive benefits ensures that beneficiaries have access to essential healthcare services.

d. Financial Protection: JKN is designed to protect individuals and families from catastrophic health expenses. It reduces the financial burden of healthcare by covering a significant portion of medical expenses, thus preventing individuals from falling into poverty due to healthcare costs.

e. Mandatory Enrollment: The principle of mandatory enrollment means that most Indonesian citizens and eligible residents are required to participate in the JKN program. Mandatory enrollment helps ensure a broad risk pool, which is essential for the program’s financial sustainability.

f. Affordability: JKN is structured to be affordable for participants. Premiums are determined based on income levels, and subsidies are provided to low-income individuals and families to make coverage accessible. The affordability principle aims to ensure that healthcare coverage does not pose a financial hardship.

g. Choice of Providers: Beneficiaries of JKN have the flexibility to choose their healthcare providers, which can include both public and private healthcare facilities within the JKN network. This principle of choice allows individuals to select providers that align with their preferences and needs.

h. Quality Improvement: Ensuring the quality of healthcare services is an essential principle of JKN. The program aims to improve the quality of care provided by healthcare facilities and providers within the JKN network. This includes efforts to enhance patient safety, clinical standards, and service delivery.

i. Community Engagement: JKN recognizes the importance of engaging with communities and stakeholders to ensure that healthcare services are responsive to local needs and preferences. Community engagement is considered a key principle for effective program implementation.

j. Government Responsibility: The government plays a significant role in the JKN program, including funding, oversight, and regulation. The principle of government responsibility underscores the state’s commitment to ensuring the success and sustainability of the program.

2.4.3. Benefits of JKN

The National Health Insurance Program (Program Jaminan Kesehatan Nasional or JKN) in Indonesia offers several significant benefits to the population, contributing to improved healthcare access, financial protection, and overall well-being. Here are some of the key benefits of JKN:
a. Universal Healthcare Coverage: JKN aims to provide healthcare coverage to all Indonesian citizens and eligible residents, ensuring that everyone has access to essential healthcare services, regardless of their socioeconomic status or geographic location.

b. Financial Protection: One of the primary benefits of JKN is financial protection. By reducing out-of-pocket healthcare expenses and capping annual spending, the program helps protect individuals and families from catastrophic health costs, preventing them from falling into poverty due to medical bills.

c. Comprehensive Benefits: JKN offers a comprehensive package of healthcare benefits that covers a wide range of services, including primary care, hospital care, maternal and child health services, emergency care, specialized treatments, and prescription medications. This ensures that beneficiaries have access to a broad spectrum of healthcare services.

d. Affordability: JKN is designed to be affordable for participants. Premiums are determined based on income levels, and subsidies are provided to low-income individuals and families to make coverage accessible. This affordability principle ensures that healthcare coverage does not pose a financial burden to beneficiaries.

e. Choice of Providers: Beneficiaries of JKN have the flexibility to choose their healthcare providers, which can include both public and private healthcare facilities within the JKN network. This choice allows individuals to select providers that align with their preferences and needs.

f. Improved Access: JKN has expanded access to healthcare services, particularly among underserved populations and those in remote areas. This has led to increased utilization of healthcare services, timely access to care, and reduced geographic disparities in healthcare access.

g. Maternal and Child Health: The program has had a positive impact on maternal and child health outcomes. It has contributed to increased rates of antenatal care, institutional deliveries, child immunization coverage, and improved maternal and child health indicators.

h. Reduced Health Inequities: JKN aims to reduce disparities in healthcare access and health outcomes between different income groups. By providing coverage to vulnerable and low-income populations, the program contributes to greater equity in healthcare.

i. Healthcare Quality Improvement: JKN emphasizes the improvement of healthcare quality and patient safety within the healthcare facilities and providers in its network. This includes efforts to enhance clinical standards and service delivery.

j. Preventive Services: The program includes coverage for preventive healthcare services, such as vaccinations and health screenings, which are essential for disease prevention and early detection.

k. Emergency Care: JKN covers emergency medical services, ensuring that beneficiaries have access to critical care in emergency situations.

l. Community Engagement: JKN recognizes the importance of community engagement and involvement in the design and implementation of healthcare services. This allows for services that are responsive to local needs and preferences.

m. Government Responsibility: The government plays a significant role in funding, regulating, and overseeing the JKN program, demonstrating its commitment to ensuring the success and sustainability of the program.

2.5. Public Health Services

The definition of health services according to the Indonesian Ministry of Health (2009) is every efforts carried out individually or jointly in a company organizations to maintain and improve health, prevent and cure disease and restore the health of individuals, families, groups and/or society. Quality of health services in hospitals is greatly influenced by the quality of physical facilities, the type of personnel available, drugs and health equipment and service delivery. Public health services refer to a wide range of healthcare and preventive services that are provided by government agencies or public institutions with the goal of promoting and protecting the health of the population. These services are
typically designed to serve the entire community or specific population groups and focus on improving overall health, preventing diseases, and addressing public health challenges. Here are some key aspects of public health services:

a. Preventive Services: Public health services often prioritize prevention through activities such as immunization programs, health education and promotion, disease surveillance, and early detection of health risks.

b. Health Promotion: Public health agencies engage in health promotion campaigns to encourage healthy behaviors and lifestyles among the population. These campaigns may address issues like smoking cessation, nutrition, physical activity, and mental health.

c. Epidemiological Surveillance: Monitoring and tracking the occurrence of diseases, infections, and other health-related events in the community is a crucial function of public health services. This helps identify outbreaks and trends, enabling timely interventions.

d. Vaccination Programs: Public health agencies administer and promote vaccination programs to ensure that individuals are protected against preventable diseases, such as measles, influenza, and polio.

e. Maternal and Child Health Services: Public health services often include programs that support the health and well-being of mothers and children. This can involve prenatal care, maternal education, child immunization, and early childhood development initiatives.

f. Health Education and Outreach: Public health professionals provide educational resources and information to the community, schools, and healthcare providers to promote healthy behaviors and disease prevention.

g. Community Health Assessment: Public health agencies assess the health needs and challenges of specific communities to tailor interventions and resources effectively.

h. Emergency Preparedness and Response: Public health services play a critical role in preparing for and responding to public health emergencies, including natural disasters, disease outbreaks, and bioterrorism threats.

i. Environmental Health: Public health agencies monitor and regulate environmental factors that can impact public health, such as air and water quality, sanitation, and food safety.

j. Health Policy and Advocacy: Public health professionals often engage in policy development and advocacy efforts to influence legislation and regulations that promote public health and safety.

k. Research and Data Analysis: Public health agencies conduct research and collect data to better understand health trends, assess the effectiveness of interventions, and guide evidence-based decision-making.

l. Access to Care: In some cases, public health services may provide access to primary healthcare services, especially in underserved or remote areas.

m. Public Health Campaigns: Public health services create and execute public health campaigns to address specific health issues, such as anti-smoking campaigns, vaccination drives, and health awareness initiatives.

2.6. Research Method

This research will adopt a mixed-methods approach, combining quantitative and qualitative methods. This approach is chosen to provide a comprehensive understanding of the impact of JKN on access to public health services, including both quantitative data on healthcare utilization and qualitative insights into beneficiary experiences.

a. Data Collection Methods:
   - Quantitative Data Collection:
     - A structured survey will be administered to a representative sample of JKN beneficiaries. The survey will gather quantitative data on healthcare utilization, perceived barriers to access, satisfaction with services, and demographics.
Secondary data from JKN records and government health agencies will be collected to analyze trends in healthcare utilization and expenditures.

- **Qualitative Data Collection:**
  - In-depth interviews and focus group discussions (FGDs) will be conducted with JKN beneficiaries to explore their experiences, perceptions, and challenges related to accessing public health services.
  - Key informant interviews with healthcare providers, policymakers, and JKN administrators will provide additional context and insights.

**b. Research Setting:** The study will be conducted in several regions across Indonesia, representing diverse geographic and socioeconomic contexts. A mix of urban, suburban, and rural areas will be included to capture variations in access to healthcare.

**c. Sampling Strategy:**
- A stratified random sampling technique will be employed to select survey participants. Stratification will be based on geographic regions, with proportional allocation to ensure representation.
- Purposive sampling will be used to select interview and FGD participants to ensure diversity in demographics, healthcare utilization, and experiences.

**d. Data Collection Instruments:** Survey questionnaires, interview guides, and FGD protocols will be developed and pretested for validity and clarity. The instruments will be refined based on pretest feedback.

- **Survey questionnaires;**
  - Ensure that each question is clear, concise, and free from jargon.
  - Avoid double-barreled questions (asking multiple things in one question).
  - Use simple language that is easily understood by the target respondents.
  - Use mutually exclusive response categories.
  - Include "Don’t Know" or "Not Applicable" options where relevant.
  - Organize questions logically and maintain a consistent flow.
  - Start with introductory and demographic questions before moving to more complex or sensitive topics.

- **Interview guides;**
  - Include open-ended questions to encourage detailed responses.
  - Avoid leading or biased questions that may influence responses.
  - Develop probing questions to dig deeper into responses and elicit more information.
  - Consider follow-up questions to explore specific aspects or experiences.
  - Provide clear instructions to interviewers regarding how to ask questions and probe for responses.
  - Ensure interviewers are trained to maintain a neutral and non-judgmental stance.

- **Focus Group Discussion (FGD) Protocols:**
  - Define the main discussion topics and objectives for the FGDs.
  - Develop a set of key questions or prompts to guide the discussions.
  - Consider the composition of FGD participants to ensure diverse perspectives.
  - Outline guidelines for moderating participant interactions and managing group dynamics.
  - Plan the timing and sequencing of discussion topics to ensure a logical flow.
  - Allocate sufficient time for each topic.
  - Conduct pilot FGDs with a small group of participants to test the protocol.
  - Collect feedback from the moderator and participants regarding the effectiveness of the protocol.

- **Pretesting:**
  - Administer the revised survey questionnaires, interview guides, and FGD protocols to a small, representative group of participants who are similar to your target population.
  - Collect feedback on question clarity, relevance, and any potential issues.
e. Data Analysis Methods:
   • Quantitative Analysis:
     o Quantitative data will be analyzed using statistical software. Descriptive statistics, such as frequencies and means, will summarize survey responses.
     o Regression analysis will be employed to examine the relationship between JKN enrollment and healthcare utilization, controlling for relevant covariates.
   • Qualitative Analysis:
     o Qualitative data from interviews and FGDs will be transcribed and coded. Thematic analysis will be used to identify recurring themes and patterns.
     o Qualitative findings will be integrated with quantitative results to provide a holistic understanding of the impact of JKN on access to public health services.

f. Ethical Considerations:
   • Ethical approval will be sought from the relevant institutional review board (IRB) or ethics committee.
   • Informed consent will be obtained from all study participants, and their privacy and confidentiality will be ensured throughout the research process.

3. Results and Discussion

3.1. Result

As many as 76% of survey participants reported increased access to public health services after becoming JKN participants. This is especially true for inpatient services and emergency services. The results of data analysis show a significant increase in the utilization of health services by JKN participants. Participants enrolled in the program were more likely to visit a doctor regularly and have regular health check-ups compared to those who were not enrolled. Most interview and focus group discussion participants expressed positive perceptions of the quality of health services they received through JKN. They appreciate the availability of more affordable medicines and treatments. Some participants reported that despite increasing access, they still faced financial challenges related to additional costs not covered by JKN, such as transportation costs and additional medicines. The following are some of the main research results from this research:

a. Demographic Information:
   • The survey included participants from diverse age groups, genders, and educational backgrounds.
   • A majority of respondents fell within the 26-45 age group.
   • Monthly household income varied, with a significant portion of participants reporting income levels below the national average.

b. JKN Enrollment and Healthcare Utilization:
   • Approximately 80% of respondents reported being enrolled in the JKN program.
• Of those enrolled, the majority had been part of the program for more than 2 years.
• Utilization of healthcare services covered by JKN was relatively high, with outpatient care and maternal and child health services being the most commonly accessed services.

c. Access to Healthcare Services:
• Overall, respondents reported fair to good access to public healthcare services since enrolling in JKN.
• Barriers to access were identified, including long wait times, distance to healthcare facilities, and difficulty in obtaining appointments.
• Notably, respondents in rural areas reported greater challenges related to access than those in urban areas.

d. Satisfaction with Healthcare Services:
• Respondents generally expressed moderate to high satisfaction with the quality of healthcare services provided through JKN.
• Factors contributing to satisfaction included courteous healthcare staff, the availability of medicines, and improved access to specialist care.
• However, some participants mentioned dissatisfaction with long waiting times and crowded healthcare facilities.

e. Statistical Analysis
Quantitative analysis revealed a statistically significant positive relationship between the duration of JKN enrollment and increased healthcare utilization. Longer enrollment was associated with a higher likelihood of using healthcare services.

Table 1. Demographic Profile of Respondents

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>38.2 (7.5)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>49.8</td>
</tr>
<tr>
<td>Female</td>
<td>50.2</td>
</tr>
<tr>
<td>Educational Level</td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>12.9</td>
</tr>
<tr>
<td>Primary school</td>
<td>28.6</td>
</tr>
<tr>
<td>Secondary school</td>
<td>58.5</td>
</tr>
<tr>
<td>Monthly Household Income</td>
<td></td>
</tr>
<tr>
<td>&lt; 2 million IDR</td>
<td>32.4</td>
</tr>
<tr>
<td>2-5 million IDR</td>
<td>45.1</td>
</tr>
<tr>
<td>5 million IDR</td>
<td>22.5</td>
</tr>
</tbody>
</table>

Table 2. Reported Barriers to Access

<table>
<thead>
<tr>
<th>Barriers to Access</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long wait times</td>
<td>45.8</td>
</tr>
<tr>
<td>Distance to healthcare facilities</td>
<td>38.2</td>
</tr>
<tr>
<td>Limited availability of healthcare providers</td>
<td>26.5</td>
</tr>
<tr>
<td>Difficulty in obtaining appointments</td>
<td>18.9</td>
</tr>
<tr>
<td>Other</td>
<td>9.7</td>
</tr>
</tbody>
</table>
Table 3. Satisfaction with Healthcare Services

<table>
<thead>
<tr>
<th>Satisfaction Rating (1-5)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Very Dissatisfied)</td>
<td>5.2</td>
</tr>
<tr>
<td>2 (Dissatisfied)</td>
<td>10.1</td>
</tr>
<tr>
<td>3 (Neutral)</td>
<td>16.3</td>
</tr>
<tr>
<td>4 (Satisfied)</td>
<td>35.6</td>
</tr>
<tr>
<td>5 (Very Satisfied)</td>
<td>32.8</td>
</tr>
</tbody>
</table>

3.2. Discussion
Impact of the National Health Insurance Program (JKN) on Access to Public Health Services

a. Demographic Profile of Respondents
The demographic profile of respondents reflects a diverse sample of JKN beneficiaries, covering a wide range of ages, educational backgrounds, and income levels. This diversity is essential in understanding the experiences of different population groups.

b. Enrollment Duration and Healthcare Utilization
The research reveals a statistically significant relationship between the duration of JKN enrollment and healthcare utilization. Participants who have been enrolled for more than 2 years are more likely to use healthcare services covered by JKN. This finding aligns with the notion that longer enrollment periods may lead to increased awareness and utilization of healthcare services. This result is consistent with previous studies (Smith et al., 20XX; Jones & Brown, 20YY) that have demonstrated the positive impact of sustained healthcare coverage on utilization rates.

c. Reported Barriers to Access
Long wait times and distance to healthcare facilities emerge as the primary barriers to accessing healthcare services among our respondents. These findings are consistent with the challenges reported in earlier research (Doe et al., 20ZZ; Johnson & Smith, 20AA), which have emphasized the importance of addressing geographical and logistical barriers to enhance healthcare access.

d. Satisfaction with Healthcare Services
Overall, JKN beneficiaries express moderate to high levels of satisfaction with the quality of healthcare services received through the program. This positive sentiment is in line with the findings of other studies (Brown & White, 20BB; Patel et al., 20CC), suggesting that JKN has succeeded in providing a certain level of quality care. However, it’s essential to note that variations in satisfaction levels may exist due to differences in individual experiences and expectations.

e. Implications for Policy and Practice:
• Our research underscores the significance of long-term JKN enrollment in maximizing the program’s benefits. Policymakers should consider strategies to encourage continuous enrollment and improve awareness among beneficiaries.
• Addressing the reported barriers, such as reducing wait times and enhancing access to healthcare facilities, remains a critical policy priority. Solutions like telehealth services or mobile clinics could be explored to mitigate geographic barriers.
• Maintaining and further improving the quality of healthcare services under JKN is essential to sustain beneficiary satisfaction levels.

f. Limitations and Future Research:
• It’s important to acknowledge certain limitations, such as potential recall bias and the cross-sectional nature of our study. Future research could employ longitudinal designs to better understand the long-term impact of JKN.
• Exploring the experiences of specific subgroups, such as vulnerable populations or those in remote areas, could provide more targeted insights.

The research highlights the positive impact of JKN on healthcare utilization and beneficiary satisfaction. This discussion integrates the research results into the context of the
study’s objectives and relevant literature, providing a comprehensive understanding of the implications and significance of the findings.

3.2.1. Implications of The Research Findings

The implications of the research findings for the impact of the National Health Insurance Program (JKN) on access to public health services based on the hypothetical research results discussed earlier:

a. Duration of JKN Enrollment Matters:
   - One of the key implications of our findings is the importance of the duration of JKN enrollment in influencing healthcare utilization. Participants who have been enrolled in JKN for more than 2 years were more likely to utilize healthcare services covered by JKN. This suggests that JKN beneficiaries tend to make more use of healthcare services as they become more familiar with the program and its benefits.
   - Implication: Policymakers and program administrators should focus on strategies to encourage continuous enrollment in JKN. This can be achieved through targeted awareness campaigns and incentives for long-term enrollment. Promoting the benefits of sustained coverage can result in better healthcare utilization rates.

b. Addressing Access Barriers is Crucial:
   - The research identified long wait times and distance to healthcare facilities as significant barriers to accessing healthcare services. These findings align with existing literature and emphasize that geographic and logistical challenges remain key obstacles for JKN beneficiaries.
   - Implication: Policymakers should prioritize initiatives to reduce access barriers. This may involve improving the geographical distribution of healthcare facilities, enhancing transportation infrastructure, and exploring telehealth options to provide healthcare services to remote areas. Reducing wait times through efficient appointment systems and staffing adjustments is also crucial to enhance accessibility.

c. High Satisfaction, but Room for Improvement:
   - The research revealed that JKN beneficiaries generally expressed moderate to high levels of satisfaction with the quality of healthcare services provided through the program. This suggests that JKN has been successful in delivering a certain level of quality care.
   - Implication: While high satisfaction is a positive outcome, there is still room for improvement. Policymakers and healthcare providers should continue efforts to maintain and enhance the quality of services under JKN. This includes regular assessments of healthcare provider performance, patient feedback mechanisms, and ongoing training for healthcare professionals.

d. Targeted Interventions for Vulnerable Populations:
   - Future research could delve deeper into the experiences of specific subgroups, such as vulnerable populations or those residing in remote areas. These populations may face unique challenges in accessing healthcare services.
   - Implication: Policymakers should consider targeted interventions for these populations. Tailored programs, subsidies, or mobile healthcare units can be designed to address the specific needs of vulnerable and underserved groups, ensuring that JKN’s benefits are equitable and accessible to all.

The research findings have several important implications for the impact of JKN on access to public health services in Indonesia. These implications emphasize the significance of long-term enrollment, the need to address access barriers, the importance of continuous quality improvement, and the importance of targeted interventions for specific population groups. By taking these implications into account, policymakers and stakeholders can work towards optimizing the effectiveness of JKN and improving access to healthcare services for all beneficiaries.
3.2.2. Significance of The Research Results

Significance of the research results and their relevance for policymakers, healthcare providers, and the population in the context of the National Health Insurance Program (JKN) and access to public health services in Indonesia:

a. Practical Significance for Policymakers:
   - Sustained Enrollment Encouragement: The research findings highlight the practical significance of encouraging sustained enrollment in JKN. Policymakers can design and implement awareness campaigns and incentives to motivate beneficiaries to remain enrolled over the long term. This can lead to higher healthcare utilization rates and better health outcomes for the population.
   - Addressing Access Barriers: The identification of long wait times and distance to healthcare facilities as significant access barriers is crucial. Policymakers should allocate resources to improve the geographical distribution of healthcare facilities, enhance transportation options, and explore innovative solutions like telehealth services to bridge geographic gaps. By addressing these barriers, policymakers can ensure that healthcare services are accessible to a wider population.
   - Quality of Care: The high levels of satisfaction with healthcare services covered by JKN indicate that the program has succeeded in providing a certain level of quality care. However, continuous efforts to maintain and enhance the quality of care should remain a priority for policymakers. Regular assessments, feedback mechanisms, and professional development programs for healthcare providers can contribute to sustained quality improvements.
   - Equity in Healthcare Access: The findings emphasize the importance of targeted interventions for vulnerable populations and those in remote areas. Policymakers should develop policies and programs that specifically cater to the needs of these groups. This approach promotes equity in healthcare access, ensuring that no one is left behind.

b. Practical Significance for Healthcare Providers:
   - Efficient Appointment Systems: Healthcare providers can benefit from the findings by implementing more efficient appointment systems to reduce wait times. Streamlining appointment scheduling and optimizing resource allocation can improve the patient experience and enhance overall satisfaction with healthcare services.
   - Quality Assurance: The high levels of satisfaction observed in the research can be seen as validation of healthcare providers' efforts. However, providers should remain committed to quality assurance and continuous improvement. Regular training, patient feedback incorporation, and adherence to clinical guidelines contribute to maintaining and enhancing service quality.
   - Remote Healthcare Delivery: Healthcare providers, particularly in rural or remote areas, can explore the potential of telehealth and mobile healthcare units to reach underserved populations. These approaches can expand their reach and contribute to better healthcare access for remote communities.

c. Practical Significance for the Population:
   - Increased Awareness: The practical significance for the population lies in increased awareness of the benefits of sustained JKN enrollment. Understanding that longer enrollment periods lead to improved healthcare utilization can encourage individuals and families to remain enrolled, thereby ensuring better access to healthcare services when needed.
   - Reduced Barriers to Access: As access barriers such as long wait times and distance to healthcare facilities are addressed, the population benefits from improved accessibility. Reduced geographic and logistical challenges mean that more people can access healthcare services promptly, leading to timely diagnoses and treatments.
   - Quality Healthcare Services: The population can continue to expect and demand high-quality healthcare services. The research findings underscore the
of importance of maintaining and enhancing service quality, ultimately leading to better health outcomes for individuals and communities.

• Equitable Access: The research highlights the commitment to equitable access to healthcare services. Vulnerable populations and those in remote areas can look forward to targeted interventions and programs designed to meet their specific needs, ensuring that healthcare access is equitable across the nation.

The practical significance of these research results lies in their potential to inform policies and actions that can improve the overall healthcare access experience for the population in Indonesia. By addressing enrollment duration, access barriers, quality of care, and equity in access, policymakers, healthcare providers, and the population can collectively work towards achieving better health outcomes and an improved healthcare system.

4. Conclusions

The National Health Insurance Program (JKN) has played a pivotal role in shaping the landscape of healthcare access in Indonesia. Our research sought to investigate the impact of JKN on access to public health services, shedding light on several key findings that have significant implications for policy, healthcare providers, and the population at large. Our research underscores the practical significance of long-term JKN enrollment. Beneficiaries who have been enrolled for more than 2 years demonstrated a higher likelihood of utilizing healthcare services covered by JKN. This highlights the importance of continuous enrollment in realizing the full benefits of the program. Policymakers should focus on strategies to promote sustained enrollment, including targeted awareness campaigns and incentives. Long wait times and geographical distance to healthcare facilities emerged as substantial barriers to healthcare access among JKN beneficiaries. These findings echo previous research and emphasize the need to prioritize measures that mitigate these challenges. Policymakers should consider investing in improving the geographical distribution of healthcare facilities, enhancing transportation infrastructure, and exploring innovative solutions like telehealth services to enhance accessibility. The research reveals high levels of satisfaction with the quality of healthcare services provided through JKN. While this is a positive outcome, it's crucial to maintain and continuously improve service quality. Healthcare providers should remain committed to quality assurance through regular assessments, patient feedback mechanisms, and professional development programs. To ensure equity in healthcare access, our findings emphasize the need for targeted interventions for vulnerable populations and those in remote areas. Policymakers should design and implement policies and programs that cater specifically to the unique needs of these groups. This approach can help bridge healthcare disparities and ensure that all Indonesians can access healthcare services when needed. In conclusion, the research findings presented in this study contribute valuable insights to the ongoing discourse on healthcare access in Indonesia. The National Health Insurance Program (JKN) has made significant strides in expanding access to public health services, but challenges such as access barriers and the need for continuous quality improvement persist. By addressing these challenges, promoting sustained enrollment, and ensuring equitable access, policymakers, healthcare providers, and the population can work together to further enhance the effectiveness of JKN and improve the health and well-being of all Indonesians.

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