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Sustainable Development: Indonesia Healthcare System

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A B S T R A C T

Indonesia is the world's largest archipelago with more than 17,000 islands and a population of 278.7 million, making it the fourth-most populated country in the world. At GDP at 2.46% or 3,418.9 billion USD, Indonesia is one of the lowest levels of per capita health spending relative to income among countries at a similar level of income. To serve and provide healthcare for the entire population, Indonesian government created the national comprehensive healthcare system known as *Jaminan Kesehatan Nasional* (JKN) launched in 2014. JKN is a type of National Health Insurance with a single payer, the government, and multiple health care providers such as government and private clinics, hospitals, and doctors. The national comprehensive healthcare system (JKN) has shown many benefits to Indonesian people, especially to the poorest populations. However, the system has created difficulties and uneasiness to some groups of people.

Keywords: Healthcare, Health insurance, Indonesia comprehensive healthcare system (JKN)

1. Introduction

Indonesia's health system may be one of the most complex health systems in world. With more than 17,000 islands and a population of 278.7 million, managing a health system that available, dependable, and equal for each Indonesian citizen is almost impossible (Madhurima and Pankhuri, 2022; PRB-Population Reference Beureu, 2024). There are lots of problems and challenges must be faced by Indonesian Government to create and maintain a universal healthcare system that works well and comprehensive for all. Fortunately, with technological advancements, many of the challenges can be faced and solved effectively.

This article aims to provide information regarding the healthcare system in Indonesia through literature review, reports, and manuscripts. The article provides demographic information, governance structures, and financing related to Indonesian health system's improvement for equity and access to health services.

2. Demographic of Indonesia

According to 2022 data (PRB-Population Reference Beureu, 2024), Indonesian population was 278.7 million. With rate of natural incerase of 1.1%, it is expected that its population will be around 328.9 million in 2050. Indonesia has 17 births per 1,000 population, higher than average birth rate of South East Asia of 15 births per 1,000 population. Indonesian Total Fertility rate is 2.2%, which is higher than average of South East Asia of 2.0%. It is no wonder that Indonesia is the most populated country in South East Asia.

The average of life expectancy of Indonesian after birth is 71 years (PRB-Population Reference Beureu, 2024). This average is lower that the average of total life expectancy of South East Asia of 72 years. Thailand has the highest life expectancy in the region of 76 years. Annual infant mortality rate of Indonesian babies is 15 death per 1,000 births, which quite high for the region. Meanwhile, the annual death rate is 6 per 1,000 population. These demography of life expentancy, birth, death, and infant mortality rates might be tied with health and living conditions of the people. The conditions could be improved by providing healthcare that is accessible for majority of Indonesian people, especially lower-class populations.

Gross national income per-capita (GNIP) is considered in the low range of $14,250 (PRB-Population Reference Beureu, 2024). This income contributes to buying power of Indonesian people, including spending for their health such as doctor visits, hospital stays, and medicines. The buying power for health-related spending is even very low or close to zero when it is correlated to the dependency ratio of people of Indonesia (Cunninham, W.P. et.al., 2023; PRB-Population Reference Beureu, 2024). With 31% dependency rate (PRB-Population Reference Beureu, 2024), it is not easy for the head of the family in Indonesian population to

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have extra spending in their health-related condition in addition of their daily or monthly spending for food, clothing, education, and housing.

3. Indonesia Governance Structure Related to Healthcare

After the fall Soeharto regime in 1998, Indonesia embarked on the path of decentralization in the form of political, administrative, and fiscal oranizations (Madhurima and Pankhuri, 2022). More otonomy is given to provinces and regencies or cities in organizing their administration and budget. In 2001, governance was decentralized across 354 regencies and cities, which has increased to 514 regencies and cities in 2019 (Madhurima and Pankhuri, 2022).

The central government duties are setting the standard for health provisioning, financing, human resources, health technology, and ethical conduct in health research. In addition, the central government is responsible for surveilance and control of disease oubreaks and the procurement of essential drugs (Maharani, 2015). The porvincial governments are responsible for overseeing the education, training, mobility of health workers across districts, asessment and accredization of health facilities and technologies, and health promotion and campaign. The distric health offices (DHO) are responsible for allocating resources and providing health services including basic health services through the *puskesmas* (Maharani, 2015). The flowchart of Indonesia Health system can be seen below (Figure 1.).

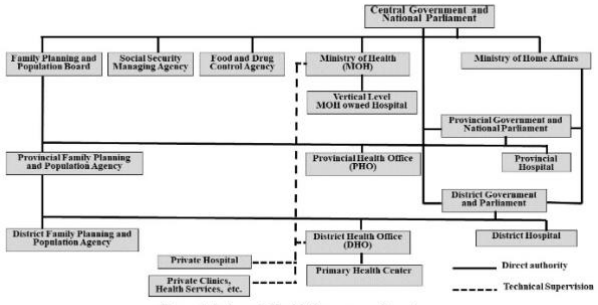

Figure 1. Indonesia Health Governance Structure
(Source: Mahendradhata et al. 2017)

Indonesia is divided into three levels of administrative governances under the central government. The first level is provincial level. Indonesia has 34 provinces lead by governors. After the provincial level, the second level is that of districts, which includes regencies (416) and cities (98) led by regents (*bupati*) and mayors (*wali kota*), respectively. The third level is that of sub-districts (7,252) led by sub-district heads (*camat*) followed by rural and urban villages (83,820) lead by village heads (*lurah* or *kepala desa*) (Madhurima, N. and Pankhuri, B., 2022).

The Ministry of Health (MoH) and sub-national governments are responsible for the provisioning and delivering of public health services, and overseeing all hospitals (state-owned, private, and military). While the MoH oversees, the daily operational activities are decentralized to the provincial and district administrations, which are under the Ministry of Home Affairs (MHA). Provincial health offices (PHOs) and district health offices (DHOs) deliver provincial and district-level health services through their health facilities. PHOs also manage district-level concerns. The MoH has some tertiary level and specialist hospitals under it, but it mostly plays a stewardship role, acting as a regulator and supervisor. Private clinics and hospitals are run by private individuals and occasionally by Islamic and Christian organizations (Madhurima and Pankhuri, 2022).

In addition of Ministry of Health (MoH), provincial heath office (PHO), and district health offices (DHO), there are also other governance agencies involve in health system such as the Family Planning and Population Board as well as the National Social Security Board, which supervises the Social Security Managing Agency or *Badan Penyelenggara Jaminan Sosial* (BPJS) in administering the national health insurance or *Jaminan Kesehatan Nasional* (JKN). Other public agencies responsible for the health sector are the Ministry of National Development Planning, the National Food and Drug Control Agency, and the Ministry of Villages, Disadvantaged Regions, and Transmigration (Madhurima and Pankhuri, 2022).

4. The National Health Insurance or *Jaminan Kesehatan National (JKN)*

Eventhough many countries have adopted similar universal health care system, Indonesia wanted to adopt a system that it could claim entirely it own. In 2014, Indonesia launched its own National Health Insurance System (NHIS) called *Jaminan Kesehatan National* (JKN). The system combined several types universal health care systems and aimed to provide all Indonesian people with a comprehensive health care system available (Manzolillo, 2020).

Indonesian Government spending on health-related program is considered as one of the lowest in the world (Nundy and Bhatt, 2022). Compared to other developing countries in Asia and South America, Indonesia's spent only about 2.9% of its GDP on health system in 2020 (Figure 2). With this kind of spending, much of the contribution is charged to the patients. For example, the premium for people with poverty ranges from free to $1.75 per month, for informal workers ranges from $2.30 - $5.40 per month, and for formal workers the contribution is based on their monthly salary. With the above premium, most of them will have access to 3rd-class hospital beds in funded government hospitals or some selected private hospitals.

The providers for JKN vary from government hospitals, private hospitals, clinics, and community health centers (*Puskesmas*). Each provider is under a selective contract with BPJS under some technical criteria established by MoH. BPJS acts as the health insurance agent and is responsible for managing the purchasing functions under

JKN. It is also responsible for registering members and collecting premiums from citizens. Whether an individual is required to pay the NHIS premium is dependent upon if the individual is considered in poverty, near poverty, or disabled. The poorest are funded by government budget while the other quantile groups are required to pay premiums to BPJS (Nundy and Bhatt, 2022).

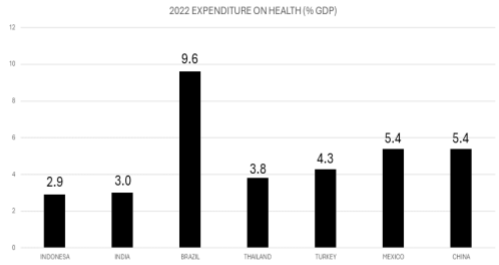

Figure 2. Comparison of 2022 expenditure on health (%GDP) of several countries in Asia and South America. (Source: Nundy and Bhatt, 2022)

With a population of around 270 million, Indonesia needs a total of 270,000 doctors. The fact is it has only 110,000 doctors at present. At this figure, the doctor-patient ratio in Indonesia is just 0.6:1000, which is far below Malaysia's 2.2:1000 and Thailand's 0.95:1000. Meanwhile, the annual student intake at 92 medical schools in the country, both public and private, currently ranges from 12,000 to 13,000 doctors per year. As of 2020, there are only about 3,016 hospitals in Indonesia (Nundy and Bhatt, 2022; Kementerian Kesehatan Republik Indonesia, 2022). These hospitals are not spread evenly across Indonesia. The best-equipped are in urban areas and provincial capitals.

Hospitals in Indonesia are grouped into Class A, B, C, and D. Class C hospitals are the most abundance types of hospitals, contributing to 52% or 1,550 hospitals. It is followed by 877 (30%) class D hospitals, 436 (15%) class B hospitals, 60 (2%) class A hospitals, and another 60 (2%) are not assigned to any category. In addition to hospitals, there are 10,292 community health centers (CHCs) known as *Puskesmas* in Indonesia (Kementerian Kesehatan Republik Indonesia, 2022; Ministry of Health Republic Indonesia, 2024). These *Puskesmas* are known to be the backbone of the country's health delivery system (Kementerian Kesehatan Republik Indonesia, 2022; Ministry of Health Republic Indonesia, 2024).

5. Success stories and failures of the National Health Insurance or *Jaminan Kesehatan National (JKN)*

JKN was an ambitious program. Given the population base, it is considered one of the largest health insurance schemes in the world with over 220 million participants, which is 82% of the total population (Pratiwi et al., 2021). Over 2,300 hospitals (1,700 private) have been accredited for providing services to JKN members. Between 2013 and 2018, coverage increased from 45% to 76% (Pratiwi et al., 2021).

The JKN is known to provide a comprehensive benefits package, which includes outpatient and inpatient healthcare services. This includes services at all three levels based on referrals—from basic to advanced services, such as cancer treatment, haemodialysis, eyecare, and so on. If the referral is followed, there are no co-payments for medicines and services under JKN (Agustina et al., 2019).

Several challenges and failures of JKN are mostly related to financial. About half of the costs of the JKN was originally planned to be funded by premium contributions, where 70% of the population was registered with the scheme. The rest was to be contributed through government funding. However, the actual costs involved in implementing the scheme were severely underestimated. As of 2017, more than 60% of the population registered under JKN contributed little or no premiums. By 2018, approximately 76% of the total population had enrolled in the scheme but about 23% were not paying their fees regularly (Ahsan et al., 2021).

The BPJS recorded a growing deficit in most years. Several studies have indicated multiple root causes for the deficit in the JKN such as health service expenses exceeding BPJS revenue capacity; low premium contributions by the informal sector, and increasing costs for catastrophic diseases, especially those linked to heart, cancers, and stroke, which amounted to 22% of the total health expenditure (Asyrofi and Ariutama, 2019; Aidha and Chrisnahutama, 2020; Nugraheni et al., 2020). Primary healthcare facilities failed to function as gatekeepers, which added to the costs of accessing higher-level services. The claims were higher than the pool of funds with the BPJS. In 2018, the average premium contribution by an individual was Rp 394,009 per year but health insurance claim was Rp 453,232 per year, hence a deficit of Rp 59,223 per participant per year (Aidha and Chrisnahutama, 2020).

Due to the low pay offered to government-employed physicians and health workers, the government allows health personnel to practise privately to retain professionals and make health personnel available in remote rural areas. Dual practice by the health workforce is widely prevalent in Indonesia (Meliala et al., 2013; González et al., 2017). This practice has resulted in the unequal distribution of health personnel, especially doctors, who are reluctant to practise in remote areas where private practice is unfeasible or not lucrative (Mahendradhata et al., 2021). Many specialist doctors were found to be working in several private locations, and, hence, unable to spend the mandated work hours in state hospitals, creating a shortage of key services in public hospitals (Mahendradhata et al., 2021). It is common that many doctors with dual practices refer patients at public hospitals to their private practices (Efendi et al., 2022). However, the dual sector practice may also increase access to health services, including in rural areas due to the availability of additional health professionals (Rokx et al., 2010). Several regulations had been implemented to manage dual sector practice among doctors including tighter contract arrangements, raising public sector salaries, and regulation within professional organisation (Meliala et al., 2013).

The imbalanced distribution of the Indonesian healthcare workforce had been present before JKN 2014 (Suryanto et al., 2017). It was not only for specialist doctors, but also for other healthcare providers such as nurses, midwives, nutritionists, and sanitarians (Efendi, 2012). Most of the health workers were not willing to serve in rural areas due to communication problems, inadequate basic and social facilities, decreased remuneration and no further reward, security issues due to living in a rural area, and career uncertainty (Efendi, 2012). However, the decentralisation implemented in Indonesia allowed local governments to manage their human resources including healthcare providers which tended to reduc the gap between urban and rural areas in Indonesia (Heywood and Harahap, 2009).

6. Conclusions

Indonesia National Health Insurance System (NHIS) or *Jaminan Kesehatan National* (JKN) that was launched in 2014 is the most ambitious program with the largest participants in the world (over 220 million participants). It is known to is known to provide a comprehensive benefits package, which includes outpatient and inpatient healthcare services, which includes services at all three levels based on referrals—from basic to advanced services, such as cancer treatment, haemodialysis, eyecare, and so on.

The system has been very beneficial for most participants, especially the poor and disable populations that get the benefit through government funding. However, due to low government spending on its health system (about 2.9% of GDP), several problems have arisen, especially on budget and spending for the healthcare system. A growing deficit of JKN has been recorded in most years. There have been multiple root causes for the deficit in the JKN such as low premium contributions by the informal sector and increasing costs for catastrophic diseases, especially those linked to heart, cancers, and stroke, which amounted to 22% of the total health expenditure. JKN health service expenses exceeding BPJS revenue capacity in each by average of Rp 59,223 per participant. Another contributing factor that lowers the ability of JKN to provide a better service to the participants is dual practice by the health workforce. This practice is widely prevalent in Indonesia and causes in the unequal distribution of health personnel, especially doctors, who are reluctant to practise in remote areas.

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