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Commentary

Indonesia's Healthcare Landscape: Embracing Innovation in the New Health Regime

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Abstract

The comment highlights the intricate health issues in Indonesia, emphasizing urban-rural gaps, healthcare financing challenges, and the government's dedication to Universal Health Coverage (UHC). The country's geographical layout amplifies the struggle of providing healthcare to rural areas, resulting in substantial health concerns like high tuberculosis rates and financial vulnerability for the impoverished. The concern raised underscores the paradox of low state healthcare spending despite high household expenditures, leading to individual payment reliance and underutilization of insurance. The analysis advocates a comprehensive healthcare approach, emphasizing prevention and curative actions. It also stresses the importance of decentralizing decision-making power to local governments for optimizing healthcare funds. The comment concludes by emphasizing the need for innovative solutions in Indonesia's healthcare landscape. It envisions a future where transformative approaches reshape the system, ensuring better health outcomes. Innovation, especially in medical technology, digital health, and healthcare delivery models, is identified as a central theme. The recommendation underscores the importance of creative solutions to address healthcare service limitations and advocates for leveraging advancements in preventive measures, education, and tackling lifestyle issues. The overall aim is to navigate Indonesia through its current healthcare challenges towards a more sustainable and effective system for the benefit of its population.

Keyword: Indonesia; Healthcare landscape; Innovation; Health Financing; Regime

Despite robust economic growth in recent years that has lifted millions out of poverty, Indonesia continues to grapple with various health challenges. Health issues persist in low to middle-income countries, ranging from maternal mortality to vector-borne diseases such as malaria and malnutrition [1]. Simultaneously, Indonesia is witnessing a surge in degenerative diseases due to an aging population and a sedentary lifestyle [2].

Relative to other countries in Southeast Asia, its performance in health financing is suboptimal: total healthcare service expenditure remains significantly below the levels observed in many economically comparable nations [3]. The number of maternal deaths in Indonesia is currently approximately twice that of its counterparts in Asia [4].

Nevertheless, there is a renewed optimism that the country is on the brink of significant improvement, attributed to the government's commitment to Universal Health Coverage (UHC).

As part of this commitment, the government has pledged to maximize health expenditure in the upcoming years."

Implementing Universal Health Coverage (UHC) in Indonesia holds immense potential to tackle the nation's high maternal mortality rate by significantly enhancing access to quality maternal healthcare services [5]. Through UHC, Indonesia can broaden coverage of essential maternal health services, ensuring equitable access regardless of socio-economic status. Moreover, UHC may standardize and regulate healthcare practices, bolstering the quality and safety of maternal care while also prioritizing the improvement of healthcare infrastructure in remote areas [6]. Furthermore, UHC may facilitate comprehensive health education initiatives aimed at raising awareness and promoting healthy behaviors, ultimately contributing to the reduction of maternal mortality and the overall enhancement of women's health outcomes across the country [7].

However, the success of these programs hinges on efforts to find solutions to various challenging issues, including the urban-rural disparity, shortage of doctors, nurses, and specialized professionals, as well as achieving a balanced engagement and funding equilibrium between the government and the private sector." Old Problems, New Solutions: The New Health Regime in Indonesia, Emphasizing Innovations from Other Developing Nations as Remedies for Indonesia's Pressing Healthcare Service Challenges.

There are several crucial elements in addressing the aforementioned issues, including:

(1) Expanding healthcare services to rural areas poses a primary challenge.

The archipelagic geography of Indonesia makes extending healthcare services to rural regions even more daunting compared to other nations. As a result, the existing disparity is exceptionally pronounced: As of 2023, Indonesia reportedly has an estimated 165,453 general practitioners (GPs) based on data from the Indonesia Medical Council (KKI) and Indonesia Medical Doctor Association (IDI), constituting the majority of the total 214,878 medical doctors in the country [8]. Despite this figure, Indonesia grapples with a chronic scarcity of medical professionals. The doctor-to-population ratio currently stands at approximately 0.63 doctors per 1,000 populations, which remains below the optimal benchmark set by the World Health Organization (WHO) of 1 doctor per 1,000 populations [9]. The poverty prevalent in rural populations renders them more susceptible to substantial healthcare costs when diseases or disasters strike.

The shortage of healthcare professionals, particularly general practitioners (GPs), in rural areas of Indonesia poses a significant challenge to accessing primary care services [5]. This shortage is exacerbated by factors such as immigration, where healthcare professionals migrate to urban areas or other countries for better opportunities, and the preference for urban practice due to limited infrastructure and lower salaries in rural settings [10]. Additionally, the scarcity of nurses and physician assistants further compounds the issue, as these healthcare workers play a crucial role in filling gaps in primary care provision. Addressing this shortage requires comprehensive strategies to incentivize healthcare professionals to practice in rural areas, improve infrastructure and resources, and invest in

training and professional development opportunities to ensure equitable access to healthcare services across Indonesia .

To tackle the shortage of healthcare professionals in rural areas and enhance primary care provision, several strategies could be implemented. Incentivizing rural practice through financial incentives, career development opportunities, and continuing education support may attract healthcare professionals to underserved regions [10]. Training programs for nurses and physician assistants aimed at strengthening their primary care skills and retention initiatives offering ongoing support can help fill gaps in healthcare provision. Additionally, leveraging telemedicine services and mobile health units may bridge access barriers by connecting patients with healthcare providers remotely and delivering care to underserved communities [11]. By implementing these measures, Indonesia can address healthcare workforce shortages, improve access to primary care services, and enhance healthcare delivery in rural areas.

(2) Low Healthcare Service Spending, Yet High Household Out-of-Pocket Expenses:

The underutilization of insurance protection and the high proportion of healthcare costs borne directly by patients contribute to healthcare service challenges. Indonesia's overall state spending on healthcare is among the lowest. Despite Vietnam, India, and Cambodia having lower per capita income than Indonesia, their per capita healthcare financing exceeds that of Indonesia [12]. The latest data from the state budget (APBN) reveals that only about half of the healthcare budget comes from the government, with approximately one-third directly paid by individuals and the remainder sourced from insurance schemes, foreign aid, and other funds [13].

The out-of-pocket healthcare expenditure in Indonesia remains notably high, with individuals bearing approximately 49.6% of the total healthcare costs in 2021, surpassing both the average for upper-middle-income countries and the global average [14]. Additionally, in 2020, out-of-pocket expenses accounted for around 50% of the average healthcare expenditure per capita [14]. Factors contributing to this high expenditure include shortcomings in the National Health Insurance (JKN) coverage, inadequate comprehensiveness of JKN services, and persistently high healthcare costs, particularly for chronic diseases and specialized care. Consequently, this places a substantial financial burden on the population, especially on low-income and vulnerable families, and may contribute to poverty and hinder access to healthcare services for those with financial constraints [15]. Government efforts to mitigate this issue include expanding JKN coverage and benefits and regulating healthcare costs [14]. However, despite ongoing efforts, addressing the challenge of high out-of-pocket healthcare expenditure remains paramount to ensure equitable access to quality healthcare for all Indonesians.

The Indonesian government is actively tackling the challenge of high out-of-pocket healthcare expenditure by focusing on several key initiatives [6]. These efforts include expanding the coverage of the National Health Insurance (JKN) through subsidies and educational programs, gradually broadening the range of benefits provided by JKN to

encompass more diseases and healthcare services, and regulating healthcare costs to ensure affordability for the population. Despite ongoing endeavors, further action is required. Nevertheless, the government remains steadfast in its commitment to enhancing access to quality and affordable healthcare services for all Indonesians.

(3) Government Commitment to Reform

Despite existing challenges, the government remains committed to achieving the Sustainable Development Goals (SDGs), addressing fundamental development issues such as sanitation, maternal mortality, and education. There is a specific commitment to a substantial increase in healthcare budgeting in the upcoming years, along with the launch of health insurance for those lacking coverage. The newly enacted omnibus health law in mid-2023 mandates the government to enhance its healthcare spending [16]. A significant portion of these funds is earmarked to support the new health insurance scheme called BPJS, with the expectation that the government can extend its coverage to the entire population.

(4) Prevention is Better than Cure

Investing in fundamental infrastructure, such as water supply and sanitation, is as crucial as constructing hospitals. While building healthcare facilities is important, some experts argue that local governments may not always optimize the use of funds. Thanks to decentralization, these institutions now have significant bargaining power to develop the necessary skills and autonomously manage their budgets [17].

Indonesia's decentralization policy in the health sector has led to a redistribution of authority, resources, and responsibilities, with local governments gaining more control over health service planning and implementation [18]. While this approach allows for tailored services and local prioritization, it also introduces challenges, such as resource disparities and uneven service delivery across regions [6]. While some areas may see improvements in health outcomes, others may struggle due to limited resources and management capacity. To address these issues, Indonesia must strengthen local capacity, reform resource allocation, enhance monitoring systems, and establish standardized data collection practices.

The subsequent challenge entails encountered by local authorities in Indonesia pose significant hurdles to the effectiveness of decentralization in the healthcare sector. Issues such as limited qualified personnel, inadequate infrastructure, unequal resource distribution, and weak policy implementation hinder the delivery of quality healthcare services and exacerbate healthcare disparities across regions [1]. To optimize the benefits of decentralization, Indonesia must prioritize investments in human resource development, infrastructure enhancement, financial management capacity-building, and improved policy implementation mechanisms. By addressing these challenges comprehensively, Indonesia can enhance the effectiveness of decentralization and ensure equitable access to quality healthcare services for all citizens.

Despite the decentralization of healthcare services, central oversight in managing healthcare funds in Indonesia plays a crucial role in enhancing transparency, accountability, and the effectiveness of the healthcare system [8]. It ensures efficient and targeted use of funds, aligns programs with national priorities, prevents duplication and wastage, enhances accountability and transparency, and contributes to the sustainability and effectiveness of the healthcare system. Despite challenges such as resource limitations, lack of stakeholder coordination, and fragmented information systems, efforts to strengthen central oversight through capacity building, improved coordination, and integrated information systems can lead to a more sustainable, effective, and accountable healthcare system in Indonesia, providing quality healthcare services for all citizens.

Prevention efforts, particularly in family planning education and nutritional improvements (especially those related to lifestyle factors such as smoking and cardiovascular diseases), are deemed to yield greater benefits compared to the development of healthcare facilities [15]. In addition, private sector involvement is crucial for the successful implementation of such public health programs.

Public health programs targeting diseases for instance malaria and tuberculosis through vaccination play a critical role in disease prevention and control. These programs typically involve widespread vaccination campaigns, targeted immunization efforts, and surveillance to monitor disease prevalence and vaccine coverage rates [18]. For instance, in Indonesia, strategies such as distributing insecticide-treated bed nets and providing the Bacille Calmette-Guérin (BCG) vaccine for tuberculosis prevention have been implemented. However, to maximize their impact, these efforts need to be integrated into Universal Health Coverage (UHC), which significantly affects access to public health programs. UHC ensures financial protection and equitable access to essential health services, including vaccinations, thereby reducing barriers to access and improving coverage rates. By prioritizing public health programs within UHC policies, governments can optimize disease prevention efforts and enhance overall health outcomes, particularly in resource-constrained settings [14].

However, integrating vaccination programs into Universal Health Coverage (UHC) may significantly enhance their effectiveness by ensuring financial protection for individuals, increasing accessibility to vaccines, and improving coverage rates, particularly among vulnerable populations [18]. UHC assumes a critical role in addressing challenges in resource-constrained settings by prioritizing public health programs, thereby optimizing disease prevention efforts and enhancing overall health outcomes. By enhancing access to vaccination campaigns and other essential health services through UHC, Indonesia may make significant strides in improving public health outcomes and reducing the burden of vaccine-preventable

(5) Innovation is Crucial for Addressing Health Challenges in Indonesia

Innovation to reduce the cost of healthcare technology and expand its reach could be the key to helping Indonesia surpass its healthcare service limitations. Underscores the significance of introducing creative and groundbreaking solutions to overcome the various

health-related issues faced by the country. Indonesia, like many developing nations, encounters multifaceted challenges in its healthcare system, ranging from inadequate infrastructure and limited access to healthcare services in rural areas to financial constraints and the burden of preventable diseases.

The call for innovation implies a need for novel approaches, technologies, and strategies to enhance the efficiency, accessibility, and affordability of healthcare services. This may involve leveraging advancements in medical technology, implementing digital health solutions, and exploring new models of healthcare delivery [19]. Additionally, innovation can play a vital role in preventive measures, public health education, and addressing lifestyle-related health concerns. In the context of Universal Health Coverage (UHC), integrating health promotion and prevention programs focusing on diet and sedentary lifestyles is paramount in Indonesia. These initiatives, encompassing awareness campaigns, nutrition programs, physical activity promotion, and behavioral change interventions, aim to empower individuals to make informed health choices, prevent chronic diseases, and enhance overall well-being [1]. By endorsing such programs within the UHC framework, Indonesia can effectively address the root causes of health-related issues, promote healthier lifestyles, and reduce the burden of preventable diseases.

This integration not only enhances individual health outcomes as well strengthens the sustainability and efficacy of the healthcare system, ultimately contributing to improved population health in the long term. These programs, including comprehensive awareness campaigns, targeted nutrition initiatives, physical activity promotion, and behavioral change interventions, serve as proactive measures to empower individuals, prevent chronic diseases, and foster holistic well-being. By prioritizing these initiatives within UHC, Indonesia can effectively tackle the underlying causes of health concerns, promote healthier lifestyle choices, and alleviate the burden of preventable illnesses across diverse populations [1]. Moreover, such integration not only enhances individual health outcomes but also fortifies the resilience and efficiency of the healthcare system, laying a solid foundation for sustainable public health advancement and improved quality of life nationwide.

The complexities inherent in the current healthcare system necessitate innovative solutions that target issues such as access, cost, and efficiency. Among these innovations are telehealth and digital health platforms, which utilize technology to facilitate remote delivery of healthcare services. The benefits of these platforms include increased access to care, particularly in rural areas, enhanced management of chronic diseases, and reduced wait times for consultations. For instance, Rwanda implemented a nationwide family planning program, connecting rural health centers with specialists in urban hospitals, thereby significantly enhancing access to specialized care [20, 21]. Similarly, India launched "*eSanjeevani*," a national teleconsultation platform enabling patients to consult doctors remotely, thereby alleviating travel burdens and reducing costs [22, 23].

Another innovative solution is the utilization of Big Data and Analytics for Public Health Management, which involves harnessing large datasets to track disease outbreaks, forecast healthcare requirements, and allocate resources effectively. This approach offers several benefits, including enhanced epidemic preparedness, targeted interventions in public health, and data-informed allocation of resources. For instance, South Africa developed a data-driven HIV/AIDS treatment program, leveraging Big Data and Analytics to optimize resource allocation and improve patient outcomes [15].

At present, Indonesia, though generally regarded as a natural treasure among affluent and technologically advanced nations, often necessitates innovative solutions for developing countries facing challenges such as itself." In essence, the statement emphasizes the transformative potential of innovative solutions in reshaping and improving the health landscape of Indonesia [24], with the ultimate goal of ensuring better health outcomes for its population.

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