Insurance Utilities In Indonesia: A Study For Future Opportunities

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Abstract.

This study analyzes Indonesia's path toward universal health coverage (UHC), which has been marked by the introduction of targeted schemes such as Askeskin and Jamkesmas, culminating in the comprehensive National Health Insurance (JKN) program. This literature review systematically synthesizes peer-reviewed empirical studies published between 2005 and March 2025, examining the impact of government-managed health insurance on healthcare utilization, financial protection, and equity across different population groups. The study conducted a structured narrative synthesis of studies retrieved from PubMed, Scopus, Web of Science, and Google Scholar, focusing on inpatient and outpatient services, maternal and dental care, and out-of-pocket expenditures. The findings indicate that insured individuals consistently demonstrate higher utilization rates and significant reductions in out-of-pocket spending, with notable benefits in maternal health and primary care in rural areas; however, geographic and socioeconomic disparities persist, particularly among the urban poor and remote communities. Secondary analysis revealed moral hazard effects and shifting private market dynamics, highlighting the need for cost-sharing mechanisms and regulatory oversight. Propose policy strategies to expand enrollment, adjust premium subsidies, integrate fragmented schemes, strengthen the community health center (Puskesmas) infrastructure, and enhance preventive care and health literacy. An integrated approach aligning financial, clinical, and regulatory reforms is essential to optimize equity, efficiency, and sustainability in Indonesia's UHC journey.

Keywords: *Cost sharing; health services; insurance; utilization and universal health coverage.*

I. INTRODUCTION

Indonesia's health insurance system has undergone significant evolution since the introduction of programs such as Askeskin in 2005 and later the comprehensive National Health Insurance (JKN) scheme. As the government strives to achieve universal health coverage (UHC), empirical research suggests that such schemes aim not only to increase the utilization of clinical services but also to extend financial protection against the enormous health expenditures[1]. Furthermore, the transition to national insurance has necessitated a comprehensive re-examination of the factors that influence access to care and overall health outcomes[2]. Health insurance ownership is strongly correlated with increased utilization of inpatient and outpatient services. Studies from various regions in Indonesia show that individuals with insurance benefit from significantly lower out-of-pocket expenditures and better financial protection[3] This is particularly evident in the context of maternal health, where insurance coverage increases facility-based deliveries and other essential antenatal services[4]. Further empirical analysis has confirmed that targeted social health schemes, such as Askeskin and Jamkesmas, have effectively increased health service utilization for vulnerable groups, including the poor and those living in rural areas[5]. The studies that focus on specific population groups have shown heterogeneous impacts. For example, older adults with health insurance tend to incur slightly higher health care costs, but they still gain access to inpatient care without a significant financial burden[6]. In rural and remote areas, studies have shown that government-run insurance schemes significantly increase primary health care utilization, underscoring the role of insurance as a key facilitator of service access in underserved areas[7].

In contrast, data show that urban pockets, particularly among the urban poor, continue to experience unequal access despite having insurance coverage, suggesting the need for more nuanced intervention strategies[5].A critical analysis of the determinants of health service utilization in Indonesia's current national health insurance system reveals issues of inequity[2]. While the expansion of JKN has led to an overall increase in service utilization, disparities persist, particularly in remote and economically challenged

areas. Furthermore, research shows that a large proportion of the population remains uninsured, with some provinces lagging far behind in coverage[8]. This uneven distribution of health insurance underscores the importance of income-sensitive premiums, exemptions for the most vulnerable, and improved outreach strategies to ensure that the full benefits of UHC are realized[9]. Secondary effects of Indonesia's national health insurance model include shifts in the competitive landscape of the insurance industry, where mandatory government schemes have affected the operations of private insurers[7]. Furthermore, the phenomenon of ex-ante moral hazard has emerged, suggesting that coverage expansion, while beneficial, can lead to behavioural changes that can undermine overall efficiency[10]. Similarly, research examining specific segments, such as college students and dental health service utilization, reveals gaps in coverage and utilization. Research on college students' participation in the JKN program has shown issues such as inactive coverage due to late premium payments. Concurrently, the analysis of dental health care emphasizes the need for policy strategies that address perceived needs and effective utilization across demographic groups[11].

For Indonesia to achieve a truly equitable and efficient health insurance system, continuous improvement is needed. Policy recommendations include expanding the insurance base by reducing premium payment barriers for the poor, optimizing targeting strategies to reduce regional disparities, and reducing moral hazard through improved patient monitoring and education [3]. Furthermore, strengthening primary care infrastructure, particularly through Puskesmas, remains critical to ensure that UHC benefits reach all citizens [7]. Ultimately, an integrated approach that aligns financial, clinical, and regulatory reforms is essential to improving health insurance benefits and fostering a resilient health system for Indonesia.Indonesia's path to an equitable and efficient health insurance system requires continuous reform. Policy recommendations advocate expanding the insurance base by reducing premium payment barriers for the poor, as illustrated by evidence of socioeconomic disparities contributing to low service utilization[12]. Optimizing targeting strategies to reduce regional disparities is supported by studies of unequal utilization of primary health care services across regions[13], [14]. In addition, strengthening primary care infrastructure, especially through upgrading Puskesmas, is essential to ensure that universal health coverage (UHC) reaches all citizens effectively[15]. An integrated approach that aligns financial, clinical, and regulatory reforms is essential not only to mitigate impacts such as moral hazard but also to foster a resilient health system, reflecting successful policy adaptations in similar contexts[16]. The purpose of this literature review is to systematically synthesize and critically assess existing empirical studies on the Indonesian health insurance system, specifically the National Health Insurance (JKN) and its predecessors (Askeskin, Jamkesmas), with the following specific objectives:

1. To examine the impact of insurance coverage on health service utilization (inpatient, outpatient, maternity, and dental) and financial protection among different population groups (e.g., poor, rural, elderly, urban poor) in Indonesia
2. To identify determinants of inequity in insurance enrolment and service utilization across regions and socioeconomic strata.
3. To assess secondary effects on the insurance market (e.g., private insurance company dynamics, moral hazard).
4. To derive policy recommendations to improve equity, efficiency, and sustainability of Indonesia's efforts towards universal health coverage.

II. METHODS

This study is a review that used a structured narrative synthesis approach. First, four major bibliographic databases like: PubMed, Scopus, Web of Science, and Google Scholar were systematically searched review using a combination of keywords ("Indonesia" and "health insurance" or "JKN" or "Askeskin" or "Jamkesmas") and ("utilization" or "financial protection" or "equity" or "moral hazard" or "private insurance companies"). Temporal coverage included publications from 2005 (the year Askeskin was introduced) to March 2025, and studies published in English or Indonesia. Titles and abstracts were independently screened by two reviewers based on pre-specified inclusion criteria of empirical studies assessing outcomes or determinants of a government-run insurance scheme in Indonesia, including subgroup

analyses (e.g., maternal population, elderly, students, dentists) while excluding commentaries, purely theoretical works without Indonesian data, and studies on non-government private insurance. Full texts of potentially eligible articles were retrieved and reviewed, with any disagreements resolved through consensus or third-party adjudication[17]. Data from each included study were extracted into a standard format that included: author, year, study design, population and setting, insurance schemes examined, and key findings related to utilization, financial outcomes, determinants of coverage, and market impact. The extracted studies were then organized thematically: impact of health service utilization, determinants of equity, and secondary insurance market phenomena, and subjected to narrative synthesis to identify prevailing patterns, research gaps, and conflicting results. Finally, policy implications were derived from the overall weight of evidence in each thematic area, ensuring recommendations were based on the breadth of empirical findings[18].

III. RESULT AND DISCUSSION

The results of this study indicate that a synthesized literature review on health utility insurance in Indonesia examines the impact of insurance coverage on health service utilization, determinants of enrollment inequality, secondary effects such as moral hazard in the insurance market, and appropriate policy recommendations.

Impact on Health Service Utilization and Financial Protection

Several studies have documented that increasing insurance coverage in Indonesia, particularly through the National Health Insurance (JKN) scheme, leads to increased utilization of health services, including inpatient, outpatient, and maternal care[7]. For example, Chrisnahutama, provides evidence that elderly Indonesians enrolled in JKN exhibit lower health expenditures, indicating improved financial protection and better access to health services. In addition, Prasetyo et al.[19] show that expanding insurance coverage is correlated with increased accessibility and utilization among the rural elderly population. A comparative study from China provides insight that integrating separate insurance schemes urban and rural can substantially increase health service utilization and reduce outsized health expenditures[20]. Evidence from Australia Nguyen & Worthington on dental services suggests potential issues of overutilization, suggesting that even when equity of access is improved, there is a need for cost control measures to avoid overconsumption driven by lower out-of-pocket costs[21].The integration of urban and rural health insurance schemes in China has yielded significant insights into the impact of integrated health coverage on health service utilization and financial protection.

The study shows that integration has led to increased utilization of outpatient services among both urban and rural residents. However, disparities persist, with urban residents experiencing a 131% increase in outpatient visits compared to a 72% increase among rural residents between 2013 and 2018. This suggests that while overall access has improved, urban residents continue to benefit more from these reforms[20].In terms of financial protection, integration has had mixed results. While there has been a general decline in the incidence of Catastrophic Health Expenditures (CHE) across the population, the burden remains disproportionately high among poorer households. For example, the incidence of CHE decreased from 17.4% in 2010 to 13.0% in 2018 nationally, but rural areas still experienced higher rates compared to urban areas. This suggests that despite improvements in financial protection, significant inequities persist, particularly affecting low-income and rural populations[22]. These findings underscore the importance of implementing pro-poor and targeted policies to improve equity in health insurance schemes. Strategies such as increasing reimbursement rates for essential services, expanding benefit packages, and improving the efficiency of the health care delivery system are essential. By addressing these gaps, health insurance reforms can more effectively provide financial protection and equitable access to health services for all segments of society.

Determinants of Inequality in Enrollment and Service Utilization

Inequality in insurance enrollment has been observed to vary by geography, socioeconomic status, and demographic factors, creating disparities in health service utilization across Indonesia. Chrisnahutama [6] and Prasetyo et al. [16] show that rural and urban poor populations often face barriers due to uneven distribution of health service infrastructure and varying enrollment rates. Socioeconomic determinants,

including income and education gaps, further exacerbate these inequities as demonstrated in studies in similar contexts[23]. Hasan, et. al. investigated the determinants of private health insurance ownership, highlighting that enrollment decisions are often influenced by household socioeconomic characteristics. This literature collectively suggests that geographic location, income, and demographic characteristics play important roles in driving disparities in insurance enrollment and subsequent health service utilization, warranting tailored policies to address these disparities[24].Inequality in health insurance enrollment and service utilization in Indonesia is influenced by complex interactions between socioeconomic and demographic factors.

In addition to geographic disparities, variables such as education level, employment status, and marital status significantly influence an individual's decision to enroll in a health insurance scheme and subsequent use of health services[25].Education emerges as an important determinant; individuals with higher levels of education are more likely to understand the benefits of health insurance and navigate the enrollment process effectively. This trend is seen across both public and private insurance coverage, with educated individuals showing higher levels of participation. Employment status also plays a significant role; those employed in the formal sector are more likely to have health insurance coverage due to employer-provided benefits and stable income, while informal sector workers often lack such coverage due to income instability and the absence of mandatory enrollment mechanisms[25].Marital status also influences insurance ownership. For example, divorced or widowed individuals may prioritize health insurance enrollment due to increased health risks and lack of spousal support, while married individuals may face financial constraints in enrolling the entire family, especially when premiums are calculated per family member. These factors collectively contribute to disparities in health service access and utilization, underscoring the need for targeted policies that address the unique challenges faced by different demographic groups[26].

Secondary Impacts on Insurance Markets and Moral Hazard

The expansion of public health insurance coverage has been accompanied by secondary effects in the insurance market, particularly concerning issues of moral hazard and adverse selection. Hindarti, examined moral hazard in the Indonesian context and found that insured individuals may adopt riskier lifestyles after enrolling[27]. The phenomenon of moral hazard has also been analyzed in other contexts; Boone provided a conceptual framework distinguishing between basic and supplementary insurance, noting that while universal coverage can mitigate adverse selection issues, it can lead to overuse of services if moral hazard is not offset. Moral hazard is not effectively managed. International comparative evidence, such as the study by Liu et al. on government-controlled health care systems, supports the existence of moral hazard effects that require dynamic policy responses[28]. Furthermore, the Australian study by Nguyen & Worthington, offers insights into the ongoing moral hazard in the use of dental care services, emphasizing the need for insurance design that balances accessibility and cost. The expansion of public health insurance coverage in Indonesia has had side effects in the insurance market, particularly concerning moral hazard and adverse selection[21]. Moral hazard refers to changes in health care behavior and consumption due to insurance coverage, leading to increased utilization of health care services. Adverse selection occurs when individuals with higher health risks are more likely to enroll in insurance, potentially leading to higher costs for the insurance company[29]. In the Indonesian context, studies have identified both ex-ante and ex-post moral hazard. Ex-ante moral hazard involves changes in behavior before the need for medical care arises, such as adopting a riskier lifestyle due to the safety net provided by insurance.

Research by Hindarti (2022) [24] suggests that insured individuals may adopt a riskier lifestyle after enrolling, indicating behavioral changes due to the safety net provided by insurance. Additionally, research by Gitaharie et al. (2022) [9] found evidence of ex-ante moral hazard in the form of decreased use of waste bins associated with the introduction of subsidized health insurance premiums, indicating decreased preventive behavior among insured individuals[30].Ex-post moral hazard refers to increased utilization of health care services after enrolling in insurance. In Indonesia, research has confirmed the existence of ex-post moral hazard, with insured individuals tending to visit doctors more often than those who are uninsured. This increased utilization can strain health resources and lead to higher costs for insurers[30]. Internationally, similar patterns have been observed. In Australia, research by Nguyen and Worthington (2023) found that

private health insurance holders exhibited ex-post moral hazard by utilizing dental care services more often than those without insurance. This suggests that while insurance increases access to needed services, it can also lead to overuse if not managed well[21].To address this issue, policymakers should design insurance systems that balance coverage with incentives for appropriate utilization. Implementing cost-sharing mechanisms, promoting preventive care, and educating beneficiaries about responsible utilization of health services can help mitigate the negative impacts of moral hazard. In addition, ongoing monitoring and evaluation of insurance programs are essential to ensure their sustainability and effectiveness in providing equitable access to health services.

Policy Implications and Recommendations for Universal Health Coverage

The reviewed literature emphasizes that the current trajectory of health utility insurance in Indonesia has led to increased health service utilization and financial protection; however, significant challenges related to equity and market efficiency remain. Policy recommendations include the need to expand and harmonize insurance schemes across different population groups, particularly rural residents, the urban poor, and the elderly. Drawing on international experiences, such as the integration reforms studied in China and insights from Japan's approach to private insurance dynamics[31], [32]it is clear that policy efforts should focus on narrowing regional and socioeconomic disparities. Addressing secondary market impacts especially moral hazard requires both public and private insurers to collaborate in optimizing plan design and implementing cost-sharing mechanisms that prevent overutilization without compromising access. Governments and regulators should consider integrated insurance models that combine universal basic coverage with supplemental plans, ensuring that adverse selection is minimized while promoting incentives for preventive care and efficient service utilization. Such reforms would not only improve equity and efficiency in health care provision, but also contribute to the long-term sustainability of Indonesia's efforts towards universal health coverage[33].

Indonesia's efforts to achieve universal health coverage (UHC) through the National Health Insurance (JKN) program have resulted in significant improvements in health care utilization and financial protection. However, persistent challenges related to equity and market efficiency require strategic policy interventions such as[34]:

1. Harmonizing Insurance Schemes Across the Population
   To address disparities in access to health care, especially among rural residents, the urban poor, and the elderly, Indonesia should consider integrating and harmonizing its various insurance schemes. Evidence from China's health insurance reform suggests that consolidating fragmented schemes can reduce urban-rural disparities and improve equity in access to health care. Similarly, Japan's experience with universal health coverage demonstrates the benefits of a unified insurance system in promoting equitable access to health care [34].
2. Implementing Cost-Sharing Mechanisms to Reduce Moral Hazard
   Expanding public health insurance coverage can lead to increased utilization of health care services, sometimes resulting in overuse—a phenomenon known as moral hazard. To mitigate this, Indonesia can implement cost-sharing mechanisms such as co-payments and rebates. Japan's healthcare system, for example, uses a co-payment model where patients pay a portion of their healthcare costs, which helps control unnecessary utilization while maintaining access.
3. Improving Preventive Care and Health Literacy
   Promoting preventive care and improving health literacy are essential to reducing the burden on the healthcare system and ensuring efficient use of resources. Educational campaigns and community-based interventions can empower individuals to make informed health decisions, potentially reducing the incidence of preventable diseases and associated healthcare costs.
4. Strengthening Public-Private Partnerships
   Harnessing the strengths of the public and private sectors can improve the efficiency and reach of healthcare services. Public-private partnerships can facilitate the sharing of resources, expertise, and infrastructure, leading to improved service delivery and innovation in healthcare delivery.

5. Continuous Monitoring and Evaluation
   Establishing a robust monitoring and evaluation framework is essential to assessing the effectiveness of health policies and programs. Regular data collection and analysis can inform policy adjustments, ensuring that health care interventions remain responsive to population needs and contribute to the overarching goal of achieving equitable and sustainable universal health coverage.

Overall, the study suggests that health utility insurance in Indonesia has a positive impact on health service utilization and financial protection, particularly among vulnerable groups. However, persistent inequities in insurance enrollment, along with potential moral hazard issues, require comprehensive policy interventions[35].By synthesizing domestic and international evidence, with international experience, policymakers can develop strategies that expand coverage equitably, improve health outcomes, control costs, and ensure the resilience of Indonesia's health insurance market in the future.

IV. CONCLUSION

Indonesia's National Health Insurance Program, Jaminan Kesehatan Nasional (JKN), has significantly improved health service utilization and financial protection, particularly among previously uninsured populations. The program has significantly increased access to outpatient and inpatient services, particularly for non-wage workers, thereby reducing financial barriers to health care.Despite these successes, challenges remain. Inequities in enrollment and utilization of services persist, influenced by factors such as geographic location, socioeconomic status, and demographic characteristics. Rural populations and the urban poor often face barriers due to uneven distribution of health care infrastructure and varying enrollment rates.

In addition, the expansion of public health insurance coverage has raised concerns about moral hazard. Studies have identified both pre- and post-moral hazard, where insured individuals may adopt riskier lifestyles or increase health care utilization, potentially leading to overuse and increased costs. To address these issues, policy interventions should focus on aligning insurance schemes across the population, implementing cost-sharing mechanisms to reduce moral hazard, improving preventive care and health literacy, strengthening public-private partnerships, and establishing a robust monitoring and evaluation framework. By addressing these areas, Indonesia can further improve the equity and efficiency of its health care system, ensuring sustainable and comprehensive health coverage for all citizens in Indonesia.

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