PRIMARY HEALTH CARE SYSTEMS (PRIMASYS)

Comprehensive case study from Indonesia

Alliance for Health Policy and Systems Research
World Health Organization
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<th>Full Form</th>
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<tbody>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
</tr>
<tr>
<td>BPJS</td>
<td>Social Security Agency (Badan Penyelenggara Jaminan Sosial)</td>
</tr>
<tr>
<td>BPJS-Kesehatan</td>
<td>Health Social Security Agency</td>
</tr>
<tr>
<td>BPJS-Ketenagakerjaan</td>
<td>Workforce Social Security Agency</td>
</tr>
<tr>
<td>GDP</td>
<td>gross domestic product</td>
</tr>
<tr>
<td>GP</td>
<td>general practitioner</td>
</tr>
<tr>
<td>ICD-10</td>
<td>International Classification of Diseases and Related Health Problems, 10th Revision</td>
</tr>
<tr>
<td>ICPC</td>
<td>International Classification of Primary Care</td>
</tr>
<tr>
<td>JKN</td>
<td>National Health Insurance (Jaminan Kesehatan Nasional)</td>
</tr>
<tr>
<td>MMR</td>
<td>maternal mortality ratio</td>
</tr>
<tr>
<td>NCD</td>
<td>noncommunicable disease</td>
</tr>
<tr>
<td>PONED</td>
<td>basic emergency neonatal and obstetric care (pelayanan obstetri neonatal emergensi dasar)</td>
</tr>
<tr>
<td>SJSN</td>
<td>National Social Security System (Sistem Jaminan Sosial Nasional)</td>
</tr>
<tr>
<td>SKN</td>
<td>National Health System (Sistem Kesehatan Nasional)</td>
</tr>
<tr>
<td>TB</td>
<td>tuberculosis</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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</table>
Background to PRIMASYS case studies

Health systems around the globe still fall short of providing accessible, good-quality, comprehensive and integrated care. As the global health community is setting ambitious goals of universal health coverage and health equity in line with the 2030 Agenda for Sustainable Development, there is increasing interest in access to and utilization of primary health care in low- and middle-income countries. A wide array of stakeholders, including development agencies, global health funders, policy planners and health system decision-makers, require a better understanding of primary health care systems in order to plan and support complex health system interventions. There is thus a need to fill the knowledge gaps concerning strategic information on front-line primary health care systems at national and subnational levels in low- and middle-income settings.

The Alliance for Health Policy and Systems Research, in collaboration with the Bill & Melinda Gates Foundation, is developing a set of 20 case studies of primary health care systems in selected low- and middle-income countries as part of an initiative entitled Primary Care Systems Profiles and Performance (PRIMASYS). PRIMASYS aims to advance the science of primary health care in low- and middle-income countries in order to support efforts to strengthen primary health care systems and improve the implementation, effectiveness and efficiency of primary health care interventions worldwide. The PRIMASYS case studies cover key aspects of primary health care systems, including policy development and implementation, financing, integration of primary health care into comprehensive health systems, scope, quality and coverage of care, governance and organization, and monitoring and evaluation of system performance.

The Alliance has developed full and abridged versions of the 20 PRIMASYS case studies. The abridged version provides an overview of the primary health care system, tailored to a primary audience of policy-makers and global health stakeholders interested in understanding the key entry points to strengthen primary health care systems. The comprehensive case study provides an in-depth assessment of the system for an audience of researchers and stakeholders who wish to gain deeper insight into the determinants and performance of primary health care systems in selected low- and middle-income countries. Furthermore, the case studies will serve as the basis for a multicountry analysis of primary health care systems, focusing on the implementation of policies and programmes, and the barriers to and facilitators of primary health care system reform. Evidence from the case studies and the multi-country analysis will in turn provide strategic evidence to enhance the performance and responsiveness of primary health care systems in low- and middle-income countries.
1. Introduction

Quality of life and quality of care are basic human rights (1). Equity in provision of and accessibility to health care are key components of quality of care and quality of life (2). The Fifty-eighth World Health Assembly (2005), by resolution WHA58.33 (Sustainable health financing, universal coverage and social health insurance), gave its support to continuity of care through universal health coverage systems that emphasize the importance of national insurance. Following this approach, and in line with the five fundamental principles (or “Pancasila”) of Indonesian national ideology and Article 34 of the National Constitution of 1945, Indonesia has recognized and prioritized the goal of equal access to health care and welfare. The National Health Act No. 36 of 2009 also states: “Every citizen has the rights to have access and resources in health care, which are safe, high quality and affordable … and therefore, every citizen has to be a member of a national insurance.”

Indonesia is the fourth most populated country in the world after China, India, and the United States of America. It is the largest archipelago country in the world, and lies at 6 degrees north to 11 degrees south of the equator in the South-East Asia region (Figure 1). It has more than 17,000 islands, with the five largest being Java, Sumatera, Kalimantan/Borneo, Sulawesi/Celebes, and Papua. Indonesia has more than 700 local languages and one national language, Bahasa Indonesia. This country has 34 provinces, 514 districts, more than 7000 subdistricts, and more than 80,000 villages. According to the 2015 census, Indonesia has more than 255 million citizens, with a population growth rate of 1.38% (3).

Indonesia has a wide variety of cultures, customs and religions. There are approximately 1340 tribes in Indonesia. The largest ethnic group is the Javanese, comprising roughly 40% of the total population. With regard to religion, 87% of the population is Muslim, while other officially recognized religions are Christianity, Hinduism and Buddhism (4). Indonesia’s Human Development Index ranking, reflecting life expectancy, gross domestic product (GDP) and educational status of the people, was 110 out of 188 countries in 2014, still low compared to other

Figure 1.
Map of Indonesia
countries of the Association of Southeast Asian Nations (ASEAN) (5).

In addition to the large population size and sociocultural diversity, Indonesia is facing demographic, epidemiological and nutritional transitions. As commonly occurs in most developing countries, economic growth results in a significant increase in life expectancy and some changes in lifestyle. Increasing life expectancy has led to a rapid growth of the elderly population. This trend adds a new burden for the government because more resources and services are needed for the elderly than before, while the problems arising from the high birth rate have not yet been resolved. The increasing numbers of elderly residents, along with the trend towards a more sedentary lifestyle, have resulted in an increase in the incidence of degenerative diseases.

At the conclusion of the Millennium Development Goal period, the Indonesian Government identified six unfinished priorities – eliminating underweight among children aged under 5 years; reducing the under-5 mortality rate and the infant mortality rate; decreasing the maternal mortality ratio; decreasing the prevalence of HIV/AIDS; increasing the percentage of the population aged 15–24 years with comprehensive and correct knowledge of HIV/AIDS; and increasing the proportion of the population with sustainable access to an improved water source and sanitation in both urban and rural locations. The government has been developing and implementing the Program Indonesia Sehat (Healthy Indonesia Programme) to resolve the unfinished issues and prepare for the Sustainable Development Goal period. The programme consists of three family-focused pillars for strengthening primary health care (PHC), namely a healthy paradigm campaign, improving community health care access and quality, and implementing universal coverage. The universal coverage component has been managed by the Health Social Security Agency (BPJS-Kesehatan) since 1 January 2014.

It is widely argued that strengthening PHC is a cost-effective strategy to improve a population’s health status, especially in low- and middle-income countries. A better understanding of PHC planning is important for a wide range of stakeholders to assist them to plan and support complex health system interventions. Cross-cutting lessons across different settings and systems are needed to garner strategic information to fill the knowledge gap on PHC systems at national and subnational levels in low- and middle-income countries, and to provide insights on the entry points into health care systems in order to improve the implementation, effectiveness and efficiency of health programmes.

Given this backdrop, this paper aims at providing a comprehensive and in-depth assessment of national and subnational PHC systems in Indonesia to gather evidence on successes and failures in improving access to and performance of primary care. The remainder of the paper focuses on describing and analysing two broad questions: how PHC systems are operating in Indonesia, and what we can learn from Indonesia’s primary care experiences. A comparison will be made of primary care experiences before and after the implementation of the newly structured Healthy Indonesia Programme in 2014. Overall, the Healthy Indonesia Programme has provided a comprehensive approach to PHC system development. However, a full evaluation of the outcomes of this new programme is not yet possible, as it has just been implemented. Therefore, in order to evaluate the successes and failures of Indonesian PHC initiatives, an assessment has been made of the previous PHC programme before 2014, initiating discussion on how the new programme can remedy its flaws. Despite the comprehensiveness of the new programme, some drawbacks were identified, which will also be discussed.

This paper is structured into 11 sections, including this introduction. In section 2 the methodology is described, including the databases, key informants and stakeholders that were the sources of information for the study. Section 3 provides an overview of PHC statistics by elaborating on PHC key indicators. Section 4 gives the timeline of relevant policies and main programmes concerning PHC, showing
the evolution of PHC policies over the years, including PHC reforms (such as decentralization). Section 5 covers governance and outlines the key PHC organizational structures, including the governance and decision-making bodies tasked with facilitating the efficient, equitable and appropriate delivery of integrated, high-quality primary care services. Section 6 discusses the financing arrangements and systems for PHC, including information on funding, distribution, expenditure and public/private contributions. Section 7 identifies human resources for health that influence the performance of primary care systems, including health worker numbers, distribution, education, training and support systems. Section 8 describes planning and implementation and elaborates on the effectiveness of PHC strategies and whether the comprehensiveness of services is adequate. Section 9 presents the regulatory process, including regulations pertaining to the quality of services, facilities and medical products. Section 10 outlines the monitoring and information system and the strategies for ensuring internal accountability and the alignment of publicly delivered primary care services with their intended functions. The final section discusses policy considerations and the way to move forward, with an overview of what topics will have to be addressed in the future to strengthen the primary care system.
2. Methods

This case study on Indonesian PHC system profile and performance used both primary and secondary data, which were analysed descriptively. Seven steps were followed in preparation of the case study – formulation of research questions, selection of cases, data collection and analysis techniques, data collection preparation, data collection in the field, data evaluation and analysis, and report writing. The main research questions were as follows:

- How are PHC systems operating in Indonesia?
- What can we learn from Indonesia’s primary care experiences?

In order to answer those questions, secondary data were collected on Indonesia’s demographic, macroeconomic and health profiles from various reports and presentations of the Indonesian Government, including from the Ministry of Health, the National Development Planning Agency (Bappenas), BPJS-Kesehatan, and the Central Bureau of Statistics. Secondary data were also gathered from reports of international development agencies and global health funders, such as the World Health Organization (WHO), the United Nation Development Programme (UNDP), and the World Bank. Primary data were collected from various health sector actors, including policy-makers, front-line health care personnel and other relevant stakeholders, on their perceptions on the implementation and directions of the National Health System towards universal health coverage. Interviews were undertaken with policy-makers from the Ministry of Health, management of central and district hospitals, medical specialists in hospitals, members of the Indonesian National Board of Primary Care Physicians, and faculty members of medical schools. Focus group discussions were conducted with general practitioners (GPs) in public and private primary care facilities; and leaders from various health professional organizations, including doctors, nurses, midwives and pharmacists, as well as community leaders, were interviewed. Key informants were purposively sampled for maximum variation in terms of their roles, sex, age, practice types (public or private), and practice locations (urban, rural or remote). Maximum variation sampling was particularly helpful for the small sample size because it facilitated the emergence of heterogeneity and uniqueness. Table 1 presents the key databases, informants and stakeholders involved in the study.
### Table 1. Key databases, informants and stakeholders identified

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Main areas of expertise</th>
<th>Main constituency represented</th>
<th>Level of health system at which active</th>
<th>Remarks (data from the web)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directorate of Primary Care, Ministry of Health, Republic of Indonesia</td>
<td>Primary care National reports on health care</td>
<td>Regulator of health care system, Indonesia</td>
<td>National</td>
<td>National Health Profile 2015 (6)</td>
</tr>
<tr>
<td>Management of central and district hospitals</td>
<td>Hospital management</td>
<td>Hospital management</td>
<td>Local</td>
<td>–</td>
</tr>
<tr>
<td>Health professional organization leaders from several professions, including doctors, nurses, midwives, and pharmacists</td>
<td>Professional organizations</td>
<td>Health care personnel</td>
<td>Local</td>
<td>–</td>
</tr>
<tr>
<td>Community leaders</td>
<td>Community</td>
<td>Local</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>BPJS-Kesehatan</td>
<td>Body for implementation of the National Health Insurance system</td>
<td>Independent body</td>
<td>National</td>
<td>BPJS-Kesehatan (7)</td>
</tr>
<tr>
<td>Indonesian National Board of Primary Care Physicians</td>
<td>Teachers of GPs/family medicine specialists programme</td>
<td>Consortium of faculties of medicine in Indonesia with the highest level of accreditation Ministry of Research, Technology and Higher Education in cooperation with Ministry of Health, Republic of Indonesia</td>
<td>National</td>
<td>44 teachers on the Indonesian National Board of Primary Care Physicians Republic of Indonesia Ministry of Health decree: Hk.02.02/ Menkes/282/2016</td>
</tr>
<tr>
<td>Focus group discussions with 40 GPs from four provinces (among 33 provinces in Indonesia)</td>
<td>General practice</td>
<td>Practising physicians at primary care levels (public and private facilities)</td>
<td>Local</td>
<td>The participants were general physicians graduated from the basic medical education training programme due to the absence of a postgraduate training programme for GPs in Indonesia</td>
</tr>
<tr>
<td>Interview with 11 GPs attending pilot project on postgraduate training programme for GPs</td>
<td>General practice</td>
<td>GPs attending pilot project on postgraduate training programme for GPs in 2016</td>
<td>Local</td>
<td>The pilot project on implementation of the postgraduate training curriculum for GPs was funded by the Ministry of Health</td>
</tr>
<tr>
<td>Interview with 11 medical specialists from hospitals</td>
<td>Medical specialists</td>
<td>Practising health practitioners at secondary-level health care facilities</td>
<td>Local</td>
<td>–</td>
</tr>
<tr>
<td>Interview with 11 faculty members from 11 faculties of medicine in Indonesia</td>
<td>Medical education</td>
<td>Medical teachers</td>
<td>Local</td>
<td>–</td>
</tr>
<tr>
<td>Indonesia Central Bureau of Statistics</td>
<td>Indonesian statistical data</td>
<td>Indonesian health data</td>
<td>–</td>
<td>Statistical yearbook of Indonesia 2016 (3)</td>
</tr>
<tr>
<td>Indonesian National Development Planning Agency (Bappenas)</td>
<td>Development planning</td>
<td>Indonesian developmental data</td>
<td>National</td>
<td>Bappenas (8)</td>
</tr>
</tbody>
</table>
3. Overview of primary health care system in Indonesia

3.1 Demographic and macroeconomic overview: inequality and the demographic transition

The Indonesian population is distributed unevenly in a range of geographical locations, from coastal areas to valleys and mountainous landscapes. The proportion of the population living in urban areas continues to increase significantly due to the high rate of urbanization, as people move to the major cities to seek for better standards of living and education. As a result, the latest 2015 data show that more than 50% of the Indonesian population resides in cities. Java is the most densely inhabited island, with almost 60% of the total population residing there, though it covers less than 7% of the total land area of the country. Conversely, Papua, which covers around 21% of the total land area of Indonesia, is inhabited by only 1.5% of the total population (3). The large numbers of people distributed unevenly, and the diversity of the environment in which they live, contribute to the complexity of the health and health care problems that exist in Indonesia.

The health care challenges faced by Indonesia are made more complex by the unequal distribution of food and natural resources. Though Indonesia’s GDP (purchasing power parity (PPP) adjusted) in 2015 was ranked 8th in the world, its GDP per capita was $11,057.6 PPP, 58% of the world average (12). Poverty is still a major challenge for Indonesia, since 11% of the population is living below the poverty line (3). The disparity of income (Gini coefficient 0.41) has contributed to the lack of access to healthy food, clean water and basic sanitation for many of the population. This situation makes people more vulnerable to infectious diseases through malnutrition and lack of hygiene. At the same time, due to their unhealthy lifestyles and a lack of understanding about health, the wealthy population is becoming increasingly overweight.

Indonesia’s total health expenditure as a proportion of GDP in 2016 was 3.1%, less than one third of the world average (9.9%). Though the proportion of the Indonesian Government’s annual budget on health in 2016 was double that of 2014 and met the amount stipulated by the Indonesian Health Act No. 36 of 2009, namely 5% of the State budget, it is still very low in comparison to the world average total health expenditure as a proportion of GDP, and inadequate to deal with the complexity and disparity of health problems in Indonesia. As a result, the government contribution to public health expenditure is still very limited and the proportion of out-of-pocket payments is relatively high. The government cannot afford to pay the health insurance contributions of the entire Indonesian population, and consequently more than 30% of the population is uninsured, while around 14% make voluntary health insurance contributions. Many cases of poverty occur because households are faced with catastrophic expenditure on health care. In addition, funding for PHC is very limited, as less than 20% of total health expenditure – which is already very small – is spent on PHC. Consequently, the five levels of prevention activities in primary care – health promotion, specific protection, early recognition and prompt treatment, disability limitation, and rehabilitation – cannot be implemented sufficiently.

Finally, the increase of life expectancy has caused a new problem for Indonesia due to the demographic and epidemiological transition. The Indonesian Government has to deal with problems of an ageing population, with increasing numbers affected by degenerative diseases and deterioration of body functions. This trend adds a new burden for the government because more resources and services are needed for the elderly than before, while the problems arising from the high birth rate have not yet been resolved. In 1990, the life expectancy in Indonesia was 65 years, and this number increased to

...
70.1 years in 2010 (3). With increasing life expectancy, the elderly population (above 60 years of age), which totalled 18 million (7.59%) in 2010, is predicted to exceed 60 million in 2025 and 120 million in 2050 (3, 13). Thus, the growing elderly population poses new burdens on the health care system in Indonesia (Figure 2).

3.2 Health profile overview: triple burden of health problems

Currently, Indonesia has a so-called triple burden of health problems, due to (a) ineffective control of infectious, re-emerging, and new emerging diseases; (b) the rise of chronic diseases into the top five list of catastrophic disorders as a result of demographic and nutritional transitions; and (c) the steady increase in the incidence of trauma and injuries. This triple burden is reflected in the main causes of death, which are cardiovascular diseases (37%), cancers (13%), other noncommunicable diseases (NCDs) (10%), injuries (7%), diabetes (6%), and chronic respiratory diseases (5%).

Indonesia, along with China, is the second largest contributor of tuberculosis (TB) cases globally (both 10%, following India at 23%) (14). The number of cases continues to increase. In 2015, there were 330,910 TB cases in Indonesia, an increase of almost 2% from the previous year. The highest numbers of cases were reported in the provinces with the largest populations, namely West Java, East Java and Central Java. The performance of the Indonesia TB Control Programme is far from satisfactory. The percentage of bacteriologically confirmed pulmonary TB patients among all pulmonary TB patients recorded (bacteriological and clinical) was only 57.1% (target 70%), reflecting the low priority given to clinical diagnosis. The case notification rate was less than 1% (compared to a “good” rate of over 5%). There has been a slight decrease in the treatment success rate each year since 2008, dropping from 91% in that year to 85% in 2015 (6). In addition, there was a wide variation in the treatment success rate among provinces, ranging from 39.2% to 95.2%. This downward trend could be caused by the increasing number of cases of multidrug-resistant TB, exacerbated by the increasing prevalence of diabetes and HIV co-morbidity, arising from such negative factors as malnutrition, smoking, and non-adherence to treatment.

Vector-borne diseases, such as malaria, dengue fever, chikungunya and filariasis, are endemic in some areas in Indonesia with year-long tropical and humid
climates (6). Outbreaks often occur after periods of increased rain and temperatures. These vector-borne diseases remain a major health problem in Indonesia due to the large number of natural breeding places such as swamps, forests, marshes, tall grasses and weeds; the lack of community effort in eradicating mosquito breeding localities in residential areas; and the lack of awareness and willingness to use mosquito nets. Especially for malaria, the increase in drug resistance is a major challenge to efforts to eradicate disease.

Diarrhoea is another endemic disease that also has the potential to occur in outbreaks, with relatively high death rates. In 2015 diarrhoea outbreaks occurred on 18 occasions, spread over 11 provinces, with 1213 people affected and 30 deaths (case fatality rate 2.47%). There are obstacles to improving sanitation and hygiene in many communities, such as lack of access to improved drinking water and sanitation facilities due to poverty; unhealthy public facilities; contaminated food processing in restaurants and other food outlets; and unhealthy and unhygienic behaviours. In 2015, more than a quarter of households did not have continuous access to improved drinking water, and almost 40% did not have access to improved sanitation facilities, such as bathing, defecation and waste disposal facilities. Approximately 40% of public facilities and almost 90% of restaurants and other food processing facilities could not meet the health requirements. While there are efforts to educate communities about proper hygiene, it takes time and effective mentoring to change community behaviour towards a healthy lifestyle (6).

Morbidity and mortality caused by infectious diseases that can be prevented by immunization, such as polio, measles, diphtheria, pertussis, hepatitis B and tetanus, have decreased significantly. In 2014, together with other countries in the South-East Asia region, Indonesia was declared and certified as polio free. Conversely, there was a large increase in the number of diphtheria cases in 2015, which involved 252 cases reported in 13 provinces, and five deaths (case fatality rate 1.98%). The largest outbreak occurred in West Sumatra province with 110 cases, while there were only nine cases in 2014. Among those affected, 37% were not vaccinated (6). Indonesia’s basic immunization coverage was 86.9% in 2015, which is still below the Global Vaccine Action Plan’s coverage target of at least 90% nationally. In addition, immunization coverage varies widely among regions, with the lowest coverage in Papua (47.27%) and the highest coverage in Jambi (99.85%). There are some bottlenecks in increasing immunization coverage in Indonesia, such as the lack of vaccine supplies, the lack of access to health services due to geographical location, lack of knowledge and information on immunization at community level leading to misinformation and negative perceptions, and lack of political and financial support.

Since it was first discovered in Bali in 1987, HIV/AIDS has spread to 386 Indonesian districts and cities. There is an increasing number of HIV/AIDS cases every year (15). It is estimated that in 2016 there were approximately 690 000 people living with HIV; 73 000 new HIV infections; and 35 000 AIDS-related deaths (16). Even though a decrease in new HIV/AIDS cases has been reported since 2013, this decrease is perceived to be due to the inadequate case reporting system in Indonesia, and it is believed that the actual number of new cases is increasing (6).

Moreover, chronic diseases are rising into the top five list of catastrophic disorders, in line with the increase in life expectancy due to shifting demographic characteristics, which have been associated with an increased risk of insufficiently controlled metabolic disorders, such as hypertension, diabetes mellitus and dyslipidemia, and also increased risk of cancers. Metabolic disorders in turn can lead to vascular problems such as renal failure, stroke and heart attack. Nationally, 25.8% of the Indonesian population was suffering from hypertension and 6.9% had diabetes mellitus in 2013. Unfortunately, the management of these chronic diseases has not been adequate due to lack of knowledge among the population of these degenerative diseases, which are often associated with unhealthy lifestyle, lack of screening, and lack
of adherence to therapy. Lack of community-level access to health information, continuity of care and effective medicines are other contributory factors within the Indonesian health delivery system. As a result, 0.2% of Indonesia’s population have chronic kidney disease, 1.2% have had a stroke, and 1.5% have coronary health diseases (17–19).

Despite the low income levels, public expenditure on tobacco is more than spending on fish, meat, vegetables and fruits (20). Ministry of Health data showed an increase in smoking prevalence from 27% in 1995 to 36.3% in 2013. Of particular concern is the increase in smoking among the younger generation: the prevalence of adolescents aged 16–19 years who smoked increased threefold from 7.1% in 1995 to 20.5% in 2014. In addition, the age at which smoking started continued to fall, with novice smokers aged 10–14 years doubling in less than 20 years, from 8.9% in 1995 to 18% in 2013 (21).

Trauma and injuries are also among the top five health problems. Factors include the very varied geographical terrain of Indonesia, and the high risk of natural disasters in many areas, with inadequate modalities for transportation and evacuation. Figure 3 illustrates the epidemiological transition in Indonesia.

Efforts to reduce the maternal mortality ratio (MMR) intensified in 1990, resulting in a significant decrease in the MMR from 390 in 1990 to 228 in 2007. However, the MMR increased again to 305 in 2015, missing the Millennium Development Goal target for Indonesia (though the number of births attended by skilled health personnel increased). Reasons for this setback included low levels of institutional delivery in many provinces, the low quality of maternal health services, and lack of health among pregnant women. Rates of institutional delivery varied widely among provinces, from 26.34% in Papua to 99.81% in Jogjakarta, with an average of 79.72% for Indonesia. The main causes of maternal death are hypertension in pregnancy and haemorrhage postpartum. These causes can be minimized through improvements in the quality of antenatal care. In that regard, the MMR is an indicator of high sensitivity for evaluating the improvement of health care services, both in terms of accessibility and quality (3).

Figure 3. Indonesia: epidemiological transition

Figure 3. Indonesia: epidemiological transition

Source: Government of Indonesia, Ministry of Health.
3.3 Health delivery system overview: working towards quality of care

The health care delivery system in Indonesia comprises both the public (government-owned facilities) and private sectors. Both schemes can make working agreements with BPJS-Kesehatan and provide health care services for its members. The Indonesian Government allows health care personnel, including GPs, midwives and nurses, to undertake dual practice by working in both the public and private sectors. They may work at a maximum of three health care facilities simultaneously. Both public and private facilities run primary care clinics and hospitals. Community health centres – *puskesmas* – and their auxiliary networks are primary care facilities funded by the government. Private primary care services consist of private primary care clinics (*klinik pratama*) and solo practices of health care professionals, such as GPs, midwives and nurses. Secondary and tertiary health care services are provided by public and private hospitals, private medical specialist clinics (*klinik utama*) and solo practice medical specialists. Based on the availability of facilities, the competency of human resources, and services provided, hospitals are graded into four categories: A, B, C and D. Type A hospitals form the top level of the referral system.

In terms of numbers, health care facilities are already adequately and equitably distributed across Indonesia. However, the sufficient availability of primary and referral facilities does not guarantee that communities have equal access to good-quality care. Inequality of access is the greatest challenge to Indonesian health care development, and will be for decades to come. This is partly due to its geography as an archipelago country, and also due to the disparity in basic infrastructure, economic capabilities and local government policies among regions, especially in the decentralization era. Some communities living in remote and rural areas have difficult access to health care facilities due to inadequate transportation infrastructure and amenities. In addition, variations in the capabilities of and resources owned by local governments across Indonesia leads to further problems, such as maldistribution of the health workforce, medicines and medical devices. The problem is compounded by implementation of inappropriate health care development strategies, as will be discussed later. For example, in Java island the majority of *puskesmas* (more than 80%) have more GPs than the minimum standard, which is one GP per *puskesmas* doing ambulatory services and two GPs per *puskesmas* doing both ambulatory and inpatient services. On the other hand, there are too few GPs in *puskesmas* in Nusa Tenggara, Maluku, and Papua (6). The availability of medicines and vaccines also varies, with coverage ranging between 80% and 100% (6). As a result, the quality of health care services varies widely among remote, rural and urban areas, and among provinces, districts and cities.

Before the implementation of universal coverage in 2014, the health care delivery system was unstructured. The community tended to bypass primary care facilities and use specialist practices and hospitals as their first point of contact with the health care system. This practice is currently being remediated by the obligation for BPJS-Kesehatan members to visit primary care facilities as a first point of contact with the health care system. However, there are still challenges faced by Indonesia in implementing the structured referral system, such as the commitment that health care providers, especially in referral facilities, send referred patients back to primary care facilities if they in a condition that can be managed by those facilities. Another challenge is the lack of ability of primary care facilities to manage patients due to limitations in the competency of health care personnel, the lack of medicines and medical devices, and inappropriate policies imposed by the government and insurance agency (22).

Moreover, continuity of care is still an unfamiliar concept, with the quick care encounter between primary care physicians and patients still characterizing Indonesian health care services in general. While a number of patients have followed the chronic care programme of continuous care from primary to secondary and tertiary levels, introduced
along with the universal coverage system in 2014, not all of those who have chronic illnesses sign up for the chronic care programme. Primary care in developing countries often prioritizes the main health problems, with short referrals focused on curative rather than on promotive care, and may be perceived as providing inadequate health care services for poor people (23).

A strong, efficient, well run health system should meet priority health needs through people-centred, integrated care, including by informing and encouraging people to stay healthy and prevent illness; detecting health conditions early; having the capacity to treat disease; helping patients with rehabilitation; and ensuring sensitive palliative care where needed. Such a system applies the affordability principle, whereby health services are financed such that people do not suffer financial hardship when using them; and the availability principle, whereby essential medicines and technologies are provided to diagnose and treat medical problems. A sufficient number of well trained, motivated health workers is needed to provide the services to meet patients’ needs based on the best available evidence. Actions to address the social determinants of health, such as education, living conditions and household income, will also help to improve people’s health status.

Table 2 presents key PHC indicators for Indonesia for 2016.

### Table 2. Indonesia: key PHC indicators, 2016

<table>
<thead>
<tr>
<th>PHC indicators</th>
<th>Results</th>
<th>Sources of information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population of Indonesia</td>
<td>255 million</td>
<td>Statistical Year Book of Indonesia, 2016 (3)</td>
</tr>
<tr>
<td>Population growth rate</td>
<td>1.38%</td>
<td>Statistical Year Book of Indonesia, 2016 (3)</td>
</tr>
<tr>
<td>Sex ratio</td>
<td>Male: 50%</td>
<td>Statistical Year Book of Indonesia, 2016 (3)</td>
</tr>
<tr>
<td></td>
<td>Female: 50%</td>
<td></td>
</tr>
<tr>
<td>Distribution of population</td>
<td>Rural: 46%</td>
<td>World Bank, 2015 (9)</td>
</tr>
<tr>
<td></td>
<td>Urban: 54%</td>
<td></td>
</tr>
<tr>
<td>Population density (people/sq km)</td>
<td>Average: 134</td>
<td>Statistical Year Book of Indonesia, 2016 (3)</td>
</tr>
<tr>
<td></td>
<td>Highest: 15 328 (DKI Jakarta)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lowest: 9 (Kalimantan Utara, Papua Barat)</td>
<td></td>
</tr>
<tr>
<td>Life expectancy at birth</td>
<td>70.1 years</td>
<td>Statistical Year Book of Indonesia, 2016 (3)</td>
</tr>
<tr>
<td>Infant mortality rate</td>
<td>22.23 per 1000 live births</td>
<td>Republic of Indonesia, Ministry of Health, 2015 (6)</td>
</tr>
<tr>
<td>Under-5 mortality rate</td>
<td>26.29 per 1000 live births</td>
<td>Republic of Indonesia, Ministry of Health, 2015 (6)</td>
</tr>
<tr>
<td>Maternal mortality ratio</td>
<td>305 per 100 000 live births</td>
<td>Republic of Indonesia, Ministry of Health, 2015 (6)</td>
</tr>
<tr>
<td>Immunization coverage under 1 year</td>
<td>86.9%</td>
<td>Republic of Indonesia, Ministry of Health, 2014 (24)</td>
</tr>
<tr>
<td>Main causes of death</td>
<td>Cardiovascular diseases (37%), cancers (13%), other NCDs (10%), injuries (7%), diabetes (6%), chronic respiratory diseases (5%)</td>
<td>WHO NCD country profiles: Indonesia (25)</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>GDP per capita: $3834.06</td>
<td>World Bank country data: Indonesia (9)</td>
</tr>
<tr>
<td></td>
<td>GDP per capita PPP: $10 385.30</td>
<td></td>
</tr>
<tr>
<td>Income or wealth inequality (Gini coefficient)</td>
<td>0.41</td>
<td>Statistical Year Book of Indonesia, 2016 (3)</td>
</tr>
<tr>
<td>Total health expenditure as proportion of GDP</td>
<td>3.1</td>
<td>World Bank, 2016 (26)</td>
</tr>
<tr>
<td>PHC expenditure as % of total health expenditure</td>
<td>16.9% (calculated from data available in Indonesian Health Profile 2015)</td>
<td>Republic of Indonesia, Ministry of Health, 2015 (6)</td>
</tr>
<tr>
<td>PHC indicators</td>
<td>Results</td>
<td>Sources of information</td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>% total public sector expenditure on PHC</td>
<td>37.8% (% total public sector expenditure on health, no data available on PHC)</td>
<td>World Bank (27)</td>
</tr>
<tr>
<td>Per capita public sector expenditure on PHC</td>
<td>US$ 99 (per capita public sector expenditure on health, no data available on PHC)</td>
<td>World Bank (28)</td>
</tr>
<tr>
<td>Out-of-pocket payments as proportion of total expenditure on health</td>
<td>46.9%</td>
<td>World Bank (29)</td>
</tr>
<tr>
<td>Voluntary health insurance as proportion of total expenditure on health</td>
<td>14.2%</td>
<td>BPJS-Kesehatan (7)</td>
</tr>
<tr>
<td>Proportion of households experiencing catastrophic health expenditure</td>
<td>1%</td>
<td>World Bank, 2016 (26)</td>
</tr>
</tbody>
</table>
4. Timeline: evolution of PHC policies

The Indonesian Government has delivered several initiatives for strengthening the PHC system that are in line with WHO PHC reforms, including in the areas of universal coverage, leadership and governance, public policy, and service delivery, as shown in figure 4.

**Figure 4. Evolution of Indonesia’s PHC policies and linkages with WHO PHC reforms**

- **National Act No. 36/2009:** Health
- **National Act No. 40/2004:** National Social Security System (SJSN)
- **Government Regulation No. 72/2012:** The National Health System
- **National Act No. 20/2013:** Medical Education
- **National Act No. 24/2011:** Social Security Agency
- **Government Regulation No. 38/2007:** Central and Local Government
- **32/2004:** Local Government

**Universal coverage reforms** to improve health equity
**Service delivery reforms** to make health systems people-centred
**Public policy reforms** to promote and protect the health of communities
**Leadership reforms** to make health authorities more reliable
4.1 Universal coverage

As a first priority, Indonesia is working on developing its universal coverage system. The right to health as part of general welfare has been mandated by the Indonesian National Constitution since 1945. However, serious discussion on this matter only started 59 years later in 2004, along with the establishment of the National Social Security System (Sistem Jaminan Sosial Nasional, SJSN), which is regulated by Government Regulation No. 40 of 2004. The SJSN is a social security programme that provides comprehensive social security for all people in order to meet their basic needs, and consists of health insurance, accident protection, elderly social security, retirement social security, and life insurance. Being a member of a social security programme is mandatory for all residents, and accomplishment of universal coverage will be achieved gradually. The National Health Insurance programme (Jaminan Kesehatan Nasional, JKN) is the social security programme for health care in Indonesia.

Unfortunately, the SJSN and JKN were not directly implemented after their establishment due to several constraints, including financial limitations. The next significant step in the implementation of the SJSN and JKN took place seven years later with the enactment of National Act No. 24 of 2011. This act regulates the Social Security Agency (Badan Penyelenggara Jaminan Sosial, BPJS), for managing and administering the SJSN. The dateline for implementation of the JKN by BPJS-Kesehatan was 1 January 2014, and the dateline for implementation of the Workforce Social Security Agency (BPJS-Ketenagakerjaan) was 1 July 2015. It is optimistically targeted that full universal coverage will be achieved by 2019.

Since the first year of universal coverage implementation, BPJS-Kesehatan has faced a financial deficit every year. It is reported that from 2014 to 2016, the deficit totalled approximately 18 trillion Indonesian rupiahs. The deficit has placed an additional burden on the government budget. There are three main causes of the financial deficit of BPJS-Kesehatan in Indonesia: (a) the low level of compliance with payment of dues by participants, due to lack of a system for ensuring regular payment (except for government employees); (b) low numbers of participants joining and sustaining membership of the BPJS, due to lack of effective awareness raising among the public; and (c) the large payments for claims related to advanced-level services for degenerative diseases and catastrophic health problems, due to lack of preventive action before commencement of the BPJS.

Throughout 2015, expenses for the degenerative disease group reached 23.9%, or 13.6 trillion rupiahs. Of the eight types of degenerative diseases, the cost burden of heart disease is the highest, followed by kidney failure, cancer, stroke, thalassemia, cirrhosis of the liver, and haemophilia.

4.2 Decentralization

Along with the social security movement, there was also a significant transformation in the Indonesian government system involving decentralization, with major implications for the governance of the health care system. National Act No. 32 of 2004 on local government, and Government Rule No. 38 of 2007, give more flexibility and authority to local government, except in the areas of defence, justice, police, finance, monetary policy and development planning. Health is also one of the areas that is shared between central and local governments. Despite the significant advantages of decentralization to the organization of the comprehensive health care system, due to its increased responsiveness to local needs, decentralization can lead to discrepancies in health service provision among regions, due to disparities in the performance and resources of local governments. Thus, in order to accommodate the changes resulting from decentralization, and overcome the associated discrepancies in health service provision, a new version of the health care system was established in 2012, termed the National Health System (Sistem Kesehatan Nasional, SKN).

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1 Information from Head of Public Relations of BPJS-Kesehatan, Irfan Humaidi.
Unfortunately, the SKN has not proved able to dismiss disparities between regions. Lack of understanding among communities and local government of how to implement an effective and efficient health care system has led to implementation of misleading health care policies. For example, some local governments engage in health care services as a source of their local revenue. As a result, building hospitals is their priority rather than strengthening their primary care services. Primary care services are viewed as less professional, cheap and low-technology services. Similarly, they create a new inequity in primary care services by requiring that the poor people receiving health insurance beneficiary contributions from the government be served in public primary care facilities (puskesmas) for their primary care needs. Consequently, the number of people managed by puskesmas is overloaded compared to the number of doctors working in the puskesmas.

4.3 Health promotion and prevention

Public health policy reforms stipulated by Health Act No. 36 of 2009, which replaced the 1992 act, declared a paradigm shift in Indonesian health care development from a “sickness paradigm” to a “healthy paradigm”. Consequently, Indonesia has changed its health development orientation from disease cure and eradication to health promotion and prevention, without overlooking curative and rehabilitative care (34). The 2009 act also regulates the responsibilities of central and local government in health governance. Central government is required to allocate at least 5% of its annual budget to health, though this was not met until 2016, as previously discussed. In addition, there are variations in health budget allocation by local governments, even though the Health Act of 2009 requires them to allocate at least 10%.

Finally, in order to create more people-centred health services, the Medical Education Act No. 20 of 2013 introduces a new medical profession – the primary care physician, equivalent to a family physician or a family medicine specialist in the United States or a GP in Australia. Indonesia has recently initiated a new career pathway for primary care physicians by implementing a postgraduate training programme for them.
Health care services in Indonesia are delivered by both the public and private sectors, and consist of primary care facilities as the first point of contact and hospitals as referral facilities (Table 3). The public health care facilities belong to and are governed by local (district and province) and central government. The district government manages primary care facilities (puskesmas and their auxiliary centres) and district hospitals (hospital types C and D). Some district hospitals belong to and are managed by provincial governments (hospital types B and C). The central government usually has type A or B hospitals. The private sector has primary care facilities such as primary care clinics, solo practice GPs or dentists and solo practice midwives, as well as private hospitals (types B, C and D).

Puskesmas and their auxiliary networks conduct two main activities: individual health efforts and community health efforts. Each puskesmas is responsible for the community health efforts, consisting of public health activities for the population within their working area. Puskesmas are variously staffed by multiprofessional teams, including GPs and dentists, nurses, midwives, pharmacists, public health personnel, nutritionists, physiotherapists, and laboratory analysts. On the other hand, private PHC services are delivered by individual practice GPs, midwives, and nurses, as well as private clinics carrying out only individual health efforts. However, the private facilities have to communicate and collaborate with puskesmas in terms of the surveillances of communicable diseases and other government public health programmes, such as immunization, family planning, and TB and HIV eradication.

The government has implemented a PHC system since 1970 consisting of a network of public health facilities all over the country, with a puskesmas at the subdistrict level and a hospital at the district level. To reach all levels of society and to increase accessibility, a range of auxiliary centres supports each puskesmas. Since the implementation of the decentralization system, puskesmas, their auxiliary centres, and district hospitals have been funded and managed by the district or city government. Some puskesmas provide inpatient services, especially for obstetric and neonatal basic emergency care. The number of puskesmas continues to increase by 3% to 3.5% every year. The

<table>
<thead>
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<th>Table 3. Public and private PHC services in Indonesia</th>
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<tr>
<td><strong>Public PHC services</strong> (Belong to and organized by district government)</td>
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<tr>
<td>Community health centres (puskesmas) as coordinator</td>
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<tr>
<td>Puskesmas auxiliary centres:</td>
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<tr>
<td>Health subcentres (pustu)</td>
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<tr>
<td>Mobile health centres (puskel)</td>
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<tr>
<td>Village health posts (poskesdes)</td>
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<tr>
<td>Village maternity posts (polindes)</td>
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<tr>
<td>Integrated service posts (posyandu)</td>
</tr>
<tr>
<td>Activities:</td>
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<tr>
<td>Individual health efforts</td>
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<tr>
<td>Community health efforts</td>
</tr>
<tr>
<td>Global issues: HIV/AIDS, TB, etc.</td>
</tr>
<tr>
<td>National issues: immunization</td>
</tr>
<tr>
<td>Local specific issues: elephantiasis, etc.</td>
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latest data show that there were 9754 puskesmas in 2015. However, the increase in the number of puskesmas is not matching the growth rate of the population, and the ratio of puskesmas to population has decreased since 2014. There were on average 1.17 puskesmas per 30 000 populations in 2013, though this number decreased to 1.16 in 2014 and 1.15 in 2015. In addition, the ratio of puskesmas to population varies among the regions. The highest ratio is in West Papua and the lowest is in Banten (5.20 and 0.58 per 30 000 population, respectively) (6). Because of the lower population density in Papua, more puskesmas have been built to improve accessibility for the communities they serve. At the same time, in Java and other urban areas, in addition to puskesmas, PHC services are provided by private primary care clinics (klinik pratama) and solo GP practices, which assist in fulfilling the needs of the population. There are 5174 private primary care clinics and 4525 solo GP practices (2017 figures) (7). Therefore, in terms of numbers, PHC facilities are already adequately and equitably distributed across Indonesia.

However, the numbers of health care personnel vary widely among puskesmas. While a number of puskesmas (38.53%) have more GPs than the average (one to two GPs), several (25.57%) experience a shortage of GPs (6). As a result, midwives and nurses have to fill in for the work of GPs, and patients consequently fail to get proper PHC services (22). The number of health professionals manning puskesmas needs to be sufficient and appropriate to support both the individual and community functions of the facilities. Moreover, the government needs to recognize private PHC facilities as a part of its PHC system and treat them equally as puskesmas in terms of support, control and involvement, helping to counteract the stigma arising from the conception that “puskesmas is for the poor” and “private practice is for the rich” (22).

In order to standardize the quality of service provided by the health care facilities, accreditation systems through credentialing and re-credentialing are imposed on both primary and referral facilities (secondary and tertiary). The imbalance in the numbers of health care facilities and health care professionals between rural and urban areas has significantly increased the complexity of health care problems. The discrepancy in the allocation of health care resources could be one side-effect of the decentralization system. The economic capacity of each region varies, which affects their ability to develop health care facilities and provide incentives for health care workers to work in their areas. Thus, decentralization has presented a new challenge to the improvement of the distribution of health care resources in Indonesia.

There has also been an increase in the number of hospitals and their service capacities. In 2015, Indonesia had 2488 public and private hospitals, with 147 new units built per year. The estimated total for 2017 is 2809 hospitals. Public hospitals are funded and managed by the Ministry of Health, provincial governments, district and city governments, the military or police, and other ministries. Private hospitals are managed by State-owned enterprises, religious and social organizations, private companies and other private sector entities (35). The ratio of hospital beds to population in 2015 was 1.21 per 1000 persons, an increase of 0.14 since 2014. It is believed that this increase can assist in meeting the population needs for referral care (6).

Theoretically, as expected under the SKN, Indonesia will implement a referral system across three levels of health care services – primary, secondary and tertiary – as illustrated by Figure 5. Based on the current Indonesian experience, to implement the referral systems without the implementation of a universal and comprehensive health insurance system is challenging, since there is great diversity among the regions and a disproportional distribution of population among the central islands of Indonesia.

Figure 5 summarizes the key features of the governance and architecture of service delivery entities, and also the links among them. The national referral system was implemented as part of universal coverage in 2014. The referral (and referral back) system is based on the diagnoses listed in the primary care online medical
record system (P-Care), which stipulate whether primary care physicians and hospital specialists refer or do not refer patients with certain diseases. In reality, this system was widely known by all physicians at primary, secondary and tertiary care levels, though there are still many areas for improvement, based on clinical pathways, key performance indicators and rates of contact with patients.

A director of a national referral hospital commented:

The universal coverage system has changed all of us, all of our perception of being professional healers, compared to the era when we were in the medical schools when traditional payment still existed. We need to be ready for this enormous change.

Figure 5. National systematic referral system

<table>
<thead>
<tr>
<th>Community and public health (UKM)</th>
<th>REFERRAL SYSTEM</th>
<th>Individual health (UKP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>Private</td>
<td>GOVERNANCE</td>
</tr>
<tr>
<td>Ministry of Health (Central Government)</td>
<td>In coordination and report to Provincial Department of Health Office</td>
<td>Central Hospital (Class A and B)</td>
</tr>
<tr>
<td>Provincial Department of Health</td>
<td>In coordination and report to Provincial Department of Health Office</td>
<td>Provincial Hospital (Class B)</td>
</tr>
<tr>
<td>District or City Department of Health Office</td>
<td>In coordination and report to City or District Department of Health Office</td>
<td>City/District Hospital (Class C and D)</td>
</tr>
<tr>
<td>Puskesmas and their auxiliary centres belong to District or City Department of Health</td>
<td>In coordination and report to puskesmas and their auxiliary centres</td>
<td>Puskesmas and their auxiliary centres (pustu, puskel, polindes, poskesdes)</td>
</tr>
<tr>
<td>Posyandu (delivered by cadre for vulnerable population groups in their local community, supervised by puskesmas)</td>
<td></td>
<td>Posyandu (delivered by cadre for vulnerable population groups in their local community, supervised by puskesmas)</td>
</tr>
</tbody>
</table>

Tertiary Healthcare Facilities

Secondary Healthcare Facilities

Primary Healthcare Facilities

Community

Individual, Family

Private Hospital (Class B)

Subspecialist clinic

Solo practice subspecialist

Private Hospital (Class C and D)

Specialist clinic

Solo practice specialist

Solo GP/dentist

Private primary care clinic

Midwifery solo/clinic

Nursing clinic
6. Financing for primary health care

The latest data from BPJS-Kesehatan (2016) show that 67% of the Indonesian population has joined the National Health Insurance system. The government budget contributes the largest part of funding sources, as shown by Figure 6. Both central and local government pay the insurance contribution of people living under the poverty line (7). Unfortunately, approximately 33% of the population are potentially falling into poverty when they become ill because of out-of-pocket payments. Thus, the central government needs to develop strategies so that all of the population is covered.

Figure 6. Financial sources of BPJS-Kesehatan, 2016

The majority of BPJS-Kesehatan spending is on hospital-based care. Less than 1% contributes to promotion and prevention programmes and less than 20% of the Ministry of Health budget is spent at the primary care level (6). The Ministry of Health has explained in many national meetings that most of the budget is spent on hospitals caring for advanced levels of illnesses. For example, human papillomavirus and many other adult vaccinations are still not covered by the current BPJS system, and screening for diabetes, hypertension and cancers in women and men is still not covered. The BPJS will cover the costs of care when the patient is already diagnosed with a certain illness. This phenomenon of hospital-based care may in part be a consequence of the lack of promotive and preventive programmes prior to universal coverage, so the current complexity of advanced health problems has arisen from the previous unsystematic nature of health care services. Therefore, the future health care system should make greater efforts to accommodate prevention, while at the same time providing advanced levels of care. There is however a shortage of data to inform future action, given the lack of available details about budget spending for primary care compared to hospital care.

An assessment of the Indonesian health financing system (36) carried out by international partners – “Spend More, Spend Right, Spend Better” – made several recommendations, including more transparency in health finance spending, increasing enrolment, expanding information to the public and health sectors, focusing on and providing incentives for primary care preventions, and assuring quality for the programme. Those recommendations are in line with the findings of the present study on the perceptions of the JKN among GPs working at puskesmas. Their first concern related to the transparency of capitation payments received from providing health care services to members of BPJS-Kesehatan. The second major theme was lack of health care facilities and medication to carry out good primary care practices, resulting in unnecessary referrals to the hospitals. Finally, an additional and challenging task for GPs was educating patients about the health care referral system, which consumed most of their consultation time. The GPs demonstrated a good understanding of the future...
aim of universal coverage for strengthening the primary care system.

I understand that from the accreditation programme of puskesmas, promotive and preventive care is starting to be emphasized. The health care system is approaching towards better care from the educational side, from the coverage view.

From the capitation system we also received more money than before, one puskesmas may receive up to 100 million rupiahs for providing care to the 10,000 members.

However, three major themes of patient care burdens are emerging. The first is related to the workload, resulting from the increased work expected of primary care physicians for JKN implementation. The primary care physicians also added that presently the greatest difficulty in their practice was how to change patients’ views on health care utilization so they differentiated between the gatekeeping role at the primary care level and the role of referral hospitals in providing advanced care.

We always inform and educate and counsel the patients about the JKN implementation and its consequences on the referral system. Referrals should be made based on the complexity of the medical cases and not only based on patients’ desires. We argue a lot about this with the patients and it seemed that delivering information on JKN is our main job. Patients easily put the blame on us and local newspaper will blow this up. (FGD 1)

The second major theme is lack of health care facilities and medication to undertake good primary care practices. Primary care physicians commented on the lack of facilities in their practice settings.

Sometimes, I feel pity, I had tried my best, and I know I can do this and that, for example for chronic condition of hypertension. But I need more variation of hypertensive drugs, ECG, adequate laboratory facilities, to help improve the patients’ condition. So usually I refer the patients to the hospital. I actually don’t want to do this, but I don’t have any adequate facilities, what else I can do? (FGD 2)

The primary care physicians also lamented the lack of transparency of the capitation payment scheme imposed on their services. They did not receive equal distribution of funds or sufficient information on the capitation programme as they served certain populations within their scope of practice. At this point, the primary care physicians did not receive patient lists, but started to collect the patients from zero. The primary care physicians did not feel comfortable with competition with other clinics, while on the other hand, there is still a shortage of physicians compared to the Indonesian population. They also said that the limited capitation payments from the JKN were not sufficient to cover their practices.

This is not a difficulty, but it ruined my practice. I had to seek the patients by myself, I really start from zero patients and it was very hard. I’ve asked my colleagues from another city, they had more patients at the start, so that they could do the clinical management better. For puskesmas which has more capitation members and it has been accredited, they would have a lot of money, but for those clinics with small capitation members, it was so difficult to manage. (FGD 3)

Similar findings were reported in a study of midwives’ perceptions of the changed rules and regulations related to the JKN system in Indonesia (37). In general, midwives shared the views of GPs on the three major themes reported above, while also noting the lack of appraisal for midwives under the new health care system, compared to the primary care physicians. The lack of appraisal was closely related to the inadequate information received regarding the national movement towards strengthening the PHC system. Under the JKN, midwives can no longer have individual practices, but must have a contract with primary care facilities. Normal deliveries can no longer be done at home with the midwives attending the delivery, but must be carried out at primary care facilities such as clinics or puskesmas.
Traditional birth attendants can attend but midwives with a certain certificate or primary care physicians carry out the work. While this policy may be suitable for the adequate ratio of midwives in Indonesia to the population (see human resources section), the midwives have not been well informed about the implications of these changes in the health care system.

In fact, none of the physicians and midwives interviewed for the study knew that there was a national roadmap for the JKN published and uploaded on a website by the Secretary-General of the President of the Republic of Indonesia (38). No unit, body or governmental section had informed them about the JKN roadmap, though opportunities had presented themselves on formal occasions, for example when the midwives, other health professionals, or primary care physicians take an annual contract with the BPJS at the beginning of the year. That formal occasion beginning the legal cooperation between health professionals and the national insurance body of Indonesia was largely characterized by administrative activities, such as signing documents, but lacked dialogue and reflection on what should be done better and ways to move forward.

From these studies of physicians’ and midwives’ current perception of the JKN, it is apparent that more effort should be made to provide sufficient and continuous information on the development of a better primary care system, preferably by a dedicated unit within the government offices and with input from other stakeholders, mandated to inform health professionals and the general public on an "A–Z" of the new health system, frequently asked questions, and any further useful information on the JKN. The content of information on the JKN delivered to different health personnel and the public may be the same, but could be packaged in different ways according to the audience in order to ensure that the aims of the JKN are received and digested in a relevant fashion by each of the different groups who play important roles in the implementation of the JKN.
7. Human resources for health: working towards high quality of care in Indonesia

Nurses form the major proportion of Indonesian health professionals (38%), followed by medical doctors (19%), midwives (17%), pharmacists (6%), and public health personnel (7%). The remaining 13% includes physiotherapists, nutritionists, clinical psychologists and other health professionals (Figure 7).

Figure 7. Health personnel (%), 2016

- **Nurses**: 38%
- **Public health**: 7%
- **Pharmacists**: 6%
- **Medical doctors**: 19%
- **Midwives**: 17%
- **Others**: 13%

Source: Department of Human Resources Development, Ministry of Health (39)

The density of health care personnel in Indonesia is much lower than the world average density. There are only 2.9 physicians per 10,000 population (compared to an international average of 16 per 10,000). In addition, there is a discrepancy between the numbers of primary care physicians in urban and rural areas. The majority of health care personnel undertake dual practice, working in both the public and private sectors. More than half of PHC facilities are *puskesmas* (55.8%), followed by general solo practices (22.9%) and medical centres (13.7%). Figure 8 present data on the ratio of GPs to population in Indonesia as a whole and in its regions.

Along with efforts to increase the number of health care personnel, the government also implements strategies to improve the professional capabilities of the PHC workforce. National Act No. 20, 2013, states the need to educate primary care physicians (family medicine specialists) in order to raise the health status of the population (40). Family physicians deliver a better quality of care, have more satisfied patients and significantly reduce unnecessary referral, increasing the cost-effectiveness of the health system (23).

As part of the implementation of the National Act on GP Training, the Ministry of Health, in collaboration with the Ministry of Research, Technology and Higher Education, formed the Indonesian National Board of Primary Care Physicians. This board prepares standards for education, research and services in primary care, as well as training teachers and preceptors in preparation for setting up GP vocational training in 17 faculties of medicine with the highest level of accreditation. The board has prepared two main programmes: a three-year residential programme for medical school, aimed at doctors who have been practising medicine for less than five years; and a six-month cross-programme...
with recognition of prior learning and prior practices for primary care physicians practising medicine for more than five years. Both programmes are optional.

The cross-programme curriculum was tested with 265 physicians from 11 provinces during the period September to December 2016, and continued in early 2017 up to a total period of six months, in 11 faculties of medicine affiliated with the provinces’ district health care offices. Positive testimonies were received from participants, preceptors and faculty members on the value added by the formal and structured postgraduate curriculum for GPs, which offered a promising way forward and a career path for Indonesian primary care physicians.

I learned more about how to treat patients holistically, that every aspect of his or her life may contribute to their illness as well as their healing process. I also learned how to stimulate working together between health professionals in meaningful actions. I got feedback, peer discussion sessions, all these process won’t be available if this is only a short seminar or workshop. The good education stays within a good formal and structured postgraduate curriculum. (Physician)

I really hope that these gatekeepers will provide more significant care for emergency in paediatrics and that we could let them lead the preventive sides of paediatrics, and that they should be
distinguished from basic medical doctor graduates.  
(Preceptor from a teaching hospital)

We have tried out the formal systematic graduate training for GPs. This is how the way forward should be. We will provide careers for general practitioners to take care of most problems in community settings. (Faculty member)

National Act No, 36 of 2014, on health care providers, regulates types, educational qualifications, roles and functions, colleges, national examinations, and recertification of other health care professions. Supporting systems are being developed to support collaboration between health professionals towards continuity of care and patient safety.

The accreditation regulation for primary care centres requires special training in midwifery emergencies, termed basic emergency neonatal and obstetric care (pelayanan obstetri neonatal emergensi dasar, or PONED training), for a puskesmas with inpatient beds (less than 10 beds) and also for certain educational levels for nurses and other health professionals, including traditional healers who use alternative medicine at puskesmas or work at primary care levels (Ministry of Health Decree No. 46/2015 on accreditation of puskesmas, pratama clinics and individual practices of medical doctors and dentists). Several categories of health professionals are regulated by this act.

There is also national legislation (National Act No. 20, 2013, item number 17) stipulating that at least one health personnel with a medical or health professional education (magister background) be assigned to each health education institution, indicating that efforts to provide better-trained health care personnel have been included in national regulations and implemented.

The national movement to strengthen the PHC system still requires a legal instrument placing primary care physicians as “care coordinators” and the drivers of teamwork at primary care settings and of mutual collaboration (continuous dialogue, referral and referral back) between primary care, secondary care and tertiary care levels, with the aims of continuity of care and promoting patients’ safety. The only regulation confirming the position of primary care physicians as care coordinators and initiators of teamwork is contained in the rules of the National Health Insurance body (BPJS).

BPJS regulations state that a claim cannot be retrieved when a patient goes directly to a hospital, that a midwife should collaborate with a primary care physician and cannot undertake independent practice, that a patient with a chronic condition should be referred to a specialist in a hospital every three months or more (with forms for informed consent to be completed by patients), that medication for a chronic condition should be recommended by hospital specialists, and many more rules.

These rules confirm the gatekeeping agenda of the BPJS, which aims to keep patients at primary care level at first hand. However, lack of understanding of which entities take the role of “care coordinators”, insufficient comprehension of the importance of teamwork at primary care levels, and inadequate collaboration between primary, secondary and tertiary care entities towards continuity of care and patient safety principles lead to some antagonism and lack of cooperation between relevant parties. The BPJS is also taking some blame for the less-than-adequate care and the complexity of the bureaucracy that is occurring during the transition period from the traditional health care system, with high out-of-pocket payments, to the universal coverage system. The transition period to the universal coverage system envisioned by Indonesia has not been well comprehended by society. This lack of comprehension may compromise the effectiveness of health care service provision by health personnel, and negatively influence national efforts to provide better primary care.

The Indonesian Medical Association is one of the stakeholders that has strongly opposed the development of the family medicine specialist or general practice graduate programme, and the
development of emergency medicine as a new specialization. A study found that a number of GPs are reluctant to continue their training in the primary care medicine graduate programme due to several concerns: (a) lack of confirmation of the status of the qualification; (b) the future position of GPs within the JKN, specifically as care coordinators; (c) the need for awareness raising on the JKN to be rigorously carried out by the BPJS for the public and the advance care facilities (hospitals), so the burden of delivering information is not placed on the primary care physicians; (d) the need to clarify the incentives for achieving a qualification under the family medicine specialist or general practice graduate programme; (e) the perception that variations in the payment system should be based not only on capitation but also on salary, and should include additional elements, such as home visits and counselling; and (f) the need for workplace-based learning to make the learning process more flexible for GPs who are already in practice (41). However, there are primary care physicians who are resistant to the scale-up of the programme, perhaps for reasons related to future uncertainties or for political motives.

The Indonesian National Board of Primary Care Physicians produced several information packages and undertook a number of awareness-raising sessions, workshops and seminars, including with the Parliament of the Republic of Indonesia, district health care offices and other entities, from 2013 up to the present, while also aiming to incentivize professional organizations to join the National Board. However, the Indonesian Medical Association was insufficiently involved in those efforts, and there have been concerns that political and other differences might obscure the core issues surrounding the need for an improved PHC system.

The imbalance in the numbers of health care facilities and health care professionals between rural and urban areas, compared to international standards, has significantly added to the complexity of the problems. Discrepancies in the availability of health care resources could be one side-effect of decentralization. Variations in the economic capacity of regions affect their ability to develop health care facilities and provide incentives for health care workers to work in their areas. Thus, decentralization has given rise to new challenges that need to be resolved in order to improve the distribution of health care resources in Indonesia.
8. Planning and implementation

According to the Republic of Indonesia Ministry of Health report (2015) and Strategic Plan 2015–2019 (6, 35), the first agenda is to strengthen the PHC system through five steps for “the revitalization of community health centres (puskesmas)”, namely (a) enhancing educational qualifications for health professionals; (b) enhancing the capacity of primary care clinics; (c) increasing the budget for facilities and support for puskesmas; (d) increasing the quality of the information system in puskesmas based on electronic medical records; and (e) accreditation of puskesmas. The second agenda is the continuation of care, which includes increasing the scope of health care, the five levels of prevention and the continuity of care across different ages and sexes. The third strategy is specific solutions for specific health problems.

It is clear that the foundations of better quality of health care and more cost-effective health care, as recommended by WHO, have been initiated by the Indonesian Government through the Ministry of Health by emphasizing the primary care system. The internal governance structure of the Ministry of Health has also been changed to make it a more supportive organization for strengthening the PHC system, as shown in Figure 9.

In general, the efforts to strengthen PHC have been initiated and led by the Ministry of Health. The new organizational structure of 2016 emphasizes
the important role as regulator of the primary care system played by the new Directorate of Primary Care, while the new Directorate of Advanced Care has responsibility for hospitals. Under the Directorate of Primary Care there are three subdirectorates for puskesmas (governmental health care services), primary care clinics (private clinics) and individual practice (also private). While this information was received through an interview with a Director-General at the Ministry of Health office in Jakarta, no published document (at the time of writing) could be retrieved presenting information regarding this change in the organizational structure. This lack of communication may explain why little information has been received about the current efforts of the Ministry of Health towards improved primary care services throughout the district health care offices at 34 provinces and 514 subdistricts. Other governmental organizations that are related closely to strengthening PHC, for example the Ministry of Research, Technology and Higher Education and the Coordinating Ministry for People's Welfare, may not yet be fully aware of the changing strategy of the Ministry of Health towards PHC. Other stakeholders, for example the professional associations for physicians, nurses, and midwives, also may not yet be aware of this effort towards better primary care services. The public, who are often the last in the chain of information, should be fully apprised of the implementation of the JKN and its strategies and consequences.

The Ministry of Health, as the national care coordinator, should improve the dissemination of information on its strategies for strengthening PHC at all levels. Many JKN and BPJS rules and regulation are based on Ministry of Health decrees. Human resources and facilities for health, the capitulation programme, the referral and referral back system, the gatekeeping role, and other areas related to improvement of primary care services are all regulated by the Ministry of Health. To coordinate the health system in a huge country such as Indonesia is not easy, and a balanced approach is needed, including efforts to improve quality of care while ensuring that there is an adequate quantity of health care professionals and cadres. On top of the already complicated situation, the uneven distribution of health professionals across the 34 provinces of Indonesia, in urban, rural and remote areas, is a significant challenge to strengthening the PHC system.

While a focused effort is needed to strengthen the PHC system, while at the same time launching a new era of sustained, long-term care under the JKN, the Ministry of Health has also launched the Nusantara Sehat (Healthy Nation) programme, which coordinates young cadres of health professionals to work in the rural and remote areas of Indonesia for a short period of time (six months). The programme allows a short-term increase in the quantity of health professionals in those areas, instead of waiting for more qualified personnel to take up longer-term employment. The programme may attract many young health professionals to participate in delivering health care services to the most needy population through their best efforts. Those participating are given the chance to become a government employee at the end of their assignment (42).

Current regulation of practice of GPs in Indonesia still permits a doctor to work in three clinical practice settings (National Act No. 29, 2004). In a metropolitan area such as Jakarta, a doctor may earn a triple salary when working in the 24-hour outpatient “quick care” clinics that are spread throughout the Jakarta area. These health care facilities provide ambulatory services and sometimes one-day care inpatient services. Their services focus on curative care and pay little attention to comprehensiveness and continuity of care. In this type of out-of-pocket payment system at quick care facilities, which is still allowed, both the primary care physicians and patients may be satisfied at the outcomes and may not feel the need for any insurance system. Interestingly, in small villages where there are limited numbers of primary care physicians, the quick care system is also favoured by the people. Primary care physicians can gain a substantial income if they are the only point of care for a large population, for example where there is
one doctor per 30,000 persons, as can occur in Java and Sumatera, the two most populated islands in Indonesia.

While the examples of short-term, quick solutions given above may offer some advantages, few people who participate in primary care services (doctors, patients or the community) may be aware that chronic illnesses are increasing due to a number of factors, including demographic changes in Indonesia. Such chronic illnesses cannot be solved by a single quick encounter between doctor and patient, and cannot be adequately managed when health professionals with limited health care service experience are only working in the community setting for a short period of time. An acute episode of chronic illness could appear as an acute illness to a lay person, or even for health professionals, as in the case of myocardial infarction. The acute illness may in fact be part of a longer continuum of chronic diseases that could and should be prevented and controlled. An approach that involves quick encounters with health personnel or limited continuity of care, as described above, is effective only for treatment of “common cold symptoms” or other acute illnesses, but can leave chronic ailments underdiagnosed.

Therefore, instead of developing short-term programmes such as Nusantara Sehat, it would be beneficial, given the importance of strengthening primary care systems, to formulate a more long-term programme that attracts health professionals to follow a career in community settings, with better incentives for working at primary care levels. By providing sufficient information on the need for continuity of care and its beneficial impact on the quality of health of Indonesian people, supported by appropriate incentives, the Ministry of Health can attract many young cadres of professionals to serve in communities where health care services are most needed.

The Ministry of Health could redirect its strategy to stimulating motivation, allocating attractive incentives to the targeted health personnel and coordinating their contribution in order to improve the health outcomes of the Indonesian people. Recruiting cadres who are genuinely interested in working in primary care settings should be prioritized, rather than the recruitment of cadres who would like to continue to work in more advanced care settings such as hospitals, having completed a short period of time in primary care settings. This kind of ineffective recruitment only makes the primary care career appear as a stepping stone to other employment, rather than a long-term prosperous career in itself, and should be avoided.

By redirecting the strategy so that it contains more informative content on the need for continuity of care and other family medicine principles to strengthen PHC, the Ministry of Health will be enabled to focus more of its effort towards PHC, while at the same time inviting participation of the community at large in contributing to primary care services.
9. Regulatory processes: towards sustainable development and continuous improvement

External factors to encourage better quality of care at primary care facilities include a periodic accreditation programme every three years. Ministry of Health Regulation No. 46 of 2015 requires all PHC facilities, including puskesmas (government-owned community health centres), private clinics and private practices of GPs and dentists, to undergo an accreditation programme. In 2016, nearly 30% of puskesmas in Indonesia (which are mostly on Java island) were accredited. The target was set at 50% in 2015. To support the goal of total universal coverage by 2019, other PHC facilities will undergo the same programme to ensure quality of care. The accreditor – the Primary Care Facilities Accreditation Commission (Komisi Akreditasi Fasyankes Primer) – is an independent body outside the Ministry of Health. Only the accredited primary care centres, clinics and individual practices should have a direct contract with the national insurance body (BPJS) by 2019. The accreditor is regulated by the Ministry of Health decree, which also stipulates that the head of primary care facilities should be medical doctors or dentists, with the exception of puskesmas, presumably because they undertake many other roles besides clinical care, for example community and public health services. However, the explanation was not explicit in the decree.

There are three main criteria to be evaluated during the accreditation process. The first is “administrative management” of the puskesmas, clinic or individual practice, including the processes of patient care, leadership and management, and quality improvement. The second is “community-oriented care”, including a target-oriented approach to public health care by the leadership and management of the public health services. The third is “person-centred care”, which, in addition to health care services, includes laboratory support for clinical care and improvement of quality of care and patient safety. Despite the low ratio of primary care facilities to population, which is around 1 per 15,000 people (7), the Ministry of Health, which coordinates the health care system across the country, is laying a significant foundation to a new era of better health care services.

Through this quality assurance system, all PHC facilities in Indonesia should, step by step, be ready to provide a high quality of first-contact care to strengthen PHC services in Indonesia. To support this, it is vital to have greater numbers and quality of primary care physicians. As described in the human resources section above, many primary care physicians in Indonesia – most of whom do not have a graduate degree or additional training in family medicine, primary care or general practice – follow a career in primary care settings not out of desire or choice, but because there was no career path for them to become hospital specialists. As a consequence, many primary care physicians in Indonesia do not work with optimum mindfulness of what they do daily, what to improve and why primary care services should be strengthened. Working in accordance with the rules and regulations of the BPJS and the government is sufficient ambition for them. As a consequence, shortcomings in the Indonesian human resources workforce who work in primary care settings are apparent, and leadership to resolve this issue is lacking.

A study by Ekawati et al. (41) found that many primary care physicians felt overloaded with work and close to burnout, and were concerned at the extra burden arising from the accreditation process, on top of the commencement of the universal coverage system. A study by Solekah (37) found that midwives were frustrated that the BPJS required them to enter into formal and legal cooperation with the nearest clinics or puskesmas, and that they did not have adequate
understanding of the changing era towards the universal coverage system. As is often the case, policy-makers have not made adequate attempts to ensure that the voice of health professionals is heard, nor are they fully aware of the frustration and burnout felt by many professionals who work in primary care settings in Indonesia, which often only emerges during studies such as those mentioned. Consequently, most of the Indonesian population still do not get high-quality health care services, even in those puskesmas or clinics that have already been accredited.

Accreditation is one of the ways of endorsing improvement via “external motivation”. Indonesia should also consider the need for health care professionals with high “internal motivation”, who are fully committed to a lifetime career in PHC settings. Continuous improvement is the key to achieving better health outcomes in future decades. The ultimate aim is to have in place graduate programmes on primary care medicine equal in status to family medicine specialists or GPs, and able to provide more knowledge, skills and positive behaviour in primary care professionals to further their role as the backbone of the primary care system and to initiate proper collaboration with other health professionals in regard to patients’ safety.

An institutional mechanism is in place to represent the citizens’ voice and ensure civil society engagement in health service organization and planning, namely the establishment of health clubs that accommodate patients with diabetes mellitus, through which they have their own agenda of regular exercise, meetings, and gatherings to contribute to the improvement of primary care clinics. This kind of patient club has been endorsed by the BPJS as a key performance indicator for primary care clinics and primary care physicians. However, instead of the existence of a health club, the clinics and puskesmas were evaluated for caring for people who already had diabetes, and health clubs were not listed in the key performance indicator for clinics. In long-term planning, greater flexibility should be demonstrated in endorsing a wider variety of health clubs and groups for a range of participants, individuals and families that are operating in clinics and puskesmas. Ensuring patients’ and society’s contribution to and participation in the continuing improvement of the primary care system should be a key aim. Primary care physicians should also understand the role of the health club and how to communicate, educate and counsel the community with appropriate information emphasizing prevention. Again, an effective PHC system should be everyone’s responsibility.
10. Monitoring and information systems

The current National Health Insurance system provides a national online medical record – P-Care – at all primary care facilities that serve BPJS-Kesehatan members. The form for the online medical record system is still under continuous development, but the foundation for a more integrated referral system for primary, secondary and tertiary care has been put in place. However, the system of nationally integrated online medical records between primary care facilities and hospitals should be improved with high-speed enhancement to avoid incorrect online medical records and to enhance access by the users, in this case physicians at all levels of care. The development of online medical records is not straightforward and requires many supportive tools, such as the International Classification of Diseases and Related Health Problems, 10th Revision (ICD-10), the International Classification of Primary Care (ICPC) and clinical pathways, which need sufficient time for full development and should be adjusted regularly. The online medical record system should be able to facilitate referrals and cross-checks in which the primary care physicians and specialists in hospitals communicate regularly with each other.

Currently, the online medical record system in Indonesia cannot yet accommodate the need for comprehensive and collaborative care. Only patients with acute or complicated diseases can be referred to the hospitals. For example, if a primary care physician requires that a patient have a screening mammography, the patient must be referred first to the surgical oncologist as a sick patient with the diagnosis of a tumour, and the surgeon will order a mammography (which can only be done in a large hospital), although he or she already knows that the order is a regular screening for a perceived healthy patient. Meanwhile, the patient will be counted as one of the referral clients on the list, and included in the percentage of total referrals for that particular month. The inadequate distinction between prevention and curative processes of care in the referral record may add to problems with inaccurate data in national reporting.

The current online system is insufficiently used, with lack of linkage to hospitals. When a primary care physician wants to refer a patient, that patient will receive a printed referral paper, but might not go directly to the hospital within the indicated time. Sometimes the patient comes back to the clinic and asks for another referral paper because the original was out of date, and so there will be two referral papers recorded in P-Care, although only one will be used. Again, such disconnect between primary care facilities and hospitals leads to inaccurate national reporting.

Health care services, researchers and health professional educationalists could and should have access to data generated by a more rigorous medical record online system that ultimately contributes to continuity of care, which has been stated as a policy objective for the primary care system of Indonesia (35). Periodic regional health research reports also provide continuous health profiles for each province of Indonesia, which are ultimately analysed and collated into health profiles at national level (6, 24).

Based on the implementation of the current online medical records system in Indonesia, it is clear that the agenda of the JKN is to mostly keep patients at the primary care level. While this is not an incorrect agenda, it brings the consequence that primary care physicians undertake interventions that are similar to those of more highly qualified physicians, and take care of most problems in primary care settings (23). Consequently, in order to implement appropriate continuity of care, primary care physicians require sufficient knowledge of the human life cycle, the family cycle, the family as a unit of care, the natural history of illnesses, prevention of each stage of illness, individual, family and community empowerment, informed and shared decision-making, intensive...
communication and counselling skills, and many more knowledge sets and skills required of graduate primary care physicians. These primary care concepts should be fully accommodated in the P-Care system. The initiation of the accreditation programme for PHC facilities is also a way to continuously assure a high quality of PHC services. Patient satisfaction is also taken into account, based on the accreditation standards.
11. Way forward and policy considerations

Based on the above review of PHC in Indonesia in 2017, a number of suggestions can be made on the way to move forward for better health care services. An obvious income disparity exists in Indonesia, leading to inequality and inequity in access to health care services. Meanwhile, the triple burden of disease remains in Indonesia, in which communicable diseases, NCDs and injuries are the greatest health problems. NCDs and injuries can lead to catastrophic and chronic disorders that require considerable attention, political will and budget to resolve and treat. Indonesia is in a period of transition towards universal coverage and high quality of care, starting in 2014 with the aim of full coverage by 2019. To move towards more comprehensive coverage and continuity of care, there is a need for a more coordinated referral system, integrated medical record online systems, and an information campaign whereby improvements in PHC are a well known target and considered to be everybody’s responsibility.

Global efforts are being made to strengthen PHC systems at all levels of care, from primary to secondary to tertiary. Indonesian people and health professionals should engage, as early as possible, in the paradigm shift from curative to preventive actions in order to achieve better health outcomes. To support this goal, the recommendations of the *World health report 2008* – with the theme “Primary health care: now more than ever” (43) – have been implemented in Indonesia, as illustrated by several efforts designed to implement the new health care system through collaboration between relevant stakeholders:

- initiation of the universal coverage programme under the National Health Insurance system on 1 January 2014, with the target of achieving universal coverage in 2019, in line with National Act No. 1, 2012;
- service delivery reforms based on more people-centred care by increasing the capacity of health professionals and confirming the role of GPs as gatekeepers, including through starting a postgraduate education programme for primary care physicians (specialist) as a regular programme for GPs who have been practising for less than five years and a non-regular programme for GPs who have been practising for five years or more, based on National Act No. 20, 2013;
- public policy reforms to strengthen the primary care system through various regulations regarding accreditation of primary care facilities;
- leadership reforms to promote equal access to high-quality care for all people, which is the greatest challenge.

Although the two national acts related to development of the human health workforce have currently been rejected by existing physicians in professional associations, which might be due to their insecurities about the future, Indonesia has firmly decided to move towards equity of access to health care, and the recommendations of the Alma-Ata Declaration have been endorsed. Figure 10 presents the concerns and needs identified in this study, and how to move forward towards high-quality PHC within Indonesia’s universal coverage system.
Figure 10. Framework for strengthening PHC system in Indonesia

**The need to change**

- **GOVERNANCE**
  - Needs optimum comprehensive care

- **FINANCING**
  - Needs massive, specific and continuous information nationally

- **HUMAN RESOURCES**
  - Needs collaborative care and high quality of care

- **PLANNING AND IMPLEMENTATION**
  - Needs governmental focus
  - Make PHC everyone’s business

- **MONITORING AND EVALUATION**
  - Needs well organized online medical records towards continuity and comprehensive care

**COordinative Care**

- Coordinator of care
  - (Graduate primary care physicians)

**Indonesia PHC Future Overview**

- Equity and equality of health care access
- Continuity of care
- Optimum comprehensive care
- Universal coverage

**Willingness to change**

- **GOVERNANCE**
  - Political will (local and central government)

- **FINANCING SOURCES**
  - Insured budget for universal coverage
  - Increase scope of BPJS participation
  - Reducing kick-off behaviour of participant

- **FINANCING SPENDING**
  - Emphasize prevention
  - Primary care facilities
  - Variation and appropriate payment (not only single capitation methods)
  - Health professionals support

- **PLANNING AND IMPLEMENTATION**
  - Governmental focus towards scaling up health professionals
  - PHC is everyone’s responsibility

- **MONITORING AND EVALUATION**
  - Use of online medical record data for communication, research and policy towards continuous improvement

**Indonesia PHC Current Overview**

- Inequality
- Demographic transition
- Epidemiological transition
- Triple burden of health problems
- Lack of continuity of care
- Need for comprehensive coverage
References

15. HIV/AIDS. Republic of Indonesia, Ministry of Health, Data and Information Centre; 2014.


37. Solekhar S. Midwives’ perceptions in Bengkulu on the implementation of universal coverages. Master’s Thesis on Health Economics. Yogyakarta: Department of Public Health, Faculty of Medicine, Gadjah Mada University; 2016.


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