

Resilient and people-centred health systems: Progress, challenges and future directions in Asia

Editors: Helena Legido-Quigley and Nima Asgari-Jirhandeh



Asia Pacific Observatory
on Health Systems and Policies



International Council
Yong Loo Lin School of Medicine



Chapter 11. The Philippines

Manuel M Dayrit, Elvira SN Dayrit, Jeremie E De Guzman, Geminn Louis C Apostol



11.1 Introduction

11.1.1 Socioeconomic context

The Philippines is a tropical archipelago of 7107 islands with a total population of 104.9 million (World Bank, 2018a). The 81 provinces, 145 cities and 1489 municipalities are organized into 17 administrative regions, the densest of which is the National Capital Region (NCR) (20 785 people per sq.km) (Philippine Statistics Authority, 2017a) where Metro Manila is located. Each municipality is composed of 10–50 *barangays* (villages). The *barangay* is the smallest political unit, with a population size of between 1000 and 20 000 people. There are a total of 42 036 *barangays* in the country, of which 4720 are classified as geographically isolated and disadvantaged areas (GIDA).

About 49 million people live in highly urbanized areas and 55.9 million in rural areas. Recently classified as a lower middle-income country (LMIC), the Philippines has one of the most vibrant economies in South-East Asia. The GDP has been growing at an annual rate of 6.4% from 2010 to 2017 (World Bank, 2018a). The economic policy is focused on globalization, trade liberalization, deregulation and market reforms, all of which rely on a dynamic private sector. The drivers of growth are the services sector (59.9% of GDP) and industry (30.5% of GDP). The contribution of agriculture to the GDP has decreased from 12% in 2006 to less than 10% in 2017 (World Bank, 2018a). The Philippines has continued to invest in human capital development through increased spending on health, education and service delivery. In 2015, the share of health expenditure was 4.4% of the GDP (World Bank, 2018a), which is slightly below the minimum of 5% recommended by the United Nations (UN).

The poorest segments of the population are farmers and fishermen who live at subsistence level. Rural poverty drives the poor to urban centres, where they become slum dwellers. To identify the poor and allow for a more targeted provision of welfare and social protection services, the National Household Targeting System for Poverty Reduction (NHTS-PR) was established in 2008 (Fernandez, 2012). By 2012, the national poverty database consisted of about 5.2 million poor households located in 1630 municipalities and cities nationwide.

In 2010, the country committed to UHC with three strategic thrusts: (i) financial risk protection through expansion in enrolment and benefit delivery of the National Health Insurance Program (NHIP); (ii) improved access to quality hospitals and health-care facilities; and (iii) attainment of the health-related MDGs (Department of Health, 2010).

Macroeconomic indicators are given in Table 11.1.

Table 11.1 Philippines: Socioeconomic indicators, 1980–2017

| Indicators | 1980 | 1990 | 2000 | 2010 | 2015 | 2017 |
|---|-------|-------|--------|--------|--------|-------------|
| Population, total (in millions) | 47.4 | 61.9 | 78.0 | 93.7 | 101.7 | 104.9 |
| Population density (people per sq.km of land area) | 159.0 | 207.8 | 261.6 | 314.3 | 341.1 | 351.9 |
| Fertility rate, total (births per woman) | 5.2 | 4.3 | 3.8 | 3.2 | 3.0 | 2.9 (2016) |
| Birth rate, crude (per 1000 people) | 36.6 | 33 | 29.6 | 24.8 | 23.4 | 23.2 (2016) |
| Death rate, crude (per 1000 people) | 8.2 | 6.6 | 6.0 | 6.2 | 6.5 | 6.5 (2016) |
| Population growth (annual %) | 2.7 | 2.5 | 2.1 | 1.6 | 1.6 | 1.5 (2016) |
| Population ages 65 and above (% of total) | 3.2 | 3.1 | 3.3 | 4.1 | 4.6 | 4.8 |
| Age dependency ratio, old (% of working-age population) | 6.0 | 5.6 | 5.6 | 6.7 | 7.2 | 7.6 |
| Age dependency ratio, young (% of working-age population) | 80.3 | 73.2 | 66.1 | 54.7 | 51.0 | 50.0 |
| GDP (current US\$, billions) | 32.5 | 44.3 | 81.0 | 199.6 | 292.8 | 313.6 |
| GDP per capita (current US\$) | 684.7 | 715.3 | 1038.9 | 2129.5 | 2878.3 | 2989 |
| GDP growth (annual %) | 5.1 | 3.0 | 4.4 | 7.6 | 6.1 | 6.7 |
| Gross national expenditure (% of GDP) | 104.9 | 105.8 | 102 | 101.8 | 105.9 | 109.6 |
| Tax revenue (% of GDP) | .. | 14.1 | 12.8 | 12.1 | 13.6 | 13.7 (2016) |
| Central Government debt, total (% of GDP) | .. | 51.3 | 60.5 | 52.4 | .. | .. |
| Agriculture, forestry and fishing, value added (% of GDP) | 25.1 | 21.9 | 14.0 | 12.3 | 10.3 | 9.7 |
| Industry, value added (% of GDP) | 38.8 | 34.5 | 34.5 | 32.6 | 30.9 | 30.5 |
| Services, value added (% of GDP) | 36.1 | 43.6 | 51.6 | 55.1 | 58.8 | 59.9 |
| Labour force, total (in millions) | | 22.7 | 30.0 | 38.6 | 43.0 | 44.6 |
| Unemployment, total (% of total labour force) (modelled ILO estimate) | .. | .. | 3.7 | 3.6 | 3.0 | 2.3 |
| Personal remittances, received (% of GDP) | 1.9 | 3.3 | 8.5 | 10.8 | 10.2 | 10.5 |
| Current health expenditure (% of GDP) | .. | .. | 3.2 | 4.3 | 4.4 | .. |
| Income inequality (Gini coefficient; World Bank estimate) | | | 46.17 | | | |

Key: GDP: gross domestic product; ILO – International Labour Organization

Source: World Bank, 2018a

11.1.2 Political context

The Philippines is a democratic republic with three branches of government: executive, legislature and judiciary. It has a constitution, which is the fundamental law of the land. The President, Vice President and members of Congress are all elected by popular elections. The President appoints members of the Judiciary and Cabinet, with the latter heading the large line agencies of the government. The appointment of these officials needs to be confirmed by the Legislature. The Secretary of the Department of Health (DoH) is a member of the President's Cabinet.

Public health policy is formulated through actions of the Executive branch (e.g. Presidential Executive Orders; DoH Administrative Orders) and the Legislature (laws).

11.1.3 Natural and human-induced disasters

The Philippines is the world's third most at-risk country for natural disasters (Bündnis Entwicklung Hilft, 2017). Compared to neighbouring countries, the Philippines has the highest risk index (5.2) in the ASEAN region; Cambodia, Indonesia and Viet Nam have risk indexes of 4.7, 4.4 and 3.5, respectively (INFORM Global Risk Index, 2018).

From 2000 to 2016, the Philippines experienced 281 natural disasters, which affected roughly 125 million people and caused over 23 000 deaths. The associated socioeconomic damage was about US\$ 20 billion, with an average annual damage of US\$ 1.2 billion (Jha et al., 2018). Between 2006 and 2015, the Philippines had an average occurrence of 18.1 disasters per year (Guha-Sapir et al., 2016).

11.2 Health status and risk factors

11.2.1 Health status

Life expectancy

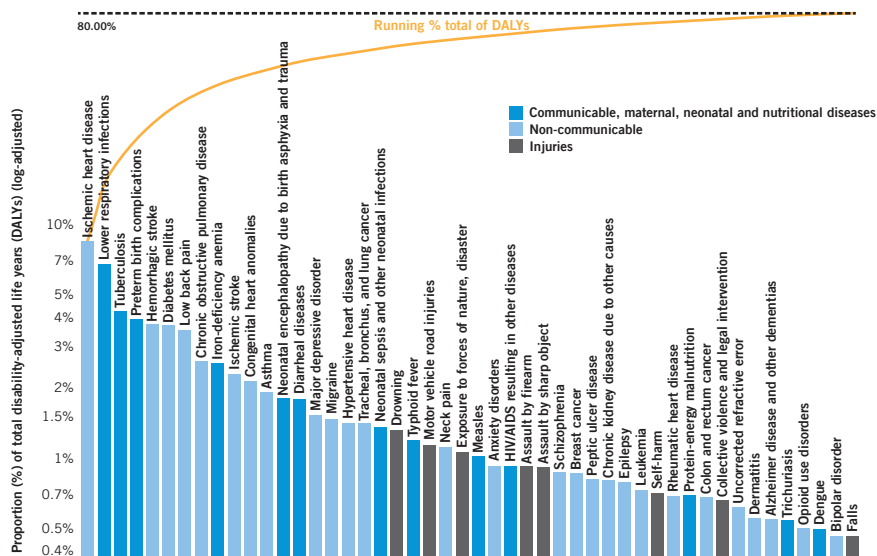
Between 1990 and 2016, the average life expectancy of Filipinos at birth showed a modest increase from 65 years to 69 years. In 2016, it was 66 years for men and 73 years for women. However, these gains in life expectancy have lagged behind those of other countries in the region. For

example, in 1974, both Thailand and the Philippines had the same average life expectancy of 61 years; today, Thai citizens live 6 years longer than Filipinos (World Bank, 2018b).

Burden of disease

The health status of Filipinos reflects the epidemiological transition occurring in LMICs where the burden of NCDs has overtaken that of communicable diseases. In an analysis of the disease burden, Wong et al. identified 221 categories of illness and, using Pareto analysis, showed that the top 48 or 22% of diseases accounted for 80% of total DALYs lost (Fig. 11.1). Twenty-seven diseases were NCDs, 13 were communicable, maternal and nutritional diseases, and eight were injuries. In terms of DALYs, NCDs accounted for 61% of the disease burden in 2015, with a projected rise to 66.5% by 2035. On the other hand, the share of disease burden of communicable, maternal, neonatal and nutritional disorders is projected to decrease from 30.8% to 25.5% in the same 20-year period (Wong et al., 2018).

Fig. 11.1 Philippines: Top 48 diseases based on DALYs, 2015



Source: Wong et al., 2018

Five NCDs in the top 20, which are closely associated with lifestyle, smoking, diet and exercise, accounted for one third of DALYs, namely, ischaemic heart disease, haemorrhagic stroke, ischaemic stroke, hypertensive heart disease and diabetes mellitus. Related to this, the prevalence of obesity in the population is now at 9.2% for children aged 10–19 years of age and 31.1% in adults aged 20 years and above (Food and Nutrition Research Institute, 2015).

Other NCDs in the top 48 worth noting are: COPD associated with tobacco use (2.6% of DALYs); asthma (2.0%); mental disorders, including depression, anxiety, Alzheimer, dementia, schizophrenia and bipolar disorder (4.2%); cancers, including breast, colon and leukaemia (2.4%); motor vehicle road injuries (1.6%) and exposure to forces of nature and disasters (1.0%).

The rise in the NCD disease burden is already impacting the social insurance system. Diabetes (3.5% of total DALYs) affects 5% of all Filipinos, with a prevalence of 12% among persons aged 60–69 years (Panelo et al., 2017) and is a major cost driver. In 2015, the Philippine Health Insurance Corporation (PhilHealth) paid out PhP 6.3 billion for haemodialysis of diabetic end-stage renal disease, accounting for 7.2% of PhilHealth claims that year (Philippine Health Insurance Corporation, 2015).

Two communicable diseases, i.e. lower respiratory tract infections (community-acquired pneumonias) and TB are ranked second and third, respectively, jointly contributing 11.1% of the total DALYs.

TB prevalence was halved from 1990 to 2015, thus achieving the MDG goal. However, a 2016 national survey showed that TB prevalence had not decreased compared to the 2007 national survey and that the number of missed cases was high. Smear-positive TB increased from 1.93 per 1000 in 2007 to 2.86 per 1000 in 2016. Rifampicin resistance in 2016 was 7.3% (Department of Health, Foundation for the Advancement of Clinical Epidemiology & Philippine Council for Health Research and Development, 2017).

The Philippines did not achieve the 2015 MDG target for HIV/ AIDS and had the highest percentage increase (140%) of new HIV infections in the Asia and the Pacific from 2010 to 2016 (UNAIDS, 2017). Reasons for the increase include the shift to a more aggressive subtype of the virus (Salvana et al., 2017), increase in transmission among men who have sex with men (MSM) (Department of Health – Epidemiology Bureau, 2018), and increase in testing due to an increase in the number of testing sites.

Infant mortality rate

There have been significant gains in reducing infant and child mortality in the past 25 years. The IMR fell from 34 infant deaths per 1000 live births in 1993 to 21 per 1000 in 2016 (Philippine Statistics Authority and ICF International, 2018). However, the decline in infant deaths has levelled off, possibly due to the persistently high neonatal mortality (Kraft et al., 2013). The burden of disease analysis supports this hypothesis. Disorders in the neonatal period, namely, neonatal encephalopathy due to birth asphyxia, and trauma and neonatal sepsis account for 3.2% of total DALYs.

Undernutrition

Stunting persists at 33.4% among children less than 5 years of age and is associated with a complex web of determinants, which include poverty, access to clean water and sanitation, female education, maternal nutrition, family size and food security. It is highest in the poorest quintile at 49.7% compared to 14.7% in the richest quintile (Food and Nutrition Research Institute, 2015).

Maternal mortality ratio

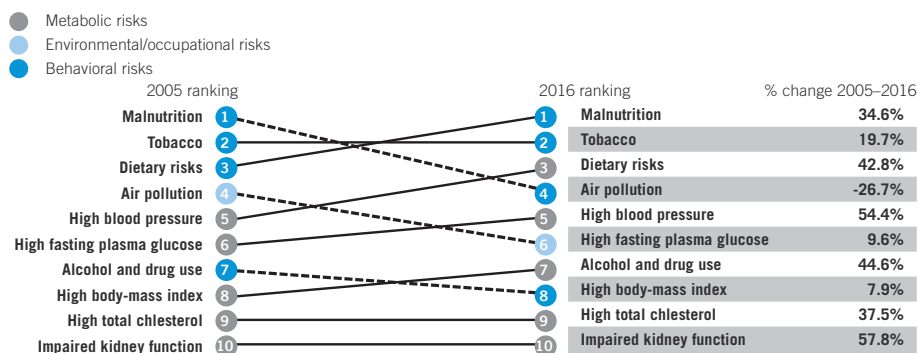
A WHO report classified the Philippines as one of 26 countries that have shown “no progress” in reducing MMR based on modelled estimates of MMR. Specifically, in 1990, MMR stood at 152 per 100 000 live births; it was at 114 in 2015 (WHO, 2015).

Poor access to health care among the poorest quintiles is one explanation for the unchanged MMR. Only 40% of mothers from the poorest quintile are delivered by a skilled birth attendant and only 30% deliver in a health facility (Philippine Statistics Authority, 2013).

11.2.2 Risk factors

The leading risk factors that contribute to DALYs include dietary risks, tobacco and high blood pressure (Fig. 11.2). Between 2005 and 2016, high fasting plasma glucose level and high BMI have had the biggest rise as risk factors while malnutrition has had the biggest fall.

Fig. 11.2 Philippines: Top 10 risks contributing to DALYs and percent change, all ages, 2005 and 2016



Source: Institute for Health Metrics and Evaluation, 2018

11.3 The health system

11.3.1 Organization and governance

The Philippine health system is a mix of public and private providers within a market-based system. Public and private health-care facilities exist from the primary to tertiary levels and citizen access to these facilities is determined by individual preferences, geographical location and ability to pay. There are no gatekeepers at the primary level, where citizens can opt to visit traditional healers, public or private clinics and hospitals (*see* Section 11.3.5 – Provision of services). The private sector has 53% of hospital beds (Department of Health – Health Facilities and Services Regulatory Bureau, 2017) accounting for 65% of total health expenditure.

The DoH sets national health policies, health plans and strategies, standards and guidelines for national public health programmes. It licenses all hospitals in the country and also regulates food and pharmaceutical products (Department of Health, 2018). The Professional Regulation Commission (PRC) regulates the practice of health professionals. Both agencies are financed by general appropriations.

PhilHealth administers the national health insurance programme. It is an attached agency of the DoH and is chaired by the Health Secretary. PhilHealth is financed through general appropriations, including sin tax revenues and premium collections.

Prior to 1991, the DoH directly managed most of the country's government hospitals and municipal health centres. The Local Government Code of 1991 transferred the responsibility for managing health services at the provincial, city and municipal levels to the local government units (LGUs). Thereafter, the role of the DoH in local government health services was limited to national policy direction and technical and logistics assistance (Republic of the Philippines, 1991).

The Local Code mandates the creation of local health boards (LHBs) at the provincial, city and municipal levels, which determine local health priorities for local budget allocation. The DoH is represented in all LHBs by designated DoH representatives from the DoH regional offices.

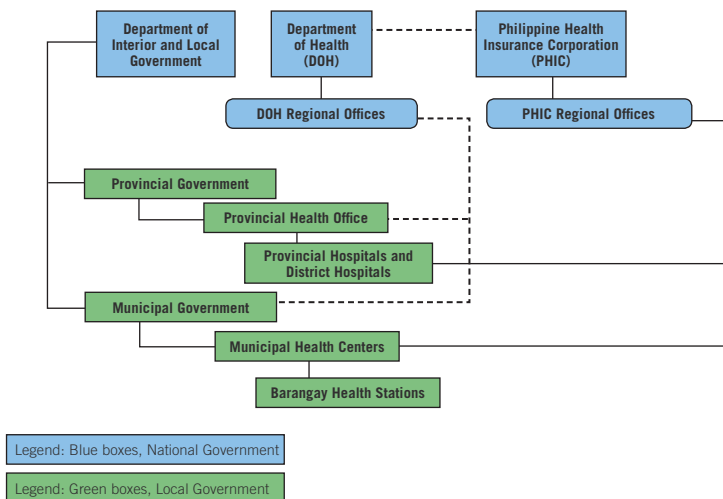
LGU plans and budgets are finalized in regional development councils (RDCs) and consolidated and approved by the National Economic Development Authority (NEDA). These are incorporated in the General Appropriations Act, which is approved by the Legislature and signed into law by the President every fiscal year.

The front-line public health providers are in the municipal health centres in both urban and rural areas. A standard health centre would have at least one physician, two nurses and five midwives. Midwives are rotated in satellite units called *barangay* health stations. The municipal physician (also called municipal health officer or MHO) usually takes charge of outpatient curative services, while the nurses manage the logistics, staff training

and reporting systems. The midwife is the front-line health provider for maternity and child care and works with the village volunteers (also called *barangay* health workers or BHWs) who assist in health education and follow up of patients.

As Fig. 11.3 indicates, the accountabilities of LGUs are complex. As political entities, they are answerable to their local constituents. They are accountable to Department of Interior and Local Government (DILG) for local governance concerns and they report to the DoH for health programme performance. As users of public funds, they are audited by the Commission on Audit (CoA).

Fig. 11.3 Philippines: Schematic diagram of national and local health governance



Source: By the authors

The DoH has functional authority over LGU health units. PhilHealth accredits LGU health facilities and reimburses claims for services rendered to members.

While the DoH has no direct power over LGUs and has to use financial and in-kind incentives as well as moral suasion to secure LGU compliance to

national policies and programmes, it has a regulatory role in licensing LGU health facilities.

11.3.2 Patient-centredness

A 2014 study looked at the level of responsiveness that the Philippines health system has to patients' needs and asked what patients thought of services at their LGUs. While 70% of patients said that their expectations were met in terms of the way they were treated and serviced by the facility personnel, only 56% reported being satisfied with the adequacy of equipment and medicines (Acuin, 2014).

Today, at the local government level, some exemplary mayors make their constituents active partners in health by finding ways to empower them. They provide employment or create income-generating projects and veer away from top-down, dole-out programmes. In these cases, LGUs have become the health leaders envisioned by the local government code (Zuellig Family Foundation, 2018).

11.3.3 Financing

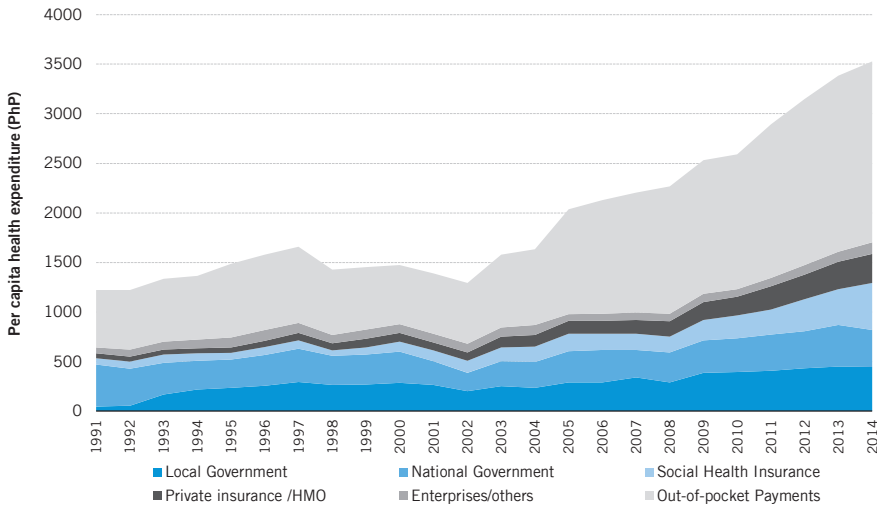
The total health expenditure (THE) was PhP 655 billion⁵ (US\$ 13.2 billion) and constituted 4.5% of the country's GDP in 2016. It grew by 10.5% from the previous year (PhP 593 billion or US\$ 11.7 billion) and reflected dynamism in the health sector and an increasing willingness of Filipinos to pay for health products and services (Philippine Statistics Authority, 2017b). These increases are attributed to the 2012 legislation, which earmarked taxes collected from tobacco sales for PhilHealth premiums (Republic of the Philippines, 2012a).

In 2016, the government contributed 34.2% (PhP 215 billion or US\$ 4.3 billion) to THE – 20% from national and local governments and 14.2% from PhilHealth. But the largest source (54.25%) of THE was OOP payments (PhP 342 billion or US\$ 6.8 billion), which has steadily risen over the years. Voluntary health insurance schemes accounted for 11.6% (PhP 73 billion or US\$ 1.4 billion) (Philippine Statistics Authority, 2017b).

⁵ End of 2016 exchange rate rounded to 1 US\$ = 50 PhP

The average real health expenditure per capita was PhP 4406 (US\$ 87.1 per capita) in 2016 and has risen significantly over the past 25 years (225% from PhP 1219 or US\$ 24.11), outpacing average real GDP growth per capita (Panelo et al., 2017) (Fig.11.4).

Fig. 11.4 Philippines: Per capita health expenditure growth by source (constant 2000 prices), 1991–2014



Source: Panelo et al., 2017

Social health insurance (SHI) accounted for 8.7% of THE in 2005, increasing to 11.5% in 2013 (National Statistical Coordination Board, 2013). Membership in SHI was officially at 91% of the population in 2016 (Philippine Health Insurance Corporation, 2016).

The scope of PhilHealth benefits remains narrow, with inadequate coverage of primary and emergency care. PhilHealth financing is skewed towards curative inpatient care. PhilHealth support value for inpatient care has remained at around 33% (Philippine Statistics Authority, 2017b). This means that on average, only a third to half of hospitalization costs are covered by PhilHealth.

At present, PhilHealth payments account for less than 20% of hospital revenues (Philippine Statistics Authority, 2017b). PhilHealth's inability to

expand benefits is rooted in: (i) collection inefficiency (only 64%, especially among the informal sector); (ii) low premium rates; and (iii) limited capacity to influence the prices of health goods and services.

11.3.4 Physical and human resources

In 2016, inpatient health care was provided by 1224 licensed hospitals nationwide with a total bed capacity of 101 688, which averages to one bed per 1000 population. The government owned 47% of the total beds; 53% were owned by the private sector. NCR, which has 10–12% of the population, accounted for 30% of total beds and 57% of tertiary-level beds (Department of Health - Health Facilities and Services Regulatory Bureau, 2017). Hospitals are licensed according to the level of service capability (Table 11.2).

Table 11.2 Philippines: Classification of general hospitals by service capability

| Hospital services | Level 1 | Level 2 | Level 3 |
|-----------------------------------|--|--|---|
| | Consulting specialists in: | Level 1 plus the following: | Level 2 plus the following: |
| | <ul style="list-style-type: none"> • Medicine, Pediatrics, OB-Gyne, Surgery | <ul style="list-style-type: none"> • Departmentalized clinical services | <ul style="list-style-type: none"> • Teaching training with accredited residency training program in the 4 major clinical services |
| Clinical services for in-patients | <ul style="list-style-type: none"> • Emergency and outpatient services | <ul style="list-style-type: none"> • Respiratory unit | <ul style="list-style-type: none"> • Physical Medicine and Rehabilitation unit |
| | <ul style="list-style-type: none"> • Isolation facilities | <ul style="list-style-type: none"> • General ICU | <ul style="list-style-type: none"> • Ambulatory surgical clinic |
| | <ul style="list-style-type: none"> • Surgical/maternity facilities | <ul style="list-style-type: none"> • High risk pregnancy unit | <ul style="list-style-type: none"> • Dialysis clinic |
| | | <ul style="list-style-type: none"> • NICU | |

Source: Department of Health, 2012a

There is at least one health centre in every municipality in the country. In 2016, outpatient care and public health services were delivered through 2587 municipal health centres and 690 government and private infirmaries (an infirmary is a category below a level 1 hospital).

The 2015 OECD International Migration Outlook ranked Philippines as the first source country for nurses and sixth for doctors (OECD, 2015). For temporary migration, the main destination of Filipino nurses was the Middle Eastern countries, while for permanent migration it was the USA.

The 5-year average annual production of new health professionals is 2700 physicians, 28 000 nurses, 2500 midwives, 4100 medical technologists and 600 dentists (Professional Regulation Commission, 2016). These graduates are mostly products of private schools. Production of health professionals is trending upwards except for nurses, due to the decline in demand for nurses in the US labour market.

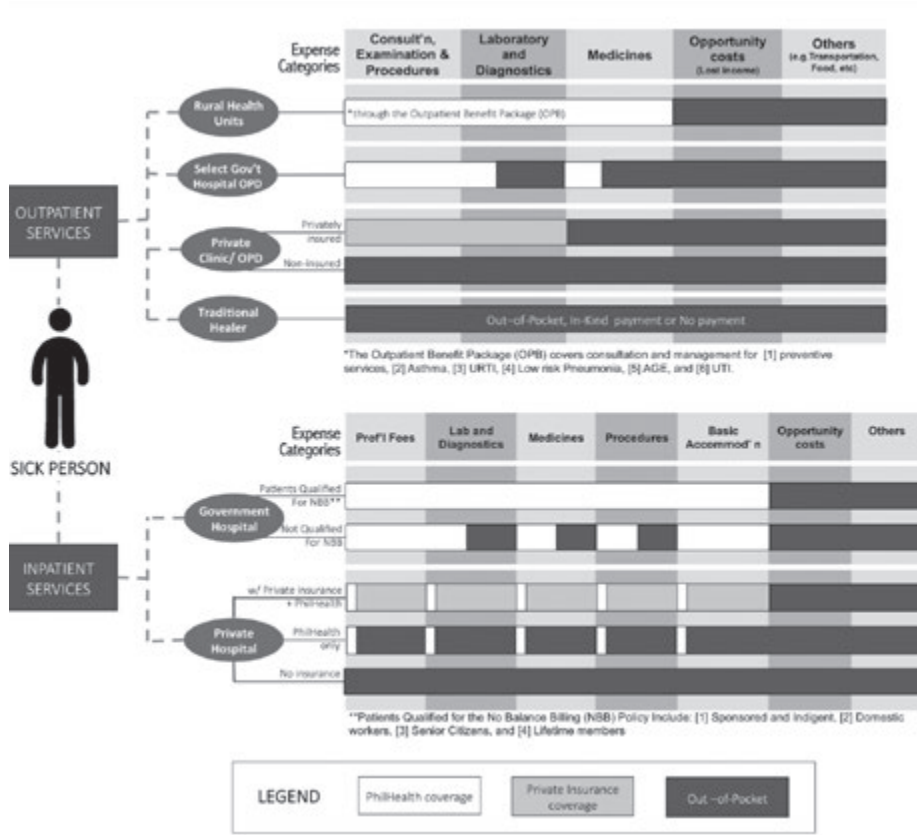
Despite substantial health workforce production, the Philippines has major problems in HRH retention, especially in far-flung areas and GIDA. Three major underlying causes of poor HRH retention are low compensation, difficult working conditions and limited job opportunities in LGUs. The DoH augments the human resources of poor municipalities by deploying doctors, nurses and midwives. For example, in 2017, the department deployed 516 doctors, 17 538 nurses and 4549 midwives to priority areas (Department of Health - Health Human Resource Development Bureau, 2017). A 2012 study revealed that 18% of deployed doctors were absorbed by the LGU after their 2-year tour of duty (Leonardia et al., 2012).

The DoH estimates that in 2017, there were 3.9 physicians per 10 000 population. The composite HRH estimate (physicians, nurses and midwives) was 16.7 per 10 000 population. These figures are an underestimate because small private hospitals and clinics have not been included. Grossly, this ratio seems below the WHO 2030 composite index of 44.5 per 10 000 population, but the figure must be interpreted with caution because of uneven distribution; urban areas having a higher concentration of health personnel.

11.3.5 Provision of services

Fig. 11.5 illustrates the various pathways for a patient to seek health care. Firstly, there are no gatekeepers in the system. A patient can seek outpatient or inpatient care from a variety of health providers. Patients transfer from one health provider to another, for example, from traditional healer to physician and vice versa, or from one facility to another. Many patients may first seek admission in a private hospital and then transfer to a government facility when finances run out.

Fig. 11.5 Philippines: The patient's journey



Source: By the authors

Secondly, OOP payment is the norm, though expenditure may be mitigated by PhilHealth or private insurance. To protect the indigent and elderly from OOP, the no-balance billing (NBB) policy was implemented in public hospitals in 2014 (PhilHealth, 2014). The policy was designed to keep hospital charges to patients within the case rates determined for reimbursements. However, in many instances, inadequate supplies and medicines at public hospitals still forced patients to buy elsewhere, resulting in OOP spending.

Thirdly, medicines are a prominent OOP expenditure, perpetuated by their persistently high prices (especially of branded drugs) and further driven by over-the-counter household purchases of medicines and nutraceuticals.

The prices of medicines are higher in the Philippines as compared to its neighbours. These cost as much as 60 times more than international reference prices, with patients paying at least three times more for branded medicines than for generic equivalents (Batangan et al., 2005; Kanavos et al., 2002; Pabico, 2006). Factors that have created this rise in prices include: (i) predominance of branded drugs driven by aggressive and pervasive marketing; (ii) inefficiency in procurement, largely due to insufficient budgets; (iii) limited enforcement of drug management procedures, audit and oversight mechanisms; and (iv) collusion and corruption at different levels (Wong et al., 2017).

The Philippine Government has enacted legislation to address the high prices of medicines (Republic of the Philippines, 2008) even as it has directly provided medicines to LGUs through PhilHealth packages, e.g. anti-TB medicines and medicines access programmes (MAPs) ,e.g. centrally procured medicines for diabetes, hypertension and HIV/AIDS.

Empowered by the Cheaper Medicines Act of 2008, the DoH has price-capped medicines under the Maximum Drug Retail Prices (MDRP) programme and, in 2016, through the establishment of the Drug Price Reference Index (DPRI). As a result of these measures, the prices of drugs have been reduced by 42.3% for originator medicines and 27% for generic medicines (Sarol, 2014). However, despite these price reductions, medicines are beyond the reach of the poor. In a study of 600 respondents, only 15 (2.5%) could fully afford the medicines they needed, including first-line antibiotics and maintenance medicines for diabetes and hypertension control (Clarete and Llanto, 2017).

Management of NCDs

The NCD programme guidelines issued in 2012 (Department of Health, 2012b) adapted the WHO Package of Essential NCD interventions for the Asia Pacific region. The main strategies include risk scoring and risk reduction through primary prevention (primarily smoking cessation and

lifestyle change) and prevention of organ damage through early treatment of conditions, especially hypertension, diabetes and obesity.

At the national and regional levels, the key activities include the establishment of baseline data on the NCD burden, standardization of health service packages for varying degrees of needs and the institution of indicators for performance and quality of care. In 2015, emphasis was given to active involvement of patients and communities in hypertension and diabetes health clubs. These were organized to distribute maintenance medicines, integrate health messages through peer group influence and sustain health monitoring by a physician.

The Sin Tax Reform Law in 2012 raised excise taxes on tobacco products (Republic of the Philippines, 2012a). The Law doubled the inflation-adjusted price of cigarettes from PhP 336/month in 2009 to PhP 678 in 2015. In 2015, the DoH declared that the increase in cigarette prices had reduced tobacco use among smokers, based on the results of the Global Adult Tobacco Survey (GATS), which showed that the prevalence of tobacco use had decreased from 29.7% in 2009 to 23.8% in 2015. The Survey also showed an increase in the percentage of smokers who intended to quit from 60.4% in 2009 to 76.7% in 2015 (Philippine Statistics Authority, 2015).

Management of communicable diseases

The Sanitation Code defines the preventive measures for communicable diseases to be implemented by LGUs (Republic of the Philippines, 1991). A national disease surveillance system tracks communicable diseases such as measles, dengue, diarrhoea, malaria, HIV/AIDS and MDR-TB. Early detection and control of outbreaks are undertaken by trained field epidemiologists (Department of Health – Epidemiology Bureau, 2018).

TB patients are treated in DOTS centres, which are managed by the LGU, the private sector or the DoH. Standard medication packs for specific types of patients are provided by the DoH. MDR-TB cases are given a special regimen. TB-DOTS centres are dependent on the DoH for anti-TB medicines and laboratory supplies. Laboratory-based surveillance of resistance to anti-TB drugs and other antimicrobials is ongoing in sentinel hospitals.

In 2016, the government budgeted PhP 1.0 billion for anti-TB medicines, which were provided to municipal health centres (Department of Budget and Management, 2016). This allocation is separate from PhilHealth reimbursements for the TB-DOTS package, which amounted to PhP 101.59 million in 2015 (PhilHealth, 2015).

A rising trend in intravenous drug use and unprotected sex among MSM were identified as factors that increase HIV infections. HIV treatment centres have now been established in all regions, but many HIV-positive patients are lost to follow up (Department of Health – Epidemiology Bureau, 2018).

The Philippines has a high prevalence of dengue. Effective vector control has not been achieved. A vaccine against dengue was introduced in 2015, but its use became controversial when critics questioned the manufacturer's claims of vaccine safety and the government procurement process (CNN Philippines, 2018).

Management of maternal and child health

The quality of and access to MCH services vary for different economic quintiles. A mother or child in the lowest quintile would go to the municipal health centre or a satellite *barangay* health station for basic primary immunization, and prenatal, natal and postnatal services, family planning and sick consultations. They may also get selected preventive services during mass campaigns such as twice-a-year deworming, micronutrient supplementation in nursery and elementary schools and “congresses for pregnant women”. Mothers and children in higher economic quintiles go private paediatricians and obstetricians for individualized health care.

Community food distribution projects and mobile medical consultation clinics are provided by many LGUs. Public MCH services are affected by the availability of supplies and equipment, the skill and attitude of the public health workers, and the changing priorities of political leaders.

Birthing services for uncomplicated births are available in licensed, freestanding birthing facilities and in hospitals, both public and private.

However, in far-flung communities, these services continue to be provided at home by a traditional birth attendant or a professional midwife. Emergency obstetric services are generally available at all levels of licensed hospitals.

The Responsible Parenthood and Reproductive Health Law, which was passed in 2012, enjoins local governments to provide modern family planning methods (Republic of the Philippines, 2012b).

11.4 Performance of the health system

11.4.1 Effectiveness and quality

Health outcomes are generally improving, and several infectious diseases have been eradicated or eliminated (polio, neonatal tetanus) or contained in certain provinces (malaria), although some have re-emerged (schistosomiasis, filariasis) (Dayrit et al., 2018). However, the quality of health services across geographical areas and levels of care remains uneven. The study on Health Access and Quality (HAQ 2015) ranked the Philippines among countries that did not reach their maximum HAQ potential⁶ (Barber et al., 2017). The following are some reasons for non-achievement of maximum HAQ potential. One, despite high skilled birth attendance and “acceptable general midwifery care”, current levels of maternal and neonatal deaths remain high. Second, although infant and child mortality have been declining, preventive child care services have also declined (e.g. exclusive breastfeeding, full basic infant immunization). Patient health-care factors that have not yet been included in the current HAQ scoring also need attention. HIV prevention has not been effective. Neither has vector control of emerging diseases such as dengue been sustained. Also, death and disability from accidents and trauma need to be prevented and injuries adequately treated.

Nationally implemented standards for the quality of health facilities are determined separately by licensing standards issued by the DoH and accreditation requirements provided by PhilHealth. DoH licensing

⁶ The Healthcare Access and Quality Index is a 0 to 100 scale that quantifies levels of personal access and quality of health-care service delivery in 195 countries and territories across the globe.

standards are largely inputs-oriented (e.g. presence of certain equipment, presence of specialists) and are more comprehensive for hospitals, ambulatory and lying-in clinics but do not exist for municipal health centres. Standards for primary facilities are mainly set by PhilHealth but are designed for specific disease packages.

Concomitantly, the pursuit of higher professional qualifications, i.e. medical specialty training, is better organized for hospital-based practice than for primary care practice. This situation translates to a skewed preference of the public for hospital-based care even for primary-level concerns.

Improving the quality of health services requires efforts on several fronts. In 2010–2011, a DoH programme costing US\$ 325 million to improve the facilities of hospitals was coupled with an initiative to reassign human resources from central and regional offices to DoH hospitals. This supply-side initiative improved the utilization of public facilities by two to three times more than before the change (Picazo et al., 2016).

11.4.2 Accessibility

While populations in urban and rural areas now have good access to water and sanitation (Philippine Statistics Authority, 2017a), major barriers remain for many health services. These barriers are geographical and financial factors as well as cultural and religious influences. For example, while immunization is mandatory and vaccines are available for all infants, the national average for full basic infant immunization is only 70%, with the Autonomous Region of Muslim Mindanao (ARMM) achieving a very low 18% immunization coverage (Philippine Statistics Authority and ICF International, 2018). Vaccine stock-outs and limited mobility of midwives who have been reassigned to birthing facilities have been identified among the factors for the declining immunization performance.

Family planning information and commodities are available to all and awareness of family planning methods is 98%, but only 40% of currently married women actually utilize modern methods of contraception. Fear of side-effects remains the main barrier to utilization (Philippine Statistics Authority and ICF International, 2018).

Tertiary-care hospitals exist in all administrative regions, and government and private hospitals are found in major towns and cities, but the fear of OOP expenditure delays or denies needed health care.

11.4.3 Resilience

The Philippine Disaster Risk Reduction and Management (DRRM) Act of 2010 (Republic of the Philippines, 2010) establishes councils at the regional, provincial, municipal and *barangay* (village) levels. The law increases the emphasis on reducing disaster risks at the local level and adapting to the challenges of climate change through efforts such as communitywide vector control and sustainable water supply. This Act affords legal infrastructure for multisector collaboration in disaster prevention and preparedness. The DoH plays a major role in prepositioning drugs, medicines and other supplies in strategic locations, and providing trained HRH to respond to emergencies.

In the aftermath of Typhoon Haiyan, local and regional capacities of affected areas were extremely overwhelmed, but the activation of multisectoral, regional and national responses facilitated the immediate revival of local health systems (Lewis, Clarke and Bigdeli, 2016).

The health system performed well in public health emergencies such as the 2003 SARS outbreak (WHO Western Pacific Region, 2006) and the 2017 avian flu outbreak, largely due to existing surveillance and epidemic control systems. Lessons learnt led to improved hospital isolation facilities.

11.5 Conclusions

The health profile of the country reflects the rapid socioeconomic development and modern lifestyle, which has impacted its urban centres but has left behind a large proportion of the population still immersed in poverty in underdeveloped agricultural, upland and coastal areas, as well as in poor and crowded informal settlements in the cities.

In its quest to achieve UHC and the SDGs, the Philippines must address four key challenges.

First, it must improve the quality of services at all levels of its health system. This improvement is particularly demanded at the primary level, which is often bypassed by Filipino patients in favour of secondary and tertiary hospitals. As a result, there is much congestion in hospitals and a higher cost of care. Attention must be paid to the improvement of personal health-care services in view of the different contexts of clinical practice, from rural community-level primary care to the sophisticated highly urban tertiary hospital situation. Clinical guidelines will need to be appropriately nuanced to be relevant to specific situations.

Similarly, scrutiny of the quality of population-based services must be regularly undertaken to ensure that all requirements are met for operational efficiency and effectiveness, including the right policies, human resources, infrastructure, monitoring and evaluation. Improving quality means building on the foundations of effective health services (Das et al., 2018), being more responsive to patients and their families, and allowing for participation and feedback to continuously improve services. Systems for accreditation for continuous quality improvement will need to be maintained.

With regard to the HAQ Index, the components that pulled down the overall Philippine score would need to be addressed; namely, the quality care of patients with TB, lower respiratory tract infections, neonatal disorders, leukaemia, cardiovascular diseases, hypertensive heart disease, peptic ulcer, chronic kidney disease and congenital heart disease.

Secondly, the Philippines must ensure equitable access and inclusiveness of health services. For the poorest of the poor who have already been identified in the NHTS-PR and are considered members of PhilHealth, adequate education about their entitlements as well as guidance on the utilization of health services must be guaranteed. The same goes for those in GIDA where physical remoteness is a formidable barrier to health care. Serving vulnerable populations such as persons with disabilities and indigenous people will require innovative approaches to fulfil their special needs.

Therefore, strengthening the capacity of local governments, not only as health service providers but also as enablers for development, will be strategic. Twenty-seven years after the public health services were devolved, exemplars for excellent public health governance have emerged from among the young generation of mayors and governors who have improved health outcomes in their political jurisdictions through better leadership and innovative approaches (Zuellig Family Foundation, 2018).

Thirdly, the Philippines must address its rising OOP payments. Rising OOP expenditure alongside rising SHI coverage is a pattern shown by LMICs whose OOP expenditures average 52% of THE. It is said that with sustained economic growth, robust government expenditure on health and adept handling of risk pools, OOP expenditure can fall in what has been called the “health financing transition”. Developed countries underwent this transition as they became more affluent and addressed the social determinants of health (Fan and Savedoff, 2014).

Achieving the health financing transition is neither automatic nor inevitable. Reducing OOP in the Philippines will require a multitude of interventions, including effective prevention of illness and mortality at the primary level; expansion of PhilHealth benefits prioritizing effective interventions and preventive services; maintenance of government expenditure on health at the WHO-recommended level of 5%; mobilization of additional financial resources for health; and consolidation of health resources with one national strategic purchaser able to demand better quality and lower costs of health commodities and services.

Finally, the Philippines must find ways to synergize the activities of its public and private sectors. Unity in the pursuit of UHC is paramount, and societal norms for genuine service have to be upheld. Can the government contract out preventive and curative health-care provision of provinces or municipalities to private providers at costs that are non-inflationary but still profitable for the private provider? Can the government and private sectors devise new models of care in GIDA areas? Can the cogent use of e-health technology open new horizons for innovation?

The Philippines lies at the threshold of UHC. By learning from the successes and failures of the past 50 years, capitalizing on its growing economy and its vibrant millennial generation, the Philippines must seize the opportunity to truly transform its health system and ensure the health of all its citizens.

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