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HEALTH SYSTEM IN THE REPUBLIC OF INDONESIA

Reforms, Transformations, and Challenges

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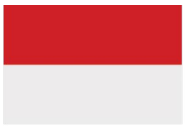

HEALTH SYSTEM IN THE REPUBLIC OF INDONESIA

Reforms, Transformations, and Challenges

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List of abbreviations

BEmONC	Basic emergency obstetric and new-born care
BPJS	Social Security Managing Agency (*Badan Penyelenggara Jaminan Sosial*)
CBG	case-based group
CEmONC	Comprehensive emergency obstetric and newborn care
CHC	community health centre (*puskesmas*)
DALY	disability-adjusted life years
DHO	district health office
DJSN	National Social Security Board (*Dewan Jaminan Sosial Nasional*)
DAK	Special Allocation Grant (*Dana Alokasi Khusus*)
DAU	General Allocation Grant (*Dana Alokasi Umum*)
JKN (NHI)	National Health Insurance (*Jaminan Kesehatan Nasional*)
IMR	infant mortality rate
MHA	Ministry of Home Affairs
MMR	maternal mortality ratio
MoH	Ministry of Health
NCD	non-communicable disease
OOPE	out-of-pocket expenditure
PHO	Provincial Health Office
Rp	Rupiah (Indonesian currency)
SSN	social security net
THE	total health expenditure
UHC	universal health coverage

Abstract

Though Indonesia is categorised as a lower-middle-income country (LMIC), it has shown progress in strengthening its health systems since the 1950s. This paper studies Indonesia's journey in transforming the provisioning and financing of its health services since President Soekarno's regime in the 1950s and 1960s. The country has gone through several reforms in the past few decades. Indonesia began its development journey optimistically in the 1950s but was unable to progress towards universal, comprehensive, and equitable health services due to several barriers such as geographic constraints, political struggle and tensions between the centre and remote islands, and the privileging of civil servants and military personnel. The Suharto era (1966–98) was characterised by similar challenges, but it saw the development of health infrastructure at the primary level as well as the growth of the private sector. However, access to health services was still weak as the majority of the population lacked financial protection. The Asian financial crisis of 1997 led to a political transformation towards democratisation as well as a significant move towards decentralisation. To appease the population in a context of economic instability leading to social unrest, health insurance schemes to cover the poor and near-poor populations were launched over the next few years. The 2004 Social Security Law was passed, but the mandate of providing universal coverage to the population was implemented only in 2014, when various insurance schemes were merged into a single pool and a Social Security Management Agency was created to administer the National Health Insurance. The health system in Indonesia is characterised by low funding for health but has been an ambitious plan to provide coverage to all through insurance mechanisms that include individual contributions and government subsidies. This paper analyses these transformations systemically and studies the achievements and challenges in reforming health services in Indonesia over the years to the present.

1. Introduction

Indonesia is the world's largest archipelago, with over 17,000 islands in the Southeast Asia region and a population of 273 million, making it the fourth-most populated country in the world. The Republic of Indonesia emerged from a tumultuous history of colonisation. The country was colonised by the Dutch from the seventeenth to the mid-twentieth centuries, followed by few years of Japanese occupation (1942–45) and four years of revolutionary struggle against the Dutch (1945–49). It was devastated by these upheavals and inherited a health services system that was weak and underdeveloped.

In 1950, Indonesia's leaders were confronted with the massive task of rebuilding administrative structures and developing a health policy that was all-encompassing and covered the remotest islands. The Soekarno era was one of optimism even though the country faced immense challenges. Indonesia was willing to take foreign aid for its development work, including the development of health services, but guardedly. In 1955, the Bandung conference gave rise to what came to be known as the 'Bandung spirit', where the developing world and post-colonial societies—mainly African and Asian countries—chose to embark on a path of modernity different from that defined by the United States and the Soviet Union. This was reflected in the area of public health and the development of health services and science and technology as well.

Public health development started with great optimism, but by the mid-1950s, progress was erratic due to several reasons. This included the tensions between Java and the outer islands; the dependence of local governments on central funds; corruption; inept bureaucracy and political instability (Neelakantan, 2017). Although Indonesia did not progress in terms of development in the Soekarno years (1949–67), public health was seen as significant to nation-building. There was a holistic view of public health at the political level, which was acknowledged by the medical profession as well. The Basic Health Law was adopted in 1960; however, civil servants were the only people with access to social security and insurance schemes that paid partial hospital bills for state workers (Pisani, Olivier & Nugroho, 2016).

After the Soekarno era, President Suharto came to power for 32 years (1968–98). This was a period of military dictatorship but also a period when Indonesia made gains in health services and outcomes. It developed primary health services in rural areas and focused on health services for the poor; however, the health system continued to privilege civil servants and military personnel. This period also saw the growth of the private sector in health services.

Indonesia was one of the countries worst hit by the Asian financial crisis in 1997 and went through a massive recession. By then, Indonesia had made considerable progress in the health sector by establishing a network of community health centres (*puskesmas*) and health posts (*posyandus*). IMR had come down to 50 deaths per 1,000 children in the mid-1990s—a drop of 30 points since the 1970s.

The 1997-98 economic crisis resulted in food shortages and mass unemployment, which led to massive unrest and violence and the eventual fall of the Suharto government. After this crisis, the country went through a wide range of political and social reforms. Since 1999, Indonesia has taken the path of democracy and is one of the most vibrant democracies in Southeast Asia and has had a multi-party system. The party that came into power campaigned for increased equity. Therefore, the country has seen several transformations: from an authoritarian government to a centralised democratic government to major reforms towards decentralisation.

By 2001, there was more political and fiscal autonomy and district governments were made responsible for delivering public health services. In 2004, the new Social Security Law introduced

reforms in the health system as well. In 2012, Indonesia set a target to attain universal health coverage (UHC) by 2019, but it is yet to achieve this goal.

This paper aims to review the development of health services in Indonesia and draw lessons for improved equity and access to health services through the reforms that were undertaken in provisioning and financing. To analyse the development and transformation of health systems in the country, we study each of the sub-systems of health. We start by looking at organisation and governance structures; the provisioning of health services; financing of health services; human resources in health in the present context and the reforms undertaken over time. It is understood that these systems are not discrete and need to be addressed systemically. Here, we examine the context of the reforms; critical junctures in social, economic, and political history that shaped the health service system; outcomes in terms of basic health indicators over the years, and other achievements and challenges.

The paper is divided into five sections. The introduction is followed by setting the context. Then, we discuss the various sub-systems—governance, provisioning, financing, and human resources—and the reforms therein and highlight achievements and challenges. This is followed by a discussion where we look at health outcomes over time and draw insights and lessons.

2. Context: Socio-economic, political, epidemiological, and demographic

Indonesia is a republic with a constitution. It has three branches of government—executive, judicial, and legislative. It has a multi-party system, where the president is elected by a public vote for a five-year term.

Indonesia faces immense socio-economic variations across regions with high internal migration and urbanisation. More than half of the population lives on Java island. The rest of the population is unevenly distributed, presenting substantial challenges to governance, transportation, and access to and equitable distribution of health services (Mboi et al., 2018).

The economy has doubled in size over the last decade, and poverty rates have declined significantly from 19.1% to 9.2% of the population between 2000 and 2019. Indonesia was classified as an upper-middle-income country (UMIC) for the first time in 2019, but in 2021, it was classified as a lower-middle-income economy (LMIC) during the pandemic (The World Bank Group, 2021).

The country has made marked improvements with respect to several health indicators and health services infrastructure. Life expectancy increased from 62 years in 1990 to 72 years in 2020, and the infant mortality rate (IMR) decreased from 62 deaths per 1,000 live births to 20 per 1,000 during the same period. Indonesia is also facing a demographic transition, with about 10% of the population being over 60 years in 2019, adding to the increasing burden of non-communicable diseases (NCDs) (The World Bank Group, 2021). Several of these indicators are presented in Figures 1.1 to 1.10 in comparison to other countries being reviewed. Indonesia still has a high maternal mortality ratio and low expenditure on health as a percentage of GDP compared to other countries.

Figures 1.1 to 1.10: Select indicators and health outcomes of countries* (1990–2020)

Figure 1.1: Life Expectancy at birth, Total (Years)

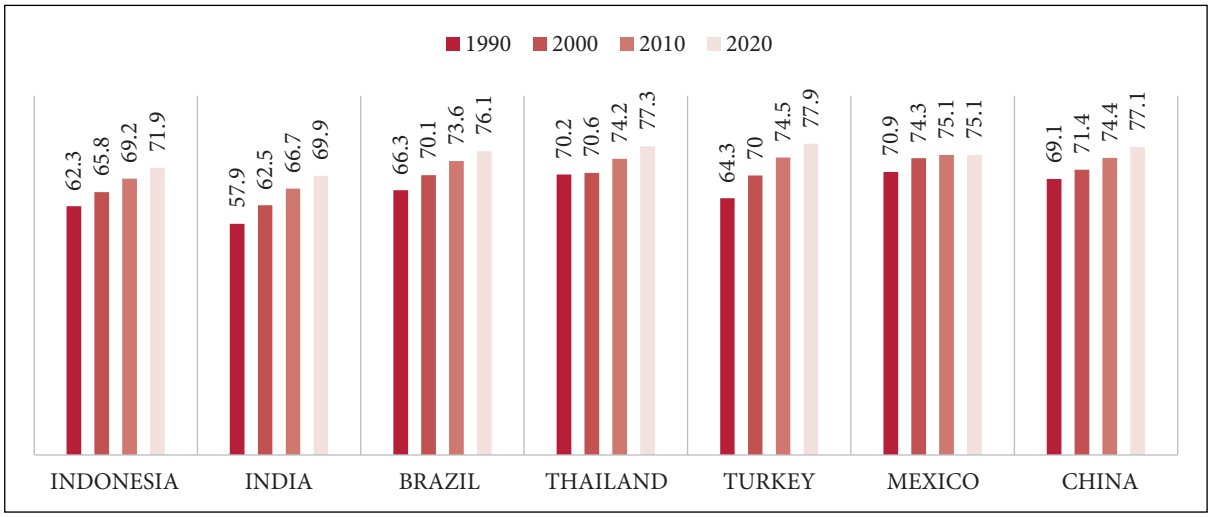


Figure 1.2: Mortality rate, infant (per 1,000 live births)

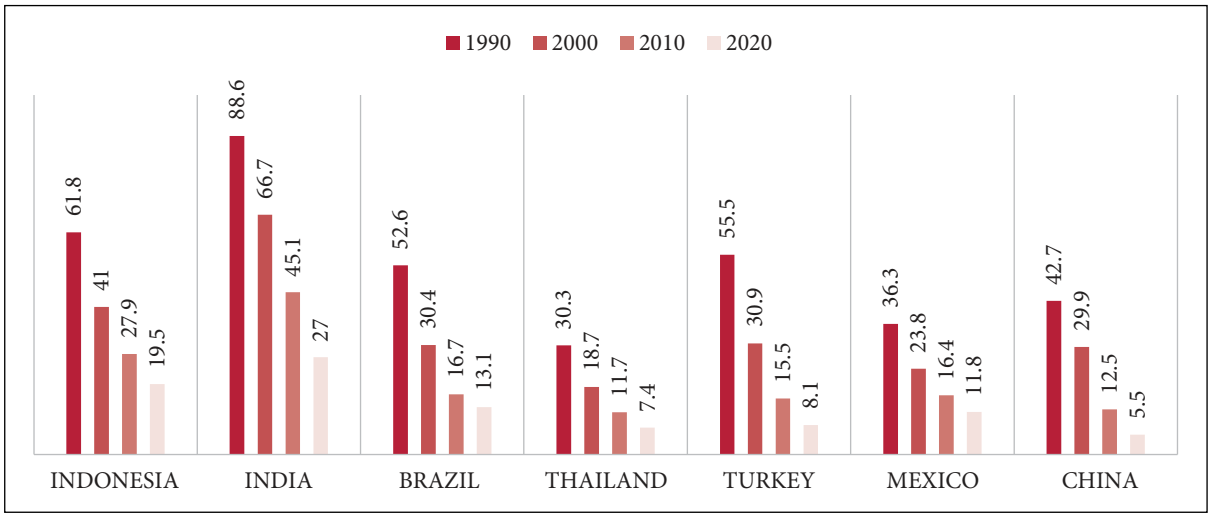


Figure 1.3: Mortality rate, neonatal (per 1,000 live births)

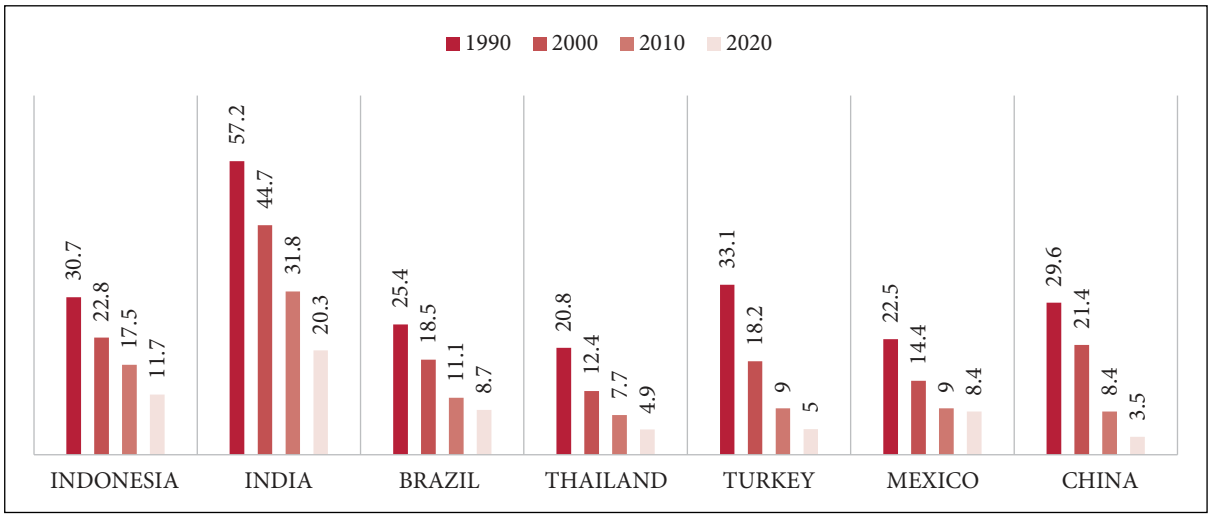


Figure 1.4: Mortality rate, under-5 (per 1,000)

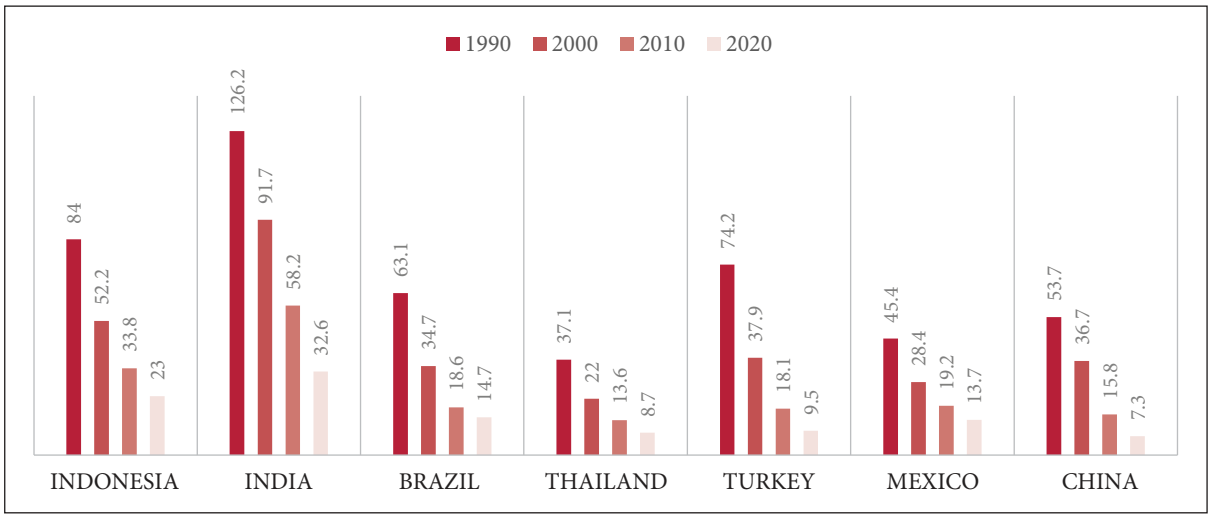


Figure 1.5: Maternal mortality ratio (per 100,000 live births)

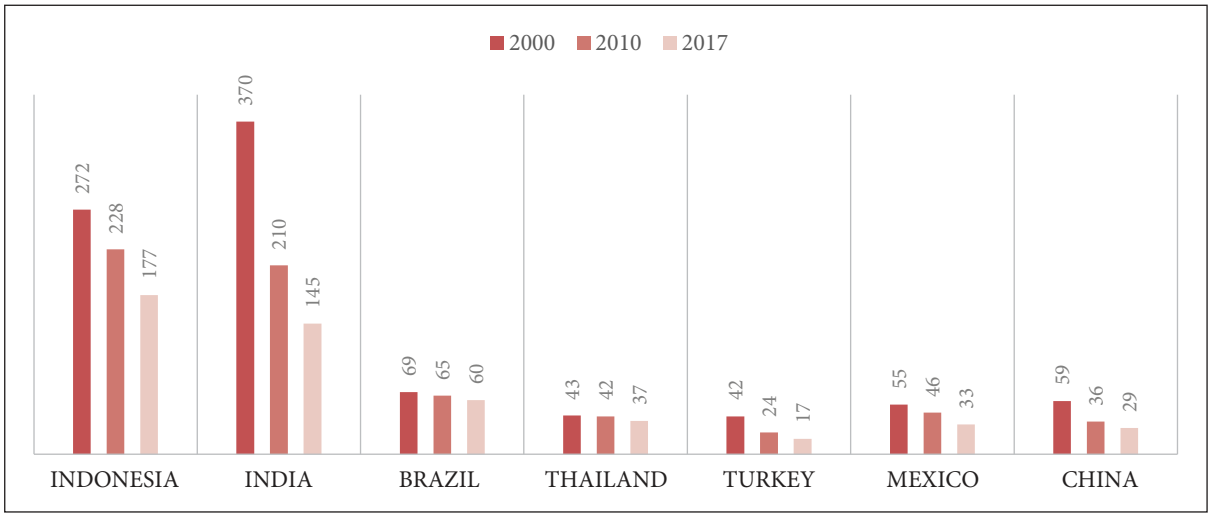


Figure 1.6: Fertility rate, total (births per woman)

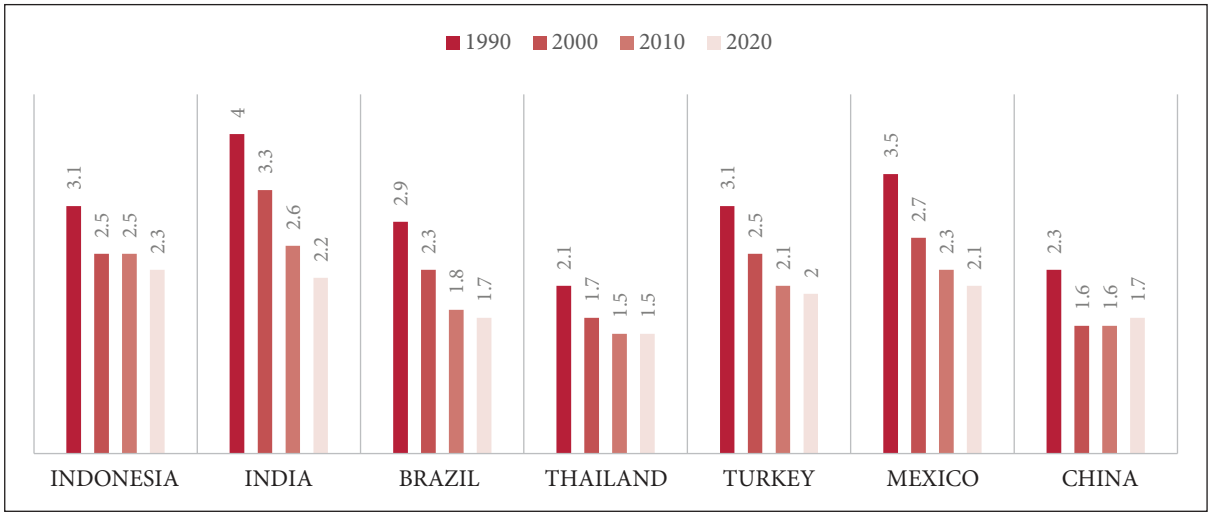


Figure 1.7: Population above 65 years (%)

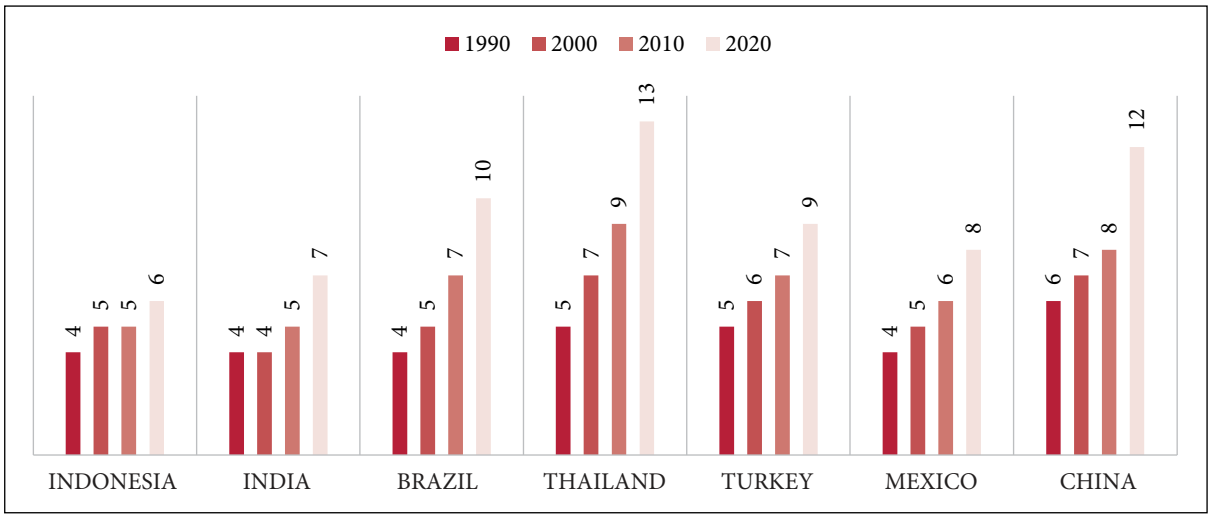


Figure 1.8: Current expenditure on health (% GDP)

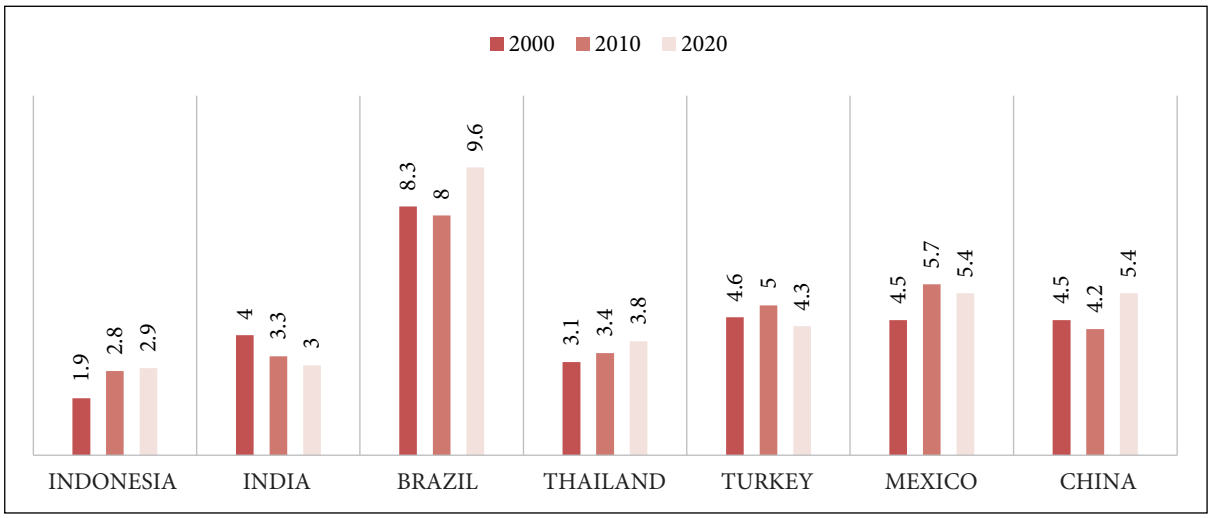


Figure 1.9: Domestic government health expenditure (% of current health expenditure)

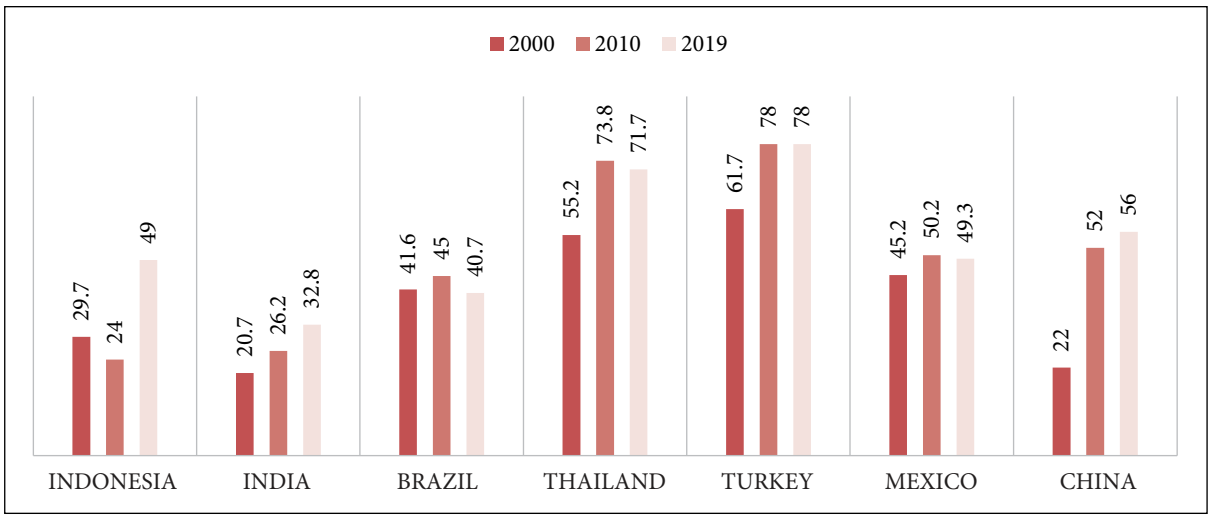
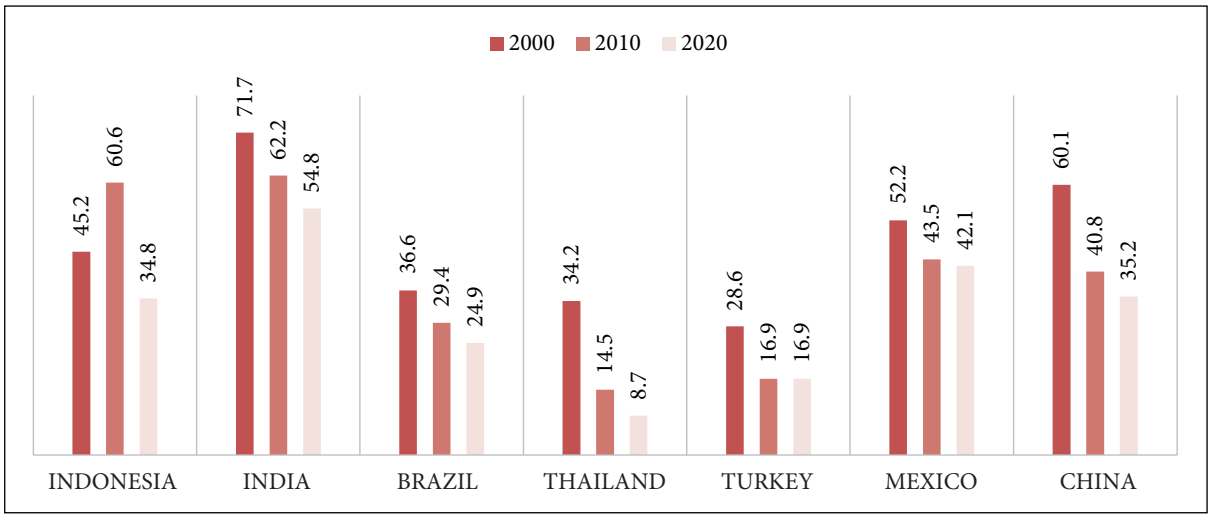


Figure 1.10: Out of pocket (% of total health expenditure)



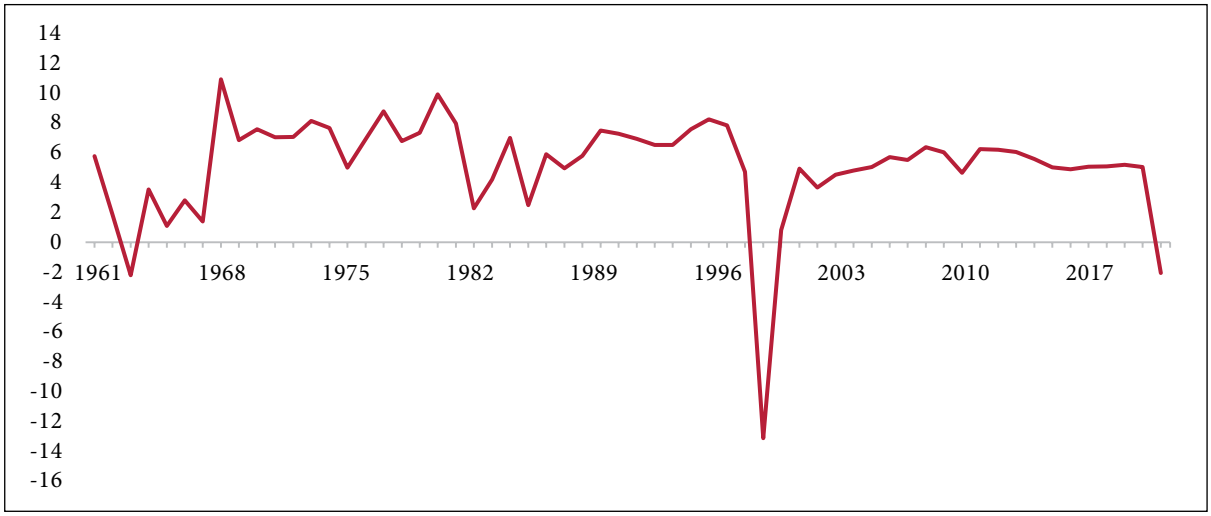
Source: The World Bank (2020).

**Indonesia is placed first and the other countries are organised in the ascending order of GDP per capita (current US$).*

2.1. Macroeconomic context

From the 1970s until the 1997–98 Asian financial crisis, Indonesia charted impressive economic growth. In 1970–96, Indonesia's average annual GDP growth was 6.7%, partly due to the oil boom in 1980. The oil boom also drove investments towards the health sector, with the development of health facilities at the primary level (Erlangga, 2018).

Figure 2: Indonesia's annual GDP growth (in %)



Source: The World Bank, (2022).

The Asian financial crisis in 1997–98 led to an economic downturn in Indonesia, during which the Indonesian currency, the Rupiah (Rp), lost its value and inflation soared to 78%. The unemployment rate escalated to 6.1% in 2000 and never reverted to its pre-crisis level. There were significant job losses, and poverty rose from 17% to 40% by the early 2000s (Erlangga, 2018).

After the financial crisis, Indonesia's economic growth has undergone a declining trend, especially after the commodity boom (2010–12). During this period, Indonesia's economy grew at an average

of 6.4% per year. However, after this period, Indonesia's economic growth averaged around 4.7% per year (2013–20 Q2), with a continuing downward trend (Listiyanto and Pulungan, 2021).

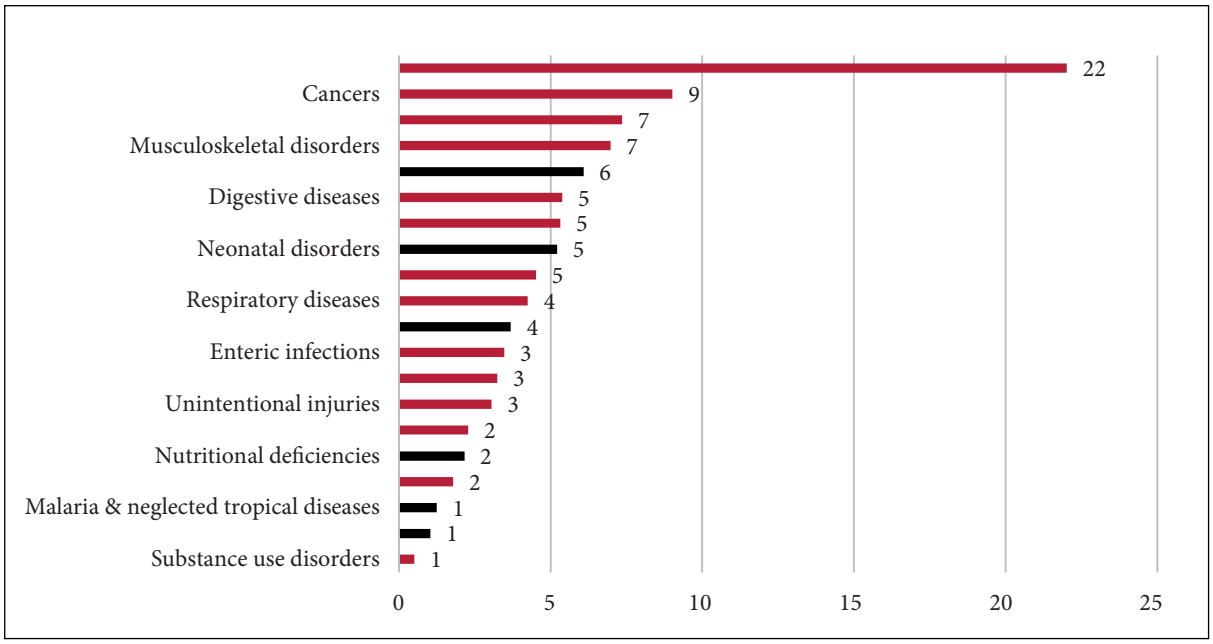
Today, Indonesia is 10th largest economy in terms of purchasing power parity and world's fourth most populous country (The world Bank, 2022). While Indonesia's economy contracted in 2020 due to the Covid-19 pandemic, it has rebounded from the downturn and is expected to grow by 5% in 2022, as domestic demand continues to pick up (Asian Development Bank, 2020). Furthermore, Indonesia made gains in reducing poverty rates by more than half since 1999 to under 10% in 2019. However, poverty remains widespread in rural areas (The World Bank, 2022).

2.2. Burden of disease

Like other middle-income countries, Indonesia has made an epidemiological transition over the last two decades. Improvements in health outcomes are, to some extent, offset by the growing burden of NCDs, rising deaths due to them, and equity concerns. From 1990 to 2016, the leading cause of disability-adjusted life years (DALY)[1] shifted from diarrhoeal diseases to ischemic heart disease. Indonesia has one of the highest prevalences of smoking in the world, with a 34% prevalence in adults. This high prevalence has been linked with the incidence of cancers, lung diseases, and cardiovascular diseases. There has also been a 63% increase in diabetes since 2005 (Agustina et al., 2018).

Along with the rise in NCDs, communicable diseases and malnutrition pose a significant burden. Tuberculosis was the second-leading cause of disease burden, which has shifted to fourth place in recent years. Other communicable diseases that cause significant morbidities and mortalities include diarrhoeal diseases, malaria, and HIV/AIDS (Mboi et al., 2018). Indonesia also has a high burden of maternal mortality (177 deaths per 100,000 live births in 2017) and childhood stunting (31% in children under 5 years in 2018) (Agustina et al., 2018).

Figure 3: Share of the total burden of disease by cause in Indonesia, 2019 (in %)

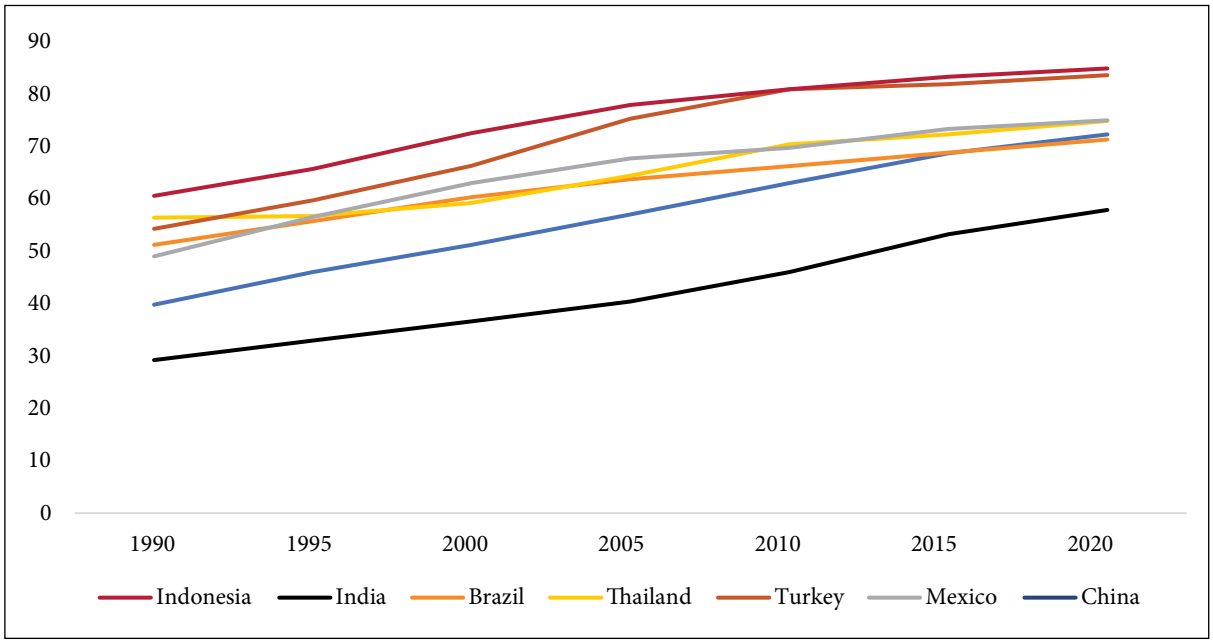


Source: One World in Data (2019).

[1] DALY measures disease burden as the number of years lost due to ill-health, disability, or death.

Figure 4 shows that NCDs have almost doubled over the last 30 years.

Figure 4: Burden of disease by NCDs across countries, 1990–2019



Source: IHME, Global Burden of Disease Study (2019).

3. Organisation and structure of health services

3.1. Governance

Indonesia is administratively divided into 34 provinces led by governors, with three levels of administration. After the provincial level, the second level is that of districts, which includes regencies (416) and cities (98). The third level is that of sub-districts (7,252), followed by the last level of rural and urban villages (83,820).

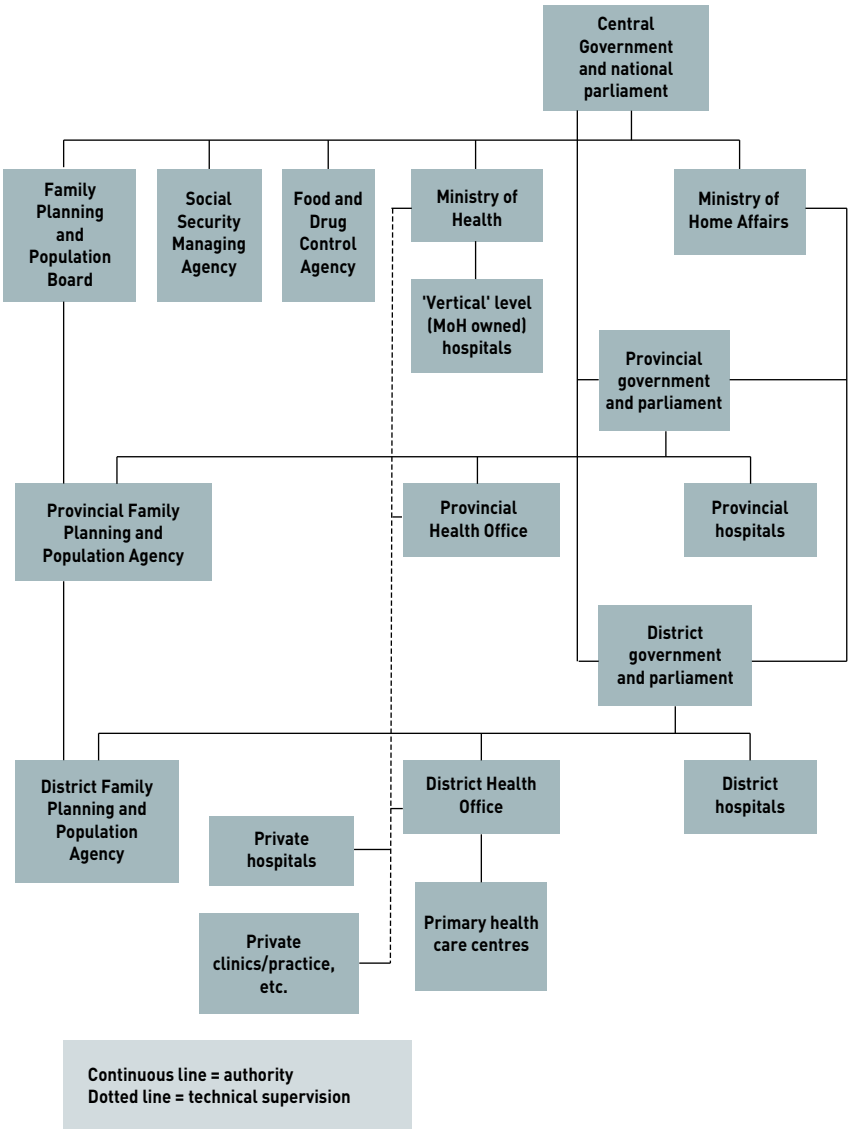
The Ministry of Health (MoH) and sub-national governments are responsible for the provisioning and delivering of public health services. The MoH has some tertiary level and specialist hospitals under it, but it mostly plays a stewardship role, acting as a regulator and supervisor. Private clinics and hospitals are run by private individuals and occasionally by Islamic and Christian organisations. The MoH has a mandate to oversee all hospitals (state-owned, private, and military). While the MoH oversees, the daily operational activities are decentralised 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 (WHO 2017). Sub-national governments are responsible for providing licences to private hospitals every two years, based on standards set by the MoH.

Among other agencies, there is also the Family Planning and Population Board as well as the National Social Security Board (*Dewan Jaminan Sosial Nasional*: DJSN), which supervises the Social Security Managing Agency (*Badan Penyelenggara Jaminan Sosial*: BPJS) in administering the national health insurance (*Jaminan Kesehatan Nasional*: JKN) (Figure 5).

BPJS-Health was introduced in 2014 and acts as the purchaser of health services—it manages and administers the health insurance fund pool and is responsible for ensuring the sustainability of the

JKN scheme. It establishes contracts and agreements with public and private providers as well as with some private health insurance providers to supplement services over and above those provided by the government, for middle- and high-income members (Mahendradhata et al., 2017).

Figure 5: Health governance structure



Source: Mahendradhata et al. (2017)

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.

There are professional associations that uphold practice standards for the medical, nursing, and midwifery professions. They develop standards and set competencies in knowledge, skills, and professional attitude. There are standard, operational procedures and qualifications of health personnel framed by the MoH (Mahendradhata et al., 2017).

3.1.1. Governance reforms: Administrative and fiscal

Indonesia faces challenges in governance given the geographical spread of the islands, neglect of remote islands, maldistribution of health personnel across islands, and lack of fiscal autonomy at the provincial level. Several reforms were undertaken in the first decade following the Asian financial crisis: decentralisation of service delivery to the district level; financial autonomy; incentive structure for health providers, especially those serving in remote islands; and increasing the supply of personnel (especially midwives) in difficult-to-reach areas (Rokx et al., 2010). All these had implications for governance.

In 2001, Indonesia embarked on the path of decentralisation in the form of political, administrative, and fiscal devolution of the responsibilities of providing health services to local governments. This was driven by the economic crisis, the fall of the Suharto regime, and growing social unrest. Till now, the main island of Java was seen as sucking resources from other islands. The new government tried to mitigate the tensions between the main and remote islands by decentralising governance. Governance was decentralised across 354 regencies/cities in 2001, which has increased to 514 regencies/cities as of 2019.

At the political level, there is a three-tier government—national, provincial, and district (regencies/cities). For fiscal decentralisation, the Centre retains control of the greater share of revenue, while sub-national governments are mainly funded through transfers and tax-sharing with the central government; revenues and taxes generated at the provincial and district levels; special allocations of funds for remote and less developed areas; and emergency funds for any natural disaster. These reforms downsize the MoH and increase authority and budgets for provinces (Harjani 2019).

The central government sets standards for health provisioning, financing, human resources, health technology, and ethical conduct in health research. In addition, the central government was responsible for the surveillance and control of disease outbreaks and the procurement of essential drugs. The provincial governments were responsible for overseeing the education and training of health workers, the mobility of personnel across districts, assessment of medical technology, accreditation of health facilities, disease surveillance, and health promotion and campaigns. The DHOs were responsible for allocating resources and delivering health services, while the sub-district level mainly focused on providing basic health services through the *puskesmas (*Maharani, 2015). Fiscal decentralisation allowed local governments to manage their economies. Indonesia also introduced reforms in public health autonomy by raising the authority of public hospital managers through corporatisation in 2004 (Maharani, 2015).

Indonesia's policy on social security—including health—was implemented in 2014. This is known as the JKN (National Health Insurance). The policy was based on the Social Security Law of 2004 and the BPJS, which came into force in 2011. The BPJS further has two entities: BPJS-Employment and BPJS-Health for improving access to social security and health, respectively. BPJS-Health administers the JKN.

The two laws aimed to introduce financial reforms in the health system. As per the original legislation, BPJS-Health acts as the health insurance agent and is responsible for managing the purchasing functions under JKN. It is responsible for enrolling members and collecting premiums from citizens. The poorest are funded by government budgets—central and local—while the other quintile groups are required to pay premiums to BPJS-Health. This entity is also responsible for entering into selective contracts with providers according to the technical criteria established by the MoH; the implementation of quality control and cost control systems; monitoring provider performance; and the collection and management of information related to JKN participants and utilisation (The World Bank Group, 2018b).

3.1.2. Achievements and challenges

The positive outcome was that regional autonomy led to a wave of policy experimentation and innovation at the local level. There were instances of innovation by district leaders to improve the delivery of services in response to local needs. Variations in local governance structures and experimentation exacerbated health inequities as heterogeneous systems evolved (Agustina et al. 2018). The *puskesmas* underwent an institutional transformation and were given financial autonomy and empowered with better management. This process of transforming *puskesmas* into strong, local public service agencies has been slow.

There have been several hurdles to good governance in Indonesia. While decentralisation has had its advantages, there have been implications for accountability due to several factors. These include inconsistencies in decision-making, limited capacity for health priority setting, and limited community participation. McCollum, Limato, Otiso, Theobald, and Taegtmeyer (2018) observe that Indonesia had a strong centralised government before decentralisation and there already existed patronage norms, nepotism, and related corruption. These practices continued after the reforms, which hindered accountability post-devolution of services. There is ambiguity regarding the extent of decentralisation and centralisation, especially after the establishment of the BPJS.

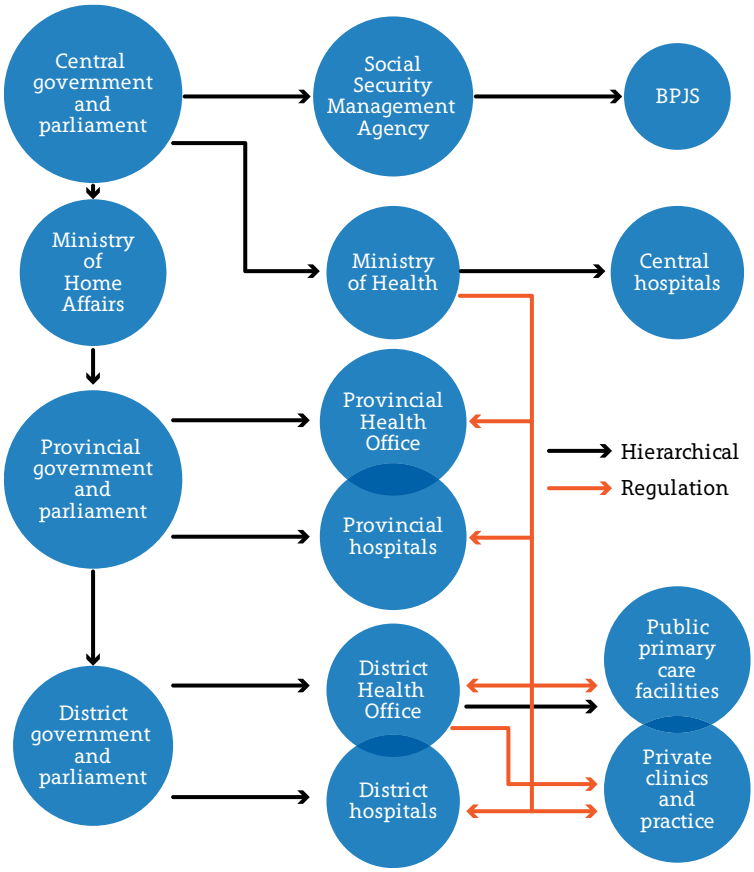
The distribution of roles and responsibilities across the central, provincial, and district/municipality levels is complex. The boundaries are blurred and there are overlaps. This has been an obstacle to the smooth implementation and delivery of services. The MoH has little understanding of governing and managing private providers. The professional associations are weak, providers do not follow protocols, and there is no accountability. In practice, BPJS serves only as a passive agent, carrying out primarily administrative functions. The regulatory environment for implementing JKN is marred by overlapping mandates and unclear regulations (The World Bank Group, 2018b).

There are numerous conflicts in the roles of BPJS-Health and the MoH, with the MoH continuing to perform many purchasing functions. There are several duplications of responsibilities between BPJS-Health and the MoH as well. For instance, as per a regulation in 2013, BPJS-Health is responsible for monitoring provider performance and quality assurance. However, the same regulation bestows the same responsibility on the MoH (The World Bank Group 2018b). At present, the MoH leads the process of setting up case-based payments and capitation tariff rates and policies, while BPJS-Health is responsible for claims processing and provider payments. The current system undermines the purchaser–provider split, which creates challenges for the effective delivery of services. The cost of services vary across public and private sectors (Prabhakaran et al., 2019). In many instances, it is observed that BPJS does not share implementation and expenditure reports on JKN with local governments and that new rules within BPJS are rarely communicated to them. This lack of access to data leaves little scope for reforms at the local level.

3.2. Provisioning of health services

Indonesia has mixed health provisioning, which is delivered through public and private health facilities. The MoH organises preventive and promotive activities. Curative services are provided by public facilities, but there is a wide range of private providers in the central islands. The network of private providers includes hospitals and clinics managed by not-for-profit/charitable entities. Indonesia also has a fairly extensive network of traditional and alternative systems of medicine (Gish, Malik, & Sudharto, 1988).

Figure 6: Organisation of service delivery in Indonesia



Source: Mahendradhata et al. (2017)

Table 1: Health facilities at different levels of service delivery in Indonesia

Administrative level	Facilities	Schedule of service	Function
Village	Community-based facilities: integrated health post (*posyandu*)	One day per month	All facilities in villages focus on preventive and promotive care
	Maternity hut (*polindes*)	Daily office hours	Monitoring growth charts, health education, and immunisation.
	Sub-health centres (*puskesmas oembantu-oustu*)	Daily office hours	*Pustus* extend the services of the *puskesmas* to remote areas but does not provide inpatient facilities
	Mobile service units (*puskesmas keliling-pusling*)	One–four times per month	*Pusling* is a mobile unit that visits villages on a market day
	Private clinics (physicians and midwives)	Daily services, which usually open after public working hours	Patients avail of private services for a fee

Sub-district	Health centres (*puskesmas*) with or without inpatient facilities, including a simple laboratory facility	Daily office hours	There are two types of health centres: inpatient facilities (open 24 hours; with specialist teams; offering simple surgeries) and outpatient (daily clinic during office hours, which provides preventive, promotive, and simple laboratory facilities. They are designated Basic emergency obstetric and newborn care (BEmONCs) for maternity services)
	Private clinics (physicians and midwives)	Daily services, usually open after public working hours	Services for a fee
District	First referral hospitals with Comprehensive emergency obstetric and newborn care (CEmONC)	Daily office hours	24-hour emergency unit; focus on clinical services
	Private hospitals, of which some are designated as CEmONC.	Daily	Usually exists in a big district and provides clinical services. Some are only mother and child hospitals
	Private clinics (physicians and midwives)	Daily services, usually open after public working hours	Services for a fee
Province	Second referral hospitals (CEmONC)	Functions 24/7	24-hour emergency unit and clinical services; more advanced than district hospitals
	Private hospitals (CEmONC)		More specialist doctors
Central	Tertiary or top-level hospitals as a centre of excellence	Functions 24/7	24-hour emergency and advanced and complete teams of specialists

Source: Indonesian Academy of Sciences et al (2013)

3.2.1. Public-sector provisioning

Community health centres (CHCs), known as *puskesmas,* were introduced in 1968. These CHCs are generally available at the sub-district level for 30,000 people on average. There are about 10,203 *puskesmas* that form the backbone of the country's health delivery system (Indonesia Health Profile, MoH, 2020). A standard *puskesmas* should include several personnel: doctors, dentists, public health specialists, nurses, and midwives. However, in practice, many *puskesmas* in rural areas only

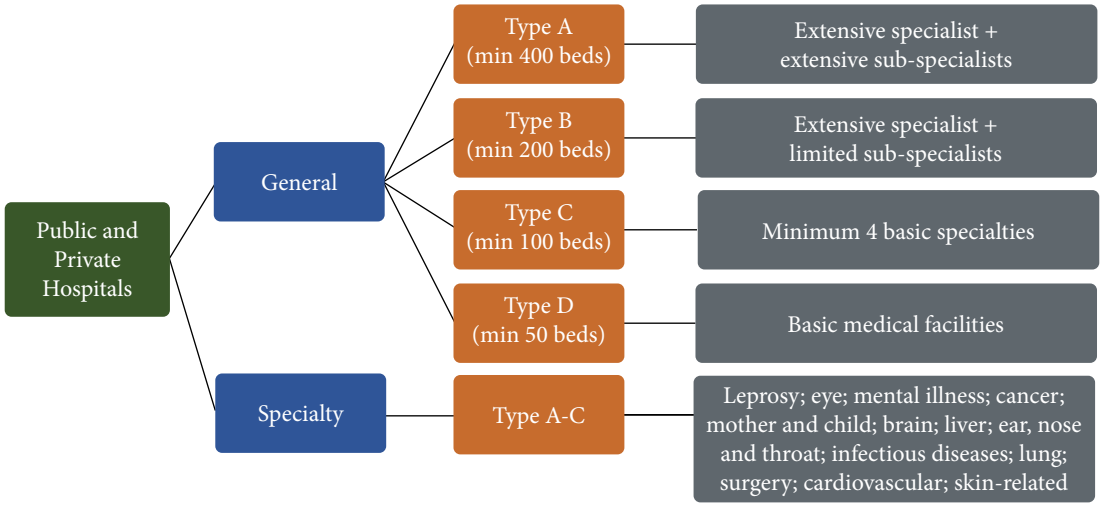
have nurses and midwives (Erlangga, 2018). It is further supported by two or three sub-centres known as *pustus*, which are primarily headed by nurses (Mahendradhata et al., 2017). In 2006, the government introduced village health posts known as *poskedes*, which have one midwife and one nurse. *Puskesmas* are, therefore, connected with a network of lower-level institutions for better access across the islands. These include sub-centres (*pustus*), integrated health posts (*posyandus*), mobile *puskesmas* (*pusling*), village-level delivery posts (*polindes*), and village health posts (*poskedes*) (Benotti, Hirschhorn, Sugiyarso, & Ahmad 2021).

The *puskesmas* essentially provide six services: health promotion, control of communicable diseases, outpatient services, maternal and child health services—including family planning—nutrition programmes, and environmental health. Some of the *puskesmas* are also equipped to provide obstetric and neonatal care and, therefore, have basic inpatient services (Mahendradhata et al., 2017). *Puskesmas* have a wider outreach than private clinics with more patients visiting them (Prabhakaran et al., 2019).

Puskesmas are supported by district, provincial, and national level hospitals through referrals. Public hospitals are found at both the provincial and district levels and are grouped into two categories, namely, general hospitals and speciality hospitals. As of 2020, there were a total of 3,016 hospitals (public and private; general and speciality), wherein the best-equipped hospitals were located in urban areas and provincial capitals.

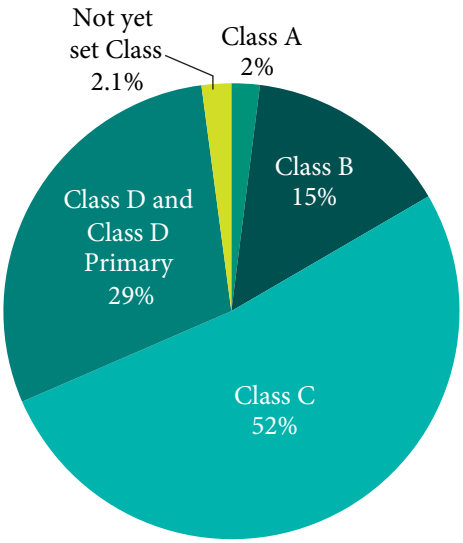
Hospitals are grouped into Class A, Class B, Class C, and Class D categories based on the level of services they provide. Class C constitutes 1,550 hospitals, which is almost 52% of all hospitals. There are 877 hospitals (almost 30%) categorised as Class D, 436 hospitals (15%) as Class B, and 60 hospitals (2%) as Class A. The remaining 2.1% are hospitals that have not been assigned any category (Ministry of Health Republic of Indonesia, 2021). These are not evenly spread across Indonesia (Figures 7 & 8).

Figure 7: Summary of hospital levels and services in Indonesia



Source: Prabhakaran et al. (2019)

Figure 8: Number of hospitals by class, 2020



Source: Indonesia Health Profile, MoH (2020)

3.2.2. Private health services and engagement with the public sector

Private providers at the primary level function independently and constitute primary clinics known as *klinik pratama* and solo practice establishments by general physicians (GPs), midwives, and nurses (Mahendradhata et al., 2017). There are many charitable clinics that function on a non-profit basis. Some are commercialised while others are set up by non-profit religious agencies for providing free medical services to the poor. Although there are no reliable statistics on the number of private primary care providers, it is estimated that there are at least 10,000 private GP clinics that have been approved by BPJS-Health (The World Bank Group, 2021).

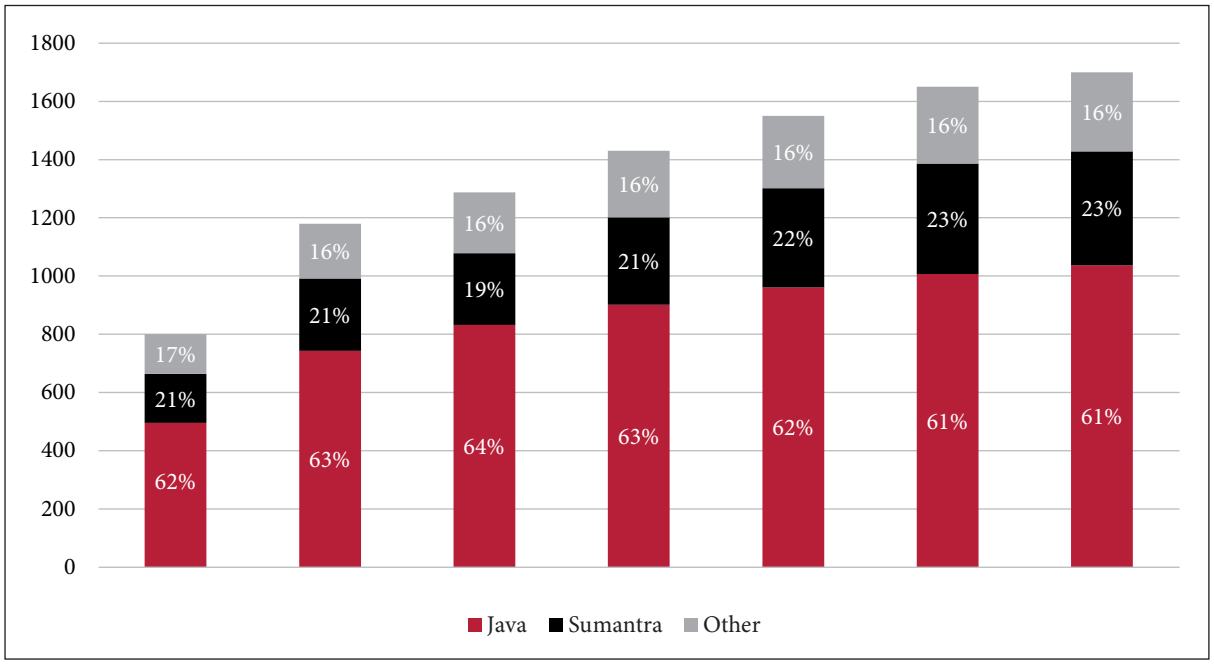
Many private establishments also operate in a dual practice mechanism, that is, doctors working at *puskesmas* often practice privately after official working hours (Harimurti et al., 2013; González, Montes & Pal, 2021). Most solo-provider facilities are illegal, and these are run by government nurses. There is no formal information available on the scale of private sector clinics and facilities at the primary level. Some of these private clinics are empanelled with BPJS to receive people insured under the JKN scheme (Mahendradhata et al., 2017).

About 63% of the total 3,016 hospitals are owned by private institutions. Indonesian private hospitals consist of both for-profit hospitals and a fair number of non-profit/faith-based hospitals. The province with the highest number of independently practising doctors and dentists and those collaborating with BPJS is the Central Java province, with 1,059 independently practising doctors and 303 dentists (Indonesia Health Profile 2020). As of 2019, Indonesia had around 310,656 hospital beds and around 42% of them (129,141) were in private hospitals (Asian Development Bank, 2020).

In terms of distribution, private hospitals are present in urban areas and remain concentrated in the rich provinces of Java and Sumatra. This concentration of facilities in the Java region corresponds to the fact that more than half the Indonesian population reside here (Figure 9). However, there is an unequal distribution of hospital beds per 1,000 population. Indonesia's average hospital beds ratio per 1,000 people was 1.2 in 2019, which passes the WHO's requirement of 1 bed per 1,000 people; the city of Jakarta had a bed strength of 2.2 per 1,000 people while the eastern province of Nussa Tengerra only had 0.7 beds per 1,000 people (Indonesia Health Profile, MoH, 2019).

The boundaries between the public and private sectors are blurred. This is primarily because a vast majority of health personnel in public facilities are involved in dual practice after official working hours. This lack of clarity impedes defining the scope of the private sector in Indonesia, even though a majority of enrollees under JKN are in private clinics.

Figure 9: Distribution of private hospitals in Indonesia



Source: Health Policy Plus (2018b).

The MoH mandates private hospitals to have two types of licences: an establishment licence to construct a facility and an operational licence specifying the type of hospital. Even so, licensing is not widely followed, and strict penal action is generally not taken on low-performing facilities.

Since the number of specialist doctors is a critical requirement to get the operational licence, not many private hospitals obtain the operational licence and limit themselves to an establishment licence. Even though Indonesia directs hospitals to establish governing boards with stipulated responsibilities, the sanctions on non-compliance with the same are not strictly enforced (Morgan and Ensor, 2016).

3.2.3. Growth of institutions and reforms

In pre-independent Indonesia, provisioning of healthcare was largely by not-for-profit institutions. These institutions were predominantly run by various denominations of Christian missionaries. The Dutch government extended subsidies to these institutions in the absence of state-led health services, which were restricted to Dutch civil servants, the army, and workers in state-owned companies.

Post-independence, various regimes made commitments to improving public health and developing public health institutions. Despite this commitment, the growth of institutions was negligible during the early years due to a shortage of resources. Some charitable hospitals were subsumed under the public sector but these were few.

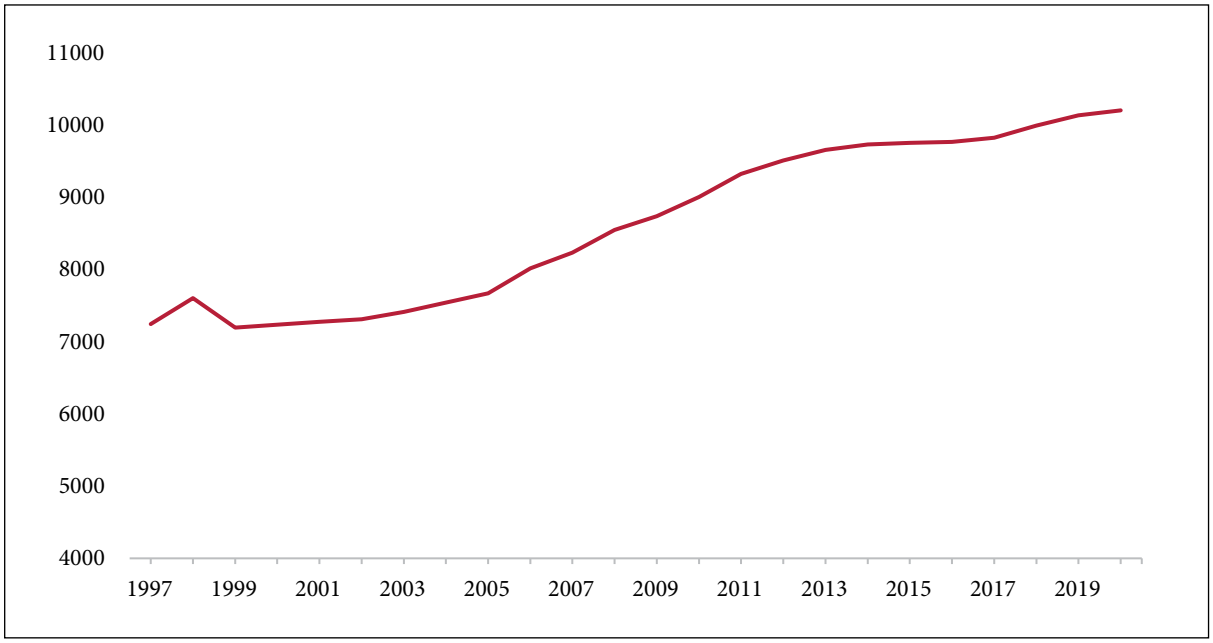
Indonesia has focused on preventive, promotive, and primary-level health services since the 1950s. The Suharto era succeeded in expanding the healthcare network horizontally, but several issues

existed: there was a lack of funding and human resources that affected provisioning directly. Indonesia witnessed an impressive growth of health facilities, which began in the 1970s when health services were developed in rural and remote areas. Under Suharto, *puskesmas* were introduced across Indonesia as promised in the 1960 Basic Health Law. There was a nominal charge for accessing their services.

Suharto's rule also witnessed the inclusion of private-sector investment in provisioning and financing. This period saw the introduction of private insurance schemes. By the early 1990s, the government was providing only 30% of health services. Despite the expansion of *puskesmas*, government outreach was poor. There was also a lack of information sharing between central and local governments. Overall, health services were of poor quality due to which many people opted to avail services at private centres.

The Asian financial crisis shifted the focus to democratisation and improving welfare services. The period following democratisation also witnessed a change in the constitution, which made receiving medical services a right, and the state had to provide health services and social security to all citizens (Pisani et al., 2016). The period 1997–2020 saw a gradual to rapid rise in *puskesmas,* where the number went up from 7,243 to 10,203. This coincided with the introduction of a subsidised health insurance scheme for the poor (Figure 10).

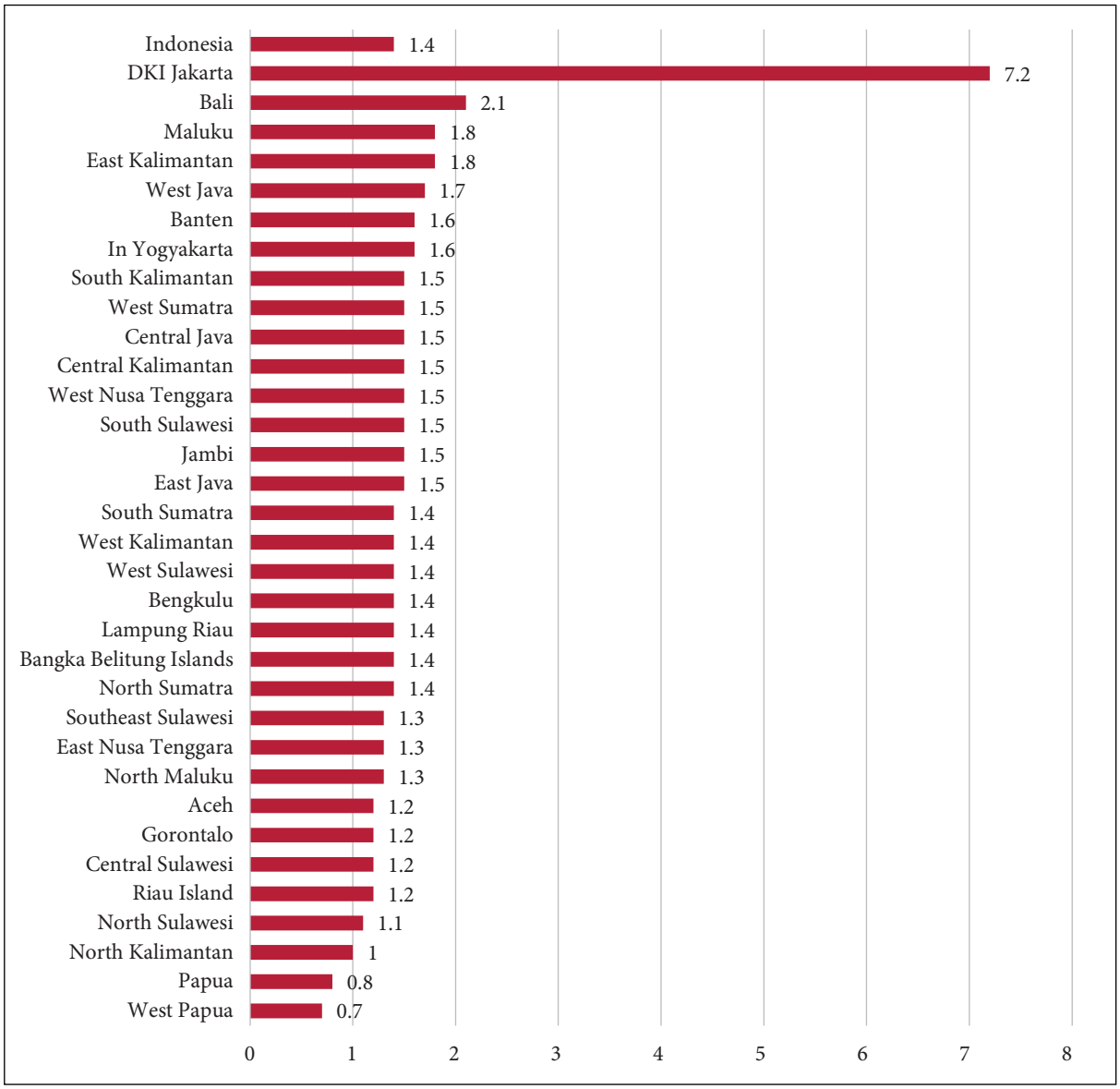
Figure 10: Total number of puskesmas in Indonesia



Source: Indonesia Health Profile, MoH, 2020

The increase in the number of *puskesmas* illustrates the government's efforts to improve the reach of primary health services. This increase can also be seen as concurrent to policy experimentation occurring at the local level after decentralisation. The ratio of *puskesmas* per district for a 30,000 population was 1.4 in 2020 (Indonesia Health Profile, MoH, 2020). However, when disaggregated district-wise, disparities appear. For instance, the province of West Papua has the lowest ratio, indicating that access to primary healthcare facilities is still not ideal in some remote areas (Figure 11) (Indonesia Health Profile, MoH, 2020).

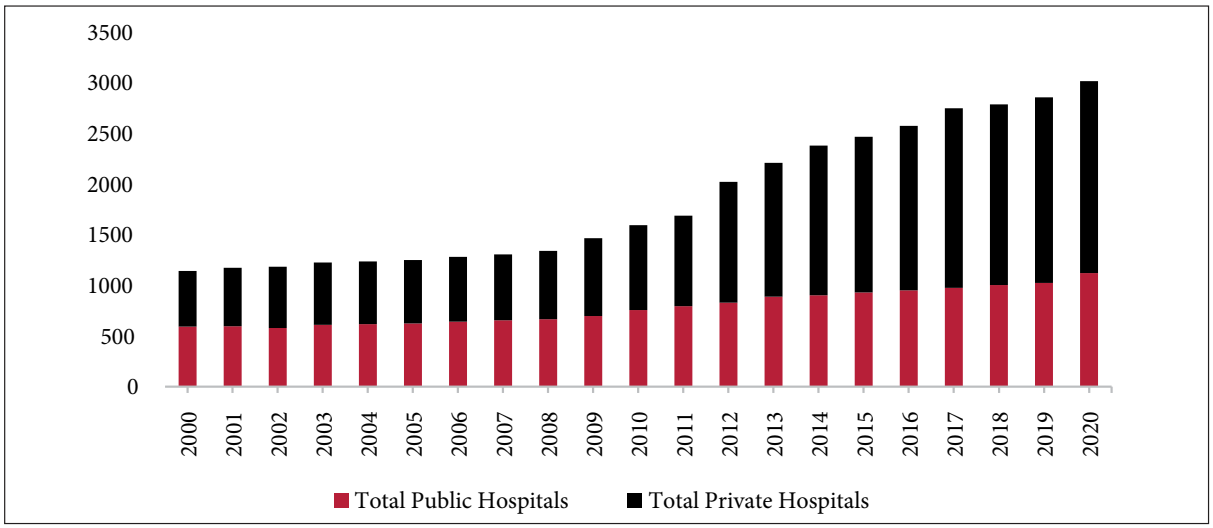
Figure 11: Ratio of puskesmas per 30,000 population per district, 2020



Source: Indonesia Health Profile, MoH, (2020)

The total number of hospital facilities has almost tripled from 1,111 in 1999 to 3,016 in 2020, which was mainly driven by the growth in private hospitals, which have grown from 518 in 1999 to 1,895 (63% of all hospitals and 42% of all beds) in 2020. In comparison, the growth of public hospitals has been moderate (Figure 12). The number of private hospitals has grown by 9.2% per year from 2014 to 2017 as compared to the growth in the number of public hospitals, which increased by 0.3% per year over the same period (The World Bank Group, 2021). Both speciality and general hospitals have witnessed growth, with general hospitals forming around 80% of the total number of hospitals in Indonesia (Indonesia Health Profile, MoH, 2020).

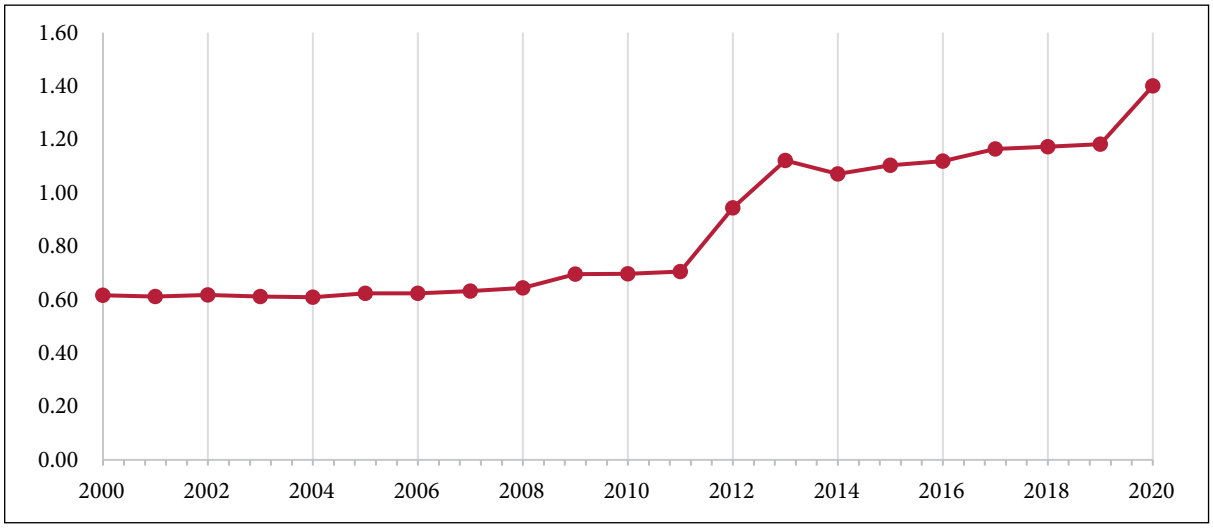
Figure 12: The total number of public and private hospitals in Indonesia (2000-2020)



Source: Indonesia Health Profile, MoH, (2020)

Figure 13 presents the number of hospital beds per 1,000 population over the years in Indonesia. Post-2010, there has been an impressive increase in the number of hospital beds per 1,000 population and the figure has doubled to 1.4 beds per 1,000 population in 2020 as compared to 0.7 in 2010.

Figure 13: Number of hospital beds per 1,000 population



Source: Indonesia Health Profile, MoH, (2020)

The significant growth of hospitals and hospital beds after 2011 can be attributed to the growth of private hospitals (Figure 12). Indonesia's private health sector has undergone remarkable growth over the last decade in alignment with its economic growth. As the middle class grew, the private healthcare industry benefitted from rising domestic demand, specifically for private hospital facilities. Coupled with the JKN, Indonesia's population growth increased the demand for hospital facilities. In 2014, private clinics had to fulfil an accreditation programme to get permission to provide services under the JKN (Mahendradhata et al., 2017).

3.2.4. Utilisation of services across levels and sectors

Indonesia's health delivery system follows a tiered referral system with vertical referrals starting from primary healthcare facilities (primary clinics, *puskesmas*, general practitioners, and hospital Class D). These facilities are the gatekeepers to higher-level facilities. All citizens covered by the JKN can visit an appointed primary-level facility without a prior appointment (Mahendradhata et al., 2017). The gatekeeper function is performed by a doctor or a designated health facility that establishes the patient's initial diagnosis and, on its basis, issues a referral letter for higher/specialist health services. Except for in emergency cases, where patients can directly go to higher-level institutions, patients are meant to follow the referral system by visiting a primary-level institution as the first point of contact. However, this system is neither strictly followed by citizens nor monitored by the government and, therefore, has been unsuccessful.

Before 2004, there was widespread utilisation of private health services in Indonesia, even among the poorest sections of society. As a result, out-of-pocket expenditure (OOPE) constituted more than a third of overall health spending (Chee et al., 2009). However, after the implementation of JKN, the trend has reversed to some extent.

In terms of utilisation rates, outpatient and inpatient services showed a significant rise in 1995–2015, following a decline around 1998 to the early 2000s, coinciding with the Asian financial crisis. After the introduction of government subsidies for the poor, outpatient and inpatient utilisation saw a significant rise post-2007 (The World Bank Group, 2016). While both public and private inpatient and outpatient services have increased, utilisation levels for private outpatient care have increased more steadily since the 1990s. Further, with the introduction of JKN in 2014, utilisation rates have almost doubled on average for inpatient care, including in private-sector facilities. Outpatient utilisation rates have increased post-JKN, and private-sector utilisation constitutes 50–60% of total outpatient utilisation. However, utilisation rates for inpatient services in the public sector were higher than those for private inpatient services in 2014 (The World Bank Group, 2021).

Apart from variations across income levels, there are disparities in utilisation across regions—Java and Bali register much higher utilisation rates when compared with remote provinces like Maluku, Papua, and North Maluku (The World Bank Group, 2016). These disparities are linked to supply-side issues, low quality, and variations in the standard of care.

3.2.5. Achievements and challenges

Health infrastructure in Indonesia has shown an increase, and the spread of primary-level services has been optimal, even though there is a skewing towards urban areas and better-developed provinces. *Puskesmas* have grown numerically over the last two decades, but there are variations in the distribution and quality of services. For instance, in 2018, only 40% of *puskesmas* had all categories of staff necessary for fulfilling all services (Booth, Purnagunawan & Satriawan, 2019).

With the continual expansion of the number of *puskesmas* and hospitals, Indonesia's healthcare system has improved in terms of service delivery and supply-side readiness. However, challenges remain in terms of regional disparities and service quality. In particular, the eastern provinces, such as Papua, have very low coverage of community health centres. In quality terms, only 74% of *puskesmas* meet service delivery preparedness requirements, although urban facilities fare somewhat better than rural-based facilities (Agustina et al., 2018). At the primary level, *puskesmas* receive the highest share of patients—around 81%—and private facilities account for 18% of patients (Prabhakaran et al., 2019).

Despite the outreach of *puskesmas*, the referral system is not strictly followed. The gatekeeping has not worked well and the volume of patients at the secondary and tertiary levels is high. In practice, Indonesia's patient pathway or referral system is marred with numerous impediments namely

lengthy waiting time for treatment, limited knowledge among patients about the gatekeeping referral system, the limited coverage area for health referrals, and a lack of commitment from service providers to follow referrals (Handayani et al., 2018). Patients who are not insured can access any health services (public or private) at any level but have to pay out of pocket (OOP) (Mahendradhata et al., 2017). Since these patients can pay, they are privileged over other patients who come through the insurance scheme and, hence, get access to services as a priority.

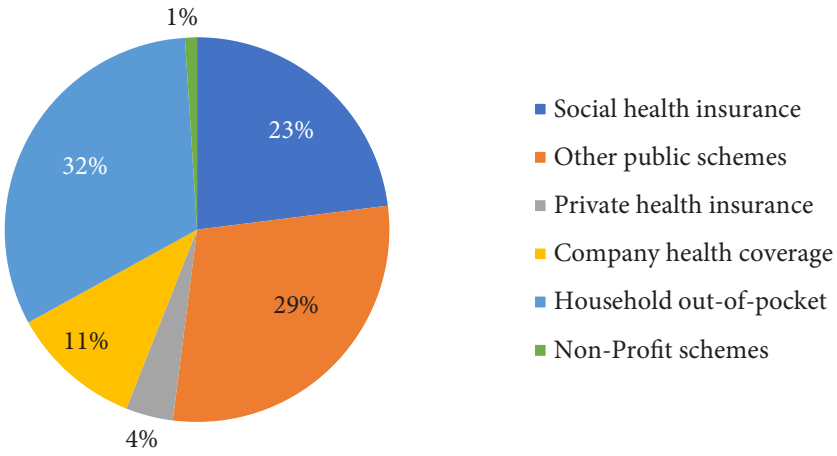
All public hospitals went through a reform process in 2009 where they were granted greater financial as well as operational flexibility and autonomy for greater efficiency, but this has not been successful. The idea of corporatizing public hospitals was to reduce government subsidies and compete with other public and private hospitals. An evaluation shows that while there was an increase in revenue generation, there was a decrease in efficiency and equity. The lack of success was linked to internal and external factors: internal factors being less autonomy in decision-making and, hence, in innovations, as well as the poor capacities of managers; external factors had more to do with fiscal pressure and the constraints linked to it (Maharani & Tampubolon, 2017).

Therefore, in terms of the distribution of health services, public facilities, especially at the primary level, seem to have a good outreach across urban and rural areas though the quality is highly varied. The private sector has grown over the last few decades, and utilisation in the sector has increased.

3.3. Financing of health services

The Indonesian health system has a mixed financing system. The total health expenditure (THE) is about 3% of the GDP but government health expenditure is only 1.4% of the GDP. Since 2014, the JKN covers about 84% of the population. Figure 14 shows the different financing sources. In the figure, Social Health Insurance (SHI) refers to JKN, where individual premiums and government subsidies constitute 23% of the total health expenditure (THE). Other government funding such as programmes, administrative costs, and capital costs—the majority of which are funded by district and provincial governments—constitutes 29% of the THE. Employer–employee payments for company health coverage constitute 11%. Private health insurance constitutes 3.5%, and the rest is OOP, which comes to 32% (Cheng et al., 2022).

Figure 14: Health sector funding source as a proportion of total health expenditure, 2019

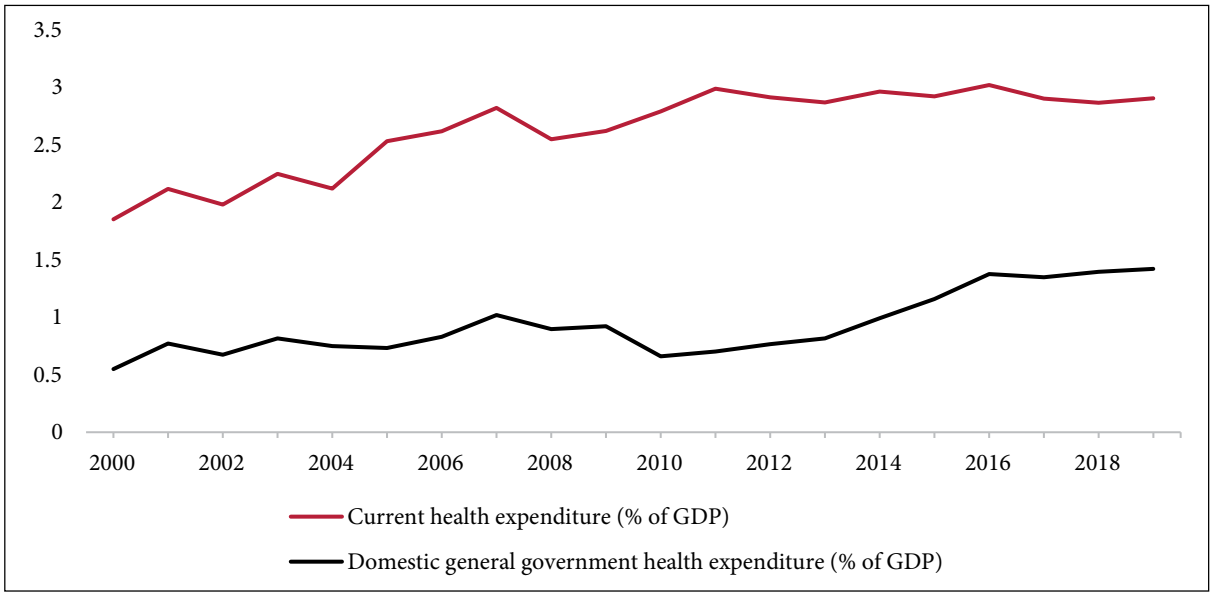


Source: Cheng et al. (2022)

Figure 15 depicts health expenditure as a percentage of GDP over two decades. From 1.85% in 2000, it has increased to 2.90% in 2019. It peaked at 3.02% in 2016. Government expenditure has increased from 0.59% in 2000 to 1.4% in 2019. Among LMICs, Indonesia still has one of the lowest expenditures

on health. Though government expenditure has increased, it continues to hover at around 1% of the GDP. The lower public spending on health by the central government can also be attributed to low tax collections. Indonesia's tax contribution to GDP was only 9.8% in 2019, significantly lower than the world average of 14.9% and lower than that of other LMIC countries—11.7% as of 2016. Lower tax collections, coupled with the fiscal deficit, limit government spending on health in Indonesia (The World Bank, 2022).

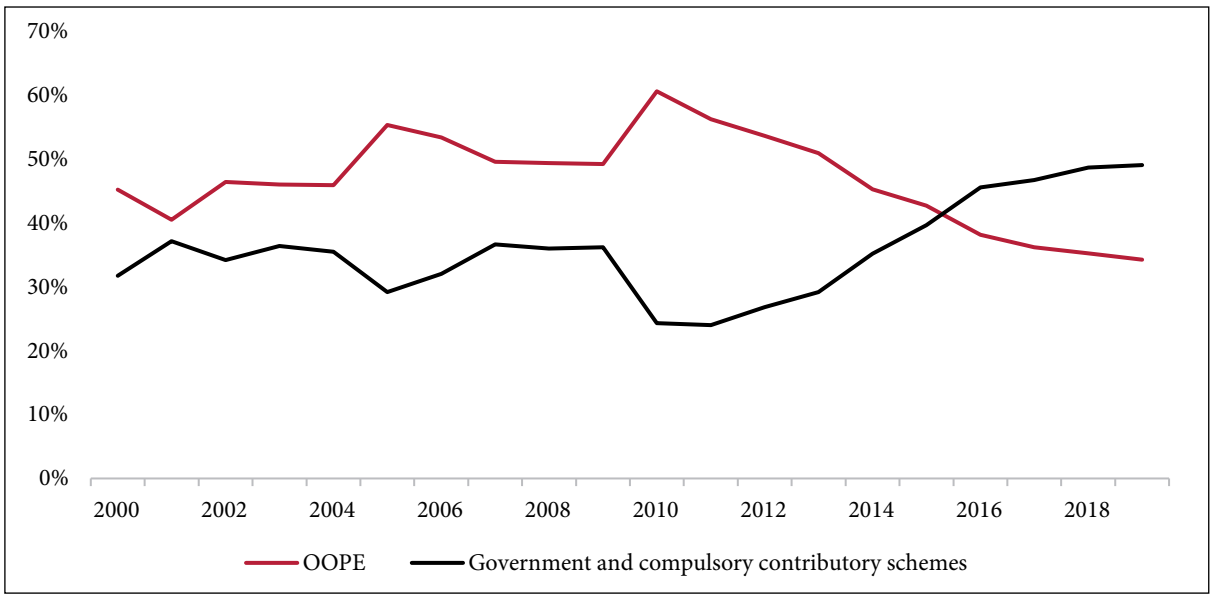
Figure 15: Current and government health expenditure as a percentage of GDP (2000–18)



Source: The World Bank (2019)

Figure 16 shows that OOPE peaked at 61% in 2010. The falling share of OOPE post-2010 corresponded with an increase in the contribution of government and contributory scheme-based financing, whose contribution doubled from 24% in 2010 to 49% in 2019.

Figure 16: Contribution to current health expenditure



Source: The World Bank (2019)

3.3.1. Centre–province flow of funds

The central, provincial, and district governments allocate finances toward public health. Districts have significant responsibility and autonomy to spend on human development areas like health, education, and infrastructure. The intergovernmental financing relies on the general allocation grant (*Dana Alokasi Umum*: DAU) for fiscal equalisation. The mandate is that the DAU pool should be at least 26% of the total net domestic revenue, out of which 90% should be transferred to districts and 10% to provinces. Since 2001, DAU has constituted the major revenue for districts (The World Bank Group, 2020). A special allocation grant (*Dana Alokasi Khusus*: DAK) is also available, which is intended mostly for capital investments.

The role of sub-national governments is critical in health sector spending decisions. Public expenditure on health by sub-national governments constitutes two-thirds of the total public expenditure, and the rest one-third is borne by the centre (The World Bank Group, 2020). Post-decentralisation, sub-national governments gained considerable autonomy over their finances and the independence to collect revenues from own-source and through intergovernmental transfers from the national government (Limasalle et al., 2022). Central government funds are mostly directed to BPJS-Health and towards hospitals managed by the MoH, salaries, and health programmes. The funds allocated to BPJS-Health are spent on capitation, case-based group payments, and reimbursements/fee-for-service payments to providers (Prabhakaran et al., 2019).

In Indonesia, the central government and sub-national governments have to allocate 5–10% of their budget for health, respectively. This includes the delivery of services, key health programmes, and subsidies to JKN (Dutta et al., 2020). While this requirement has been met on average, there are variations across districts with most not yet adhering to the 10% limits. An improvement in government health spending in these districts could get Indonesia closer to world averages and the recommended levels for UHC (The World Bank Group, 2020).

To monitor health spending, the central government has introduced an integrated financial management information system. The system has been introduced in 222 locations and is said to have improved the quality of financial reporting in Indonesia (Limasalle et al., 2022). Indonesia also has an external auditor to monitor health spending at different levels. This auditor examines the expenditure statements of sub-national governments and flags overspending in their report, after which there is an enquiry (Limasalle et al., 2022).

3.3.2. Financing reforms: Political pathways of development of health insurance in Indonesia

Countries have taken different pathways towards attaining universal coverage. Indonesia rolled out a contributory system, where the government subsidises only the poor, and premiums are sought from the rest of the population. This premium is collected through a payroll tax for formal sector workers, which is mandatory, and directly from individuals for the informal sector workers, which is voluntary. The pathway to UHC is largely influenced by politics as we discuss below.

Before the democratisation of Indonesia in the 1990s, user fees were an entrenched feature of Indonesia's health system. In 1998, just before the financial crisis, only 17 million Indonesians (8%) were enrolled in a health insurance plan (Fossati, 2017). This included civil servants and military personnel. The rest of the population had some access to *puskesmas* and public hospitals that offered services at a modest cost. In several instances, public institutions imposed large illegal fees for services (Rosser & Wilson, 2012). Routine and unnecessary referral of patients to private medical practices was also a regular occurrence that generated another set of illegal fees and resulted in many people, especially the poor, being denied access to health services (Rosser & Wilson 2012).

Table 2: Characteristics of health insurance in Indonesia (over the years)

Characteristics	*Askes*	*Jamsostek*	*Jamkesmas*	JKN
Year established	1968	1992	2008 (Formerly JPS in 1998 for the poor; *Askeskin* was established in 2005 to expand the scheme to informal sector workers)	2014–present
Populations targeted	Civil servants and military personnel (in-service and retired)	Private employers with more than 10 employees or those who pay a salary of more than Rp 1 million/month per employee	Poor and near-poor	Universal; merging of earlier insurance schemes. Poor and near-poor, public and private sector employees, and informal sector
Number enrolled	16.6 million	5.0 million	76.4 million	218.1 million
Contribution rate	2% of basic salary + 1% government; no ceiling	3% of the salary for single employees and 6% of the salary for married employees. Ceiling of Rp 1 million/month (unchanged from 1993 to 2013)	Rp 6,500 (US$ 0.67) per member per month	5% of salary for salaried workers in public and private sector and their family members (employer, with contributions from employees); 5% of monthly pension for pensioners; public budget for poor people.
Contributions	Employees 66%; employer 34%	Employers' 100%	Government 100% subsidy	Government 100% subsidy for the poor. Public sector: employee 2% and employer 3% of income. Private sector: employee 1% and employer 4% of income. Informal sector: individual contribution 100%

Benefits	Comprehensive; included prescribed medicines within the threshold value. Cost sharing could be applied	Comprehensive treatment, with some exclusions for cancers and other surgeries. Prescribed medicines are included if within the budget threshold	Near comprehensive; included prescribed medicines if within the budget threshold. No cost sharing applied	Comprehensive for all enrolees: health promotion and preventive, curative, and rehabilitative medicine services. Includes medically indicated lab tests, drugs, and supplies (including blood) and ambulance services for referrals
Coverage for dependents	Spouse + two children who were not married or working and below 21 years old	Spouse + three children who were not married or working and below 21 years old	All family members	Subsidised: per person basis. Formal sector: spouse + children under 21 years or under 25, if studying. Informal sector: per person basis (household enrolment required)
Contracted facilities	Only contracted public health facilities and public hospitals	Public and private hospitals	All *puskesmas*, public hospitals, and select private hospitals	All *puskesmas*, public hospitals, contracted private clinics, and hospitals
Provider payment mechanisms	Special fee schedules for civil servants, extra billing depending on negotiated fees	Negotiated fees, extra billing depending on negotiated fees	Fee-for-service at *puskesmas*; diagnostic-related grouping for hospitals	Capitation and fee-for-service at the primary healthcare level. INA-CBG (case-based payments) at the hospital level
Administering agency	PT Askes (for-profit)	PT Jamsostek (for-profit)	Ministry of Health	BPJS; non-profit

Source: Prabhakaran et al. (2019)

a. Insurance for government and private sector employees

Although the constitution of Indonesia was socialist in tone in the 1940s, it was unable to provide benefits for all in the first few decades, especially for the weaker sections. Health security and protection in terms of insurance were initially restricted to civil servants. In 1968, under Suharto, the *Askes Persero* scheme was established to expand financial protection and delivery of health services for both active and pensioned civil servants, active and retired military personnel, and the police force, including their direct family members (Rokx et al., 2010). It was a way of consolidating power and restoring stability. Under this scheme, 2% of the basic salary per month was deducted as a premium and there were caps on reimbursements (Prabhakaran et al., 2019).

For the rest of the population, accessing medical care meant high OOPE, especially at higher-level institutions. To cover public and private enterprise workers, the Ministry of Labour attempted to provide workers with some form of social security benefits after the introduction of the Basic Health Law in 1960, but this did not take off till the 1980s. In the mid-1980s, export-led manufacturing became an important economic goal, and the workers in these enterprises gained political importance. They were given some coverage for health and accidents. Even though it was obligatory to join the programme, there were few takers (Pisani et al., 2016). In 1992, this scheme, established for private employees and employers, was named *Jamsostek*. The scheme covered companies that had 10 or more employees with salaries greater than Rp 1 million per month. However, the scheme was not mandatory, and one could opt out of it. This resulted in low coverage. This scheme covered only about 2.5% of the population in 2013 (Prabhakaran et al., 2019). There was also a lot of corruption under Suharto as he attempted to consolidate power. The social security funds generated were used for political purposes to stabilise the regime (Pisani et al., 2016).

b. Targeted insurance for the poor

The financial crisis of 1997 led to mass impoverishment within a year. In Indonesia, in 1997–98, approximately eight million workers lost their jobs and the unemployment rate increased to 15.4%. This led to a loss of social security for all the unemployed workers (Waters et al., 2003). There was social unrest—citizens came out to the streets for the first time to protest against the regime's corruption.

The devaluation of the currency led to an increase in the costs of medicines, supplies, and technology, thus increasing OOP spending. The cost of treatment at government health facilities increased by 67% during this period, especially due to a rise in drug prices (Waters et al., 2003). Free healthcare for the poor became a prominent political issue. There was increased agitation by civil society organisations and activist groups for the elimination of user fees for health services (Rosser & Wilson, 2012).

Suharto had to step down to mitigate the social and economic unrest due to the crises. His successor, B.J. Habibie, introduced a series of new social safety net (SSN) programmes known as JPS in 1998. This was the first time that a programme provided health coverage for the poor. The scheme provided fee waivers to health card holders for outpatient and inpatient services in public hospitals (Rosser & Wilson, 2012). SSN's reimbursement scheme was funded by block grant payments based on the estimated number of poor households in an area. However, this payment method gave rise to implementation problems as hospitals often did not have enough funds to provide services for SSN beneficiaries (Prabhakaran et al., 2019). In 1999, Indonesia held democratic elections for the first time, and the coalition government that came to power, headed by A. Wahid and Megawati Sukarnoputri, promoted equity. The constitution was amended to include the right to basic medical services.

In 2004, Indonesia passed the National Social Security Law to provide comprehensive services and to attain universal coverage by 2019. The law created a policy framework for social insurance and established DJSN to monitor and evaluate the implementation of social security by BPJS (OECD, 2019). This institution came into being after much contestation from various quarters—government, insurance companies, workers, and employers of private firms. Insurance companies, employers, and some government representatives lobbied against the mandated insurance schemes. Workers felt threatened that their premiums would be used to subsidise the poor. All interest groups broadly agreed to the bill only in 2003 and many specific details were left out for further legislation. The law was passed in 2004 (Pisani et al., 2016).

In the 2005 elections for local leaders, health was one of the main electoral priorities. *Askeskin*, health insurance for the poor, was introduced in 2005. This was expanded to *Jamkesmas* (Public

Health Insurance) in 2008 to cover poor families, which was fully subsidised by the government. The enrolled families would receive services at public sector health facilities and some services from private providers without co-payments. The *Jamkesmas* insurance was ambitious in wanting to cover 30% of the population (76 million individuals). The formal sector insurance scheme already covered 25 million people. This left more than half the population in the middle quintiles—people who were neither poor nor in the formal sector—uninsured, and they fell through the cracks.

The scheme was completely financed by the central government and administered by the MoH. The central and sub-national governments allocated funds for salaries and other infrastructural costs. *Puskesmas* were provided capitation payments and hospitals were reimbursed on a fee-for-service basis for inpatients. Reimbursement rates were similar for private and public hospitals within the network. By the end of 2013, *Jamkesmas* covered 76 million people (Prabhakaran et al., 2019). This led to the establishment of over 300 complimentary as well as supplementary sub-national iterations of the programme in many districts and provinces, which were known as *Jamkesda* (*Jaminan Kesehatan Daerah* or local government insurance schemes). There were different types of schemes that emerged at the local levels. Some of these were targeted insurance schemes covering near-poor populations not covered by *Jamkesmas* and subsidies in the form of fee waiver were introduced for people who were poor (Mahendradhata et al., 2017). This step resulted in different levels of coverage, benefits, and financing strategies across regions. It had a modest effect on access to healthcare, with an impact on an average utilisation for outpatient care only.

Despite a substantial increase in coverage in the first decade after decentralisation, the share of OOPE did not decrease (Sparrow et al., 2017). The scheme also faced several implementation challenges, such as the mistargeting of beneficiaries, supply-side constraints, and variations in service delivery across islands. An evaluation of some of the local schemes estimated that one in five members was from the top income quintile (Prabhakaran et al., 2019).

Still, there were some successful experiments. By 2010, several regions in Indonesia were trying to develop inclusive and equitable health systems. For instance, provinces like South Sumatra and Aceh were able to achieve UHC before it was taken up as a national policy goal. In Bali, the scheme was implemented in Jembrana, which ensured all residents free access to basic care including some dental and specialist health services. Private service providers were also made a part of this (Fossati, 2017).

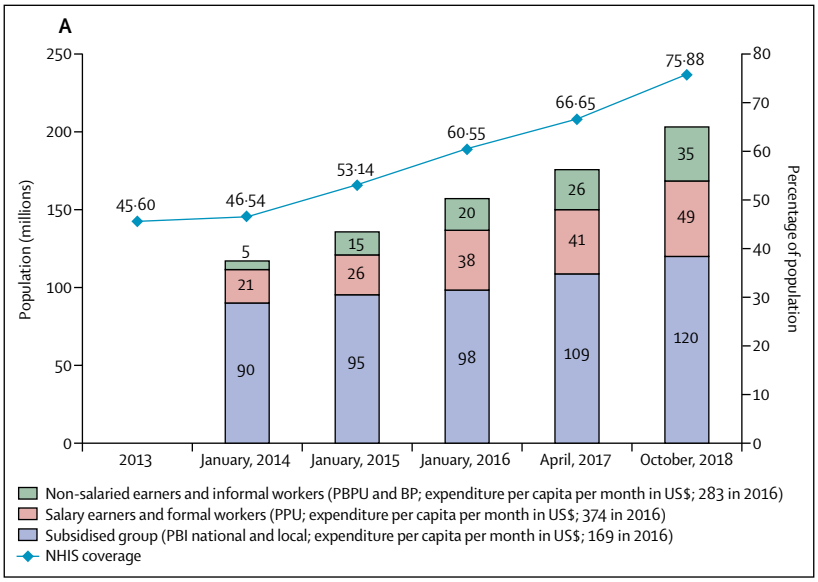
c. Merging of prior health insurance schemes to the JKN

The 2004 law was still not implemented, and by 2009–10, UHC was already part of the global discourse. A citizen group, including labour and other civil society activists called KAJS (Action Committee on Social Security), held the executive and parliament accountable for not fulfilling the constitutional right to basic medical services and also for the non-implementation of the 2004 Social Security Law. In 2011, activists went to court, and the court passed a ruling in favour of the citizens' group, asking the government to implement the law (Pisani et al., 2016). New legislation was adopted in 2011 to create an institutional framework for social security and established the BPJS as discussed before. BPJS-Health, which began to function in 2014, converged the previous fragmented insurance schemes, including *Askes*, *Jamsostek*, *Jamkesmas*, and *Jamkesda* into the JKN scheme (Bazyar et al., 2021).

Population coverage: JKN was an ambitious programme. Given the population base, it is considered one of the largest health insurance schemes in the world. As of July 2020, the scheme reports over 220 million participants, which is 82% of the total population. Further, over 2,300 hospitals (1,700 private) have been accredited for providing services to JKN members. Although the scheme missed the 2019 target of UHC, there have been some successes (Pratiwi et al., 2021). Between 2013 and 2018, coverage increased from 45% to 76%. Figure 17 shows that three groups

were subsumed under one scheme, wherein the maximum members were from the government-subsidised group.

Figure 17: Merging of the schemes population-wise (salaried, non-salaried, and subsidised)



Source: Agustina et al. (2018).

It was found that the scheme was difficult to enforce for informal workers who were mostly from the lower-middle to middle quintile groups, as payment of premiums was voluntary for this group. Most of the premiums came from the higher quintile groups.

Benefit coverage: The JKN scheme 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, and so on. If the referral is followed, there are no co-payments for medicines and services under JKN (Agustina et al., 2018). However, OOPE is still incurred primarily due to non-adherence to referrals, purchase of over-the-counter medicines (without prescriptions), and also upgrading of rooms for inpatient services (Sambodo et al., 2021).

JKN's source of funding and payment mechanism: JKN is funded by various sources, including the central government; sub-national (district and province) governments; premiums from formal sector employees (government and private); and voluntary contributions from informal sector workers.

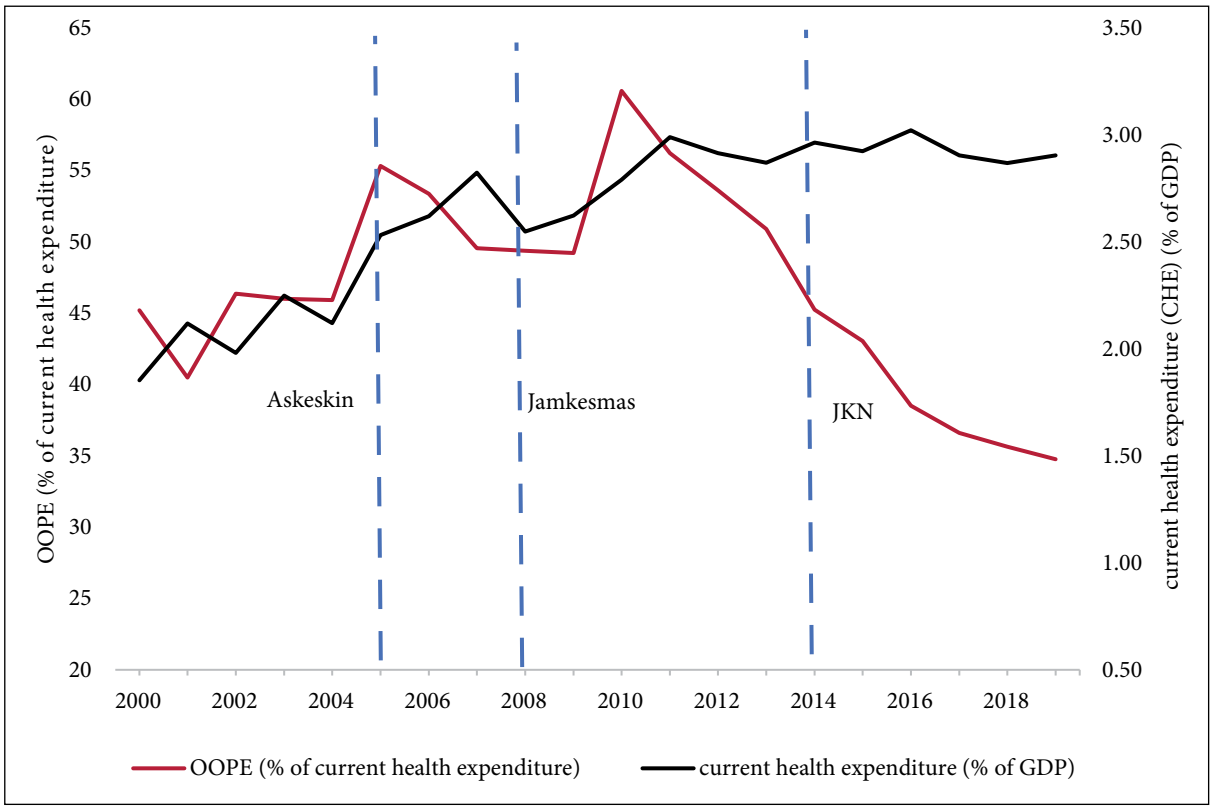
BPJS-Health collects premiums and manages provider payments. It pays for JKN through a capitation mechanism at the primary level and allows flexibility and autonomy to providers in managing their funds. *Puskesmas* that meet the full requirements of BPJS-Health are incentivised and receive an additional Rp 6,000 (around US$ 0.46) per member per month (Sambodo et al 2021).

Hospital care is reimbursed through case-based groups (CBG), also known as diagnosis-related groups or the DRGs method, that is, by grouping the costs of diagnosis and procedures. The tariffs consider price differences across regions and types of hospitals (Sambodo et al 2021). Larger claims are accepted for Class A hospitals. Private-sector providers are incentivised to participate under JKN by offering higher tariff rates (Agustina et al., 2018).

3.3.3. Achievements and challenges

Indonesia has seen a reduction in OOPE, which is evident after the introduction of *Jamkesmas* in 2008. It significantly dropped thereafter, upon the introduction of JKN. Health expenditure has stayed static from 2011 onwards. Figure 18 juxtaposes the points at which insurance schemes were introduced with current health expenditure and OOPE.

Figure 18: OOPE to current health expenditure over the years (2000–19)



Source: The World Bank (2019)

a. Budgetary challenges linked to decentralisation

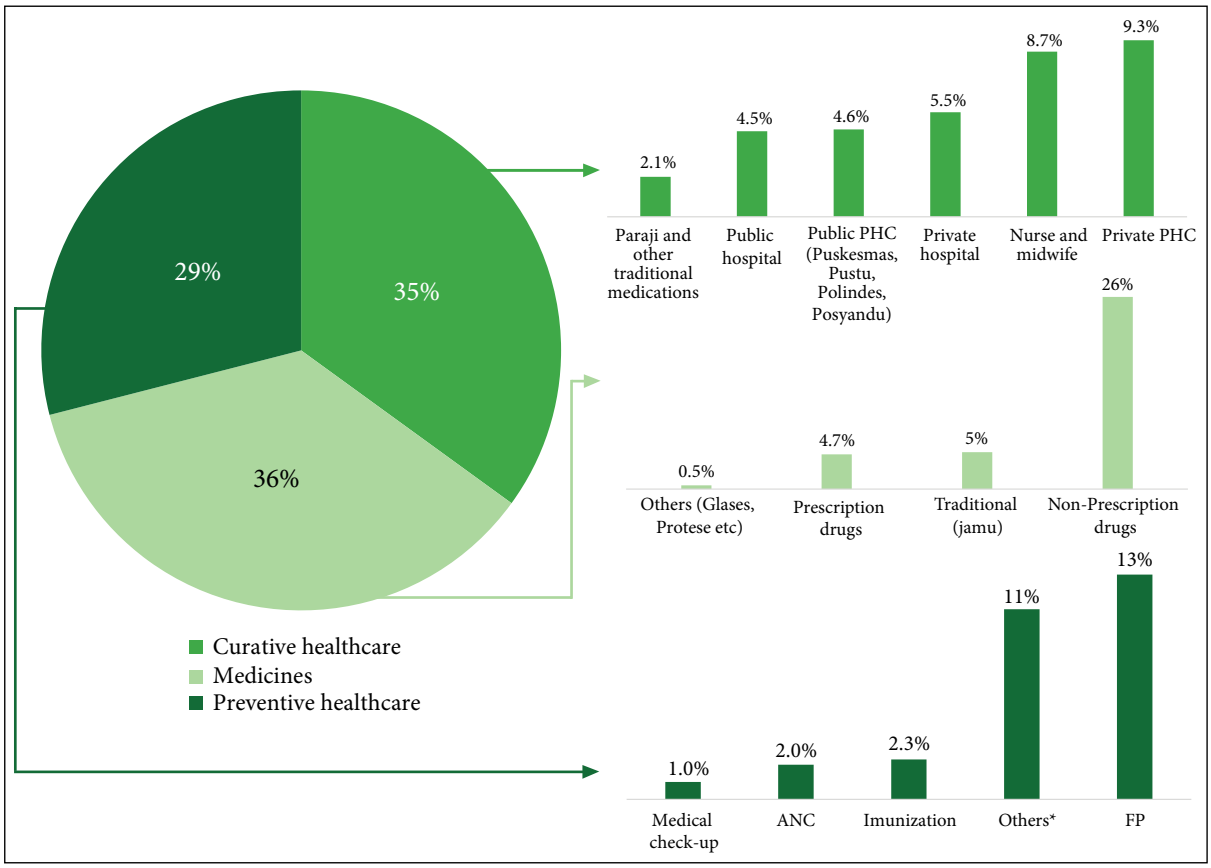
The funding earmarked for health has not always been allocated to the sector. Health spending has been consistently low through the years and systems of accountability have been weak. Further, actual spending at the sub-national level on health is highly variable. The average health spending at the district level shows that 10% is spent on health, but disaggregated data from 44 districts shows that the budget varies between 3% to 18% of the total budget (Cashin et al., 2017).

Decentralisation has led to challenges in monitoring compliance—how much is being spent on health at the district level as well as what are the funds being spent on. The Centre can track the disbursement of funds to an extent, but there are no mechanisms to track or verify expenditures. The MoH has established protocols and guidelines for reporting expenditures at the sub-national level, but only 5% of the districts report back (Cashin et al., 2017).

The spending of the earmarked grant by the central government (DAK) is also not well-monitored. A 2018 World Bank report on supply-side readiness at the primary level noted that DAK health spending at the district level did not correspond to the line items that it is meant to finance (The World Bank Group, 2018b).

In Indonesia, almost 36% (as of 2019) of OOPE is incurred on medicines. Most medicines are non-prescription based and are often acquired at local shops and pharmacies. Figure 19 gives the various components of OOPE.

Figure 19: OOPE components in Indonesia, 2019



Source: Strategic Purchasing for Primary Health Care, ThinkWell, 2021.

The government ensures the availability and affordability of several essential drugs in the country. The MoH is responsible for ensuring the availability of 484 essential drugs at the primary level. The government also regulates prices by maintaining a price ceiling for several essential drugs. However, post-JKN, there has been a 13% growth from 2015 to 2016 and an estimated growth of around 10% from 2016–18 (Britton, Koseki, and Dutta, 2018).

b. JKN-related challenges

Despite the generous benefits package with no co-payments and expanding population coverage, expansion to the informal non-poor sector remains a challenge. For the JKN scheme, the highest number of uninsured were from the lower-middle-income group in the informal sector. This is associated with changes in eligibility—people moving from formal to informal employment—and is also dependent on the capacity of households to pay premiums, especially for those households in informal labour.

This section of the uncovered population is termed as the missing middle, that is, those who are in informal work but not living in poverty and are required to self-enrol to JKN. Self-employed and informal workers have to pay 100% of the premium on their own with no subsidies from the government. It has also been kept voluntary. An individual can join anytime during the year and

can claim insurance within two weeks of joining. Studies have shown that there is a problem of adverse selection, as people join the scheme only when they need access. There is no continuity in premium payments over the years (Banerjee et al., 2021). In 2017, only 30 million (43%) of the total 69 million employed in Indonesia's informal sector were enrolled in JKN. The other 39 million have not enrolled ever. Almost 14 million (47%) of the 30 million enrolled are non-active and do not pay the premium annually. This results in a substantial loss of revenue for the JKN pool (Muttaqien et al., 2021).

A 2021 study explores the informal workers' willingness and ability to pay premiums. It observes that across districts, the main reason for not paying premium is that the cost of the premium is high and income uncertainties mean that being consistent with annual premium payments is difficult. Unless there is a health need, many avoid paying the premium amount (Muttaqien et al., 2021). There are three tiers of premium depending on the type of ward.[2]

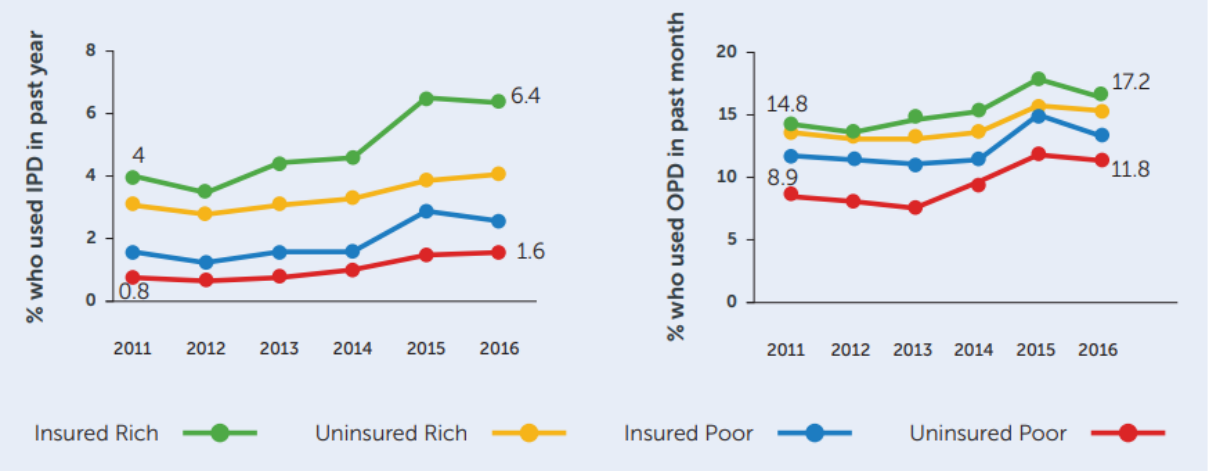
Utilisation increased significantly in the first year of JKN (2014–15)—utilisation of inpatient and outpatient services increased by 46% and 16%, respectively (Health Policy Plus, 2018a). Figure 20 shows that there was an immediate uptake of inpatient and outpatient services among the insured rich and insured poor after the 2014 reforms. While the increase in utilisation has been gradual among the uninsured, healthcare utilisation was higher among the uninsured rich as compared to the insured poor, indicating disparities in access (Health Policy Plus, 2018a). While the overall utilisation increased significantly, if we look in terms of income quintiles, JKN insurance is used mostly by the middle and rich quintiles (46.9% of those utilising services). The utilisation of services by the poorer sections has relatively increased little—they utilise the JKN the least (Nugraheni et al. 2020).

The utilisation of outpatient services increased in provinces with low and high hospital bed capacity after 2014. However, outpatient use remained relatively unchanged at the *puskesmas*, indicating an increased likelihood of outpatient use at hospitals over *puskesmas* since JKN. Data shows that 26% of JKN visits take place at the hospital level (23% for outpatient and 3% for inpatient) and they account for 84% of spending (Health Policy Plus, 2018a).

There are significant regional variations in healthcare utilisation and expenditure incurred under JKN. Rich islands such as Java had higher utilisation and hospital expenditure under JKN when compared with poor regions in eastern Indonesia. Likewise, utilisation of outpatient services increased most among the poor while utilisation of inpatient services is more prevalent among the rich. Further, there was an increase in supplier-induced demands, especially in better-off districts (Health Policy Plus, 2018a).

[2] There are three tier or classes of premiums depending on the class of hospital ward. In 2017, the average health expenditure for tier 1 was Rp 145,048 per month and the premium for 1 tier was later changed to Rp 150,000 per month. Similarly, the average health expenditure for tier 2 was Rp 96,424 per month and premium for tier 2 was later increased to Rp 100,000 per month. In tier 3, the average expenditure was Rp 68,608 per month and premium was set at Rp 42,000 per month—the government subsidised tier 3 by paying Rp 7,000 for this category (Gumelar G, The Jakarta Post, 2020).

Figure 20: Inpatient and outpatient utilisation by the insured and uninsured



Source: Health Policy Plus, (2018a)

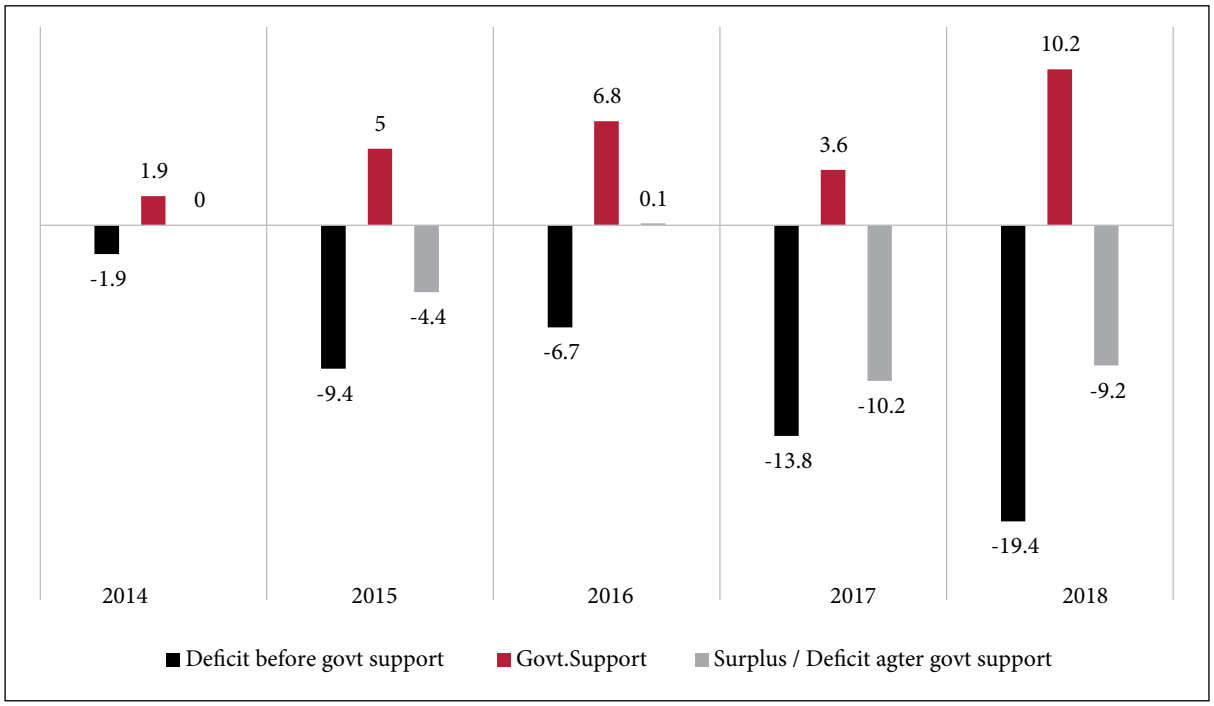
Despite the scheme's capacity to absorb a significant share of OOP costs, there are numerous outlets through which insured people still incur OOPE (as shown in Figure 18). Previous studies have highlighted that shortages in supply-side components under JKN, including drugs purchased outside the hospital, administrative costs, and upgradation to higher-level rooms, are not covered under JKN (Nugraheni et al., 2020).

c. *JKN budgetary deficit*

About half of the costs of the JKN scheme was originally planned to be funded by premium contributions when 70% of the population registers 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, except in 2016, when it recorded a surplus (Figure 21). Several studies have indicated multiple root causes for the deficit in the JKN (Asyrofi & Ariutama, 2019; Aidha & Chrisnahutama, 2020; Nugraheni et al., 2020). These include 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). 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 & Chrisnahutama 2020).

Figure 21: Indonesia's widening health insurance deficit (in trillion rupiah)



Source: Gumelar G, The Jakarta Post(2020).

To reduce the JKN deficit, the government allocated funds from the revenue sharing fund generated through the tobacco excise.[3] Additionally, there were local government-level measures to reduce the deficit. For instance, one district government earmarked food taxes at restaurants and hotels for health expenditure while another developed a JKN cadre to collect contributions from informal-sector workers (Aidha & Chrisnahutama; 2020).

However, these measures did not have any significant impacts on reducing the deficit. In 2019, the government increased the premium fees for all classes. The regulation was subsequently revoked by the Supreme Court in March 2020 (*Observer* 2020). However, the premium rates were increased again in a new regulation but only for those who paid premiums independently, that is, the non-poor informal sector workers. Several critics decried this move by the government, stating that the increase only addressed short-term problems and not the structural issues the BPJS faces, such as revenue generation strategies for its health service priorities.

The insurance contribution cap in the JKN scheme before 2020 also made it less progressive. For instance, the salary contribution for private formal sector employees was capped at Rp 400,000, which was too low for a large number of employees with high incomes, resulting in a regressive contribution structure with people earning more than Rp 8,000,000 per month not paying more. This cap was later increased to a much higher number in 2020 (Hyeseung et al., 2019).

[3] In Indonesia, tobacco taxation is a multifaced process with several different taxes levied on tobacco products, such as excise duty, VAT, import duty, corporate income tax, and local tobacco tax (Ahsan et al., 2021). In 2016, the MoH issued a regulation that decreed that a minimum of 50% of the revenue from local cigarette taxes was to be allocated to health programmes and services. A portion of funds collected through the local tobacco tax was to be redirected to the BPJS. Local governments were now required to direct 75% of the 50% of the funds (that is, 37.5% of the total funds from local tobacco tax) that were previously earmarked for community health services to BPJS healthcare. This policy was further reinforced by a 2018 presidential decree and a Ministry of Finance regulation (Ahsan et al., 2021). There was resistance from the local governments in the implementation of the policies, as the entire process was complicated, resource-intensive and generated less funds than anticipated. Further, weak mechanisms to monitor and calculate these transfers to BPJS schemes have resulted in lower-than-expected transfer of funds to BPJS healthcare (Ahsan et al., 2021).

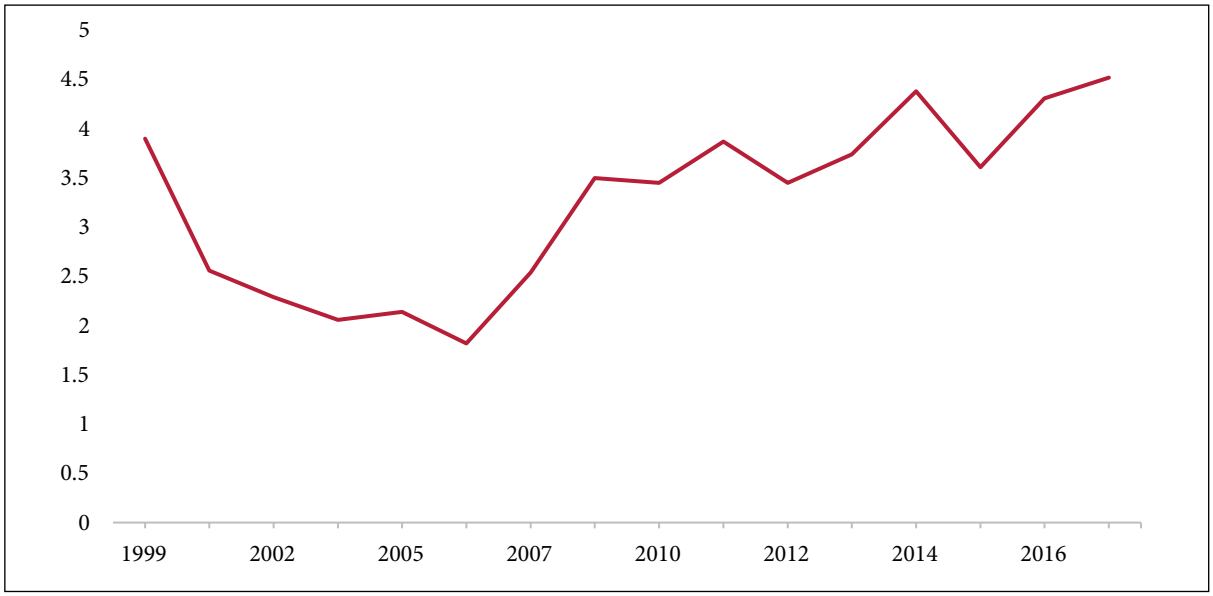
JKN claims ratios, which represent the ratio of claim costs incurred to premiums collected, have frequently exceeded 100%, casting doubts on the sustainability of the scheme over time. The claims ratio of the self-enrolled/informal sector reached 551% in 2014, while for private employees it was 95%. By 2019, the claims ratio of the self-enrolled had decreased significantly to 312%. The self-enrolled claims ratio thus remains quite high compared with that of the subsidised group (PBI), which has fallen to 85% from 100% (Hyeseung et al., 2019).

d. Catastrophic health expenditure

While catastrophic health expenditure (CHE)[4] in Indonesia is less severe compared to many LMICs, there is a much higher incidence of CHE than in other Asian countries like Thailand, Malaysia, and the Philippines (ILO 2021). During 1999–2006, there was a sharp decrease in the percentage of households spending more than 10% of their total household budget on healthcare. This period also coincided with the immediate uptake in government healthcare expenditure in response to the Asian financial crisis in 1997 and the introduction of the block grant for community health centres and hospitals.

However, after 2006, there was a sharp increase in the percentage of households experiencing CHE. In 2009–14, Indonesia witnessed an increasing trend in CHE incidence, with a sharp decrease in 2014–15, which coincided with the implementation of the JKN scheme. However, since 2015, there has been a steady rise in CHE incidence, indicating the limited impact of JKN in reducing CHE incidence (Figure 22).

Figure 22: Percentage of households spending greater than 10% of the total household budget on health, Indonesia



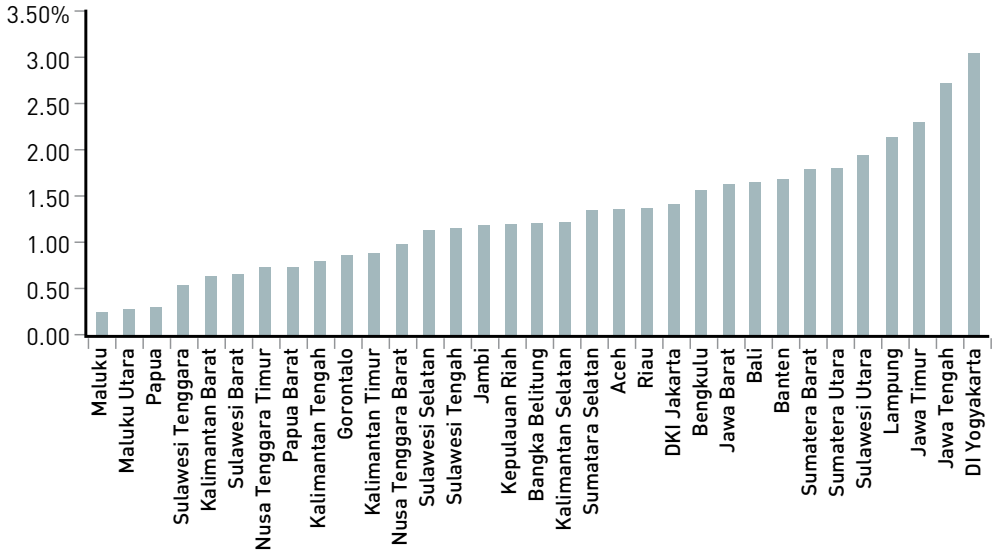
Source: The Global Health Observatory, WHO (2022)

Previous studies have indicated several reasons for this phenomenon, such as the increased utilisation of health facilities by the insured population and inadequate health insurance packages to cope with the cost of healthcare needed (Suryanto et al., 2017). Interestingly, incidences of CHE are higher in provinces that have high service coverage. For instance, provinces in Yogyakarta, Central Java, and East Java have high rates of CHE while provinces in the eastern part of Indonesia, such as Maluku

[4] According to the WHO, health expenditure is catastrophic when it is greater or equal to 40% of the capacity to pay. Health expenditure is also considered catastrophic when the THE exceeds 10% of the annual income.

and Papua, have low rates of CHE incidence (Figure 23). These provinces also have some of the highest poverty rates in Indonesia, which could suggest a limited ability to seek healthcare due to limited finances (Mahendradhata et al., 2017). Catastrophic

Figure 23: Percentage of households experiencing CHE by province, Indonesia

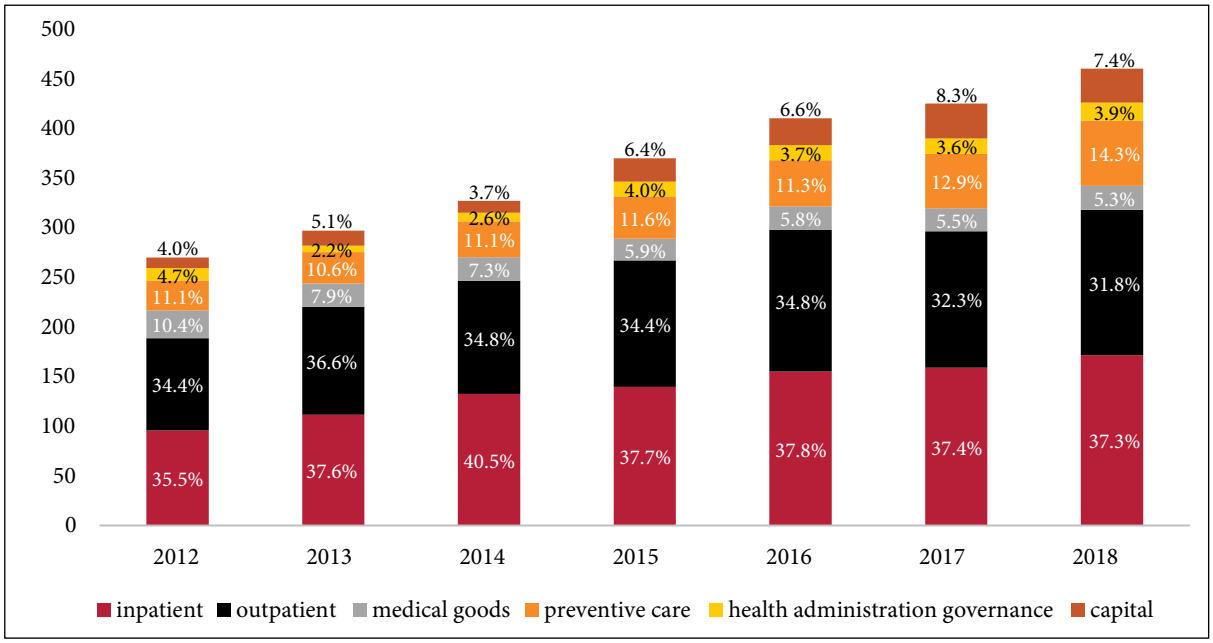


Source: Mahendradhata et al. (2017)

e. Health prevention and promotion

Investment in preventive and promotive health services constitute very little of the THE in Indonesia. From Figure 24, we can see that most of the health expenditure is concentrated in curative care (both inpatient and outpatient care functions reached 69.1% of THE) while expenditure on preventive care is around 14.3% (NHA Indonesia, 2018).

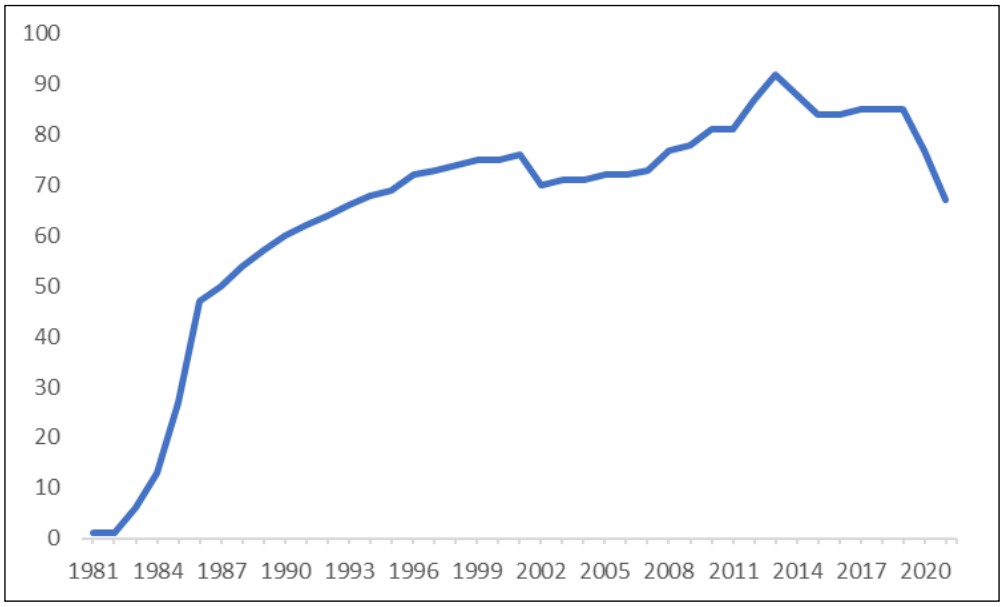
Figure 24: Total health expenditure by functions, 2012–2018



Source: National Health Accounts, Indonesia (2020)

Within preventive care expenditure, there was significant spending on operational activities and salaries for programme managers (NHA Indonesia, 2018). Expenditure on immunisation consisted of 1.5% of the THE. Figure 25 shows a dip in the percentage of children immunised for DPT in the last few years. It peaked at over 90% around 2013 and has gone down to 77% in 2020.[5]

Figure 25: Immunisation, DPT (% of children aged 12–23 months), 1981–2020



Source: The World Bank (2020)

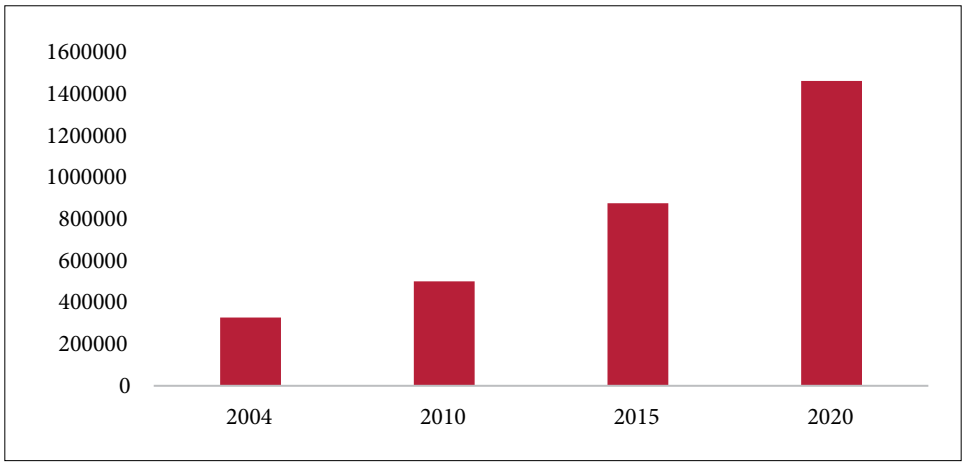
3.4. Human resources

Indonesia's principal health personnel consist of physicians, midwives, nurses, and dentists, each with a clearly defined scope of practice and each registered with their respective professional associations (Mahendradhata et al., 2017).

The health workforce (inclusive of all the above) has grown rapidly over the years. In 1974, there were less than 50,000 health personnel in government health facilities. The highest proportion of health workers is nursing personnel, constituting around 41% of the total health workers, while the lowest proportion is traditional health workers, constituting around 0.03% of the total health workers (Indonesia Health Profile, MoH, 2020).

[5] In Indonesia, DPT vaccination coverage has declined since 2014. In 2017, Indonesia witnessed diphtheria outbreak in all main islands and the highest incidence rate was reported in a province with lowest DPT immunization coverage (Sitepu F et al 2019). One the main reasons for decline in immunization coverage is attributed to vaccine hesitancy among community members in Indonesia (Sitepu F et al 2019).

Figure 26: Total health workforce in Indonesia



Source: Indonesia Health Profile, MoH, 2020

3.4.1. Availability and distribution of the health workforce

a. Doctors

Despite the increase in the number and ratio of doctors, there is a problem with distribution across institutions, provinces, and rural–urban areas. Indonesia still faces a shortage of medical practitioners, especially in hospitals. For instance, the ratio of specialists to the total population, especially pulmonologists, anaesthetists, paediatricians, and pathologists, is low (Mahendradhata et al., 2021). The biggest impediment is the availability of skilled personnel in big hospitals. Indonesia produces only 600 graduates as specialists per year due to the high costs associated with this type of academic programme as well as the relative lack of financial rewards associated with specialist medical practice in Indonesia (Global Business Guide, Indonesia 2016).

Among personnel who provide services in healthcare facilities, doctors constitute the highest proportion (55%). Rural areas are dominated by other health professionals, namely, midwives, public health officers, and environmental health officers. The scarcity of GPs, especially in rural areas, has led the government to authorise midwives and nurses to provide primary-level services in *puskesmas* and other primary-level public facilities (Syah et al., 2015). Given the geographic spread and underdeveloped facilities in remote islands, health personnel are unwilling to work in these regions. The policies incentivising health workers have had little impact on the deployment of human resources to these areas. About 45% of Indonesia's population lives in rural areas and less than 10% of physicians are available here (Agustina et al., 2018). This has added to inequalities in access and quality of care.

However, in 18 out of 34 provinces, 50% of *puskesmas* have excess doctors—the standard requirement being one doctor for an outpatient facility and two doctors for an inpatient facility (Indonesia Health Profile, MoH, 2020). This is interesting and seems to be more of a problem of administration and distribution at the primary level.

Table 3: Number and ratio of registered health workers per 1,000 in 2018 and targeted ratio by 2025

Category of health workers	Health workers ratio per 1,000 population	
	As of 2018	Target of 2025
Medical specialists	0.2	0.1
Medical doctors	0.5	0.5
Dentists	0.1	0.1
Nurses	2.5	2
Midwives	2.3	1.3
Public health officers	0.2	0.2
Nutritionists	0.2	0.2
Environmental health officer	0.01	0.2
Total	5.9	

Source: Efendi and Kurniati (2021)

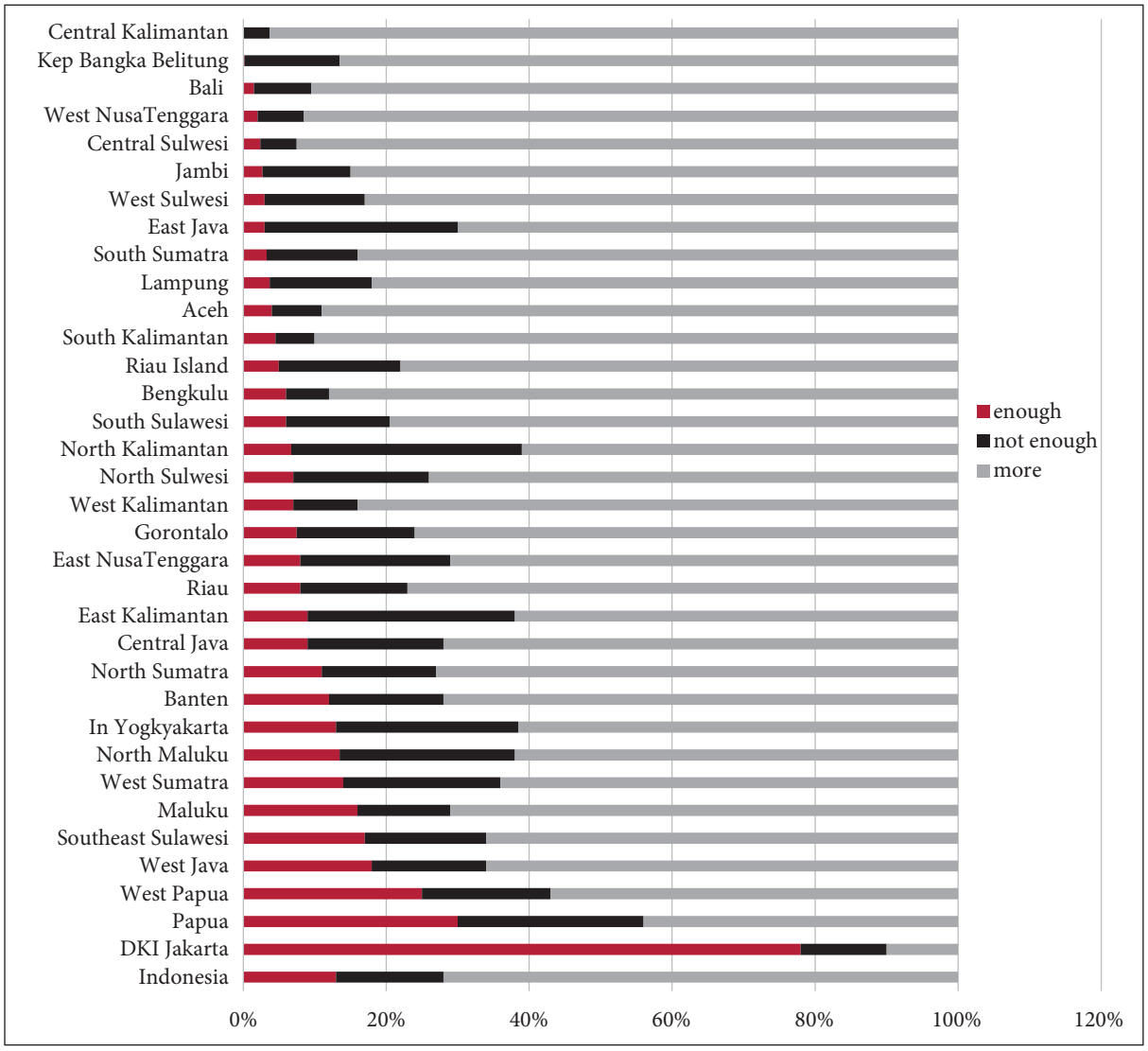
b. Nurses and midwives

Nurses represent the largest proportion of the health workforce in Indonesia. The number of nurses and midwives has increased slightly over the past decade. The number of nurses and midwives per 1,000 population in Indonesia was at 2.5 and 2.3, respectively, in 2018, and it has already surpassed the 2025 target ratio of 2.0 and 1.3. However, Indonesia is experiencing both a shortage and a surplus of nurses.

According to 2018 MoH data, Indonesia has an adequate supply of qualified nurses, but it is experiencing a shortage of employed nurses (shown in Table 3). In 2018, Indonesia had 695,248 qualified nurses, of whom only 64% were employed. While there have been sufficient supply of nurses, there has been poor deployment of nurses across regions (Efendi et al., 2022). In 2008, Indonesia produced 34,000 nurses annually, and a decade later in 2019, it increased its capacity to 138,206 nurses per year—a four-fold increase. However, the increased capacity did not align with absorption capacity, resulting in oversupply in some areas (Aurizki, 2021).

A *puskesmas* is considered to have sufficient nurses if it has a minimum of five nurses at a non-inpatient *puskesmas* and a minimum of eight nurses at an inpatient *puskesmas*. This condition is the standard in urban, rural, and remote areas (Indonesia Health Profile, MoH, 2020). Overall, 72% of *puskesmas* exceed the minimum standard, 12% are in the insufficient category, and 16% are in the sufficient category (Indonesia Health Profile, MoH, 2020). Most provinces have *puskesmas* with excess nurses. DKI Jakarta Province has a high percentage of *puskesmas* with a shortage of nurses (77.8%). This deficiency could be because most of the *puskesmas* in DKI Jakarta Province are equivalent to sub-health centres (*pustu*) in other provinces, so these *puskesmas* do not pay much attention to the adequacy of the number of nurses.

Figure 27: Percentage of health centres with adequate nurses, Indonesia, 2020



Source: Indonesia Health Profile, MoH, 2020

With respect to midwives, the rules state that there should be four midwives in a non-inpatient *puskesmas* and seven in an inpatient *puskesmas*. Most *puskesmas* in Indonesia have more midwives than the minimum standard, indicating a problem in the distribution of midwives (Indonesia Health Profile, 2020). It is also observed that the number of midwives and nurses is almost equal in the case of *puskesmas*, with the number of midwives being slightly higher (79,314 in 2017 as compared to 73,311 nurses). However, the number of nurses in hospitals is significantly higher at 4.9 times the number of midwives. Medical education and training of midwives are especially poor, and a very low percentage train with pregnant women.

A series of reforms were undertaken to counter the unequal geographical distribution of health personnel, including compulsory service regulation, incentives for working in rural areas, and special assignments for strategic health workers like nurses, nutritionists, and so on (Suryanto et al., 2017). From 1961 to 2003, Indonesia had a compulsory deployment service programme, where health institution graduates were mandated to serve at locations decided by the Ministry of Health for five years. However, this was repealed in 2003, allowing graduates to choose urban areas for employment. Another programme in effect in 1991–2007 mandated doctors, dentists, and midwives to work as contract staff for a period of 3 to 36 months. In 2006, the MoH decided that such staff

would also work in remote areas for 6 to 24 months. However, this programme was changed from mandatory to voluntary in 2007 (Suryanto et al., 2017).

3.4.2. Dual practice by health personnel

Dual practice by the health workforce is widely prevalent in Indonesia. 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. The government of Indonesia permits only doctors and midwives to operate private practices outside office working hours. Nurses are not permitted to do so (González et al., 2017).

Dual 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). Further, many with dual practices refer patients at public hospitals to their private practice (Efendi et al., 2022).

The government introduced several regulations to manage dual practice. These include tightening contract arrangements, allowing applying for a licence for private practice only three years after graduation, improving compensation in the public sector, and introducing regulations within professional organisations (Suryanto et al., 2017).

4. Discussion

In Indonesia, health is a constitutional right. The country has embarked on an ambitious path to ensure UHC and is one of the few LMICs that have been able to provide coverage to 82% of the population, which is a significant achievement in itself. However, this task has come with major challenges and lessons for other countries. Although the country started with a vision to focus on public health as central to the development process, it lacked consistency in developing its health systems.

Table 4: Phases of reforms in Indonesia

Phases of reforms	Governance	Provisioning	Financing	Human resources
Soekarno era (1949–67)	A highly centralised system with weak state administrative machinery. The priority was building up healthcare infrastructure from scratch.	Focus on preventive and curative healthcare along with the establishment of community health centres at the sub-district level with each centre staffed with doctors, nurses, and midwives. However, due to slow economic development and political instability, the public health programmes suffered and the concept of a *puskesmas* in every sub-district was not achieved until 1968.	Health funding for each district was allocated by the central government. Civil servants were the only Indonesians with any social security: a pension scheme was carried over from Dutch times, while an insurance scheme paid hospital bills for state workers when they used inpatient or outpatient health services.	Acute shortage of health professionals. Indonesia had only 1,200 physicians for a population of approximately 70 million people, with the majority distributed in urban areas.

Suharto era (1968–98)	Highly centralised system. However, the government adopted a model that provided basic health care services at low cost to users as a means to legitimise the centralised and authoritarian regime.	Significant investment in providing nationwide basic health services through community health centres known as *puskesmas*. However, the health system continued to prioritise civil servants and military personnel. This period also saw the growth of the private health sector.	Health insurance for military and civil services personnel expanded significantly as a measure to restore stability in the region, with the introduction of two schemes: *Askes* for civil servants and a contributory health insurance scheme for formal workers, which was renamed *Jamsostek* in 1992.	The government introduced a period of obligatory service for all new medical and nursing graduates, resulting in the rapid expansion of public health facilities and employment of health staff, especially in poor and remote areas
Pre-JKN era (2001–2014)	Decentralisation reforms in 2001 granted political, administrative, and fiscal autonomy to district governments for delivering public health services. These reforms occurred when Megawati came into power in 2001.	Post-decentralisation, public hospitals at the provincial and district levels had more authority to manage personnel, finance, and procurement. The private healthcare industry grew, which benefitted from rising domestic demand, specifically for private hospital facilities.	The financial crisis of 1997–98 propelled social assistance programmes for the poor to mitigate the effects of economic hardship. The Social Security Law was passed (top-down) in 2004, the last year of Megawati's presidency (2001–04). The social safety net was comprehensive and was devised to provide health coverage for the poor and the near-poor for the first time, creating a pathway for later policies; employment injury, old-age pensions, and death benefits were extended to formal and informal workers. But this was not implemented till 2011 (bottom-up), and the BPJS bill was passed only in 2013.	Ensuring adequate human resources is still a challenge, especially in rural and remote areas. Post-decentralisation, local governments used local contract staff. However, the central government regained control over all public-sector staff by converting contract staff to permanent civil servants. In effect, it enacted centralised control over public-sector human resources.

Post-JKN era (2014–present)	Decentralised governance system, with administrative and fiscal responsibilities for providing health services distributed between the central, provincial, and district/ municipality governments. However, the distribution of roles and responsibilities in the health sector is unclear.	The public sector is the dominant provider of inpatient and outpatient services, especially in rural areas. Post the introduction of the JKN scheme in 2014, private provisioning for healthcare has grown rapidly including for primary care	Insurance is the dominant form of financing. The JKN covers 82% of the population. Health financing from the private sector continues to grow, including private insurance, voluntary premiums for insurance schemes, and contributions from private enterprises.	The total health workforce has witnessed a substantial increase after the introduction of the JKN scheme, with the highest proportion of health workers being nursing personnel. However, there is still an acute shortage of physicians in Indonesia. While there is an adequate supply of qualified nurses, there is a shortage of employed nurses. Dual practice has led to the maldistribution of health personnel in rural and remote areas.

Sources: Suryanto et al. (2017); Pisani et al. (2016); Heywood and Harahap (2009); Maharani (2015); Mahendradhata et al. (2017).

There are several good outcomes—the presence of skilled attendants at birth increased from 65% to 95% between 1997 and 2019 and facility-based births increased too—but the MMR and stunted growth among children have seen a very modest decline, thus showing poor outcomes for pregnancy-related complications and high malnutrition levels (Agustina et al., 2018). Immunisation rates show a decline. The poor outcomes have been associated with a lack of resources, reduced focus on preventive services, poor quality of care, and delayed referrals. While insurance coverage has increased, access to services is still highly variable. As discussed earlier, the focus of health services is more on curative services while preventive and promotive health services have been rendered weak and left unintegrated.

Table 5: Select health indicators over time in Indonesia compared to SDG targets, LMICs, and high-income countries

Indicator	1950	1980	1990	1995	2000	2005	2010	2015	2019/20	SDG target	LMIC (2020)	High-income countries (2020)	India (2020)
Mortality rate, neonatal (per 1,000 live births)	58	38	31	27	23	20	18	14	12	< 12	22	3	20
Mortality rate, infant (per 1,000 live births)	150	85	62	51	41	34	28	23	20	–	34	4	27
Mortality rate, under-5 (per 1,000)	224	121	84	66	52	42	34	28	24	< 25	45	5	33
Prevalence of stunting (modelled estimate of % of children under five)	NA	NA	NA	NA	41.5	38.3	35.7	32.9	31.8	<40% of 2012 level	28.7	NA	35
Maternal mortality ratio (modelled estimate, per 100,000 live births)	NA	NA	NA	NA	272	252	228	192	177 (2017)	<70	253	11 (2017)	145
Mortality due to communicable diseases and maternal, prenatal, and nutrition conditions (% of total death)	NA	NA	NA	NA	33	NA	25	22	19	–	27	7	24 (2019)
Mortality from NCD (% of total death)	NA	NA	NA	NA	61	NA	69	73	76	–	64	85	66 (2019)
Life expectancy at birth, total (years)	33	58	62	64	66	67	69	71	72	–	69	80	70
Fertility rate, total (births per woman)	5.7	4.4	3.1	2.7	2.5	2.5	2.5	2.4	2.3	–	2.7	1.6	2.2
Low-birthweight babies (% of births)	NA	NA	NA	NA	11	11	10	10	–	<30% of the 2012 level	NA	8 (2015)	NA
Incidence of tuberculosis (per 100,000 people)	NA	NA	NA	NA	370	360	342	325	312	–	204	9	188
Immunisation, DPT (% of children ages 12–23 months)	NA	NA	60	75	72	81	84	85	77	–	NA	NA	85
Pregnant women receiving prenatal care (%)	NA	NA	NA	88	89	93	NA	98	NA	–	84 (2017)	NA	79 (2016)
Births attended by skilled health staff (% of total)	NA	NA	41	67	NA	82	NA	93	95	–	75 (2018)	NA	81 (2016)

Source: The World Bank (2020)

Two important developments in Indonesia were democratisation and decentralisation, which led to governance reforms in the early 2000s. These had implications for health services. Decentralisation is said to be associated with greater autonomy and equitable distribution of healthcare resources and better access and health outcomes. While this is true, the case of Indonesia shows that decentralisation created disparities across regions due to the weak capacities of disadvantaged regions and the central government's lack of commitment towards these islands.

Indonesia gave much value to building primary-level care from the 1960s, which is a positive development, but the implementation of an integrated referral system has been a challenge. Indonesia has a relatively strong primary health system compared to the rest of Asia. Although the *puskesmas* form the backbone of the health services, they lack adequate resources to deliver universal health services at the primary level. The Indonesian experience shows that adequate infrastructure and human resources have to be followed up with equitable distribution and deployment. These governance issues concerning inequitable distribution of resources across islands have existed despite improvements in infrastructure and human resources and have been further compounded by weak monitoring mechanisms.

It took several years for the 2004 Social Security Law to be implemented due to resistance from several interest groups. It was only in 2012, after many iterations and a civil society movement, that there was a move to implement the law. There were many impediments in this journey towards implementing universal health coverage—several groups and the citizens' movement propelled it towards a compromise leading to a national insurance scheme, where there was a single pool but multiple insurance schemes. In a democracy, the government has to take into consideration the demands and concerns of all interest groups to avoid a top-down policy and work toward the larger goal of equitable, accessible, and responsive health services. Protests and civil society movements have played a significant role in the implementation of a national health insurance that would be universally accessible.

Indonesia funds its health sector through various sources as with other LMICs—tax financing, health insurance, and OOPE are the dominant sources. While OOPE has decreased over the years, it is still one of the largest contributors to THE. Indonesia began offering targeted social health insurance to formal-sector employees several decades ago. This included mandatory enrolment of civil servants, defence personnel, and private-sector employees. Health coverage for the poor under the health card was introduced in 2005, which entitled targeted households to free public healthcare services. The shifts after 2005 were incremental and more likely a compromise to sidestep universal coverage, which left the entire middle quintile working in the informal sector out of coverage. From the Indonesian experience, one can see that targeted insurance schemes, especially for the poor, lead to mistargeting and incorrect enrolment, leaving a significant proportion of those who deserve coverage out of the scheme.

In terms of implementing insurance schemes, a single-payer BPJS was created in 2011, although multiple schemes are being administered under it. The JKN was an ambitious plan and was universally launched with no pilots and evaluations thereafter. The system of premium contributions is regressive. Even after the introduction of JKN, much of the middle quintile working in the informal sector lacks coverage and is left out of the scheme. People from the middle quintiles (Q2 to Q4) who are not salaried are not mandated to pay premiums. They are not subsidised by the government either. Many of them do not join the programme when there is no need for healthcare. It is also the lower-middle-income group that does not participate fully in the JKN. Most who participate voluntarily in JKN pay entry-level premiums or join the scheme when they need healthcare, thus leading to adverse selection. Also, there is regressive financing when it comes to contributions from the salaried group. The very rich among this group can afford to pay higher premiums, but the

premium is capped which is lower than the funding that can be generated. Despite coverage of 82% of the population through insurance and a reduction in OOPE, there are inequities due to these regressive financing mechanisms. While there has been an overall increase in utilisation post-JKN across all classes, the utilisation and benefits are much higher and better for the rich than the poor and lower-middle classes. There is a case of unmet health needs for people in the last two quintiles. The experience also highlights that voluntary contributions are not sufficient to reach universal coverage as many informal workers opt out of the insurance scheme and fail to pay premiums continually. This leads to adverse selection and deficits.

The benefits package provided by JKN is comprehensive and leads to the provision of unnecessary services by hospitals. These practices have led to deficits, as the proportion of claims has surpassed the financing available in the BPJS pool. The challenge with contributory and voluntary schemes is that enforcing the insurance mandate is difficult and can lead to a smaller fund pool and an overutilisation of services, which can then lead to deficits, especially when government's fiscal capacity is low. This design of the national insurance scheme leads to concerns about sustainability.

The focus on funding JKN through capitation has reduced direct MoH funding at the primary level. This split in funding has led to reduced funding for preventive and promotive services as compared to curative services. The low capacities of health workers at the primary level has led to poor quality services. Some basic indicators like MMR and immunisation rates are still of concern when compared to other LMICs, emphasising the need for better integration of preventive and promotive services with curative services.

Indonesia has a large private sector. The JKN can be accessed at public and private facilities. The positive feature of this is that private facilities have to be accredited by the government to participate in JKN, hence enforcing regulations and quality care. The negative is that services across the public and private sectors are not integrated. Weak regulation and monitoring mechanisms for the private sector result in weak accountability. Regulating the private sector and making it accountable has been a major impediment for the smooth functioning of the JKN.

The quality of health services has received much attention since the JKN was launched, but accountability mechanisms are very weak. There is no standardised mechanism to monitor and evaluate the quality of services. The Health Law of 2015 mandated that 5% of the national budget be allocated to the health sector. District governments were also mandated to allocate 10% of their budget to health. The government is unable to hold local governments accountable for this spending or oversee that the spending is needs-based and population-based. There is also no accountability for protocols of referrals for gatekeeping that have led to cost inefficiencies.

A significant impediment in health governance is that several stakeholders are involved in implementing JKN. The DJSN provides overall supervision; BPJS is the purchaser, enrols members, and pools the funds; the MoH also retains some functions related to purchasing, thus creating overlaps. The legislation is ambiguous about the overall responsibility for strategic purchasing. Although regulations mention accountability, mechanisms that promote accountability are very few. There is also a lack of horizontal (between different agencies at the centre) and vertical coordination (between the centre and local governments) among these agencies, thus creating inefficient systems of governance. Many decisions are still made at the level of the central government and there is a lack of access to data and decision-making at lower levels of governance.

Table 6: Major reform areas for drawing lessons

Priority reform areas	Features of reforms	Outcomes	Challenges
Governance structure	Devolution of administrative and fiscal roles and responsibilities from the central government to local governments	Reduction in the central government spending on health	The distribution of roles and responsibilities in the health sector is vague, with inconsistencies in decision-making
	Downsizing of the MoH and increased authority and budgets for sub-national governments	Upsurge in policy experimentation and innovation at the local levels to deliver health services responsive to local needs.	Limited fiscal capacity for health priority setting at the sub-national level and limited community participation
Public hospitals	Autonomisation of public hospitals. Public hospital managers are entrusted with more authority over service delivery, operations, revenue, and expenditure of hospitals	Increase in the revenue generation capacity of public hospitals	Limited impact of autonomisation on public hospital efficiency and equity. Public hospital's dependence on government subsidies is still high
Healthcare financing	Mandated earmarking of revenues for healthcare at the Centre (5% of budget) and sub-national level (10% of budget)	In line with the mandated earmarking for health, real public health expenditure has increased by 19.5% annually on average between 2001 and 2018. In 2016, the national earmarking for health was fulfilled	Health spending at the central government level is still low. At the sub-national level, there are a lot of variations within the districts, with the majority of them not yet meeting the 10% limit
	Decentralisation led to the introduction of the conditional intergovernmental transfer—*Dana Alokasi Khusus* or DAK—from the Centre to the local governments of certain regions for capital investment in health and education, aligning with national priorities	Since 2016, DAK funding has doubled because the government of Indonesia has reclassified various vertical programmes that provide additional frequent funding for health and education service delivery	DAK health spending at the district level is not correlated with the need or performance of health infrastructure, medical equipment, drugs, and supplies—items that DAK finances

Healthcare insurance for universal coverage	Merging of fragmented health insurance schemes into a single-payer system Expanding coverage for the entire population by providing subsidies for poor and informal sections of society	About 75–80% of the Indonesian population is covered under the JKN Government subsidises cover 60% of the population, comprising the poor, near-poor, and informal sector Increased uptake in the outpatient and inpatient utilisation of public healthcare services, especially among subsidised groups	Premium contributions are regressive JKN is experiencing a significant financial deficit, raising concerns regarding its financial sustainability
Human resources	Dual practice is allowed for physicians and midwives but not for nurses in public or private facilities	Around 60–70% of the healthcare workforce holds jobs in both public and private facilities	Dual practice has also led to maldistribution of health personnel due to the reluctance of specialist doctors to move to rural and remote areas, with limited opportunities to increase their salaries

Source: Darius (2018); The World Bank Group (2020); Mahendradhata et al. (2017).

The Indonesian experience shows the importance of comprehending the contextual, political, and economic drivers for realising UHC. It underlines the value of experimentation at the local level, but it also shows that reforms have to be significant to make a major impact. There is path dependency that has been created by the continued tensions between islands with high and low fiscal capacities, persistent centralisation that causes hurdles for decentralisation, lack of regulation of the private sector, and dual practice by health personnel. Reforms and related decisions have been mostly politically driven and have kept influential groups satisfied. Significant reforms in these areas have been difficult to realise, leading to compromises and further challenges. Having said this, Indonesia has made some significant leaps in attempting to attain UHC, and this is an important lesson for other LMICs.

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