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The Philippines Health System Review



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The Philippines Health System Review

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Preface

The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of a health system, and of reform and policy initiatives in progress or under development in a specific country. Each profile is produced by country experts in collaboration with two international editors. To facilitate comparisons between countries, the profiles are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a profile.

A HiT profile seeks to provide relevant information to support policy-makers and analysts in the development of health systems. This can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services, and the role of the main actors involved in health systems;
- to describe the institutional framework, process, content and implementation of health-care reform programmes;
- to highlight challenges and areas that require more in-depth analysis;
- to provide a tool for the dissemination of information on health systems and the exchange of experiences between policy-makers and analysts in different countries implementing reform strategies; and
- to assist other researchers in more in-depth comparative health policy analysis.

Compiling the profiles poses a number of methodological issues. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services is based on a number of different sources, including the World Health Organization (WHO), national statistical offices, the Organisation for Economic Co-operation and Development (OECD) health data, the International Monetary Fund (IMF), the World Bank, and any other sources considered useful by the

authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate series.

The HiT profiles can be used to inform policy-makers about the experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analyses of health systems. This series is an ongoing initiative, and the material will be updated at regular intervals.

Comments and suggestions for further development and improvement of the HiT series are most welcome and can be sent to apobservatory@who.int. HiT profiles and HiT summaries for countries in Asia Pacific are available on the Observatory's website at www.healthobservatory.asia or http://www.searo.who.int/asia_pacific_observatory/en/.

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Acronyms and abbreviations

ADR	adverse drug reaction
AE	adverse event
AHMOPI	Association of Health Maintenance Organizations of the Philippines, Inc
AIDS	acquired immune deficiency syndrome
AMI	acute myocardial infarction
AMR	antimicrobial resistance
ANC	antenatal care
APIS	Annual Poverty Indicator Survey
ARMM	Autonomous Region of Muslim Mindanao
ASEAN	Association of Southeast Asian Nations
BEmONC	basic emergency obstetric and neonatal/newborn care
BFAD	Bureau of Food and Drugs
BHS	barangay (village) health station
BLA	bilateral labour agreement
CALABARZON	Cavite, Laguna, Batangas, Rizal and Quezon
CAR	Cordillera Autonomous Region
CCT	conditional cash transfer
CEmONC	comprehensive emergency obstetric and neonatal/ newborn care
CHED	Commission on Higher Education
CHT	community health team
CIPH	Citywide Investment Plan for Health
CON	certificate of need
COPD	chronic obstructive pulmonary disease
CPG	clinical practice guideline
CPR	certificate of product registration
CSO	civil society organization
CT	computed tomography
DALY	disability-adjusted life year
DBM	Department of Budget and Management

DepEd	Department of Education
DHS	Demographic and Health Survey
DILG	Department of the Interior and Local Government
DND	Department of National Defense
DOH	Department of Health
DOH EA	DOH Enterprise Architecture
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DOTS	directly observed treatment, short course
DPRI	Drug Price Reference Index
DPT	diphtheria, pertussis, tetanus
DRG	diagnosis-related group
DRRM	disaster risk reduction and management
DSWD	Department of Social Welfare and Development
EML	essential medicines list
EPI	Expanded Program on Immunization
FCTC	Framework Convention on Tobacco Control
FDA	Food and Drug Administration
FETP	Field Epidemiology Training Program
FHS	Family Health Survey
FHSIS	Field Health Service Information System
FIES	Family Income and Expenditure Survey
FNRI	Food and Nutrition Research Institute
GAA	General Appropriations Act
GDP	gross domestic product
GHO	Global Health Observatory
GSK	GlaxoSmithKline
Hep-B	hepatitis B
HFDB	Health Facility Development Bureau
HFEP	Health Facilities Enhancement Program
HFSRB	Health Facilities and Services Regulatory Bureau
HHRDB	Health Human Resource Development Bureau
HiT	Health Systems in Transition
HIV	human immunodeficiency virus
HMO	health maintenance organization
HOMIS	Hospital Operations and Management Information System

HRH	human resources for health
HSRA	Health Sector Reform Agenda
HTA	health technology assessment
IAC-Tobacco	Inter-Agency Committee on Tobacco
IC	Insurance Commission
ICC	Investment Coordination Committee
iClinicSys	Integrated Clinic Information System
ICT	information and communication technology
iHOMIS	Integrated Hospital Operations and Management Information System
ILHZ	inter-local health zone
IMCI	Integrated Management of Childhood Illnesses
IMF	International Monetary Fund
IMR	infant mortality rate
IP	Indigenous Peoples
IT	information technology
KMITS	Knowledge Management and Information Technology Service
KP	<i>Kalusugan Pangkalahatan</i>
LGU	local government unit
LIPH	Local Investment Plan for Health
LTO	licence to operate
M&E	monitoring and evaluation
MCH	maternal and child health
MCV	measles-containing vaccine
MD	Doctor of Medicine
MDGs	Millennium Development Goals
MDR	multidrug resistant
MIS	management information system
MMR	maternal mortality ratio
MoA	memorandum of agreement
MOOE	maintenance and other operating expenditure
MORPH	mobility, orthosis, rehabilitation and prosthesis help
MoU	memorandum of understanding
MRI	magnetic resonance imaging
MRP	maximum retail price
MSM	men who have sex with men

NCD	noncommunicable disease
NCPAM	National Center for Pharmaceutical Access and Management
NCR	National Capital Region
NDHRHIS	National Database on Human Resources for Health Information System
NDHS	National Demographic and Health Survey
NEDA	National Economic and Development Authority
NGO	nongovernmental organization
NHA	National Health Accounts
NHIA	National Health Insurance Act
NHIF	National Health Insurance Fund
NHIP	National Health Insurance Program
NHTS-PR	National Household Targeting System for Poverty Reduction
NMEDS	National Monitoring and Evaluation Dental Survey
NMR	neonatal mortality rate
NNC	National Nutrition Council
NNS	National Nutrition Survey
NOH	National Objectives for Health
NPRD	National PhilHealth Registration Day
NRL	national reference laboratory
NSO	National Statistics Office
NTPS	National TB Prevalence Survey
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
OFW	overseas Filipino worker
ONEISS	Online National Electronic Injury Surveillance System
OOP	out of pocket
PAGASA	Philippine Atmospheric Geophysical and Astronomical Services Administration
PAGCOR	Philippine Amusement and Gaming Corporation
PCB	primary care benefit
PCP	Philippine College of Physicians
PCSO	Philippine Charity Sweepstakes Office
PHAP	Philippine Healthcare Association of the Philippines

PHC	primary health care
PHDP	Philippine Hospital Development Plan
PHI	private health insurance
PHIE	Philippine Health Information Exchange
PHIC/PhilHealth	Philippine Health Insurance Corporation
PIPH	Provincewide Investment Plan for Health
PMCC	Philippine Medical Care Commission
PNFS	Philippine National Formulary System
POPCEN	Census of Population and Housing
PPMD	public–private mix DOTS
PPP	public–private partnership
PPP	purchasing power parity
PRC	Professional Regulation Commission
PSA	Philippine Statistics Authority
QAP	quality assurance programme
RH	reproductive health
RHU	rural health unit
SARA	service availability and readiness assessment
SBA	skilled birth attendant
SDGs	Sustainable Development Goals
SDN	service delivery network
SHI	social health insurance
SPEED	Surveillance Post Extreme Emergencies and Disaster
T&CM	traditional and complementary medicine
TB	tuberculosis
TEPHINET	Training Programs in Epidemiology and Public Health Interventions Network
THE	total health expenditure
UHC	universal health care/coverage
VAT	value added tax
VPD	vaccine-preventable disease
WHO	World Health Organization

Abstract

The topic of health has become increasingly more important over the past few decades in the Philippines. The country has implemented several rounds of reform to strengthen its health system. Philippines adopted decentralized health governance in 1991, introduced a social health insurance programme – PhilHealth – in 1995, and has actively pursued universal health coverage since 2010. As a consequence of its focus on the health sector and general socioeconomic development, Philippines has achieved significant improvements in life expectancy and immunization coverage, as well as a twofold reduction in infant and under-5 mortality.

Although much has been achieved to date, there are still many concerns in the health sector that need to be tackled. These include a reduction in the prevalence of tuberculosis and childhood pneumonia, as well as managing the rising tide of noncommunicable diseases and further strengthening the preparation and response capacity to natural and human-induced disasters.

There have been widespread efforts to improve health service delivery in the country, but regional and socioeconomic disparities in the availability and accessibility of resources are prominent. There is maldistribution of infrastructure and human resources across and within regions, which are concentrated in Metro Manila and other major cities. Philippines is a major exporter of health-care professionals but finds it challenging to ensure adequate availability within the country.

Utilization of the health budget has improved over the years, but governance and implementation challenges persist due to the fragmented nature of the system. The country has a mixed health system with an expanding private sector. There is no effective mechanism to regulate private for-profit health-care providers. More than 50% of the total health spending is out of pocket. Coverage by the Philippine Health Insurance Corporation (PhilHealth) has increased over the years, but not all the eligible members are aware of the benefits of the programme. There is no effective mechanism in place to monitor the accreditation of facilities, and regulate the cost and quality of services.

To overcome some of these challenges, the Department of Health (DOH) and PhilHealth are pushing the development of functional Service Delivery Networks (SDNs) using both government and private sector institutions. Simultaneously, there will be a concerted effort to regulate and accredit all providers as well as ensure that end-users understand the benefits that they are entitled to.

Executive summary

Background

The Philippines is an archipelago in the South-East Asia Region, with a population of 104.9 million as of 2017. It is the thirteenth most populous country in the world. The majority of Filipinos are Christian Malays (92.2%), with Roman Catholics constituting 87.4% of the Christian population. Muslim minority groups, comprising 5.6%, are concentrated in Mindanao. The country has an adult literacy rate of 96.5%. The Philippines is currently one of Asia's fastest growing economies with a gross domestic product growth of 6.7% at the end of 2017. Categorized as a newly industrialized country, it is transitioning from one based on agriculture to one based more on services and manufacturing.

Filipinos tend to live longer now than in previous decades, with life expectancy at birth increasing from 62.2 years in 1980 to 69.1 years in 2016. This is attributed mainly to improvements in living conditions, better access to health services, and improved management and treatment of infectious diseases like pneumonia and tuberculosis (TB). However, Filipinos now bear a triple burden of disease. First, there is the increasing health impact of globalization and escalating climate change, with the Philippines ranking third in the world in terms of exposure to disaster risks due to strong typhoons occurring with high regularity. Second, changes in lifestyle and the increasing prevalence of risk factors related to diet, tobacco smoke and high systolic blood pressure contribute to a rising incidence of diseases of the cardiovascular system, malignant neoplasms, diabetes and road traffic accidents, which are cases of noncommunicable diseases (NCDs) in the country. Third, despite advances in the management and treatment of infectious diseases, many Filipinos continue to suffer from diseases for which effective interventions are available. These include human immunodeficiency virus (HIV) infection, TB and vaccine-preventable diseases (VPDs) such as measles and diphtheria.

Health service delivery

Health is a basic human right guaranteed by the Philippine Constitution of 1987. This is provided in the Philippines through a dual health delivery system composed of the public sector and the private sector. The public sector is largely financed through a tax-based budgeting system, where health services are delivered by government facilities under the national and local governments. The Department of Health (DOH) supervises the government corporate hospitals, specialty and regional hospitals, while the Department of National Defense runs the military hospitals. At the local level, the provincial governments manage and operate district and provincial hospitals, while municipal governments provide primary care, including preventive and promotive health services and other public health programmes through the rural health units, health centres and barangay health stations. Highly urbanized and independent cities provide both hospital services and primary care services. The private sector, consisting of for-profit and non-profit health-care providers, is largely market oriented, where health care is generally paid for through user fees at the point of service. The introduction of social health insurance administered by the Philippine Health Insurance Corporation (PhilHealth) since 1995 aimed to provide financial risk protection for the Filipino people. The rapid expansion of its membership in the past 5 years is considered a positive development as the Government pursues universal health coverage.

In terms of physical infrastructure, the Philippine health sector has 1224 hospitals, 2587 city/rural health centres and 20 216 village health stations (2016 figures). Sixty-four per cent of hospitals are Level 1 non-departmental hospitals with an average capacity of 41 beds, and 10% are Level 3 medical centres and teaching hospitals, with an average capacity of 318 beds. The private sector's share of total hospital beds increased from 46% in 2003 to 53% in 2016. The geographical distribution of these resources varies within the country. Almost two thirds of hospital beds are in the island of Luzon, which includes the National Capital Region (NCR). There are 23 hospital beds for 10 000 people in the NCR while the rest of Luzon, Visayas and Mindanao have only 8.2, 7.8 and 8.3 beds, respectively. Operating indicators vary between public and private hospitals. The average bed occupancy rate of public medical centres is significantly higher than for private hospitals. On average, patients stay about two days longer in public than in private medical centres.

In terms of human resources for health, the top four cadres of institution-based health workers are nurses (90 308), doctors (40 775), midwives (43 044) and medical technologists (13 413) (2017 figures). The public sector engages a higher proportion of nurses (61%), midwives (91%) and medical technologists (53%). There are also marked differences in the number of institution-employed health workers available to serve area populations. The density of nurses per 10 000 population is highest in the NCR at 12.6 and lowest in the ARMM at 4.2. The first point of contact for government-provided health services is the health centre and its satellite village health station(s), which typically employs an average of one doctor, two nurses and five midwives. Data constraints limit country comparisons and historical trend analysis. However, recent reforms in the use of routine surveys and online data entry of physical and human resources are expected to provide regular quality data.

Health financing

Total health expenditure (THE) has consistently increased since 2005 and compares well with neighbours like Indonesia. Government health expenditure has increased significantly in nominal terms, but it has been eclipsed by private sector funding sources, which have grown rapidly with the economy. Much of THE is for personal care, although the Government has raised spending on public health since 2007. The three major flows of public health financing have overlapping coverage. The DOH funds regional and apex hospitals, while local government units (LGUs) fund primary- and secondary-level care. PhilHealth reimburses government as well as private health facilities. It reportedly covers 92% of the population, 40% of which is the poor population and subsidized by the Government for premium payments. Covered services are focused on inpatient care and inadequate outpatient care that only covers the poor members of PhilHealth. Financial protection is limited, resulting in a high level of household out-of-pocket (OOP) payment. Despite efforts to reform the provider payment system to increase financial protection, the share of facilities' bill covered by PhilHealth is on average 30% and has not gone beyond 52%.

PhilHealth cannot yet be considered a strategic purchaser of services, mainly because it accounts for a small share of THE while OOP spending continues to be the dominant source of financing for health care. While PhilHealth has shifted its payment system from fee-for-service to case rates, first testing the system with high-volume claims in 2011 and fully implementing the payment system in 2013, this reform has not resulted

in technical efficiency, much less financial protection. These case rates are supposed to impose a hard budget constraint to the health provider for a given case type, incentivizing the health provider to ensure that average costs per case fall below the case rate. However, this does not happen because health facilities can set their own service charges and then bill the patient whatever share of the service charge is not covered by the PhilHealth case rate. Thus, providers face almost zero financial risk and have very little motivation to provide care more efficiently. The implementation of case rate payment is different for poor patients as they are covered by the policy of no-balance billing, i.e. zero co-payment and 100% of facility bill covered by PhilHealth when they are admitted in government health facilities. The plan to further reform provider payment by adopting the diagnosis-related group system is again expected to achieve efficiency. Voluntary private health insurance is a minor source of funding, but provides supplemental insurance to non-poor households.

Health governance and regulation

As the national technical authority on health, the DOH provides national policy direction and strategic plans, regulatory services, standards and guidelines for health, and highly specialized and specific tertiary-level hospital services. It provides leadership, technical assistance, capacity-building, linkages and coordination with other national government agencies, LGUs and private entities in implementing health policies. The LGUs, i.e. provincial, city and municipal governments, on the other hand, are responsible for managing and implementing local health programmes and services. A local health board chaired by the local chief executive (governor or mayor) serves as an advisory body to the local chief executives and the local legislative council members (*sanggunian*) on the local health system, while the DOH Regional Health Office is represented by either a DOH representative or Development Management Officer under the DOH Provincial Health Team. In Mindanao, a distinct subnational entity called the Autonomous Region in Muslim Mindanao (ARMM) was created by Republic Act No. 6734, as amended by Republic Act No. 9054. ARMM consists of five provinces and has its own regional Department of Health that is directly responsible to the ARMM Regional Governor. It directly administers the provincial, city and municipal health offices, and the provincial and district hospitals within the autonomous region.

Key health reforms are articulated (or sometimes renamed) in every administration. The most recent one is *Kalusugan Pangkalahatan* (KP), the country's Universal Health Care (UHC) policy initiated in 2010. Through KP, the Government continued the health reform efforts through three key strategies: achieving universal and sustainable PhilHealth membership, upgrading and modernizing government health facilities through the Health Facilities Enhancement Program and fortifying efforts to achieve the Millennium Development Goal (MDG) targets. The implementation of KP became a Presidential priority, aided by the Sin Tax Law in 2012, the Reproductive Health Law in 2012 and the amendment of the National Health Insurance Law in 2013. The Sin Tax Law raised and simplified tobacco and alcohol excises, increased government revenues and provided the impetus to reduce smoking among Filipinos.

KP resulted in providing PhilHealth coverage of 92%, upgrading and construction of 4920 local health facilities and improving an additional 4000 LGU facilities, which is under way. These capital investments are complemented with deployment of 23 800 health professionals and mobilization of 51 594 community health teams. Moreover, National Government hospitals were upgraded, and critical equipment and health commodities were distributed to LGUs. Preliminary assessment of these investments showed increased health service coverage, including facility-based deliveries and utilization of outpatient and inpatient care. However, these gains were not produced early enough to contribute to attaining several MDG targets in 2015. The DOH has also undertaken strategies to continue its support to LGUs through subsidizing PhilHealth premiums for poor families, constructing and upgrading new health facilities, deploying doctors, nurses and midwives to poor and underserved communities, and procuring and distributing commodities including vaccines, TB medicines, insecticide-impregnated bednets and other medicines.

The Insurance Commission (IC) under the Department of Finance regulates and supervises the operations of private insurance companies, including health insurance and pre-need companies as well as mutual benefit associations. Since 2015, health maintenance organizations (HMOs) are also regulated by the IC. PhilHealth is exempted and is regulated through a Board of Directors, chaired by the Secretary of Health. The DOH is in charge of licensing hospitals, laboratories and other health facilities through the Health Facilities and Service Regulatory Bureau (HFSRB) and health products through the Food and Drug Administration (FDA). Any health facility that is accredited by DOH Regional Offices is automatically accredited by PhilHealth.

Health system performance

The national objectives for health (NOH) have well-specified targets, but progress of local governments towards these targets remains highly uneven due to devolved health financing and service delivery. While PhilHealth membership coverage has expanded, its benefit coverage remains mainly for inpatient care and it provides only limited financial support. Access remains highly inequitable due to the maldistribution of facilities, health staff and specialists. While deployment programmes are easing these problems somewhat, these strategies result in monitoring and sustainability problems. Patient satisfaction and user experience of health services may show improvements, but balance billing, i.e. service charges set by the hospital, which are not covered by PhilHealth case rate payment, are billed to the patient and outside-hospital purchases continue to impoverish patients. The limited number of health facilities relative to the growing population, overprovision of physicians, underprovision of care and poor physician adherence to clinical practice guidelines contribute to a low quality of care.

Lessons learnt from health system reforms

The Government's aspirations to improve health outcomes, provide protection from the impoverishing effects of increasing cost of care and ensure responsiveness of the health system to the population's health needs were embodied in several iterations of its health reform policies. The DOH was successful in generating political and financial support to pursue KP and in legislating various policy proposals, most notably the Sin Tax Law and the Reproductive Health Law.

However, strong political support and wider fiscal space do not automatically impact on health system performance, as there is lack of institutional capacity to translate policy into effective programme implementation, monitoring and evaluation. For instance, while PhilHealth's membership coverage has expanded and its payment mechanism has improved, PhilHealth's strategic purchasing has yet to assure its members of affordable, comprehensive and quality health care. Meanwhile, despite the DOH's investments to construct and upgrade local health facilities and deploy critical health staff, access remains highly inequitable due to the maldistribution of health facilities, health personnel and specialists. With increased financial resources for health, overlapping areas in financing and delivering health services occur, as in the case of maternal and child health care and TB management.

Meanwhile, addressing critical health needs such as the rise in NCDs, including mental and oral health, remain inadequately funded.

Governance reforms compelled by key legislations have visibly improved specific facilities and programmes. These legislations include the Sin Tax Law and the National Health Insurance Act of 2013 that raised and allocated more resources for health, the Reproductive Health Law of 2012 that guarantees universal and free access to the most modern contraceptives for all Filipinos, and the Philippine Disaster Risk Reduction and Management Act of 2012 that ensures engagement of all stakeholders in pursuing a holistic, comprehensive and integrated approach to reducing the socioeconomic and environmental impacts of disasters.

At the LGU and health facility level, progressive local government leaders and hospital managers direct governance reforms to expand services and improve the sustainability of operating Government health facilities, regardless of the public hospital's governance structure, i.e. autonomous or otherwise. Reforms were achieved by expanding internally generated (non-budgetary) funds, initially through patient fees and increasingly through PhilHealth payments. Thus, basic institutional and legislative frameworks to implement governance reforms are not enough. Inertia, lack of scale in implementing reforms, and cautious or tentative leadership can hamper efforts to improve and sustain the improvements in governance, financing and delivery of care.

In mitigating the impact of disasters, using appropriate messages best understood by the population in a timely manner can save lives. During Typhoon Yolanda (Haiyan), if the disaster warning had been translated to a local language to convey the gravity of the impending disaster, it could have saved more lives. Thus, the Government's investments and initiatives to generate timely information must also incorporate effective messaging directed to the affected population.

Remaining challenges

Health outcomes are generally improving, but the stagnant maternal mortality ratio and neonatal mortality rate, and the sluggish rate of improvement in health outcomes compared to neighbouring countries, are worrisome. Many Filipinos suffer from diseases that are preventable and treatable with cost-effective interventions. These include HIV, TB, dengue and VPDs such as measles and diphtheria.

Addressing health system inefficiencies and health inequities due to disorganized governance, fragmented health financing, and devolved and pluralistic service delivery remain critical challenges to the Philippine health system. For instance, PhilHealth, DOH and LGU health facilities are spending on the same maternal and child health services while the growing cases of NCDs, including the emergency care these conditions often require, are inadequately funded and poorly prioritized. Parallel funding by three sources (DOH, PhilHealth and LGU) and lack of demarcation and harmonization in premium-funded benefits versus tax-funded services are the primary reasons for confusion and inefficiencies in Philippine health-care financing. Additionally, engaging the private sector in delivering health care in the UHC context requires strong regulatory capacity, not only by using command and control mechanisms but also by leveraging financing incentives. The impact of these strategies has, however, yet to be developed and harnessed.

Meanwhile, the absence of a facilitated referral system robs the patient of the opportunity to navigate the health system effectively – from identifying the appropriate health-care provider, to getting advice on needed medical tests or procedures and referral back from hospitals to primary care for continued health care. Such a referral system can cut short waiting times, lead to timely care, prevent duplication of diagnostic tests and procedures, and even improve the course of treatment. Patients often bypass the first (primary care) level to seek care in hospitals, as there is no effective referral system or gatekeeping at the primary care level, which also contributes to inefficiencies and increasing cost of care. For instance, patients with easily treatable conditions like simple pneumonia bypass the primary care level and are admitted to hospitals by being up-coded. Investments in health infrastructure and human resources must also be continued and sustained to narrow the gap in utilization of health services between urban and rural areas. As the DOH has intended, the upgraded local health facilities should get PhilHealth accreditation, and income from PhilHealth should be retained to sustain the operations of health facilities, especially in isolated and hard-to-reach areas.

Another set of challenges lies in implementing the National Health Insurance Program to provide financial risk protection and leverage its payments to ensure quality and responsive health care. The different membership contribution rates of PhilHealth engender inequities. While the PhilHealth premium for formal sector employees is set to not exceed 3% of the salary, the low ceiling on contributions (PHP 50 000

since 2013) means that those in the upper salary bracket contribute proportionately less than what they can afford. Moreover, the contribution ceiling is not adjusted for inflation, implying that progressivity diminished when inflation was taken into account. Meanwhile, the benefit package covered by PhilHealth remains inadequate and does not respond to the changing health needs of the population. The provision of primary and palliative care, including dental health and mental health among others, has lagged, particularly in remote areas. This leaves room for private practitioners to fill the gap in access, but at prices beyond the reach of the masses, resulting in catastrophic spending when care is sought.

Engaging the public in improving transparency and accountability in the budgeting, planning, implementation, monitoring and evaluation of Government programmes remains more a rhetoric than a reality. While there have been efforts to encourage the public and civil society in governing health programmes, the participation of civil society organizations in provincial, city and municipal councils is highly uneven, as it depends on the openness of the local government executive. In PhilHealth, representation on its Board of Directors is lopsided in favour of government ex-officio representation, with only one slot devoted to consumer/patient representation. Lack of organized citizens' efforts (such as a watchdog) to oversee social health insurance issues and proposals for reforms is also a major shortcoming.

Medical care is fraught with serious information asymmetry between providers (hospitals, doctors) and patients, as well as between payers/funders (health insurance, health maintenance organization) and patients. Empowering patients with information is often seen to tilt the balance in their favour, but actual restructuring of the relationship and redistributing the power between providers/payers and patients have yet to happen. Patient empowerment is particularly critical and challenging in the Philippines, especially in view of pervasive income inequality (forcing doctors and hospitals to practise price discrimination among patients categorized according to their capacity to pay), incomplete evolution of social health insurance (with large balance billing),¹ lack of advertising in the medical profession (thus limiting information dissemination) and pervasive lack of people's knowledge of fees and prices. Legislative attempts to arm patients with information have failed. Similarly,

1 Balance billing is the amount that health facilities can bill patients for, and is the balance that is left after payments from PhilHealth are subtracted from their charges.

keeping the poor informed of their rights and entitlements remains an administrative and logistical challenge as PhilHealth fails to issue membership cards to them to facilitate access and navigate utilization of the health services.

Future prospects

The Government continues to aspire for an efficient, effective and responsive health system that delivers affordable and quality care. To achieve this end, the DOH is pursuing another wave of health reforms through the Philippine Health Agenda – 2016. This policy addresses the aforementioned challenges through various measures:

- guaranteeing population- and individual-level interventions to promote health, prevent and treat the triple burden of disease, delay their complications, facilitate rehabilitation and provide palliation. Addressing the triple burden of disease means focusing resources and strategies to deal with the backlog of reducing or eliminating communicable diseases and neglected tropical diseases; tackling the challenges of NCDs such as cancer, diabetes and heart disease; their risk factors like obesity, smoking, poor diet, sedentary lifestyles and malnutrition; and cooperating with other sectors to undertake strategies to manage health problems related to globalization, urbanization and industrialization, including injuries, substance use and abuse, mental illness, pandemics, travel medicine and other health consequences of climate change. The strategies will also include strengthening the delivery of maternal, newborn and child health services, especially in geographically isolated and disadvantaged areas, and making vaccines available, including for Japanese encephalitis, neonatal tetanus and other VPDs;
- ensuring that all Filipinos have access to appropriate health services through functional service delivery networks (SDNs). SDNs aim to address fragmentation issues in service delivery by streamlining the management of health facilities, rationalizing multiple payers of care, linking public and private providers, rationalizing vertical public health programmes and establishing continuity of care. The DOH envisions SDNs as being located close to the people, supported by an effective gatekeeping mechanism, consisting of fully functional health facilities that provide services 24/7 and comply with clinical practice guidelines, enhanced by telemedicine. This new wave of reform builds on the assumption

of a strong PhilHealth, strategic purchasing and a fully supportive private sector that actively participates in SDNs;

- assuring that PhilHealth's support value is 100%, i.e. zero-copayment for the poor and those admitted in basic accommodation; and a predictable (fixed copayment) for those admitted in private accommodation. PhilHealth's benefit packages will be comprehensive and guided by health technology assessment, covering outpatient diagnostics, medicines, and blood and blood products. PhilHealth will also update the costing of current case rates to ensure that they cover the full cost of care and that the payment is linked to the quality of service provided. Finally, PhilHealth will improve its capacity to enforce its contracting policies and aspire to become a strategic purchaser of health services;
- engagement of the private sector by the DOH and PhilHealth in planning supply-side investments, forming SDNs and expanding PhilHealth accreditation for all benefit packages. They will also engage nongovernmental organizations and other professional organizations to ensure good governance through advocacy, community mobilization and health promotion. The DOH will continue to promote better performance and transparency by publicizing health information like prices of common drugs and services, noncompliant/erring providers, targets of the NOH and various health scorecards;
- coordination of the DOH with other stakeholders to ensure that all Filipinos understand their health entitlements (especially the poor). This will be coupled with mechanisms to promote participation in programme planning and implementation and to address complaints effectively.

1 Introduction

Chapter summary

The Philippines is an archipelago in the South-East Asia Region with a population of 104.9 million as of 2017. It is the thirteenth most populous country in the world (World Bank, 2018b). The majority of Filipinos are Christian Malays (92.2%) with Roman Catholics constituting 87.4% of the Christian population. Muslim minority groups, comprising 5.6%, are concentrated in Mindanao. The country has an adult literacy rate of 96.5% (Philippine Statistics Authority, 2017a). The Philippines is currently one of Asia's fastest growing economies, registering a gross domestic product (GDP) growth of 6.7% at the end of 2017. Categorized as a newly industrialized country, it is transitioning from one based on agriculture to one based more on services and manufacturing (World Bank, 2018b).

Filipinos tend to live longer now than in previous decades, with life expectancy at birth increasing from 62.2 years in 1980 to 69.1 years in 2016. This is attributed mainly to the improving living conditions in the country. While it continues to combat pneumonia and tuberculosis (TB) as leading causes of death, the country also faces a growing incidence of diseases of the heart, vascular system, malignant neoplasms and diabetes. The Philippines ranks third in the world in terms of exposure to disaster risk, with strong typhoons occurring with high regularity.

Inequity in health status and access to services are considered the most important health problems in the Philippines – arising from structural defects in the basic building blocks of the Philippine health system. These are governance-associated challenges that serve as an impetus for the recent health reform efforts in the country.

1.1 Geography and sociodemography

The Philippines is located between the South China Sea and the Pacific Ocean. Across the West Philippine Sea (also known as the South China Sea) and to the west of Palawan Island are the countries of Cambodia, the Lao People's Democratic Republic and Viet Nam. China lies to the

west of the Luzon coast. Taiwan is directly north of Luzon across a narrow strait, while further north are the Republic of Korea and Japan. Indonesia, Malaysia and Brunei are across sea borders to the south. To the east of the Philippines lie the scattered island territories of Saipan, Guam, Micronesia and Palau (Figure 1.1). The country comprises 7107 islands, of which Luzon in the north is the largest, where the capital city of Manila is located. South of Luzon is the Visayas group of islands, where the major city is Cebu. Further south is the second-largest island, Mindanao, where Davao City is the main urban centre.

Figure 1.1 Map of the Philippines



Source: United Nations Geospatial Information Section, 2010

The Philippines has a total land area of 298 170 sq. km, and a coastline that stretches over 36 289 km. The terrain is mostly mountainous, with narrow to extensive coastal lowlands. It has a tropical and maritime climate, characterized by relatively high temperatures, high humidity and abundant rainfall. Its lowest temperatures are recorded in the mountain areas at between 15.6 °C (60 °F) and 21.1 °C (70 °F) during the months of December, January and February. The highest temperatures of up to 35 °C (95 °F) occur during the dry season from March to May. The rainy season, between June and November, brings an average of 20 typhoons every year. Moreover, the country is located along the “Pacific Ring of Fire”, where large numbers of earthquakes and volcanic eruptions occur. Exposure of the population to natural hazards makes the Philippines one of the highest-risk countries in the world.

The country is divided into 17 administrative regions (Figure 1.2). These are areas served by subnational or regional offices of different departments and bureaus of the National Government. Administrative regions are composed of provinces and independent component cities located in different island groups.

Figure 1.2 Regional map of the Philippines

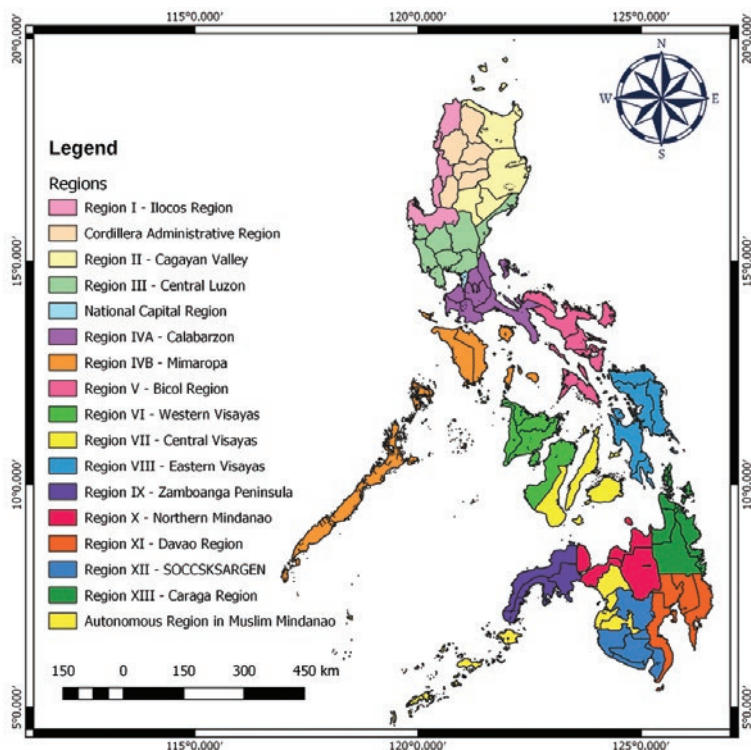


Table 1.1 Trends in demographic indicators, 1980–2017

Indicators	1980	1990	2000	2010	2015	2016	2017
Total population	47 396 968	61 947 348	77 991 569	93 726 624	101 716 359	103 320 222	104 918 090
Population, female (% of total)	49.4	49.5	49.6	49.5	49.6	49.7	49.7
Population, 0–14 years (% of total)	43.1	40.9	38.5	33.9	32.2	32.0	31.7
Population, 65 years and above (% of total)	3.2	3.1	3.3	4.1	4.6	4.7	4.8
Population, 80 years and above (% of total)	0.3	0.4	0.4	0.5	0.6	0.6	0.7
Annual population growth rate (%)	2.7	2.5	2.1	1.6	1.6	1.6	1.5
Population density (persons/sq. km)	159.0	207.8	261.6	314.3	341.1	346.5	351.9
Total fertility rate (per woman)	5.2	4.3	3.8	3.2	3.0	2.9	-
Crude birth rate (per 1000 population)	36.6	33.0	29.6	24.8	23.4	23.2	-
Crude death rate (per 1000 population)	8.2	6.6	6.0	6.2	6.5	6.5	-
Age dependency ratio*	86.3	78.8	71.6	61.4	58.2	57.9	57.5
Rural population (% of total population)	62.5	51.4	52.0	54.7	55.6	55.7	55.8
Literacy rate, adult total (%) (15 years and above)	83.3	93.6	92.6	95.6 (2008)**a	96.5 (2013)**a	-	-

Notes: *It is the ratio of population (age 0–14 years and 65+) / (age 15–64 years); **simple literacy rate of population ages 10 years and above

Sources: World Bank, 2018b; ^aPhilippine Statistics Authority, 2017a

The projected population of the Philippines is 104.9 million as of 2017, based on the 2015 Census of Population conducted by the Philippine Statistics Authority. The Philippines is the thirteenth most populous country in the world. Urban migration in the Philippines, particularly towards the National Capital Region (NCR), which hosts 12.7% of the population, continues to create problems such as housing, road traffic, pollution and crime.

The Philippines has a young population with about a third of its population younger than 15 years of age (Table 1.1) as of 2017. However, the ageing index (Gavrilov LA et al., 2003) or the proportion of persons aged 65 years and over per 100 persons under the age of 15 years has almost doubled, from 7.5% in 1980 to 15.1% in 2017. Meanwhile, the population growth rate has declined by almost half, from 2.7 to 1.5 during the same period.

The overall age dependency ratio declined by about a third (28.8) between 1980 (86.3) and 2017 (57.5) (Table 1.1), which is consistent with the decreasing trend of the child dependency ratio. However, the trend in the elderly dependency ratio is slowly increasing, reflecting the growing elderly population. Consistent with the increasing population, the population density doubled from 159 persons per sq. km in 1980 to 352 persons per sq. km in 2017. In the same period, the proportion of the population residing in rural areas decreased from 62.5% to 55.8%.

Attempts to introduce a reproductive health (RH) law to manage the population growth rate has been consistently opposed by several religious groups, most prominently by the Roman Catholic Church, the dominant religion. Founded on the rights of every individual to equality and non-discrimination, the right to sustainable human development, the right to health including RH, and the right to make decisions for themselves in accordance with their religious convictions, ethics, cultural beliefs and the demands of responsible parenthood, the RH Law was finally adopted by the Congress and signed into law by President Aquino in 2012 (Fonbuena C, 2012a; Padilla CRA, 2010). The majority of the population (92.2%) are Christian Malays living mainly on the coastal areas (Philippine Statistics Authority, 2017a). Roman Catholics constitute 87.4% of the Christian population, while 12.6% belong to Protestant Christian denominations such as Seventh-day Adventist Church, United Church of Christ in the Philippines and Evangelicals. Governmentally, the Philippines is a secular nation, with its Constitution guaranteeing separation of Church and State, and requiring the Government to respect all religious beliefs equally.

Muslim minority groups comprising 5.6% of the population are concentrated in Mindanao, while tribes of Indigenous Peoples are found in mountainous areas throughout the country. There are about 170 languages in the Philippines archipelago spoken by the respective Filipino ethno-linguistic groupings. Most of them have several varieties or dialects with little linguistic differences, totalling over 300 across the archipelago. In the 1930s, in an act of cultural hegemony, the Government imposed the use of the Tagalog language as the national language. Visayan languages (also called Bisaya or Binisaya) are widely spoken throughout the Visayas and in most parts of Mindanao. Ilocano is the lingua franca of Northern Luzon, excluding Pangasinan. Zamboangueño Chavacano is the official language of Zamboanga City and the lingua franca of Basilan. The official language in the Philippines is Filipino, which is derived from Tagalog and English, both widely used in government, education, business and the media.

Of the estimated 71.6 million population aged 15 years and over, 44.6 million persons were in the labour force in 2017. Among them, 39.9% were women (World Bank, 2018b).

The Philippines posted a literacy rate of 96.5% among the population aged 10 years and over in 2013 (Philippine Statistics Authority, 2017a). This is higher than the 93.4% literacy rate that was recorded in 2003. According to the National Statistical Board Resolution No. 14 – series of 2006, a person is considered literate if she/he is able to read, write and understand a simple message in any language or dialect (National Statistical Coordination Board, 2006b). The literacy rate in 2013 was slightly higher among women (97%) than among men (96.1%). Similarly, the literacy rate was slightly higher among women (94.3%) than among men (92.6%) in 2003.

1.2 Economic context

The Philippines is currently one of Asia's fastest-growing economies. Despite slow global growth in 2015, the Philippines remains a strong performer in the Region, trailing only China and Viet Nam and registering a GDP growth of 6.1% for the year 2015 (World Bank, 2016). The Philippine economy is the thirty-ninth largest in the world, according to the International Monetary Fund (IMF) statistics, and is also considered to be one of the emerging markets (International Monetary Fund, 2016). The Philippines is categorized as a newly industrialized country, which has an economy transitioning from one based on agriculture to one based more

on services and manufacturing. In 2017, GDP by purchasing power parity (PPP) was estimated to be at US\$ 797.3 billion (World Bank, 2018b).

The employment rate in 2017 was estimated at 94.3% (Philippine Statistics Authority, 2017b). Four regions, namely, the NCR (92.6%), Ilocos Region (91.1%), CALABARZON (93.0%), and Central Luzon (93.4%) had the lowest employment rates. The labour force participation rate was estimated at 61.2%. The labour force population consists of both the employed and the unemployed aged 15 years and over. The underemployment rate, which is the percentage of the underemployed to the total employed, was estimated at 16.1% (Philippine Statistics Authority, 2017b).

Workers were grouped into three broad sectors – agriculture, industry and the services sector. Workers in the services sector comprised the largest proportion (56.3%) of the population who are employed. Workers in the agriculture sector comprised the second largest group with 25.4% of the total employed in 2017, while workers in the industry sector made up the smallest group registering 18.3% of the total employed. In the industry sector, construction subsector workers made up the largest group (48.0%) followed by manufacturing (47.2%). Among the occupation groups, elementary occupation workers remained the largest group making up 26.1% of the total employed in 2017. Managers (16.1% of the total employed) comprised the second largest, followed by service and sales workers (15.0%), and skilled agricultural, forestry and fishery workers (13.5%). Remittances from abroad increased from US\$ 21.6 billion in 2010 to US\$ 32.8 billion in 2017, or about 10% of the country's GDP (World Bank, 2018a).

Poverty incidence using the national poverty line in the Philippines had been falling according to the Family Income and Expenditure Survey (FIES) conducted by the Philippine Statistics Authority (PSA). PSA's October 2016 official poverty statistics for the full year of 2015 shows the poverty incidence among Filipinos estimated at 21.6% (Philippine Statistics Authority and ICF International, 2018). During the same period in 2012, the poverty incidence among Filipinos was recorded at 25.2%. Subsistence incidence among Filipinos, or the proportion of Filipinos whose incomes fall below the food threshold, was estimated at 8.1% in 2015. In 2012, the subsistence incidence among Filipinos was 10.4% (Philippine Statistics Authority and ICF International, 2018).

The Conditional Cash Transfer (CCT) Program, a project initiated by the Arroyo administration and expanded by the Aquino administration, is a well-targeted social protection programme. Also dubbed as the 4Ps (Pantawid Pamilyang Pilipino Program), it was vital in helping the poor and is expected to contribute more to a robust poverty reduction in the future. Macroeconomic indicators are given in Table 1.2.

Table 1.2 Macroeconomic indicators, 1980–2017

Indicators	1980	1990	2000	2010	2015	2016	2017
GDP (current LCU, billion)	243.7	1 077.2	3 580.7	9 003.5	13 322.0	14 479.9	15 806.4
GDP, PPP (constant 2011 international \$, billion)	-	248.4	329.4	524.6	699.3	747.3	797.3
GDP per capita (constant 2010 US\$)	1 687.3	1 525.8	1 607.2	2 129.5	2 615.7	2 752.1	2 891.4
GDP per capita, PPP (current international \$)	-	2 591.9	3 348.2	5 483.6	7 320.5	7 800.7	8 342.8
GDP average annual growth rate (%)	5.1	3.0	4.4	7.6	6.1	6.9	6.7
Gross national expenditure (% of GDP)	104.9	105.8	102.0	101.8	105.9	109.0	109.6
Cash surplus/deficit (% of GDP)		-2.8	-3.7	-3.5	-1.3		
Tax revenue (% of GDP)	-	14.1	12.8	12.1	13.6	13.7	-
Central Government debt, total (% of GDP)	-	51.3	60.5	52.4	-	-	-
Value added in industry (% of GDP)	38.8	34.5	34.5	32.6	30.9	30.7	30.5
Value added in agriculture (% of GDP)	25.1	21.9	14.0	12.3	10.3	9.7	9.7
Value added in services (% of GDP)	36.1	43.6	51.6	55.1	58.8	59.6	59.9
Public and publicly guaranteed debt service (% of GNI)	1.9	6.6	4.6	4.1	1.6	1.7	-
Labour force, total	-	22 741 143	29 953 311	38 629 516	42 982 424	43 753 750	44 643 324
Unemployment, total (% of total labour force) (modelled ILO estimate)	-	-	3.7	3.6	3.0	2.7	2.8
Poverty incidence (% of population) ^a	-	34.39 [1991]	26.56 [2006]	26.27 [2009]	25.23 [2012]	21.59 [2015]	-
Subsistence incidence among population (%) ^a	-	17.58 [1991]	12.00 [2006]	10.92 [2009]	10.43 [2012]	8.10 [2015]	-
Poverty incidence among families (%) ^a	-	29.69 [1991]	21.01 [2006]	20.48 [2009]	19.66 [2012]	16.48 [2015]	-
Subsistence incidence among families (%) ^a	-	14.45 [1991]	8.81 [2006]	7.87 [2009]	7.52 [2012]	5.73 [2015]	-
Income inequality (Gini coefficient) (World Bank estimate)	-	-	42.8	-	40.1	-	-

Table 1.2 Macroeconomic indicators, 1980–2017 (contd)

Indicators	1980	1990	2000	2010	2015	2016	2017
Real interest rate (%)	-0.2	9.9	4.9	3.3	6.2	3.9	3.2
Official exchange rate (LCU per US\$, period average)	7.5	24.3	44.2	45.1	45.5	47.5	-
Personal remittances, received (% of GDP)	1.9	3.3	8.5	10.8	10.2	10.2	10.5
Personal remittances, received (current US\$, billion)	0.6	1.5	6.9	21.6	29.8	31.1	32.8

Notes: GDP: gross domestic product; GNI: gross national income; LCU: local currency unit; PPP: purchasing power parity

Sources: World Bank, 2018b; ^a Philippine Statistics Authority and ICF International, 2018

1.3 Political context

The Philippines is a democratic and republican State with a presidential form of government. The President is both the head of State and the head of the Government within a multiparty system. Power is equally divided among its three interdependent branches – executive, legislature and judiciary. The powers of each of these branches are vested by the Constitution of the Philippines.

Executive power is vested with the President of the Republic, who is elected by popular vote. Similarly, the Vice President is also elected by popular vote. The Executive Branch has 22 departments, including the Office of the Executive Secretary, the Commission on Higher Education and the National Economic and Development Authority. Headed by Cabinet Secretaries, these departments are necessary for the functional distribution of the work of the President. As such, Cabinet Secretaries act as the alter ego of the President and, through his authority, execute the power of the Office of the President in their respective departments. Specifically, the Secretary of Health has the executive power in health matters. At the local level, local government units (LGUs) exercise administrative and regulatory authority over the local health system through their respective health officers.

Legislative power is vested in the bicameral Congress of the Philippines, consisting of the Senate and the House of Representatives. The legislative branch influences the health system by passing laws to improve the financing, delivery and regulation of the health system, including approval of the annual budget of the Department of Health (DOH) and health facilities under the management of other government agencies. On the other hand, judicial power is vested in the Supreme Court and in various

lower courts as established by law. These lower courts include the Court of Appeals, Sandiganbayan, Court of Tax Appeals, Regional Trial Courts, Shari'a District Courts, Metropolitan Trial Courts, Municipal Trial Courts and Municipal Circuit Trial Courts, and Shari'a Circuit Courts. These courts exercise judicial power in their respective jurisdictions. The duty of the judicial branch is to settle actual controversies involving rights, which are legally demandable and enforceable.

While there is separation of powers among the three branches of Government, effective collaboration between these branches of Government results in the passage of key legislations to further the goals of the health sector. For instance, the Presidential push to pass the Sin Tax bill to reform the excise tax system and to raise revenues for the universal health coverage (UHC) agenda resulted in widespread support for House Bill No. 5727 from his allies in the House of Representatives, and finally the Senate endorsed the Sin Tax bill in 2012 (Visconti K, 2012). Moreover, the Presidential certification of Senate Bill No. 3299 as urgent also facilitated faster deliberation of the Sin Tax measure at the Senate. The strong message from the President of the Republic galvanized the Congress to pass the Sin Tax Law, which ended more than 15 years of battle against a strong industry lobby that kept the prices of Sin Tax products in the country among the cheapest in the world.

Similarly, the collaborative relationship between the legislative and the executive branches of the Government was demonstrated in the passage of Responsible Parenthood and Reproductive Health Act of 2012 (RH Law), a measure that had languished in Congress for more than 15 years. Shortly after the President signed the RH Law, anti-RH groups challenged the constitutionality of the law at the Supreme Court by submitting 14 petitions and a further two petitions in intervention of the RH Law to the High Court. On 8 April 2013, the Supreme Court decided that the RH Law was constitutional but struck down eight provisions that the Court found to be unconstitutional (Supreme Court, 2014). Section 7, which is about access to family planning, as well as Sections A and B of its implementing rules and regulations, were found to be unconstitutional. Section A requires private health facilities and non-maternity specialty hospitals and hospitals owned and operated by a religious group to refer patients not in an emergency or life-threatening case to another health facility that is conveniently accessible. Section B allows minor parents or minors who have suffered a miscarriage access to modern methods of family planning without written consent from their parents or guardians.

As in the case of any democratic society, participation of the people in the policy-making process in the Philippines is not only encouraged but actively sought. This was well demonstrated when non-State actors (civil society, private sector) actively participated by lobbying for the passage of the Sin Tax (Chavez JJ et al., 2014; Kaiser KA et al., 2016) and RH Laws (Fonbuena C, 2012b; Padilla CRA, 2010).

Meanwhile, Philippine's participation in international commitments and free trade agreements has helped shape the health policy-making process and programme development in the country. For instance, the Philippines is a signatory to the 2000 Millennium Declaration that outlined the time-bound Millennium Development Goals (MDGs), which the Government has adopted, and ensured that the indicators are relevant to the national situation and context (National Economic Development Authority, 2014) as a global agenda for development by 2015. All efforts to improve the maternal and child health (MCH) status, to reduce their mortality rates as well as to control the prevalence of TB, malaria and human immunodeficiency virus (HIV) in the country are designed to achieve the targets for these development goals.

Predating the ratification of the WHO Framework Convention on Tobacco Control (FCTC) in the Philippines by two years, the Congress passed the Tobacco Regulation Act (Republic Act No. 9211) in 2003. This Act promotes a healthy environment and protects citizens from the hazards of tobacco smoke, informs the public of health risks associated with cigarette smoking and tobacco use and provides for the creation of an Inter-Agency Committee on Tobacco (IAC-Tobacco). While Article 5.2(a) of the FCTC requires parties to establish or reinforce and finance a national coordinating mechanism or focal points for tobacco control, the leadership and composition of IAC-Tobacco created tension between the actors from the health community, i.e. the representative from DOH and the health nongovernmental organization (NGO) and those from other sectors, including the Department of Trade and Industry, Department of Agriculture and representatives from the tobacco industry, among others (Chavez JJ et al., 2014). Article 5.3 of the FCTC, i.e. "in setting and implementing their public health policies with respect to tobacco control, Parties shall act to protect these policies from commercial and other vested interests of the tobacco industry in accordance with national law", has been infringed by the tobacco industry. For instance, the International Tobacco Growers' Association, which has a long history of opposing international and national tobacco control policies, held their meeting in Manila to influence the deliberations of the sin tax that would

be imposed on cigarettes. Meanwhile, the United States (US) Chamber, its local affiliate and the US–Association of Southeast Asian Nations (ASEAN) Business Council warned the Secretary of Finance that sin taxes will result in cigarette smuggling (Bialous Stella Corporate Accountability International, 2015). More recently, in another attempt to derail the gains of the Sin Tax Law, House Bill No. 4144 was proposed to reinstate the two-tiered taxation, but the DOH argued that a two-tiered structure would potentially expose the Philippines to a World Trade Organization challenge. It cited that the Philippines lost a World Trade Organization case involving distilled spirits because there was de facto discrimination when the excise taxes applied for locally manufactured distilled spirits were much lower than imported ones (Gonzales I, 2016).

1.4 Health status

Filipinos tend to live longer now than in previous decades, with life expectancy at birth increasing from 62 years in 1980 to 69 years in 2016. Filipinas live longer (73 years) than their men counterparts (66 years). The life expectancy trend is reflective of the improving living conditions in recent years. Mortality rates declined from 291 and 209 per 1000 men and women, respectively, in 1980 to 261 and 136, respectively, in 2016 (Table 1.3). The past is characterized by difficult times with sporadic armed conflicts in the countryside, pervasive political unrest and mass protests in urban centres, widespread poverty and income inequality across the country, and poor nutrition and inadequate health care among the underprivileged majority.

Table 1.3 Mortality and health indicators, 1980–2016

Indicators	1980	1990	2000	2010	2013	2014	2015	2016
Life expectancy at birth, total (years)	62.2	65.3	67.2	68.3	68.7	68.8	69.0	69.1
Life expectancy at birth, male (years)	59.9	62.6	64.2	65.1	65.4	65.6	65.7	65.8
Life expectancy at birth, female (years)	64.6	68.0	70.3	71.8	72.2	72.3	72.5	72.7
Mortality rate, adult, male (per 1000 male adults)	290.8	282.4	271.3	267.8	265.0	263.5	262.1	260.6
Mortality rate, adult, female (per 1000 female adults)	209.0	183.5	159.4	145.3	141.0	139.2	137.4	135.6

Source: World Bank, 2018b

The leading cause of death in the Philippines is heart disease, with rates steadily rising from 61 per 100 000 population in 1980, to 133 per 100 000

population in 2014 (Table 1.4). This is followed by vascular diseases and malignant neoplasms, with mortality rates of 55 and 54 per 100 000 population, respectively (2014 data). There is a notable shift in the leading cause of death from communicable diseases as the leading killer in the 1980s to noncommunicable diseases (NCDs) in recent times. Infectious diseases, particularly diarrhoea, continued to decline as a contributor to healthy lives lost due to premature deaths (Table 1.5).

While the country continues to combat pneumonia and TB as the leading causes of death among Filipinos, it is facing an increasing number of diseases of the heart, diseases of the vascular system, malignant neoplasms and diabetes. Among external causes, road traffic accidents are also becoming a major cause of death. This essentially places the Philippines in epidemiological transition, referred to as triple burden of disease, in light of the observed rise in NCDs along with the existing prevalence of infectious diseases, and the health impact of globalization and climate change. This disease pattern indicates that even as degenerative diseases and other lifestyle-related illnesses are increasing, communicable diseases are still widely prevalent, while road safety has become a serious public health problem.

Table 1.4 Main causes of death, 1980–2014

Causes of death [ICD-10 classification]	Rate per 100 000 population (rank)				
	1980	1990	2000	2010	2014
Communicable diseases					
Pneumonia [J12–J18]	93.6 (1)	66.5 (2)	42.7 (4)	48.5 (4)	52.5 (4)
Tuberculosis [A15–A19, B90]	59.6 (3)	39.2 (4)	36.1 (6)	26.3 (6)	23.8 (8)
Diarrhoea [A00–A09]	27.9 (6)	12.1 (6)	-	-	-
Measles [B05]	10.7 (9)	5.6 (10)	-	-	-
Septicemia [A40–A41]		9.4 (7)	-	-	-
Noncommunicable diseases					
Diseases of the heart [I00–I09, I11, I13, I20–I52]	60.8 (2)	74.6 (1)	79.1 (1)	109.5 (1)	133 (1)
Diseases of vascular system [I10, I12, I60–I64, I67–I78, I80–I99]	43.8 (4)	54.4 (3)	63.2 (2)	72.9 (2)	55 (2)
Malignant neoplasms [C00–C97]	33.2 (5)	35.7 (5)	47.7 (3)	53 (3)	54.3 (3)
Avitaminosis and other nutritional deficiency [E40–E64]	15.3 (8)	-	-	-	-
Chronic lower respiratory diseases [J40–J47]	-	-	20.8 (7)	24.3 (7)	24.1 (7)

Table 1.4 Main causes of death, 1980–2014 (contd)

Causes of death [ICD-10 classification]	Rate per 100 000 population (rank)				
	1980	1990	2000	2010	2014
Certain conditions originating in the perinatal period [P00–P96]	-	-	19.8 [8]	12.9 [10]	-
Diabetes [E10–E14]	-	-	14.1 [9]	22.9 [8]	30.7 [6]
Nephritis, nephrotic syndrome and nephrosis [N00–N07, N17–N19, N25–N27]	9.3 [10]	8.3 [8]	10.4 [10]	14.9 [9]	-
Diseases of the digestive system [K00–K92]	-	-	-	-	21.2 [9]
Diseases of the genitourinary system [N00–N98]	-	-	-	-	20.6 [10]
External causes					
Transport accidents [V01–Y89]	18.7 [7]	6.4 [9]	42.4 [5]	38.6 [5]	35.5 [5]

Note: Excludes ill-defined and unknown causes of mortality

Sources: Department of Health, 1990, 2010a & 2014a

NCDs consistently and increasingly contribute to the number of years of healthy life lost due to premature death and disability (Table 1.5). This may be attributed to improving access to health services and advances in the management and treatment of infectious diseases such as pneumonia and TB. On the other hand, the changes in lifestyle and increasing prevalence of risk factors contribute to the rising cases of NCDs (Table 1.6).

Table 1.5 Disability-adjusted life years, both sexes combined, 1990–2016

Diseases and injuries	All ages (thousands)			Percentage change	
	1990	2006	2016	1990–2006	2006–2016
Tuberculosis	1 016.9	1 057.1	961.8	- 11.6	- 16.4
	[946.4 to 1 095.2]	[970.5 to 1 142.6]	[830.7 to 1 100.7]	[-21.4 to -3.8]	[-24.2 to -8.8]
Diarrhoeal diseases	939.2	696.6	478.5	- 36.8	- 36.7
	[828.4 to 1 062.9]	[609.0 to 785.9]	[371.1 to 613.8]	[-45.8 to -26.9]	[-50.5 to -19.1]
Lower respiratory infections	3 762.7	2 095.8	1 881.0	- 52.6	- 17.5
	[3 446.8 to 4 054.0]	[1 920.0 to 2 266.2]	[1 655.4 to 2 109.8]	[-56.5 to -48.4]	[-23.7 to -10.8]
Measles	481.3	20.4	3.8	- 96.4	- 82.8
	[3 88.4 to 590.3]	[15.8 to 26.4]	[2.2 to 7.3]	[-97.4 to -95.0]	[-90.3 to -66.4]
Neonatal disorders	2 917.9	2 704.8	2 291.5	- 21.1	- 22.2
	[2 624.7 to 3 229.6]	[2 402.6 to 3 000.5]	[1 881.9 to 2 718.3]	[-30.4 to -10.5]	[-32.0 to -11.3]

Table 1.5 Disability-adjusted life years, both sexes combined, 1990–2016 (contd)

Diseases and injuries	All ages (thousands)			Percentage change	
	1990	2006	2016	1990–2006	2006–2016
Nutritional deficiencies	709.7 (601.3 to 833.2)	443.5 (351.9 to 561.4)	380.1 (290.1 to 492.9)	- 46.9 (-54.3 to -39.3)	- 21.2 (-30.9 to -10.8)
Neoplasms	913.7 (866.6 to 960.0)	1 734.3 (1 646.0 to 1 840.6)	2 182.4 (1 899.0 to 2 480.3)	61.4 (51.0 to 71.3)	15.6 (6.4 to 25.2)
Ischaemic heart disease	1 051.8 (969.4 to 1 123.9)	1 868.5 (1 742.3 to 2 005.0)	2 491.3 (2 155.3 to 2 836.6)	51.1 (39.3 to 64.2)	22.5 (11.8 to 33.4)
Cerebrovascular disease	659.4 (611.0 to 703.5)	1 355.4 (1263.1 to 1454.2)	1 726.7 (1507.2 to 1962.3)	74.9 (60.5 to 89.2)	17.0 (7.6 to 25.9)
Chronic respiratory diseases	696.2 (629.0 to 779.4)	1 110.9 (1 008.5 to 1 227.2)	1 399.7 (1 241.2 to 1 569.3)	35.7 (28.0 to 43.9)	15.8 (11.0 to 20.6)
Diabetes mellitus	239.6 (194.7 to 299.7)	729.9 (625.0 to 854.8)	1 033.2 (866.5 to 1 223.1)	159.8 (136.2 to 183.5)	30.1 (23.0 to 37.8)
Injuries	2 240.4 (2 028.3 to 2 481.3)	2 913.6 (2 616.0 to 3 191.7)	2 954.2 (2 554.8 to 3417.5)	10.7 (0.3 to 20.0)	- 6.9 (-13.4 to 0.7)

Note: Numbers in parenthesis are lowest and highest values

Source: Institute for Health Metrics and Evaluation, 2018

Among the leading causes of disability-adjusted life years (DALYs) lost, infectious diseases such as TB and lower respiratory tract infections, nutritional deficiencies and neonatal disorders continued to decline between 2006 and 2016. In contrast, NCDs increasingly contributed to DALYs. In particular, diabetes showed a 331% increase between 1990 and 2016 (Institute for Health Metrics and Evaluation, 2018). Moreover, the leading risk factors that contribute to DALYs include dietary risks, tobacco smoke and high systolic blood pressure. The Eighth National Nutrition Survey Report (Food and Nutrition Research Institute-DoST, 2014) showed a high prevalence of these same risk factors along with alcohol consumption (Table 1.6).

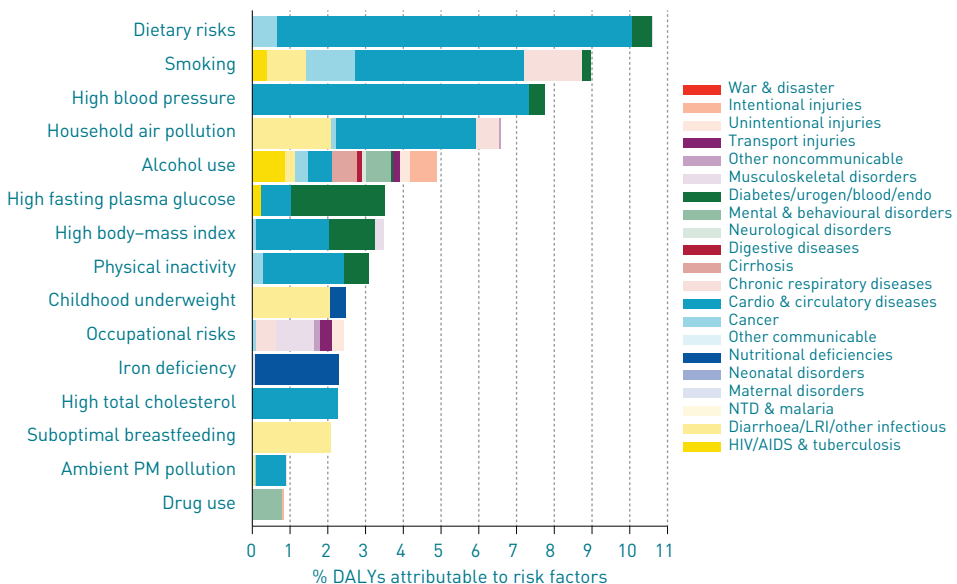
Table 1.6 Risk factors affecting health status

Disease	Basis	Prevalence, ≥20 years old (%)				
		1998	2003	2008	2011	2013
Diabetes	FBS > 125 mg/dL or history or use of anti-diabetes medication	3.9	3.4	4.8	-	5.4
Hypertension	Defined as blood pressure of greater than or equal to 140/90 mmHg	21	22.5	25.3	-	22.3
Smoking	History of current smoking	32.7	34.8	31	-	25.4
Alcohol intake ^a	Alcohol per capita (ages 15+) consumption (in litres of pure alcohol)		6.4	5.4	-	-
Overweight/obesity	BMI ≥25	20.2	24	26.6	28.4	31.1
Obesity, males	Waist-hip ratio >1.0	7.9	12.1	11.1	6.9	8
Obesity, females	Waist-hip ratio >0.85	39.5	54.8	65.5	62.5	63.2

Notes: FBS - fasting blood sugar; BMI - body mass index

Sources: Food and Nutrition Research Institute-DoST, 2014; ^aWorld Health Organization, 2014

Figure 1.3 Burden of diseases attributable to 15 leading risk factors, 2010



Source: Institute for Health Metrics and Evaluation, 2010

While there seems to be a general improvement in the health status of the Filipino people, the national average masks the inequality in many health outcomes, across socioeconomic status, educational attainment and region. For instance, despite the substantial achievements in

reducing neonatal, infant and under-5 mortality rates (Table 1.7) in the early 1990s, substantial variations are observed across regional, urban-rural and socioeconomic status. Disparities across socioeconomic status are strongly associated with maternal education, regional location and access to health services (Kraft A et al., 2013).

Table 1.7 Maternal and child health indicators, 1990–2016

Indicators	1980	1990	2000	2010	2013	2014	2015	2016
Adolescent fertility rate (births per 1000 women ages 15–19 years)	52.6	50.6	51.9	56.2	57.9	58.6	59.2	59.9
Neonatal mortality rate (per 1000 live births)	24.9	19.6	16.8	14.4	13.5	13.2	12.9	12.6
Infant mortality rate (per 1000 live births)	53.4	40.8	30.0	24.9	23.3	22.7	22.1	21.5
Under-five mortality rate (per 1000 live births)	80.4	58.1	39.7	31.9	29.6	28.8	28.0	27.1
Maternal mortality ratio (per 100 000 live births) ^a	-	209	172 [1998]	162 [2006]	221 [2011]	-	52 ^c	-
Maternal mortality ratio (per 100 000 live births, modelled estimate)	-	152	124	129	121	117	114	-
Measles immunization (% of children ages 12–23 months)	-	85	78	80	87	79	82	80
Prevalence of stunting (% of children ages 0–60 months) ^b	-	44.7 [1989]	35.9 [2001]	32.3 [2008]	30.3	-	33.5 ^c	-
Prevalence of underweight (% of children ages 0–60 months) ^b	-	27.3 [1989]	23 [2001]	20.6 [2008]	19.9 ^c	-	21.6 ^c	-
Prevalence of wasting (% of children ages 0–60 months) ^b	-	6.2 [1989]	6.8 [2001]	6.9 [2008]	7.9	-	7.1 ^c	-

Sources: World Bank, 2018b; ^aNational Economic Development Authority, 2014; ^bFood and Nutrition Research Institute-DoST, 2014; ^cPhilippine Statistics Authority and ICF International, 2018

Social, economic and geographical barriers often lead to variations in access to services, which eventually result in inequity in health outcomes. The disadvantaged subset of the population is often located in remote and hard-to-reach areas, rendering it difficult to avail health care when they need it. For instance, pregnant mothers from rural areas (25%), the poorest quintile (30%), the younger age groups, those in their first trimester (26.6%) and residing in regions where the poverty incidence is high are more likely to be nutritionally at risk (Food and Nutrition Research Institute-DoST, 2014). Based on the 2013 National Demographic and Health Survey (NDHS), the proportion of women who receive antenatal care (ANC) from a skilled provider is associated with the mother’s level of education and economic status. Women with at least

elementary education (91%) are almost on a par with those with high school (97%) and college (98%) education in terms of accessing ANC, as opposed to women with no education (62%). Similarly, the proportion of women receiving ANC from a skilled provider is 10% higher for those belonging to the highest wealth quintile than for those in the lowest quintile (99% versus 89%).

Infant and child health also show deviations by wealth and residence. The Eighth National Nutrition Survey reported that the highest prevalence of underweight, stunting and wasting is found among the poorest quintile (29.8%, 44.8% and 9.5%, respectively) and among those living in rural areas (22.6%, 35.0% and 8.1%, respectively) (Food and Nutrition Research Institute-DoST, 2014). The immunization coverage is fluctuating with measles immunization varying from 85% in 1990 to 79% in 2014 and 80% in 2016 (Table 1.7). Similarly, full immunization remains low, where only 62% of children aged 12–23 months are fully immunized, i.e. they received BCG, measles, and three doses each of diphtheria, pertussis, tetanus (DPT), polio and hepatitis B (Hep-B) before reaching the age of 1 year. In terms of background characteristics, vaccination coverage increases with wealth status, from 59% of children in the poorest households to 81% of children in the wealthiest quintile. While there is slight variation in immunization coverage by residence (73% in urban areas versus 65% in rural areas), wider variations are observed by region, from 29% in Autonomous Region of Muslim Mindanao (ARMM) to 84% in Cordillera Autonomous Region (CAR).

Some health-care services receive less priority. For instance, oral disease continues to be a serious public health problem in the Philippines, creating a silent epidemic and placing a heavy burden on Filipino schoolchildren (Department of Health, 2012a). The Field Health Services Information System (FHSIS) summarized the dental care services rendered by public health facilities between 2004 and 2008 and reported that the continuous decline in curative dental treatment among children is brought about in part due to lack of public health dentists to perform curative treatment because not all health centres have public health dentists. There is confusion regarding which department (whether the Department of Education or the DOH) has the responsibility for the health of schoolchildren, particularly their dental care (Department of Health, 2010c). Moreover, figures from the DOH show that 87.4% of Filipinos suffer from tooth decay. The DOH said that the Philippines is far behind other countries in the Western Pacific Region when it comes to oral

health (Crisostomo S, 2014). The 2011 National Monitoring and Evaluation Dental Survey (NMEDS) said that 48.3% of Filipinos have periodontal disease (Department of Health, 2012c).

The Philippines has 9 million denture wearers in urban areas, making it the country with the highest number of people wearing dentures in Asia. The information was revealed in the study “Oral Care U&A: Market Understanding Study Middle East & Asia” conducted by Ipsos Marketing for GlaxoSmithKline (GSK). The majority of the 9 million denture wearers are in the 35–69-year age group. Eighty-four per cent of denture wearers reside in Metro Manila, with 9% in Cebu, and 6% in Davao (ABS-CBN News, 2015). The study also discussed the fact that in the Philippines, dentists are rarely a source of awareness in terms of oral care. It reported that there is a forced relationship between dentists and patients who meet only during emergency cases. Some people, according to the study, even have others pull their teeth out.

1.5 Natural and human-induced disasters

The Philippines is one of the world’s disaster “hot spots”. Throughout the archipelago’s history, natural hazards such as earthquakes, volcanic eruptions, typhoons, floods and droughts have occurred with such frequency that they have helped shape Filipino society (Bankoff G, 2003). According to GMA News (2015), the three worst disasters that hit the Philippines are Typhoon Yolanda, Typhoon Pablo and Tropical Storm Ondoy (Table 1.8).

Table 1.8 Worst disasters that hit Philippines: fatalities and damages, 2008–2015

Worst disaster, year	Fatalities	Estimated damage (USD)
Super-Typhoon Haiyan (known locally as Yolanda), 2013	6329 confirmed, 1074 missing	2.86 billion
Typhoon Pablo, 2012	1067 total, 834 missing	1.04 billion
Tropical Storm Ondoy, 2009	710 direct, 37 missing	1.09 billion

Source: GMA Network, 2015

According to the world risk index calculated for the period 2012–2016, the Philippines is third among the countries with the highest disaster risk in the world (Hilft BE, 2017). “In addition to earthquakes, it is above all the cyclones occurring each year that represent a considerable danger to the country. In November 2013, Super-Typhoon Haiyan, one of the strongest

typhoons ever measured, resulted in high numbers of victims and destruction on a massive scale in Samar, Leyte (Eastern Visayas), Cebu (Central Visayas), Palawan (MIMAROPA), Iloilo, Capiz, Aklan (Western Visayas). More than 6000 people were killed, and hundreds of thousands lost their homes and sought refuge in tent camps. Entire cities were hit, and destruction is still visible in many towns and villages.” (Cross-refer to the Philippine Disaster Risk Reduction and Management Act [Republic Act No. 10121] in section 2.6.1.)

2 Organization and governance

Chapter summary

The Philippine health system is a dual health system composed of the public and private sectors. Health services in the public sector are provided by health facilities run by the National and local governments and are largely financed through a tax-based budgeting system. The private sector is largely market-oriented, where health services are generally paid for through user fees at the point of service, though the Philippine Health Insurance Corporation (PhilHealth) also purchases services from both the public and private sectors.

With the enactment of the Local Government Code of 1991, a decentralized system was organized, wherein LGUs have full autonomy to finance and operate the local health systems. As mandated by law, provincial governments are tasked with providing primary and secondary hospital care, while city and municipal governments are tasked with providing primary health care, promotive and preventive health programmes and basic ambulatory clinical care. In this set up, the DOH, as the national health agency, is mandated to lay down national policies and plans, develop technical standards, enforce health regulations, and monitor, evaluate and deliver tertiary and specialized hospital services.

The private sector is generally a fragmented health system composed of thousands of for-profit and non-profit providers involved in the delivery of various health products and services. It consists of clinics, infirmaries, laboratories, hospitals, drugstores, pharmaceutical and medical supply companies, health insurance companies, academic and research institutions and informal service providers that include traditional healers (*herbolarios*) and traditional birth attendants (*hilots*). The private sector's collective contribution to health service provision is enormous and their capacity augments the gaps and inadequacies of the public sector.

The provision of a compulsory social health insurance (SHI) scheme is largely through PhilHealth, a Government corporation mandated to implement the National Health Insurance Program (NHIP). It acts as the

principal government agency that purchases health services on behalf of its members. PhilHealth determines and assesses the services that its members need, accredits health facilities and service providers, ascertains the cost of services, negotiates on price and pays providers through several schemes such as case-based payment, fee for service and capitation.

The regulation of the health sector is carried out by several national government agencies. Health facilities such as hospitals, clinical laboratories, infirmaries and specialized outpatient facilities such as dialysis clinics, ambulatory surgical clinics, in vitro fertilization centres, stem cell facilities, oncology clinics and medical facilities for overseas workers and seafarers are regulated by the DOH through the Health Facilities and Services Regulatory Bureau (HFSRB). Regulation of health products such as pharmaceuticals, traditional medicines, medical devices, food supplements and processed foods, cosmetics and household hazardous substances are also regulated by the DOH through the Food and Drug Administration (FDA).

The Professional Regulation Commission (PRC) is responsible for the registration and licensing of all professionals in the Philippines, which includes doctors, nurses, midwives, dentists, pharmacists and other allied health professionals. The Commission on Higher Education, on the other hand, regulates both public and private institutions of higher learning, which covers colleges and universities offering medical and other professional health degrees. In addition, the Insurance Commission (IC) regulates private health insurance companies and oversees the financial viability of health maintenance organizations.

2.1 Overview of the health system

The Philippine health system is characterized as a dual health system composed of the public sector and the private sector. The public sector is largely financed through a tax-based budgeting system, where health services are delivered by government facilities run by the National and local governments. The private sector, consisting of for-profit and non-profit health-care providers, is largely market-oriented where health care is generally paid for through user fees at the point of service (Department of Health, 2005b). The introduction of SHI in 1995 and its rapid expansion in the past 5 years is seen as a positive development in terms of achieving UHC, a major strategic goal in the Philippine Development Plan 2011–2016. The duality of organization of the health system becomes more

obvious in the context of the existing health financing system in the Philippines related to the way funds for health are sourced and utilized (see Chapter 3).

Health as a basic human right is enshrined in the 1987 Philippine Constitution (Article II, Section 15), which declares “the State shall protect and promote the right to health of the people and instil health consciousness among them”. Under this mandate, the DOH, as the national technical authority on health, has the responsibility to ensure the highest achievable standards of health care, from which LGUs, NGOs, the private sector and other stakeholders anchor their health programmes and strategies (Office of the President of the Philippines, 1999). The DOH provides national policy direction and strategic plans, regulatory services, standards and guidelines for health, and highly specialized and specific tertiary-level hospital services. It provides leadership, technical assistance, capacity-building, linkages and coordination with other National Government agencies, LGUs and private entities in the implementation of national legislation on health (Table 2.1).

With the enactment of the Local Government Code of 1991, LGUs were granted full autonomy and responsibility for managing and implementing their own health programmes and services, with the DOH providing technical support. Under this devolved set-up, provincial governments are given the responsibility for managing and operating primary- and secondary-level hospital services through the district and provincial hospitals. Municipal governments are mandated to provide primary care, including preventive and promotive health services and other public health programmes through rural health units (RHUs), health centres and *barangay* health stations (BHSs). Highly urbanized and independent cities are given the responsibility for providing both hospital services and primary care services.

Table 2.1 Major legislations in the health sector, 2002–2016

Year	Republic Act No.	Title and description
2002	9165	Comprehensive Dangerous Drugs Act – repealing the Dangerous Drugs Act of 1972 and instituting a more comprehensive dangerous drugs act
2002	9173	Philippine Nursing Act – repealing the Philippine Nursing Act of 1991 and providing for a more responsive nursing profession
2003	9211	Tobacco Regulation Act – regulating the packaging, use, sale, distribution and advertisements of tobacco products
2004	9271	Quarantine Act – strengthening the regulatory capacity of the DOH in quarantine and international health surveillance
2004	9288	Newborn Screening Act – promulgating a comprehensive policy and a national system for ensuring newborn screening
2007	9439	An act prohibiting the detention of patients in hospitals and medical clinics on grounds of nonpayment of hospital bills or medical expenses
2007	9482	Anti-Rabies Act – providing for the control and elimination of human and animal rabies
2007	9484	The Philippine Dental Act – regulating the practice of dentistry, dental hygiene and dental technology, and repealing previous dental laws
2008	9502	Universally Accessible Cheaper and Quality Medicines Act – providing for cheaper and quality medicines, and amending other related laws
2009	9711	Food and Drug Administration Act – strengthening and rationalizing the regulatory capacity of the Bureau of Food and Drugs (BFAD) and renaming it the Food and Drug Administration (FDA)
2012	10351	Sin Tax Law – restructuring the excise tax on alcohol and tobacco products and amending the National Internal Revenue code of 1997
2012	10354	The Responsible Parenthood and Reproductive Health Act – providing for a national policy on responsible parenthood and reproductive health
2013	10532	Philippine National Health Research System Act – institutionalizing the Philippine national health research system
2013	10606	National Health Insurance Act – amending Republic Act No. 7875, otherwise known as the National Health Insurance Act of 1995
2013	10611	Food Safety Act – strengthening the food safety regulatory system to protect consumer health and facilitate market access of local foods and food products
2014	10643	The Graphic Health Warnings Law – instilling health consciousness through graphic health warnings on tobacco products printed on 50% of the principal display surface
2014	10645	An act providing for the mandatory PhilHealth coverage for all senior citizens, and amending the Expanded Senior Citizens Act of 2010
2016	10747	Rare Diseases Act of the Philippines – promulgating a comprehensive policy in addressing the needs of persons with rare disease

Note: Legislations before 2002 are reported in the Philippines HiT 2011.

Source: Compiled by the authors

The private sector is extensive but fragmented, with thousands of for-profit and non-profit providers involved in the delivery of health-care

services. The private sector consists of clinics, infirmaries, laboratories, hospitals, drugstores, pharmaceutical and medical supply companies, health insurance companies, academic and research institutions involved in health and other service providers that include traditional healers (*herbolarios*) and traditional birth attendants (*hilots*). For-profit health enterprises are largely run by self-employed health professionals, family-owned businesses and corporate entities, while non-profit health enterprises are commonly run by charitable institutions, faith-based organizations, civil society organizations (CSOs) and community-based volunteer groups. Their collective contribution to health is enormous and their capacity augments the gaps in and inadequacies of the public sector.

2.2 Historical background

2.2.1 *Spanish colonial period*

The Philippine health system formally evolved during the Spanish colonial period when the first hospital was built in Cebu in 1565 and was later transferred to Manila as the seat of the colonial government, to cater to the needs of the Spanish army and navy. By 1578, the influential Spanish clergy eventually established the first medical institutions. A few of these remain in operation to this day, such as the San Juan de Dios Hospital, which treats the disabled, the abandoned and the poor, and the San Lazaro Hospital, which provides care for lepers. By the 1800s, smallpox vaccine was introduced in the country by Spanish royal decree to prevent and control the outbreaks of the disease among the populace. Several other public health measures were introduced to control cholera outbreaks and beriberi, which raged across the islands and decimated the population. During the almost 400 years of colonization, the Spaniards also built other medical facilities in other parts of the archipelago (Department of Health, 2014b).

2.2.2 *The Philippine Revolution and American colonial period*

Towards the closing years of the nineteenth century, a bloody revolution brought about an end to Spanish colonial rule, with the Filipinos declaring independence on 12 June 1898. The Bureau of Public Health was organized under the revolutionary government established by General Emilio Aguinaldo. However, hostilities between the Filipinos and the Americans, who were allies against Spain, broke out in the weeks that followed. The Americans took over the reins of government, eventually constituting the Board of Health for the Philippine Islands on 1 July 1901.

Ultimately, the Americans built more hospitals, implemented public health measures to prevent the spread of diseases, introduced formal medical education, and provided more medical benefits to Filipinos (Department of Health, 2014b).

2.2.3 The Philippine Commonwealth and establishment of the Republic

With the establishment of the Philippine Commonwealth under President Manuel L. Quezon, the Department of Health and Public Welfare was organized on 31 May 1939. The gains achieved during the Commonwealth era, e.g. additional health facilities and expansion of sanitation and MCH services fell into disarray with the start of World War II, with the Japanese forces occupying the entire islands. The incidences of TB, malaria, malnutrition and other diseases increased during the war years. With the liberation of the country from the Japanese, and the eventual establishment of the Republic, the new government started rebuilding from the ashes of war.

2.2.4 Establishment of the Department of Health

On 4 October 1947, through Executive Order No. 94, the DOH, as it is known today, was established with supervision over the Bureau of Health, Bureau of Quarantine, Bureau of Hospitals and all local health offices in the country (Department of Health, 2014b). With the enactment of the Rural Health Act of 1954 transforming the puericulture centres to RHUs and health centres, a national network of public health facilities at the community level was organized in all cities and municipalities. By the 1960s, with the organization of more public and private health facilities and the establishment of more schools for the medical, nursing and allied health professions in the country, marked improvements in patient care and public health services were noted.

With the declaration of martial law in 1972 and the country's eventual shift to a parliamentary form of government in 1978, the DOH was transformed into the Ministry of Health. The primary health-care approach was adopted as a national policy in the late 1970s following the Alma Ata Declaration. Executive Order No. 852, issued by President Ferdinand Marcos in 1983, integrated public health and hospital services under the Integrated Provincial Health Office headed by the provincial health officer. District Health Offices were also organized, placing the core district hospital and all municipal health offices within the district's catchment area under the supervision of the district health officer.

Following the People Power Revolution of 1986 and the shift back to the presidential form of government, the Ministry of Health and its attached agencies were again reorganized as the DOH under Executive Order No. 119 signed by President Corazon Aquino on 30 January 1987. Since then, several other major organizational reforms in the health sector were implemented. The Local Government Code (Republic Act No. 7160) was enacted in 1991, which changed the health system by giving LGUs the responsibility and autonomy to manage local health facilities and services. In 1995, the National Health Insurance Act (Republic Act No. 7875) was passed, replacing the Medicare Act of 1969 and establishing PhilHealth as the national health insurance entity mandated to ensure UHC through financial access to quality and affordable health care for all Filipinos.

Responding to the challenges brought about by these two major legislations, the DOH launched the Health Sector Reform Agenda in 1999 as a major policy framework to improve the way health care was delivered, regulated, managed and financed (Department of Health, 1999 & 2005b). As a corollary to this, Executive Order No. 102 was approved by President Joseph Ejercito Estrada on 24 May 1999, which further restructured the functions and operations of the DOH (Office of the President of the Philippines, 1999). In 2005, the DOH initiated FOURmula One for Health as the operational framework for the health reform agenda, encompassing four strategic components: health financing, health regulation, health service delivery and good governance in health (Department of Health, 2005b). Other major policy and organizational changes followed in succeeding years (see Sections 2.3.1, 2.4 and 2.5.1).

2.3 Organization

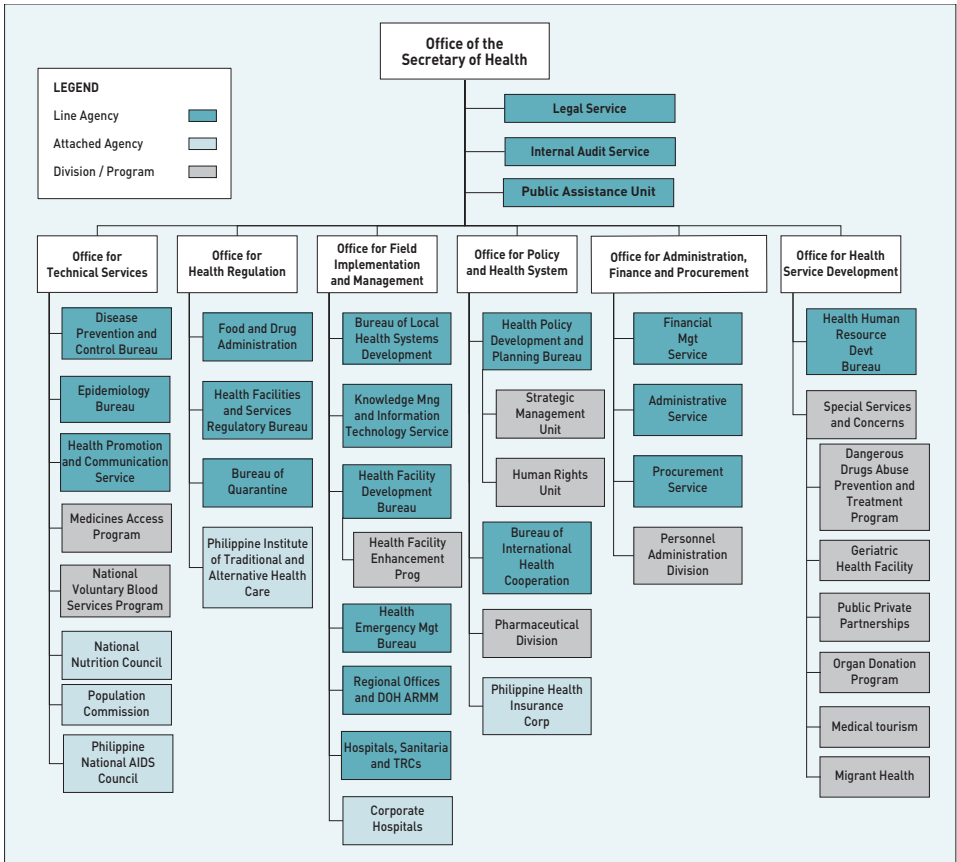
2.3.1 Government sector

Several National Government agencies and LGUs are responsible for ensuring that health policies are implemented and health programmes and services are delivered to the population.

National Government level. The DOH acts as the national lead agency in health. The DOH central office consists of 18 bureaus and services responsible for policy development, programme planning, standards setting and regulation, and related management support services (Figure 2.1). To provide technical assistance to LGUs and monitor field operations, the DOH has 17 regional health offices, one for each of the

17 administrative regions of the country. It also manages and operates several regional hospitals, medical centres, sanitarium, treatment and rehabilitation centres, and special hospitals that provide tertiary specialized health services and specialty training to health professionals. Attached to the DOH are several autonomous agencies such as the National Nutrition Council (NNC) and the Population Commission, and corporate entities such as PhilHealth, the Philippine Institute of Traditional and Alternative Health Care, and four highly specialized corporate hospitals.

Figure 2.1 Functional structure of the Department of Health, Philippines, 2017



Source: Department of Health, 2018

The DOH structure shown above reflects the major organizational changes brought about by the strategic review and rationalization of Government agencies and functions under Executive Order No. 366 signed

by President Gloria Arroyo on 4 October 2004. Effected by the DOH in 2013 with the final approval of its rationalization plan, this organizational change standardized the nomenclature of bureaus, services and regional offices; streamlined the functions, divisions and staffing pattern of the entire agency; and emphasized the DOH's leadership and policy-setting role for the whole health sector. Organizational change was also mandated by Republic Act No. 9711 – to strengthen and rationalize the regulatory capacity of the old Bureau of Food and Drugs by establishing adequate testing laboratories and field offices, upgrading its equipment, augmenting its human resource complement, giving it authority to retain its income, and renaming it as the FDA.

Besides the DOH, the Department of National Defence (DND), Philippine National Police, Department of Education (DepEd), state colleges and universities, and Department of Labor and Employment (DOLE) also provide direct health services within their respective legal mandates to specific sectors of the population such as the military and the police, students, teachers and the workforce.

Local government level. The local government in the Philippines consists of 81 provinces, 145 cities (of which 33 are highly urbanized cities and five are independent component cities), 1489 municipalities and 42 025 barangays (Philippine Statistics Authority, 2015). With the devolution of health services under the Local Government Code of 1991, the direct provision and management of health services such as public health programmes, promotive and preventive health care, and primary and secondary general hospital services were transferred to LGUs. Under this set-up, the provincial government, headed by the governor, manages the provincial health system (comprising the provincial health office and the provincial and district hospitals). The municipal government, headed by the mayor, manages the municipal health system (composed of RHUs and BHSs). The city government, specifically in highly urbanized and independent cities, manages city hospitals, medical centres, health centres and BHSs.

In every province, city or municipality, there is a local health board chaired by the local chief executive. Its function is to serve as an advisory body to the local chief executive and the local legislative council (*sanggunian*) on health-related matters. Under the Local Government Code of 1991, the DOH maintains representation in all local health boards through the DOH representatives (organized most recently as Development Management Officers under the DOH Provincial Health Teams).

As a distinct subnational entity created by law (Republic Act No. 6734, as amended by Republic Act No. 9054), the ARMM consisting of five provinces has its own regional DOH headed by a Regional Secretary of Health directly responsible to the ARMM Regional Governor. It directly administers the provincial, city and municipal health offices, and the provincial and district hospitals within the autonomous region.

2.3.2 Private sector and NGOs

The private sector consists of thousands of for-profit and non-profit health providers, which are largely market-oriented and where health care is generally paid for through user fees at the point of service. The private health sector is regulated by the Government through a system of standards and guidelines implemented through the licensure procedures of the DOH and the accreditation procedures of PhilHealth (see Sections 2.8.1 and 2.8.2). The private sector consists of clinics, infirmaries, laboratories, hospitals, drug manufacturers and distributors, drugstores, medical supply companies and distributors, health insurance companies, health research institutions and academic institutions offering medical, nursing, midwifery, and other allied professional health education. Non-formal health service providers include traditional healers (*herbolarios*) and traditional birth attendants (*hilots*), which are not covered by any licensing or accreditation system by the Government.

Other relevant private organizations and NGOs are also involved in the health system. Professional groups such as the Philippine Medical Association, Philippine Nurses Association, Philippine Dental Association and the Integrated Midwives Association of the Philippines among other groups are involved in the promotion of the highest standards of practice and competence in the health professions, and the promotion of the rights and privileges regarding such practice. Professional practice in the health professions is regulated by the PRC, a government entity composed of several professional regulatory boards, which administers qualifying licensure examinations and exercises administrative and quasi-judicial powers over their respective professions.

Specialty societies and specialty boards in the medical profession, such as the Philippine College of Physicians, Philippine College of Surgeons, Philippine Academy of Family Physicians, Philippine Pediatrics Society and Philippine Obstetrical and Gynecological Society among many other medical specialty organizations, are also involved in the accreditation of training institutions, administration of qualifying examinations

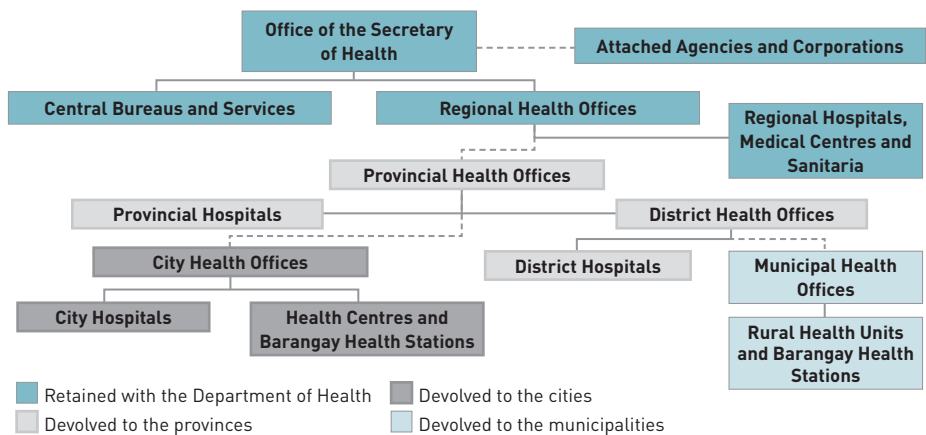
and granting of certificates for Diplomates and Fellows for medical specialists. These specialty boards are private professional entities given recognition by the Professional Regulatory Board of Medicine under the PRC (Professional Regulatory Board of Medicine, 2015).

Numerous NGOs, volunteer organizations, and civil society groups are also vital partners of the Government in the provision of health and health-related services. One example is the Philippine Red Cross, providing staff and volunteers for humanitarian services in times of disasters and natural calamities; ensuring safe and quality blood services through its active role in voluntary blood donation, testing and processing; and promoting health through its primary health care and community-based health programmes.

2.4 Decentralization and centralization

The enactment of the Local Government Code of 1991 (Republic Act No. 7160) mandated the devolution of health services from the National Government to the LGUs. What used to be a highly centralized health system run by the DOH became a fragmented system consisting of more than a thousand autonomous local health systems run by provinces, cities and municipalities. The DOH maintained its role as the steward of national policies, plans, standards and regulations on health, while the LGUs were given the responsibility of being managers and providers of direct health services at the local level. Figure 2.2 shows the different units retained in the DOH and those devolved to the LGUs.

Figure 2.2 Organizational structure showing the health offices devolved to the LGUs



Source: By the authors

After the devolution of health services, improvements in health outcomes and performance of health-care facilities and health workers at the local level have shown marked variations across LGUs (Department of Health, 2012a). Some LGUs have barely coped with their new responsibilities, leaving some local health facilities poorly equipped and poorly staffed. As a result, major gaps in the quantity, quality and distribution of essential health services at local levels have become persistent concerns of both the National and local governments. The fragmentation of the health-care delivery system most severely affected the provision of health services in geographically isolated and disadvantaged areas. These areas are generally characterized by high morbidity and mortality, lack of health facilities and health professionals, and poor logistical support, resulting in poor access to quality health care (Department of Health, 2004). In response, the DOH, in partnership with the LGUs, pushed for the strengthening of health service delivery in such areas with the issuance of Administrative Order No. 185 s. 2004, supporting the implementation of local health system reforms through a strong primary health-care approach in remote, isolated and disadvantaged communities with marginalized populations.

To create and maintain an institutional environment and incentive schemes that encourage inter-LGU coordination and ensure their sustainable operations in accordance with the provision of the Local Government Code of 1991, the DOH also issued Administrative Order No. 2006-0017 providing for the organization and development of inter-local health zones (ILHZ). Based on the concept of the pre-devolution District Health System, the ILHZ is basically an “organized arrangement for coordinating the operations of an array and hierarchy of health providers and facilities, serving a common population within a local geographic area under the jurisdiction of more than one local government” (Department of Health, 2006a). An ILHZ consists of primary health providers, a core referral hospital and an end referral hospital. Cities and municipalities that are geographically contiguous and with populations ranging from 150 000 to 500 000 that routinely intermingle comprise an ILHZ. The purpose is to improve the efficiency of health services through inter-LGU sharing of limited resources and providing economies of scale, thus resolving certain issues brought about by the fragmentation of health services.

In July 2011, the DOH issued another policy on local health development through Administrative Order NO. 2011-0008, outlining the framework

for an intersectoral approach to support the development of urban health systems in highly urbanized and rapidly urbanizing cities (Department of Health, 2011a). The policy goal is to improve health system outcomes in support of UHC goals, taking into consideration the social determinants of health in urban settings and focusing on the reduction of health disparities among the urban poor population.

Under the National Health Insurance Act of 1995, premium contributions for enrolling in PhilHealth for indigent members are subsidized through a cost-sharing arrangement between the National Government and the LGU where the indigent member resides. In certain cases, however, some LGUs are not able to provide their share of the contribution. This cost-sharing arrangement was amended with the enactment of the National Health Insurance Act of 2013, with the National Government fully assuming the subsidy through the budget of the DOH. Enrolment of specific sponsored members under the care of the Department of Social Welfare and Development (DSWD) such as orphans, persons with disability, senior citizens and battered women will be fully subsidized through the national budget of the DSWD.

2.5 Policy and planning

2.5.1 Policy formulation

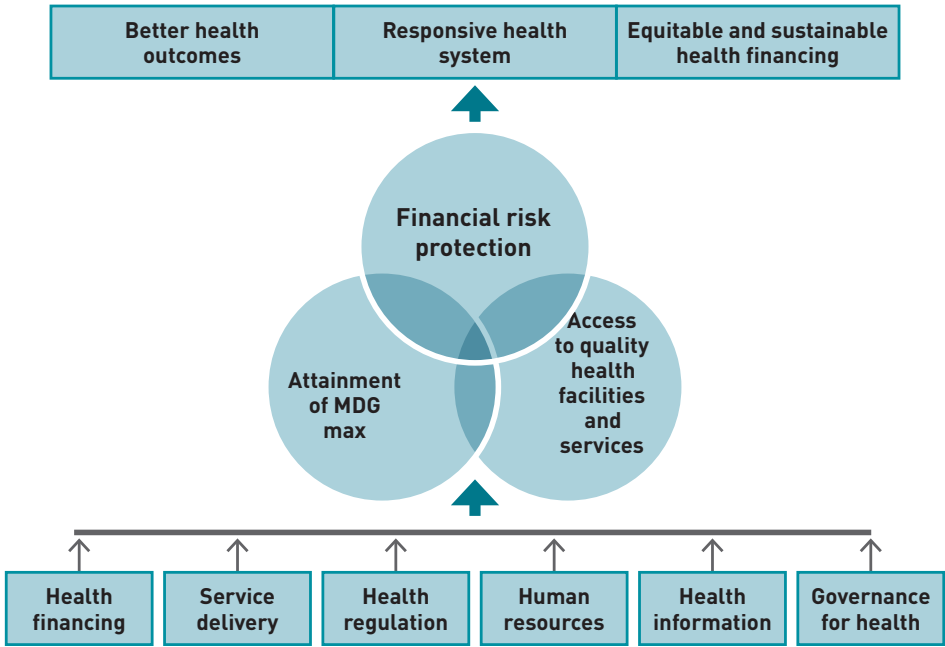
National policy on UHC. The most recent policy reforms and organizational change were brought about by the issuance of Administrative Order No. 2010–0036, the operational strategy on *Kalusugan Pangkalahatan* (KP, UHC),² which aims to achieve UHC and ensure equitable access to quality health care by all Filipinos (Figure 2.3). KP prioritizes three strategic thrusts: (i) financial risk protection through expansion of enrolment and benefit delivery of the NHIP; (ii) improved access to quality hospitals and health-care facilities and services; and (iii) attainment of the health-related MDGs, including for NCDs and their health-related risk factors (Department of Health, 2010b).

The optimization of six critical instruments or building blocks has been identified as the key to the attainment of the three strategic thrusts: (i) health financing – to increase resources for health that will be effectively allocated and utilized to improve the financial protection of the poor and vulnerable sectors; (ii) service delivery – to transform the health service delivery structure to address variations in health service utilization and

2 In the Philippines, the term universal health care (UHC) is being used synonymously or interchangeably with universal health coverage.

health outcomes across socioeconomic variables; (iii) policy, standards and regulation – to ensure equitable access to health services, essential medicines and technologies of assured quality, availability and safety; (iv) governance for health – to establish the mechanisms for efficiency, transparency and accountability and prevent opportunities for fraud; (v) human resources for health – to ensure that all Filipinos have access to professional health-care providers, capable of meeting their health needs at the appropriate level of care; and (vi) health information – to establish a modern information system that will provide evidence for policy and programme development, and support for immediate and efficient provision of health care and management of provincewide health systems (Department of Health, 2010b).

Figure 2.3 Framework for universal health care in the Philippines



Source: Department of Health, 2010b

More recently, the DOH issued Administrative Order No. 2014-0046 promoting the establishment of service delivery networks (SDNs) to efficiently and effectively cover the health needs of the population, particularly identified priority groups, for UHC programmes and projects. An SDN refers to the network of public and private health providers within local health systems offering a core package of health services in an integrated and coordinated manner as a form of health referral

mechanism (Office of the Secretary, 2014). SDNs include the different levels of health care, ranging from the first contact level of care that offers basic health services to levels of care involving emergency services up to specialized hospital care and the provision of continuing and long-term health care. Under this set-up, every family in a local health system is designated to a health service provider or health facility within the network to ensure access to quality health services and the continuity of care across political, geographical and administrative boundaries.

Health policy development process. The health policy development process occurs at the national level down to the LGUs, and in specific health agencies or institutions of the government.

At the national level, there are at least three streams of health policy development. First, members of Congress (either from the House of Representatives or the Senate) may propose a health bill, which undergoes the legislative process. The bill is eventually referred to the appropriate congressional committee and undergoes deliberations, public hearings, periods of debate and amendments. Members of Congress eventually vote for the approval or rejection of the bill, and once approved, a bicameral conference is called to thrash out differing versions of the bill from both the Senate and the House of Representatives. After the differences are resolved, the bill is sent to the President for approval. The President may veto the bill or sign it to become a law (Development Academy of the Philippines-DOH, 2009).

Second, the President of the Philippines may issue public policies, including health policies, in the form of executive orders or presidential proclamations in response to a policy issue or operational concern that cuts across several policy areas or involves implementation or coordination by several government agencies. This issuance is usually drafted by a specific line agency concerned with the policy issue and reviewed by the Office of the President. Once approved by the President, the policy takes effect and becomes the basis for implementing programmes, projects or activities by concerned government agencies (Development Academy of the Philippines-DOH, 2009).

The third stream for policy development may ensue at the agency level, such as the DOH for health sector-related policies. In the DOH, policies emanate from the different offices or bureaus of the Central Office with the Health Policy Development and Planning Bureau as the lead policy reviewer. A wide range of discussions among stakeholders may take place

within and outside the DOH, including with LGUs, development partners and civil society groups. The draft policy issuance is presented to the DOH Executive Committee before it is finalized and approved by the Secretary of Health. Policy issuances whose application is limited to the confines of the DOH offices are generally issued as Department Orders, while those affecting stakeholders in the wider health sector are generally issued as Administrative Orders (Development Academy of the Philippines-DOH, 2009).

The DOH issued Department Order No. 2009-0292 providing the guidelines for the formulation and processing of health policies for agencywide or nationwide implementation. As a policy-making institution, all DOH units are responsible for developing evidence-based policies and exerting technical influence and regulatory measures to implement such policies (Department of Health, 2009a). The health policy development process starts with an agenda-setting stage that includes the identification and prioritization of policy issues and gaps by different DOH offices to come up with an integrated medium-term health policy agenda. The process undergoes the policy formulation stage, which includes policy analysis, consultation, and drafting of the policy issuance. The draft policy goes for a review by a Policy Review Group before it goes for final approval. The policy implementation phase starts with policy dissemination and advocacy, development of operational guidelines and incorporation of the policy into the programme planning and budget cycle. The last stage of the process consists of monitoring of compliance by implementing units, tracking of performance, feedback and documentation of issues through evaluation research and policy impact studies.

At the local level, the formulation of policy measures that cater to local issues and concerns, including local health concerns, is the result of a collaborative process among the local legislative council (*sanggunian*), the local chief executive, local constituents, civil society and the private sector. There are at least two streams of policy development at the local level. The first stream is through the executive process. The local chief executive, i.e. the governor at the provincial level or the mayor at the city and municipal levels, may issue policies in the form of executive orders or administrative orders.

The second stream is through the legislative process. At the local level, legislative power is vested in the local legislative council chaired by the vice governor at the provincial level (*Sangguniang Panlalawigan*) and by

the vice mayor at the city and municipal levels (*Sangguniang Panlungsod* or *Sangguniang Bayan*). Policies are enacted by the local legislative council in the form of local ordinances and resolutions. Application of policies issued through these two streams is local in nature and limited to within the political and territorial jurisdiction of the LGU (Development Academy of the Philippines-DOH, 2009).

2.5.2 Current planning

Health planning process. The health planning process occurs as a cycle and is iterative in nature, with the succeeding planning process building on the previous plan's gains and lessons. The DOH generally follows a logical step in the health planning process that includes situational analysis, goal setting, programming and budgeting, implementation and monitoring and evaluation, the findings from which become the basis for the next planning cycle (Development Academy of the Philippines-DOH, 2009). This process is prescribed by the DOH as the general basis for developing all plans in the health sector, from the development of the national objectives for health (NOH), which is the national medium-term strategic plan for the health sector, down to the annual work and financial plans of field health operating units, including local health plans.

The NOH contains the national strategic thrusts, key sectoral goals and objectives and performance indicators and targets for health. Key strategies, goals and targets identified by the DOH in the NOH are discussed with the National Economic and Development Authority (NEDA) for inclusion in the Philippine Development Plan (PDP), the country's medium-term development plan. The NOH and the PDP serve as the basis for developing the investment plan for health and the annual operational plans of offices and bureaus in the DOH, regional health offices and the LGUs (provinces, cities and municipalities). Investment planning for health involves the process of identifying the required resources to implement the strategies and programmes necessary to attain health goals and objectives. An example of an investment plan at the national level is the Medium Term Public Investment Program (MTPIP), which includes components on the estimates of needed investment for the health sector. At the local level, the Provincewide Investment Plan for Health (PIPH) and the Citywide Investment Plan for Health (CIPH) (recently harmonized as the Local Investment Plan for Health or LIPH) are typical examples of investment plans.

The LIPH is the key instrument for building the DOH–LGU partnership in health, in collaboration with development partners and other local stakeholders. The LIPH translates national health goals into concrete actions at the local levels. It represents all interests, activities and investments of stakeholders for health in the local health system. The LIPH, as a medium-term local investment plan for health, is eventually translated into annual operational plans incorporating local health programmes, projects and activities and their budgetary requirements for a particular year.

In 2011, the National Government introduced the concept of bottom–up budgeting (Department of Budget and Management, 2011). This concept ensures complementarity between national and local programmes and projects, and convergence of the delivery of national services at the local level through inclusion of funding requirement for the development needs of LGUs. Also, for more depth, greater substance and refinement of plans and budget, a process for constructive engagement with civil society and consultations with regional and local officials and stakeholders was introduced.

As part of the planning and budget reforms, the DOH adopted the “two-tier budgeting” approach prescribed by the Department of Budget and Management (DBM). This approach separates the discussions and deliberations for ongoing and expansion programmes from new projects and new spending proposals. This is intended to improve accountability of government agencies for more effective and efficient management of public resources and more strategic allocation of fiscal space. The DOH also prescribed that target-setting be in accord with the Sustainable Development Goals (SDGs), UHC and goals of the Health Sector Reform Agenda (HSRA), as well as LGU plans and targets (Department of Health, 2016b). Also, as part of the process, the Medium Term Expenditure Framework, Organizational Performance Indicator Framework and zero-based budgeting and output-based budgeting systems and processes are being strengthened. These reforms are the essential components of good governance, sound fiscal discipline, and efficient operational management being espoused by the National Government.

Health human resource planning. The first major long-term strategic Human Resources for Health (HRH) Development Plan was developed by the DOH in collaboration with the WHO Regional Office for the Western Pacific in 2005. The master plan, spanning the period 2005–2030, was

developed to provide the basis for the production, deployment and development of HRH systems in all health facilities in the Philippines. The plan was divided into three periods: a short-term period covering 2005–2010 that focused on redistribution of health workers and management of HRH migration to other countries; a medium-term period covering 2011–2020 that aimed at increasing investment for HRH; and a long-term period covering 2021–2030 intended to improve management systems to ensure a productive and satisfied workforce (Romualdez et al., 2011). To support the implementation of the plan, the DOH spearheaded the establishment of the Human Resource for Health Network in collaboration with other government agencies and NGOs, to address and respond to multisectoral HRH concerns.

In 2013, the DOH issued an updated strategic plan, the HRH Master Plan 2014–2030, and published an accompanying Operational Plan 2014–2016. Four key result areas and strategic objectives were identified in the master plan: (i) strategic response to evolving and unmet population health needs; (ii) education, training and continuing competence by developing an interprofessional and flexible workforce, able to manage a full range of conditions and empower communities to manage their own health needs; (iii) health workforce utilization, management and retention to maximize staff and skill mix efficiency and improve service delivery; and (iv) health workforce governance, leadership and partnership through HRH cross-sectoral planning, policy coherence and regulation (Health Human Resource Development Bureau, 2013).

The DOH has also started the development of the DOH Academy with the primary objective of integrating, harmonizing and streamlining HRH capacity development and training activities, instituting a certification and accreditation system for academic and training institutions, and improving the efficiency and cost of training. The institution of the DOH Academy was formalized through Administrative Order No. 2015–0042 (Guidelines for the Establishment of the DOH Academy). As the primary training arm of the DOH, the Academy is expected to enhance competencies of the health workforce in local health systems development. The Health Human Resource Development Bureau (HHRDB) is especially keen to undertake the development of e-learning modules as a component strategy of the DOH Academy to lessen interruption of service delivery due to attendance in training courses, and to provide career growth opportunities for frontline health workers unable to avail of such face-to-face training courses.

Health facility planning. The DOH National Center for Health Facilities Development, now called the Health Facility Development Bureau (HFDB), developed the first Philippine Hospital Development Plan (PHDP) in 1995 to create a more responsive hospital system in the country. The PHDP was further updated in 2000 as a major thrust of the Health Sector Reform Agenda (Asia Pacific Observatory on Health Systems and Policies, 2013; Romualdez et al., 2011).

In 2008, the PHDP was expanded and renamed the Philippine Health Facility Enhancement Program (HFEP) to include in its coverage primary care facilities such as RHUs, health centres and BHSs. With the institution of KP (UHC) in 2010, the DOH increased the budget allocation and fast-tracked the implementation of HFEP to ensure that the poorest 5.2 million families in the National Household Targeting System for Poverty Reduction (NHTS-PR) would have better access to quality health care.

The development of hospitals and other health facilities is planned and designed according to appropriate architectural practices, and technical and operational guidelines established by the DOH. As a framework for health facility development, the DOH issued Administrative Order No. 29 of 2006 (Guidelines for Rationalizing the Health Care Delivery System based on Health Needs), which provides the procedures and requirements for planning health facilities in the crafting of PIPH and CIPH by the LGUs. The DOH also issued Administrative Order Nos. 2006-0004 and 2006-0004-A (Guidelines for the Issuance of Certificate of Need to Establish a New Hospital) covering both government and private hospitals, specifying the requirements for establishing new hospitals, and upgrading, converting or increasing the bed capacity of existing hospitals. The guidelines established the basic criteria for a proposed health facility such as the catchment population, location and the commitment of LGUs to fund and maintain the health facility. For secondary and tertiary hospitals, the utilization rate, number of staff and bed-to-population ratio are also considered. In addition, new hospitals must be at least one hour away by the usual means of transportation from the nearest existing hospital to emphasize the importance of networking and the referral system, and prevent wasteful duplication of services (Asia Pacific Observatory on Health Systems and Policies, 2013).

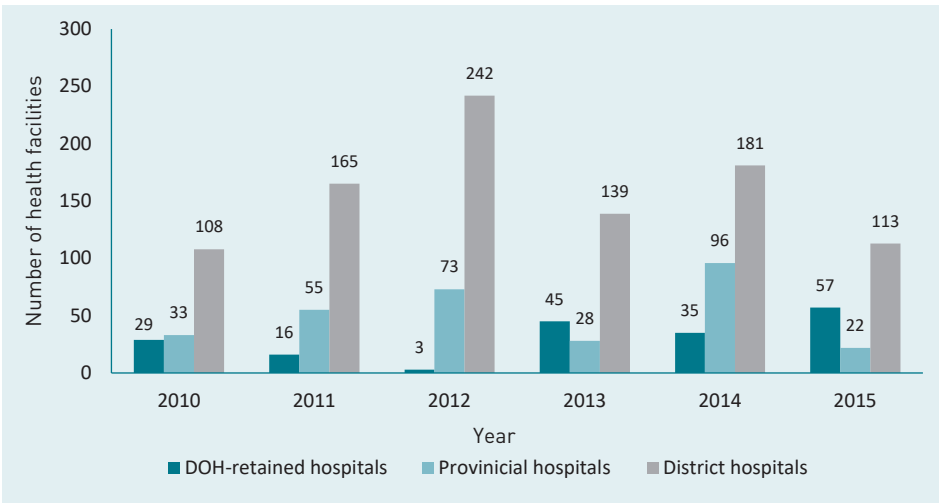
As a commitment to engage the private sector, the DOH issued Administrative Order No. 2012-0004 (Policy Framework for Public-Private

Partnerships in Health) to prioritize partnerships that would support KP goals and other priority areas in health service provision, such as the TB prevention and control programme, Expanded Program on Immunization (EPI), maternal care and RH among others; and health facility development such as provision of health technology and equipment, and development of hospital infrastructure (Office of the Secretary, 2012a).

Based on the performance assessment of the NOH 2011–2016 (Villaverde MC et al., 2016), the total HFEP projects implemented or completed from 2010 to 2015 to upgrade and rehabilitate existing health facilities and construct new ones consisted of 185 projects in DOH-retained hospitals, 307 projects in provincial hospitals and 948 projects in district hospitals (Figure 2.4). There were also 3779 infrastructure projects for upgrading, rehabilitating and constructing RHUs during the same period. Furthermore, 85.6% of licensed National and local government hospitals and 97.7% of licensed private hospitals were granted PhilHealth accreditation in 2014. This figure includes all the 68 retained hospitals and the four corporate hospitals under the DOH. At the primary level, a total of 2553 RHUs and Health Centres were accredited by PhilHealth to deliver the primary health-care benefit package as of 2015.

The 2014 Customer Satisfaction Survey Report conducted by the DOH also revealed that 96.7% of those who availed the services provided by DOH-retained hospitals stated that their expectations had been met.

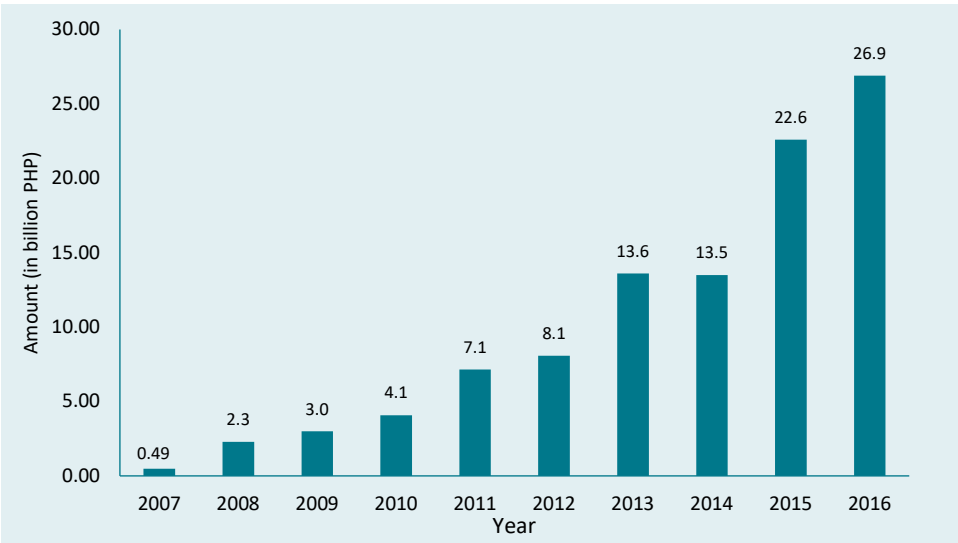
Figure 2.4 Number of hospital infrastructure projects implemented, 2010–2015



Source: Villaverde MC et al., 2016

From an annual budget of less than PHP 0.5 billion during the base year 2007, the annual budget for the HFEP has grown to more than PHP 25 billion in 2016 (Figure 2.5). Since its inception in 2008, the HFEP has received a total budget appropriation of more than PHP 100 billion till 2016. With the substantial budget increase for health infrastructure and to effectively and efficiently manage the large investment, the DOH formed the HFEP Management Office, which is tasked with (i) developing and managing the critical information system on facility and equipment mapping and inventory, including procurement needs and requirements; (ii) developing the HFEP strategic plans; and (iii) setting priorities, conducting monitoring and programme reviews, and coordinating with regional health offices, LGUs, other government agencies and stakeholders involved in HFEP projects. The HFEP Management Office complements the existing HFDB, which retained its mandated functions on policy development, planning, technical assistance, capacity-building and advisory services for health facility development.

Figure 2.5 Annual budget of the Health Facilities Enhancement Program, 2007–2016



Notes: 2010 includes 820 million pesos from realignment of funds from the Family Health Office.
2012 includes 3.0 billion pesos from PPP for selected DOH hospitals
2015 includes 9.3 billion pesos from the Department of Budget and Management.
Source: Villaverde MC et al., 2016

2.5.3 Role of development partners in policy and planning

Data from the Philippine National Health Accounts in the past decades (National Statistics Authority, 2016) reveal that investments for the health sector coming from foreign sources or Official Development Assistance (ODA) have never reached 3% of the country's THE. Although the ODA was tiny, the DOH adopted a sectorwide approach based on the principles of the Paris Declaration on Aid Effectiveness. The DOH also devised the Sector Development Approach for Health (SDAH) to ensure that all financial and investment portfolios for health from various sources, e.g. the Government, multilateral and bilateral ODAs, CSOs and private sector partners, are coordinated with the DOH to improve the efficiency and effectiveness of the limited resources for health.

While progress has been made in the implementation of health programmes and projects within the context of SDAH, some challenges have been identified. Some partners and donors remain passive in their participation. The institutionalization of SDAH remains dependent on the enthusiasm and advocacy of some key officials in the DOH and development agencies. There is also a need for wider involvement of civil society and the private sector.

2.6 Intersectorality

"Health in All Policies" as a concept and as a collaborative approach across sectors to take into account the health implications and impacts of public policies and decisions, including mechanisms and tools for assessing such impacts, is a current limitation of the policy development process in the health sector. However, several multisectoral mechanisms are in place to discuss concerns and take appropriate actions on the health-related impacts of policies, programmes and projects of other sectors.

2.6.1 Environment and climate change.

The Inter-Agency Committee on Environmental Health (IACEH), with the DOH as chair and the Department of Environment and Natural Resources as vice-chair, was created in 1991 by virtue of Executive Order No. 489 as a venue for technical collaboration, effective monitoring and communication, resource mobilization, policy review and development on matters related to the effects of the environment on population health. Collaborative policies and actions within the IACEH are tackled under the five multisectoral task forces on water, solid waste, air, toxic and chemical

substances and occupational health to ensure that environmental and occupational hazards and risks are mitigated; and that diseases, disabilities and deaths from environmental factors are prevented (NEHAP, 2010).

Related to this, the Climate Change Act of 2009 (Republic Act No. 9729) was enacted to mainstream climate change into Government policies and to establish strategies and programmes on climate change. For this purpose, the Climate Change Commission was established with the President of the Philippines as the Chairperson and three commissioners as members, with the DOH representing the health sector in the advisory board. Another law, the Philippine Disaster Risk Reduction and Management Act of 2010 (Republic Act No. 10121) provided for the development of policies and plans, and the implementation of actions and measures pertaining to all aspects of disaster risk reduction and management (DRRM), including risk assessment and early warning, awareness-raising, reducing underlying risk factors and ensuring preparedness for effective response and early recovery. The law restructured the National Disaster Coordinating Council into the National Disaster Risk Reduction and Management Council (NDRRMC) chaired by the Secretary of National Defense. The active participation of the DOH in the Council ensures that health concerns are taken into account in all policies and decisions.

2.6.2 Nutrition and food safety and security

The Nutrition Act of the Philippines (Presidential Decree No. 491) promulgated in 1974 created the National Nutrition Council (NNC) as the highest policy-making and coordinating body on nutrition under the Office of the President of the Philippines. Various reorganizations of the Council in the 1980s transferred the chairmanship of the agency to the DSWD and subsequently to the Department of Agriculture. Its membership was also expanded to include other executive departments such as the DBM, DOLE, Department of Trade and Industry and NEDA. In 2005, the chairmanship of the Council was transferred to the DOH to further align its mandate with health sector goals. The NNC was also tasked to focus on hunger mitigation and malnutrition prevention programmes. The functions and multisectoral composition of the NNC are replicated at subnational levels with local chief executives as chairpersons.

Executive Order No. 86 was issued in 1999, creating the National Council on Food Security to act as the overall coordinating body in the formulation

of policy guidelines and master plans and programmes on food security, with emphasis on the modernization of the agriculture and fisheries sectors. The Council is chaired by the President of the Philippines with the Secretary of Agriculture and the Secretary of the Interior and Local Government as vice-chairs. The DOH has been designated as one of the members of the council. Another Executive Order No. 174 was signed by the President in 2003, creating the National Council on Food Security and Job Creation, but this was subsequently abolished in 2005 as part of the rationalization and streamlining programme of the Government. However, there is a pending bill in Congress to establish a more permanent National Food Security Council.

In 2013, the Food Safety Act (Republic Act No. 10611) was enacted by Congress to strengthen the food safety regulatory system, protect the health of consumers and facilitate market access of local food and food products. A Food Safety Regulation Coordinating Board was created under this law with the DOH as chair, to be responsible for the safety of processed and prepackaged foods, and the conduct of monitoring and epidemiological studies on foodborne illnesses. The Board is co-chaired by the Department of Agriculture, with responsibility for food safety in the primary production and post-harvest stages of the food supply chain.

2.6.3 Social development and poverty alleviation

To pursue the President's Social Contract with the Filipino People, Executive Order No. 43 was issued in May 2011 reorganizing the Cabinet Clusters. Under this Order, the DOH is one of the agencies under the Human Development and Poverty Reduction Cluster, mandated to focus on improving the overall quality of life of the Filipino.

The DOH is also an active member of the Committee on Social Development chaired by the NEDA. This Committee advises the President and the NEDA Board, coordinates Government activities, and recommends Government policies, programmes and projects on social development to the President, which are consistent with national development objectives and priorities.

2.6.4 Tobacco control

The enactment of the Tobacco Regulation Act of 2003 (Republic Act No. 9211) established the policies and regulations on the packaging, use, sale, distribution and advertisement of tobacco products in order to

promote a healthy environment and protect citizens from the hazards of tobacco smoke, and at the same time, ensure that the interests of tobacco farmers, growers, workers and stakeholders are not adversely compromised. To administer and implement the provisions of the law, IAC-Tobacco was created with the Secretary of the Department of Trade and Industry as the chair and the Secretary of Health as the vice-chair. The composition of IAC-Tobacco includes representatives from the Departments of Agriculture, Justice, Environment and Natural Resources, Science and Technology, Education, National Tobacco Administration, and representatives of the tobacco industry and NGOs involved in public health.

2.6.5 Antimicrobial resistance and zoonoses

To prepare the country for the early detection and rapid response to zoonotic diseases, the President signed Administrative Order No. 10 on 11 April 2011 creating the Philippine Inter-Agency Committee on Zoonoses as a collaborative mechanism to synergize and harness the strengths and capabilities of the concerned departments and bureaus of the Government for the control and eventual elimination of zoonoses. This Committee is composed of the DOH, Department of Agriculture and Department of Environment and Natural Resources, with the secretary of each department serving as chairperson on a 2-year rotational basis.

To ensure efficient Government response to antimicrobial resistance (AMR), the President issued Administrative Order No. 42 on 10 April 2014, creating the Interagency Committee to Combat Antimicrobial Resistance in the Philippines, with the DOH and the Department of Agriculture as co-chairs, and with the Department of Science and Technology (DOST), Department of Interior and Local Government (DILG) and Department of Trade and Industry as members. Its functions are to formulate the national plan to prevent and control AMR; promulgate guidelines, rules and regulations; and collaborate and coordinate with other agencies, the private sector and NGOs regarding AMR.

2.6.6 HIV/acquired immune deficiency syndrome (AIDS)

The Philippine AIDS Prevention and Control Act of 1998 (Republic Act No. 8504) reconstituted and strengthened the Philippine National AIDS Council (PNAC) and mandated it to oversee an integrated and comprehensive approach to HIV/AIDS prevention and control in the Philippines. The PNAC, composed of more than 20 agencies and organizations, and attached to the DOH as its chair, is the central advisory,

planning and policy-making body on HIV/AIDS. Appointment to the PNAC must ensure sufficient and discernible representation from the fields of medicine, education, health care, law, labour, ethics and social services. Its major functions consist of ensuring adequate service coverage for individuals with HIV; developing a comprehensive HIV/AIDS prevention and control programme; monitoring the implementation of the programme; and coordinating and strengthening working relationships between the Government and other stakeholders.

2.6.7 Other interagency bodies involved in health concerns

The health sector through the DOH is also represented in several other interagency councils or committees with health-related concerns such as the Inter-Agency Council on Violence Against Women and Their Children, the Philippine Council on Women, the Council for the Welfare of Children, the National Council on Disability Affairs, the Inter-Agency Committee on Health and Nutrition Statistics and the Philippine National Health Research System Governing Council, among many other multisectoral committees. However, there are several other sectors where health is not adequately represented such as housing, urban development, transport, labour and employment, infrastructure and energy.

2.7 Health information management

Faced with the critical challenge of integrating and harmonizing all existing health-related information systems and data sources, and the inadequacy of a governance structure on information and communication technology (ICT) for the health sector, the DOH issued standard policies, procedures and guidelines governing all ICT-related work in 2005. It directed all Central and regional offices and hospitals under the DOH to undergo an evaluation process check on compliance with the ICT standards to ensure continuing maintenance and sustainability, eliminate duplication of information systems, optimize resources, and implement efficient and effective solutions to address existing health information system issues and concerns. The DOH also joined the Health Metrics Network to advocate for sectorwide strengthening, integration and harmonization of health information systems.

In 2011, the Asian Development Bank (ADB) in collaboration with the Commission on Information and Communication Technology assessed the DOH on a full range of capabilities necessary for it to implement e-government. The DOH Information Management Service (now called the Knowledge Management and Information Technology Service)

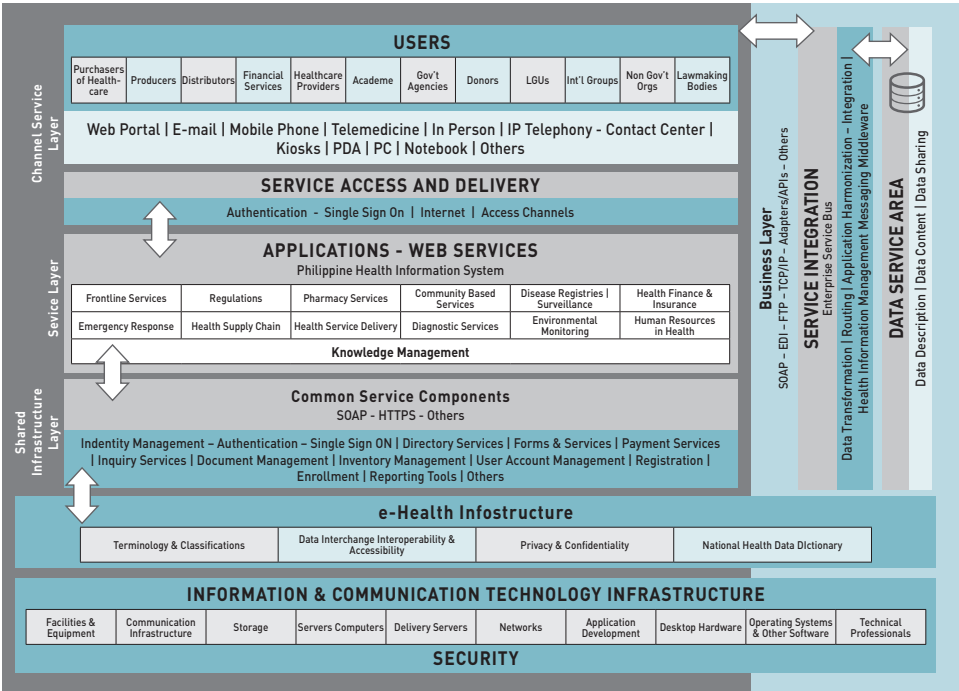
also conducted its own gap analysis and recommended action points. These assessments enabled the development of the DOH Enterprise Architecture (DOH EA) for the health information system, which is national in scope, covering not only the DOH but the entire Philippine health sector (Figure 2.6). With this Enterprise Architecture, the DOH instituted the collection of data based on standard sets of indicators, the storage of the data from various sources into a single data store or warehouse, and the consolidation, analysis and provision of reports in an integrated system. Further, the DOH is enabled to consider the information needs of other health sector groups and the importance of sharing information among various entities such as customer–patient, National Government agencies, DOH EA academe, LGUs, NGOs and other stakeholders (Department of Health, 2011c).

The level of computerization in the DOH has greatly improved in the past decade and the use of ICT has remarkably supported and improved health system functions. ICTs have been used in the areas of innovative technological changes, networking and infrastructure, office automation, and development and implementation of computer-based systems (Department of Health, 2011c). The DOH has augmented the budget on ICT to fully accomplish and support health information management goals and directions. ICT literacy and office automation have significantly increased, and the demand has intensified from Central, regional and field offices to computerize their operations, workflows and reporting systems.

2.7.1 Data ownership, collection and reporting

The Knowledge Management and Information Technology Service (KMITS) has established the data architecture to manage the design, availability, integrity and efficient use of data and information systems, including how data are stored, managed and used. Under this architecture, data ownership remains with the DOH offices mandated to collect and process specific data. They remain accountable and responsible for data accuracy, integrity and timeliness. According to their defined mandates, functions and goals, DOH offices collect or require the submission of data in compliance with government laws and regulations. In collecting data, offices must specify the datasets to be collected, frequency of submission and type of data collection (Department of Health, 2011c).

Figure 2.6 DOH enterprise architecture



Source: Department of Health, 2011c

2.7.2 Data quality management, processing, analysis and dissemination

The DOH office responsible for specific data ensures that there is regular validation and checking of the data to ensure the quality of data for processing, analysis and reporting. These data are officially endorsed by the responsible office to KMITS for official web posting and dissemination. KMITS and the office where the data are located are responsible for providing a back-up of data and complying with the data retention period necessary for specific datasets (Department of Health, 2011c).

2.7.3 Data security and confidentiality

Privacy restrictions are applied if the data collected includes information about people, such as personal identifying information (name, address, health and medical condition). Such personal data may only be used for the lawful purposes for which they were collected. In cases where there is a need to collect personal data and no existing law or order supports its collection, consent from the person involved is obtained. Data access rights and levels are approved by the Head of Office and only authorized users are given such data access rights, which can be defined on a per-user or per-data basis. Employees of offices with confidential data are

required to sign a confidentiality agreement, which includes the sanctions for failure to comply with the confidentiality obligations (Department of Health, 2011c).

In the context of DOH EA, major improvements have become evident in the development and implementation of information systems using client-server technology, development of the DOH website or portal, migration to developing web-based application systems, and development of the e-health framework. Notable gains were also seen in establishing the National Health Data Dictionary, Unified Health Management Information System, Interoperability Standards, and the move to web services in a service-oriented architecture. The number of computerized information systems developed and implemented to address the mission critical or frontline services has also increased. No less than 30 application systems have been made operational or are being developed or strengthened and expanded.

2.7.4 Health regulation information systems

Several health regulation information systems have been improved to strengthen the implementation of standards and quality assurance programmes, reduce transaction time for license application and renewal, enhance management control and reduce graft and corruption, such as the Integrated DOH Licensing System, the Integrated Food and Drug Administration Information System, and the Integrated Drug Test Operations and Management Information System.

2.7.5 Governance and management support information systems

Similarly, to improve DOH internal management support services and health sector governance, various application systems have been made operational such as the stock inventory system, electronic drug price monitoring system, web-enabled public assistance information system, integrated project tracking system, expenditure tracking system, document tracking system and health human resource stock inventory system.

2.7.6 Public health programmes and disease registries

Registries and information systems for public health programmes include: (i) FHSIS containing data on morbidity and health programme coverage on MCH, nutrition, dental health, EPI, family planning, environmental health, and disease prevention and control as reported from RHUs and BHSs;

(ii) active surveillance data on specific diseases with a high potential for outbreaks, such as the Philippine Integrated Disease Surveillance and Response, the Event-based Surveillance and Response, and the Vaccine Preventable Disease (VPD) Surveillance System; (iii) Online National Electronic Injury Surveillance System for providing timely reporting and registry of injury cases in the country; and (iv) Disease Registry for specific NCDs such as cancer, stroke, diabetes, chronic obstructive pulmonary disease (COPD) and other related diseases.

2.7.7 Health emergencies and international health surveillance

Development of software and information systems to improve monitoring and surveillance of emerging and re-emerging diseases of domestic and global importance that may be brought in or out of Philippine ports of entry/ exit, including sanitary conditions of incoming and outgoing vessels and cargoes, and health conditions of passengers and crew, are included in the International Health Surveillance Information System. This is in compliance with the WHO International Health Regulations, 2005. The Health Emergency Preparedness and Response Information System is being developed to improve coordination of action and response, and sharing of resources among DOH hospitals and offices, other national agencies, LGUs, the private sector and NGOs during emergencies and calamities.

2.7.8 Health facilities and hospital information systems

To improve hospital management and patient care, the Hospital Operations and Management Information System (HOMIS) is being rolled out for wider implementation. This information system includes modules on clinical services, such as emergency room and outpatient services, medical records, laboratory and pharmacy services, and other ancillary services. Modules related to management support systems such as personnel information system, logistics management, financial management and health-care equipment system are also built into the HOMIS. To improve access to safe and adequate blood supply, the Integrated Blood Bank Information System is being developed to link the networks of national and regional blood centres operating on a voluntary and non-remunerated blood donation system.

2.7.9 Information systems of PhilHealth

In 2015, PhilHealth conducted its own stocktaking and gap analysis on its mission critical processes, mission non-critical processes,

management processes and information stakeholders relative to its existing information systems and projected information needs. PhilHealth eventually formulated its Enterprise Architecture to guide the development of its critical information systems, adopting the Health Sector Architecture Principles as defined by the DOH (PhilHealth, 2015a). PhilHealth further developed its Information Systems Strategic Plan for the period 2015–2017 stating its current level of computerization, office automation, web presence, interagency applications, and interoperability standards. The Plan also contained its strategic concerns for ICT use, information system strategies and projects, and investment requirements (Office of the Secretary, 2015b).

PhilHealth has developed and deployed or is currently developing a total of 40 application systems related to its mission critical and frontline services and governance systems. These application systems are not fully integrated or harmonized. These include: (i) Membership and Contribution Information System, which consists of several subsystems related to membership database and customer-related services; (ii) PhilHealth Member Account Information System, which maps the contribution of members and provides employers with a system to facilitate payment and posting of contributions; (iii) New Claims System, which assists in the management of claims processing, including validation and adjudication of claims; (iv) Integrated PhilHealth Accreditation System, used for managing the accreditation process; (v) Health Care Provider Monitoring System, used for monitoring the accreditation and delivery of services of PhilHealth providers and instituting safeguards against questionable practices of providers; and (vi) governance and management information systems such as the systems and applications for financial management, and the systems and application used by the Treasury Department (Office of the Secretary, 2015b).

To further enhance the efficiency of PhilHealth's information system, three information system strategies are being instituted. The Customer Relations Management Information System will integrate and harmonize membership, collection, benefits, claims, accreditation and other service-related information systems. The Enterprise Resource Management and Information System will integrate applications on the financial, logistics and human resource aspects of PhilHealth, while the Executive Information System will facilitate and support the reporting and decision-making needs of top management (Office of the Secretary, 2015b).

2.8 Regulation

2.8.1 Regulation and governance of third-party payers

Regulation of health insurance companies. The IC, a Government agency under the Department of Finance, regulates and supervises the operations of private insurance and reinsurance companies, including life and non-life insurance companies, health insurance companies, pre-need companies, mutual benefit associations, insurance agents and brokers, underwriters, adjusters and actuaries, as mandated by Republic Act No. 10607 (The Insurance Code of 2013). Under the Code, personal accident and health insurance is classified as casualty insurance, a type of insurance that covers loss or liability arising from accident or mishap.

The Code provides the rules and regulations regarding the contract of insurance and classes of insurance, which cover guidelines on a wide range of topics such as the parties to the contract, insurable interest, the written insurance policy, warranties and premium. It also provides rules on the business of insurance, including capitalization, solvency requirements, limits of investments, limits on risks taken, amount of reserves, claims settlements and licensing requirements for insurance agents, brokers and actuaries, among numerous other provisions of the law. The main objective of the regulations is to ensure the safety of interests of the policy-holders and the general public. The requirements and restrictions are intended to minimize the chance of non-performance or default by the insurer by reducing the chance of insolvency and the risks of investments by the insurers.

Regulation of health maintenance organizations. In addition to the health insurance market, which is traditionally under the regulatory ambit of the IC, health maintenance organizations (HMOs) have experienced steady growth in recent years. However, before 2016, government intervention was limited to imposing certain requirements on HMOs such as registering with the Securities and Exchange Commission (SEC) and securing clearance to operate from the DOH (Funa D, 2014). SEC requirements include the statement of financial reserves and other financial and operational reports, while DOH requirements consist of compliance with certain technical and operational standards for health service provision. Under this set-up, HMOs are not covered by any specific regulatory scheme related to the unique needs of their particular market. Thus, the industry continues to face difficulties in adapting to the rapidly evolving economic environment. To address this, the Association of Health

Maintenance Organizations of the Philippines, Inc. (AHMOPI), the official trade association of HMOs in the country, took the task of self-regulation upon itself. This arrangement, however, leaves non-affiliated HMOs largely unregulated (Funa D, 2014).

Without a supervising regulatory entity that could level out the industry's competitive arena and mandate safety measures to protect the industry and the public, the financial stability and operational efficiency of HMOs remains a big challenge. Thus, Executive Order No. 192 was signed by the President on 12 November 2015 transferring all regulatory jurisdiction over HMOs from the DOH to the IC. During the transition period, all complaints filed against HMOs would be endorsed by the IC to the grievance machinery of the AHMOPI for mediation. Should the parties fail to reach an amicable settlement within 30 days, the complaint shall be forwarded by the AHMOPI to the IC for appropriate action (Insurance Commission, 2015a). Likewise, the Licensing Division of the IC's Legal Services Group was tasked with issuing HMO clearances and licences to operate (LTOs) beginning from 2016, subject to compliance with certain requirements regarding financial reserves, operational and financial reports, and copies of previous clearances or licenses issued by the DOH (Insurance Commission, 2015b).

National health insurance program. The provision of a compulsory SHI scheme is largely through PhilHealth, a Government corporation created through Republic Act No. 7875 (National Health Insurance Act of 1995), as amended by Republic Act No. 10606 (National Health Insurance Act of 2013). It is mandated to implement the NHIP and acts as the principal Government agency that purchases health services on behalf of its members. PhilHealth determines and assesses the services that its members need, accredits health facilities and service providers, ascertains the cost of services, negotiates on price, and pays providers through several schemes such as case-based payment, fee for service and capitation. Under its charter, PhilHealth is governed through a Board of Directors, chaired by the Secretary of Health and with members appointed by the President of the Philippines. The policy direction and strategic thrusts, including the general rules and regulations, and parameters for its operations, are largely determined by the Board.

2.8.2 Regulation and governance of providers

Licensing of hospitals. Republic Act No. 4226, known as the Hospital Licensure Act of 1965, mandated the DOH Bureau of Medical Services,

now called the Health Facilities and Services Regulatory Bureau (HFSRB), to act as the licensing agency for all public and private hospitals and to ensure equity, access and quality of health-care services through policy formation, and development of standards and regulations. Under the law, HFSRB shall adopt a system of classifying hospitals, taking into account their service capacities and compliance with standards for human resources, equipment, construction and physical facilities.

Over the years, variations in the service characteristics among different categories and within the same categories of hospitals, and the emergence of new types of health facilities compelled the DOH to issue Administrative Order No. 2012-0012. This updated the classification of hospitals according to ownership (government or private); scope of services (general hospital or specialty hospital); and functional capacity such as Level 1 (non-departmentalized general hospital), Level 2 (departmentalized hospital), and Level 3 (teaching and training hospital). It also defined a specialty hospital as a hospital that specializes in a particular disease or condition, e.g. Philippine Orthopedic Hospital, National Center for Mental Health; a particular organ or group of organs, e.g. Lung Center of the Philippines, Philippine Heart Center, National Kidney and Transplant Institute; and particular groups of patients, e.g. Philippine Children's Medical Center, Dr Jose Fabella Memorial Hospital (Office of the Secretary, 2012b).

To ensure the quality of services rendered by hospitals and to assure the safety of patients and hospital personnel, Administrative Order No. 2012-0012 also set the standards for human resources, physical infrastructure, equipment and instruments, service delivery, quality improvement activities, information management and environmental management. To simplify the licensing systems and processes, and make the regulatory scheme more effective and efficient, procedural guidelines were set. These include the application processes for certificate of need (CON), permit to construct and LTO, including their renewal and validity. Procedures for inspection and monitoring of hospitals, investigation of charges and complaints, penalties for violations and manner of appeal are also included.

Licensing of clinical laboratories. Republic Act No. 4688, enacted in 1966, mandated the DOH to regulate the operation, maintenance and registration of clinical laboratories. With the advances in technology, the DOH issued Administrative Order No. 2007-0027, updating the minimum standards and technical requirements for clinical laboratories to ensure

the accuracy and precision of laboratory examinations to safeguard public health and safety. Administrative Order No. 2007-0027 provided for the classification of clinical laboratories according to ownership (government or private); function (clinical pathology or anatomical pathology); institutional character (institution-based or free-standing); and service capability for general clinical laboratories (primary, secondary and tertiary categories) and special clinical laboratory. Clinical laboratories that exclusively operate for research and teaching purposes are exempted from the licensing requirements, provided that they register with the HFSRB (Department of Health, 2007b).

Standards for HRH require that every clinical laboratory be managed by a clinical or anatomical pathologist certified by the Philippine Board of Pathology, and that supervision of laboratory staff such as medical technologists and other health professionals shall follow the standards set by the Philippine Society of Pathologists. Administrative Order No. 2007-0027 also sets the standards for physical facilities, equipment and supplies, administrative and technical policies and procedures, and a quality assurance programme (QAP). Procedural guidelines for registration, licensing, inspection and monitoring, investigation of complaints, penalties for violation and manner of appeal are also stipulated (Department of Health, 2007b).

As a measure of quality control, clinical laboratories are required to institute an internal and external quality assurance programme (QAP). Internal QAP covers inputs, processes and outputs, and the practice of continuous quality improvement covers all aspects of laboratory performance. A clinical laboratory is also required to participate in the National External Quality Assessment Scheme administered by designated national reference laboratories (NRLs) or in other local or international external QAPs recognized by the DOH. Several local institutions have been designated as NRLs, such as the Research Institute for Tropical Medicine for dengue, TB, influenza, malaria and others; San Lazaro Hospital for HIV/AIDS, sexually transmitted infections and hepatitis; East Avenue Medical Center for environmental and occupational health and toxicology; National Kidney and Transplant Institute for haematology, immunopathology and anatomical pathology for renal diseases; Philippine Heart Center for anatomical pathology for cardiac diseases, and Lung Center of the Philippines for biochemistry and anatomical pathology for pulmonary diseases (Department of Health, 2009a; Office of the Secretary, 2009).

Licensing of other health facilities. Other types of health facilities are similarly covered by the rules and regulations for licensing and registration required by the DOH. Included in this category are primary care facilities, which are first-contact health facilities that offer basic services, including emergency services and provision for normal deliveries such as those with inpatient beds like infirmaries and birthing homes. Custodial care facilities providing long-term care such as psychiatric care facilities, substance abuse treatment and rehabilitation centres, sanatoria and nursing homes are also required to acquire licenses. Specific regulatory standards and licensing procedures are also applied to specialized outpatient facilities such as dialysis clinics, ambulatory surgical clinics, in vitro fertilization centres, stem cell facilities, oncology clinics, medical facilities for overseas workers and seafarers, and physical medicine and rehabilitation centres (Office of the Secretary, 2012b).

Under the law, licenses of hospitals, laboratories, infirmaries, and specialized outpatient facilities are valid for a period of 1 year. The license, however, may be suspended or revoked at any time for violation of specific rules, regulations and standards set by the DOH.

Harmonization of licensure and accreditation systems for hospitals. Prior to 2007, the grant of an LTO to a hospital required the acquisition of separate licenses issued by different bureaus in the DOH responsible for regulating ancillary services such as clinical laboratory, X-ray facility, pharmacy or blood bank services. In this set-up, a hospital has to transact with different regulatory offices in the DOH. To make health regulation more rational and client-responsive and to reduce transaction costs for health providers, the DOH issued a series of Administrative Orders in 2007 to harmonize and streamline its licensing systems and processes (Department of Health, 2007a).

Two major policies were initiated. First was the establishment of the One-Stop Shop Licensure System for Hospitals, wherein a unified procedure and a single LTO would be issued to hospitals. The One-Stop Shop Unit, under the leadership of the HFSRB, was created to be the sole transacting unit with hospitals, and the One-Stop Shop Secretariat composed of technical staff from different regulatory bureaus of the DOH was organized to run the day-to-day operations of the Unit. The second strategy was the decentralization of certain licensing processes, such as renewal of licenses for Level 1 and Level 2 hospitals and the grant of

permits to construct to the DOH Regional Offices. Under this set-up, the regional offices also organized a One-Stop Shop Unit and a One-Stop Shop Secretariat under the supervision of the chief of the Regulation Division (Department of Health, 2007a).

In 2011, the Secretary of Health issued Administrative Order No. 2011–0020 providing for the automatic accreditation by PhilHealth of all hospitals duly licensed by the DOH. This was later amended in 2012 to specify that the HFSRB and DOH regional offices shall stipulate in the issuance of LTOs all the services that a health facility is capable of providing and such hospitals shall be deemed qualified for accreditation by PhilHealth without the need for pre-accreditation processes. PhilHealth reimbursements to these health facilities are now based on their service capability (Office of the Secretary, 2015a). This policy further streamlined the licensing and accreditation processes between the DOH regulatory bureaus and PhilHealth.

2.8.3 Registration and planning of human resources

Regulation of academic institutions for the health professions. The Higher Education Act of 1994 (Republic Act No. 7722), created the Commission on Higher Education (CHED) to act as the governing body that regulates both public and private institutions of higher education, as well as degree-granting programmes in all tertiary educational institutions. This covers colleges and universities offering medical and other allied health professional degrees in the country. CHED is empowered to formulate policies, plans and programmes for higher education and research. It is also mandated to set and enforce minimum standards for academic programmes and institutions of higher learning, including downgrading or withdrawal of accreditation, programme termination or school closure. Although the law guarantees the academic freedom of universities and colleges, CHED is empowered to set minimum unit requirements for specific academic programmes and specific professional subjects as required by various professional licensing entities (Commission on Higher Education, 2010).

A higher education institution that complies with the minimum standards set by CHED is entitled to the grant of a permit to operate or for recognition of a particular degree programme. For private institutions of higher education, the authority to operate a degree programme is granted by CHED in two different phases – a permit phase and a recognition phase. The permit phase applies only to the first- and second-year

levels of the degree programme applied for. If all the requirements for the continuous operation of the degree programme have been complied with, the institution may apply for recognition to proceed with the third-year level and on. Higher education institutions that attain standards of quality over and above the minimum standards required for government recognition may apply for voluntary accreditation (Level I, Level II, Level III and Level IV status). A Level IV status means attainment of a very high-quality academic programme and entitles the higher education institution to a grant of full autonomy for the programme (Commission on Higher Education, 2008).

Registration and licensing of health professionals. Entry to the health professions is regulated by the Government to impose a level of control over the practice and the quality of health professionals in the country. The enactment of the Professional Regulation Commission (PRC) Modernization Act of 2000 strengthened the role of the PRC to enforce Government policies on regulation and licensing of the various professions and occupations, and the enhancement and maintenance of professional standards and ethics (Professional Regulation Commission, 2016). Under the Commission are 43 Professional Regulatory Boards, which include among others, the Boards of Medicine, Nursing, Midwifery, Dentistry, Pharmacy, Medical Technology, Nutrition and Dietetics, Radiologic Technology, Respiratory Therapy, and Physical and Occupational Therapy. The boards exercise administrative, quasi-legislative and quasi-judicial powers, prescribe the course requirements, administer and conduct the licensure examinations, administer oaths and issue the certificate of registration or professional licence for the practice of their respective professions.

The PRC is empowered to monitor the performance of academic institutions in licensure examinations, publish the results thereof in a newspaper of national circulation and institute a comprehensive rating system for universities and colleges based on the passing ratio and overall performance of students in board examinations. It may also investigate complaints by an aggrieved party or person against anyone who practises the regulated profession without a license or an authority under the law, or who commits any prohibited act provided in the regulatory laws of the various professions (Professional Regulation Commission, 2016).

To maintain high competency and professional standards in the practice of specialized fields of medicine, the PRC, through the Professional

Regulatory Board of Medicine, conferred recognition to specialty societies and specialty boards to issue certifications to specialists in internal medicine, surgery, obstetrics and gynaecology, paediatrics, family medicine, anaesthesiology, pathology and radiology (Professional Regulatory Board of Medicine, 2015). The specialty societies and specialty boards practise self-regulation in their field of expertise. They set standards and accredit hospitals that offer residency training in their respective specialties. Resident physicians have to pass the examinations given by these organizations to merit the title of Diplomate or Fellow of the specialty society. These societies also monitor the specialty practice of their members and hold continuing education programmes, seminars and conferences related to their field of specialization.

Mutual recognition agreements on migrant health professionals. In 2010, the Member States of WHO adopted the Global Code of Practice on the International Recruitment of Health Personnel, which promotes the ethical recruitment of health personnel considering the rights and obligations of source countries, destination countries and migrant health personnel. The Code is intended as a reference for Member States for improving the legal and institutional framework required for international recruitment and migration of health personnel and for formulating bilateral agreements and other international legal instruments. Using the WHO reporting instrument to monitor the implementation of the Code, the Philippines is considered as a source country rather than a destination country for migrant health professionals (DOH-DOLE et al., 2012).

Though the Philippines is a signatory to the ASEAN Mutual Recognition Arrangements on medical, dental and nursing practitioners, such regional arrangements have not been implemented to allow the entry of foreign migrant health workers into the country. The legal rights and responsibilities of foreign health professionals intending to practise in the Philippines is bound by certain statutes, such as the 1987 Philippine Constitution (Article XII, Sections 10 and 14) and Executive Order No. 584 (Office of the President of the Philippines, 1999), which limit the practice of the health professions to Filipino citizens. The access of foreign workers to the Philippine labour market is also covered by the strict provisions of the Labor Code of the Philippines and the PRC Modernization Act of 2000. The presence of foreign health professionals in the country is limited to medical residency, medical missions, training and research, and academic engagement, which are generally temporary

and of limited duration to comply with the current policy restrictions (DOH-DOLE et al., 2012).

On the other hand, Filipino migrant health professionals enjoy some legal rights and protection provided by Philippine Government agencies through the Philippine Overseas Employment Administration, Philippine overseas labour offices, Overseas Workers Welfare Administration and the PRC, such as in securing an appropriate employment permit, visa and special permit to practise their profession in recipient countries. Other mechanisms are bilateral agreements, such as the Philippine–Japan Economic Partnership Agreement, ASEAN–Australia–New Zealand Free Trade Agreement, and the bilateral labour arrangements on health-care professional migration between the Philippines and several destination countries such as the United Kingdom, Norway, Spain and Bahrain (Makulec A, 2014). However, despite these Government agreements, there have been instances when Filipino migrant health professionals have had to comply with additional requirements that are not necessarily stipulated in their contracts.

2.8.4 Regulation and governance of pharmaceuticals, medical devices and aids

Governance and regulatory agency for health products. The Food and Drug Administration Act of 2009 (Republic Act No. 9711) provided for strengthening of the administrative and technical capacity of the FDA and the enhancement of the regulatory system for health products. To enforce the provisions of the law, four centres were established based on the major product categories being regulated, namely: (i) Center for Drug Regulation and Research (to include veterinary medicine, vaccines and biologicals); (ii) Center for Food Regulation and Research (to include food/dietary supplements); (iii) Center for Cosmetics Regulation and Research (to include household hazardous/urban substances); and (iv) Center for Device Regulation, Radiation Health, and Research. The centres are mandated to regulate the manufacture, importation, exportation, distribution, sale, transfer, promotion, advertisement, sponsorship, use and testing of health products. The centres are also empowered to conduct research on the safety, efficacy and quality of health products, and to institute standards for the same. In addition, the FDA is also mandated under the Universally Accessible Cheaper and Quality Medicines Act of 2008 (Republic Act No. 9502) to ensure that all drugs authorized for marketing in the Philippines conform to international standards for content, purity and quality. To enforce its

regulatory functions, the FDA is authorized to establish regional field offices, satellite laboratories, and regulatory enforcement units in all the regions and autonomous areas of the country.

Regulation of pharmaceutical products. Any entity involved in the manufacture, importation, exportation, sale, distribution, transfer, non-consumer use, promotion, advertising or sponsorship of any pharmaceutical or health product is required to secure an LTO and a certificate of product registration (CPR) from the FDA. The CPR covering a particular health product is the registrant's market authorization for the said health product in connection with the activities permitted pursuant to the LTO. Only establishments with a valid LTO may apply for product registration (Office of the Secretary, 2011b). To ensure the safety, efficacy and quality of certain off-patent pharmaceutical products with known or potential bioavailability problems, the FDA requires bioequivalence studies as requirements for market authorization to ensure that these products perform similarly as the innovator drug (Food and Drug Administration, 2013b).

The FDA also adopted the ASEAN Common Technical Dossier and ASEAN Common Technical Requirements for the registration of pharmaceutical products, to encourage members of the Philippine pharmaceutical industry to update their systems to conform to ASEAN standards and requirements and widen their potential market. It also adopted several international guidelines as part of its regulatory system, such as the International Conference on Harmonization Safety and Efficacy Guidelines; the Pharmaceutical Inspection Cooperation Scheme; guides for the Good Manufacturing Practice (GMP) of Medicinal Products; WHO Guide to Good Distribution Practices for Pharmaceutical Products; and Guide to Good Storage Practices for Pharmaceuticals.

In 2011, the FDA institutionalized the National Pharmacovigilance Program as the framework for an organized and structured system for collection, analysis, risk-benefit management, database and reporting of suspected adverse reactions, product inefficacy, product defects, counterfeit drugs, and other drug safety-related issues (Office of the Secretary, 2011a). In addition, the FDA practises post-market surveillance by sampling drug products, inspecting drug establishments and outlets, testing drug samples, investigating adverse drug reactions (ADRs) and adverse event (AE) reports to ensure the safety of a drug already in the market as an important aspect of pharmacovigilance. Likewise, it requires

the CPR holder to maintain the safety and efficacy of its product already in the market (Food and Drug Administration, 2013a).

Patent protection for pharmaceutical products is governed under the provisions of the Intellectual Property Code of the Philippines (Republic Act No. 8293) and enforced by the Intellectual Property Office under the Department of Trade and Industry. However, the Universally Accessible Cheaper and Quality Medicines Act of 2008 (Republic Act No. 9502) amended certain rules on intellectual property concerning pharmaceutical products. Republic Act No. 9502 included provisions on non-patentable inventions, patent rights limitations, Government use of inventions, compulsory licensing, and the issuance of a special compulsory license under the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement to ensure access to affordable and quality drugs and medicines when public health and public interest, or circumstances of extreme urgency so require. It also empowered the President of the Philippines to impose the maximum retail price (MRP) based on the list of drugs and medicines that are subject to price regulation. To implement the MRP policy, the Secretary of Health is authorized to establish and initiate a price monitoring and regulation system for drugs and medicines.

Regulation of drug manufacturers, wholesalers and retailers

Manufacturers, traders, distributors and wholesalers, as well as drugstores/pharmacies and retail outlets of non-prescription drugs are required by law to secure the appropriate LTO from the FDA prior to engaging in the pharmaceutical business. Manufacturers are granted the LTO based on minimum requirements to operate a manufacturing plant. A certificate of GMP compliance is required but is issued only upon demonstration of satisfactory compliance with GMPs.

Drugstores, whether government or private, are required to operate only under the supervision of a registered pharmacist. Drug establishments engaged in selling vaccines, biologicals and other temperature-sensitive drug products are required to observe the standards for cold-chain management practices. Drugstores are also required to display information, education and communication campaign materials in a conspicuous area of the establishment (Office of the Secretary, 2016).

Ensuring the safety, quality, efficacy and purity of pharmaceutical products rests upon the entity involved in the production, sale, handling, packing, distribution, trading and storage of such products. If a

health product is banned or withdrawn for health and safety reasons, the establishment engaged in the product has the responsibility to immediately recall or withdraw it from the market (Office of the Secretary, 2016).

Regulation of medical devices. The registration and licensing of medical devices are also covered by the Food and Drug Administration Act of 2009 (Republic Act No. 9711), the Intellectual Property Code of the Philippines (Republic Act No. 8293), and other pertinent rules and regulations issued by the FDA. Medical device regulation in the Philippines is administered by the FDA through the Center for Device Regulation, Radiation Health, and Research (formerly the Bureau of Health Devices and Technology). Entities involved in the importation, exportation, trading, distribution and sale of medical devices are required to secure the appropriate LTO before applying for a CPR. The FDA is currently developing comprehensive guidelines and requirements for medical devices. In 2014, pending the implementation of the full regulation of all medical devices, the FDA issued an updated list of medical devices and in vitro diagnostic devices that require mandatory registration prior to sale, distribution and use (Food and Drug Administration, 2014).

2.8.5 Health technology assessment

The provision of quality evidence to policy-makers on the costs and consequences of health technologies and interventions is increasingly playing a prominent role in guiding the regulation of health technologies by the FDA, as well as the purchasing and reimbursement decisions of the DOH and PhilHealth. Efforts to apply health technology assessment (HTA) principles started in the early 2000s, when PhilHealth established its HTA Committee, which conducted assessments of drugs, medical and surgical procedures, and other health interventions that became the basis for its benefit packages, reimbursement policies and accreditation standards for health providers. Following a short period of hiatus, there is now renewed interest in institutionalizing HTA for evidence-informed policy, particularly with the establishment of the DOH National Center for Pharmaceutical Access and Management (NCPAM).

At the international level, the DOH established various collaborative arrangements to strengthen its capacity and to maximize information-sharing on best practices for pharmaceutical management. This is exemplified by WHO providing technical assistance to the DOH-NCPAM in the evidence-based selection of drugs in the formulary, drug pricing

strategies, rational drug use and policy to combat AMR. In 2012, the DOH-NCPAM also forged a technical collaboration with the UK National Institute for Clinical Excellence (NICE International) and the Thailand Health Intervention and Technology Assessment Program to strengthen priority-setting processes and methods in the formulary by incorporating HTA and pharmacoeconomic analysis in the evaluation of drugs. The DOH-NCPAM is also a member of HT AsiaLink, a collaborative network of HTA agencies working together to share knowledge, raise awareness and strengthen capacity on HTA to support country priority-setting in the Asian region (Guerrero AM, 2016).

Further, the governance and methods of synthesizing evidence on drugs for inclusion in the Philippine National Formulary (PNF) is undergoing major changes as policy-makers realize the need to ensure value for money, especially with the rapid emergence of unproven technologies whose significant price premiums may not be proportionate to their purported health gains (Guerrero AM, 2016). Major steps are currently being taken to make the PNF system more efficient, such as simplifying the process for prioritization of drugs and scoping of drug review, assessment of drug applications, timeline for processing, and paperless transaction through online submission and tracking of applications. A methods manual consisting of sections on assessing the effectiveness and cost-effectiveness of a drug is being developed with the University of the Philippines Manila to promote transparency in the evaluation process and ensure that all applications follow the same rigid method of drug evaluation.

2.8.6 Regulation of capital investment

Regulation of capital investment for health infrastructure. Executive Order No. 230, which reorganized the NEDA, established the interagency Investment Coordination Committee (ICC) to rationalize national public investments and expenditures. The ICC reviews the fiscal and monetary implications of major capital projects, including health infrastructure projects and acquisition of health technologies. The evaluation process includes the technical, financial, economic, social and institutional development context, the feasibility and viability, and the sectoral and geographical strategies of major capital projects. In general, ICC approval is undertaken as a pre-condition for securing loans and guarantees by the National Government, facilitating private sector participation in Government projects, or obtaining Monetary Board approval for foreign borrowing. ICC review and decisions cover all projects costing PHP 1

billion and above, regardless of financing; projects implemented through PPP or through joint venture agreements; or projects of private sector companies and NGOs intending to tap concessional ODA loan financing. ICC decisions are presented to the NEDA Board, chaired by the President of the Philippines, for formal confirmation (The Investment Coordination Committee Secretariat, 2015).

PPP in health infrastructure. The Build–Operate–Transfer Law (Republic Act No. 7718) authorized private sector involvement in the financing, construction, operation and maintenance of infrastructure projects, which include health infrastructure, normally financed and undertaken by the Government. To fast-track the implementation of PPP projects, the Build–Operate–Transfer Center was restructured as the PPP Center and mandated to provide advisory services, technical assistance and capacity-building to Government agencies in PPP project preparation and development; recommend policies, plans and implementation guidelines; and facilitate and monitor the implementation of PPP projects. Under the PPP scheme, the modernization of the Philippine Orthopedic Center, involving the construction of a 700-bed capacity superspecialty tertiary orthopaedic hospital was awarded in 2013, but the concessionaire requested for termination of the agreement in 2015. Another health infrastructure project is in the conceptualization stage, involving the relocation and modernization of the National Center for Mental Health to a new site in Cavite to accommodate an authorized bed capacity for 4200 patients (Public-Private Partnership Center, 2016).

Standards on health infrastructure and certificate of need for new hospitals. The DOH HFDB sets the standards for the physical plans and design, and the operation and maintenance of health facilities in the country. It provides advisory services, technical assistance and capacity-building, as well as the formulation of policies and programmes related to hospital operations. The HFDB takes the lead in the formulation of the Philippine Hospital Development Plan, which also includes geographical mapping and networking of health facilities in the country.

On the other hand, the licensing and regulatory control of government and private health facilities are under the mandate of the DOH HFSRB. To ensure efficient use of limited resources and maximize investment in hospital facilities, the HFSRB requires applicants for the establishment of a new general hospital to secure a CON from the DOH Regional Office, considering such criteria as bed-to-population ratio, current unmet

need for hospital beds, travel time from the nearest existing hospital, accessibility and integration with the local hospital development plan. A CON is required for all proposed new government general hospitals and proposed new private general hospitals with less than 100-bed capacity. Private entities establishing new general hospitals with 100-bed capacity or more are not required to secure a CON (Department of Health, 2006b; Office of the Secretary, 2013).

2.9 Patient empowerment

2.9.1 Patient information

In 2007, the Anti-Red Tape Act (Republic Act No. 9485) was enacted to serve as the Government's commitment to reduce public sector inefficiencies, prevent graft and corruption, and improve public service delivery. As a major feature of the law, all government agencies providing frontline services are mandated to develop a Citizen's Charter, which is a form of service standard or a pledge that communicates information on the services provided by the agency to its constituents. It describes the step-by-step procedure for availing a particular service and the guaranteed performance level that they may expect for that service. The Citizen's Charter is posted on information billboards or in printed material that is easily accessible or available to the constituents, thus increasing transparency and promoting honesty and responsibility in service delivery. Government hospitals and health facilities have adopted the scheme and have become more responsive to their patients in delivering fast, efficient and reliable health services.

Several other policy issuances have included provisions to protect consumers by requiring implementing agencies to provide information and education regarding standards for products or services. Republic Act No. 9711 empowers the FDA to protect consumers against misleading, deceptive, false and erroneous impressions regarding any health product's character or composition, and safety, efficacy or quality by providing information and education to facilitate making sound choices in the proper exercise of their rights. The FDA is also tasked with promulgating policies and directives to rationalize promotional and marketing practices of pharmaceutical companies (Department of Health, 2011a). The Consumer Act also provides rules and regulations regarding the protection of consumers against false, deceptive and misleading advertisements, including mislabelling of consumer products such as

drugs and medicines, food and cosmetics. PhilHealth's *Benchbook on quality standards for health provider organizations* requires accredited health facilities to inform the patient and the community about the services they provide and the hours of their availability, and inform the patient and the family about the patient's diagnosis, prognosis, treatment options, health promotion and illness prevention strategies (Philippine Health Insurance Corporation, 2004).

2.9.2 Patient choice

The Philippine health system has no effective gatekeeping mechanism and generally operates in a market system where patients are free to choose their health service providers (see patient pathway in Chapter 5). With out-of-pocket (OOP) expenditure as the major source of financing, and with very limited support value for benefit packages provided by SHI, poor patients have an extremely limited choice of health service providers. The harmonization of accreditation and licensing procedures between PhilHealth and the DOH has increased the number of accredited hospitals providing PhilHealth's benefit package, but utilization of hospital services among the poor remains low. On the other hand, the majority of primary care facilities, which are the most accessible and most utilized by the poor, are not accredited to provide PhilHealth's primary benefit package.

2.9.3 Patient rights

The 1987 Philippine Constitution recognizes health as a basic human right. It specifically establishes the right of patients through the following provisions: (i) "the State shall protect and promote the right to health of the people and instil health consciousness among them" (Sec 15, Art II); and (ii) "no person shall be deprived of life, liberty, or property without due process of law, nor shall any person be denied the equal protection of the law" (Sec 1, Art III). In addition, the patient's rights are protected under the pertinent provisions of the Revised Penal Code of the Philippines (Act No. 3815), the Medical Act of 1959 (Republic Act No. 2382), the Consumer Act of the Philippines (Republic Act No. 7394), the National Health Insurance Act of 2013 (Republic Act No. 10606) and specific provisions in the implementing rules and policy issuances related to the Hospital Licensure Act of 1965 and the Food and Drug Administration Act of 2009, among other laws and regulations.

Patient rights to privacy, confidentiality of communication and correspondence, data security, privileged information and informed

consent are contained in specific laws such as Cybercrime Prevention Act of 2012 (Republic Act No. 10175), Data Privacy Act of 2012 (Republic Act No. 10173), or in specific guidelines such as the PhilHealth's *Benchmark*, which contains standards on patient's rights and organizational ethics, or in the Philippine Medical Association's Code of Ethics, which contains the duties of physicians to their patients and the community. Several bills have also been filed in both houses of Congress supporting the passage of a Magna Carta of Patient's Rights and Obligations.

2.9.4 Complaints procedures (mediation, claims)

Complaints procedures related to pharmaceuticals and medical devices are handled under the quasi-judicial powers of the FDA. An action against any entity is commenced upon the filing of a complaint or petition by a party, or upon the initiative of the FDA pursuant to its own administrative investigation. All pleadings are filed and docketed at the FDA. The procedure continues with the preliminary conference or clarificatory hearing, followed by the submission of a position paper and supporting evidence. The decision regarding the case is made by the FDA Director General, who also has the power to impose administrative penalties. Appeals may be brought to the Secretary of Health. As soon as the decision becomes final, the FDA Director General issues an Order of Execution (Department of Health, 2011a).

On the other hand, complaints against hospitals, clinical laboratories and other health facilities are investigated and verified by the HFSRB to determine if the facility or any of its personnel is liable for an alleged violation. After investigation, the HFSRB may suspend, cancel or revoke the LTO of the facility found violating the licensing rules and regulations, without prejudice to taking the case to the judicial authority for criminal action. The management of the health facility may file a notice of appeal to the Secretary of Health, whose decision shall be final and executory (Office of the Secretary, 2012a).

2.9.5 Public participation

In 2006, the DOH adopted a policy framework for promoting effective consumer participation in the health sector based on the perspective provided in the *World development report* of 2004. The main objective of the policy is to improve the responsiveness of the health system. In line with this, consumer participation strategies have been developed,

consisting of establishing feedback mechanisms, increasing the purchasing power of the poor, providing health information, supporting consumers to co-produce health services, and involving consumers in decision-making and monitoring of services. An assessment tool for tracking the implementation of consumer participation strategies was also developed, including guidelines for the utilization of the tool and the analysis of data.

The DOH Bureau of Local Health Development is tasked with overseeing the institutionalization, development and assessment of consumer participation, with the assistance of the DOH regional offices and the Health Policy Development and Planning Bureau (Department of Health, 2006a). However, since the issuance of the policy and its assessment tool, programme implementation has remained weak and has not taken off. As such, the relationship of the health system to the public that it serves remains largely one of giver to recipient (Romualdez et al., 2011).

2.9.6 Patients and cross-border health care

In 2016, the DOH issued the National Policy on the Health of Migrants and Overseas Filipinos to address the specific health needs of Filipinos working or residing abroad. Addressing the health needs of overseas Filipinos is aligned with the country's international commitments related to the International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families (1990), the ASEAN Declaration on the Protection and Promotion of the Rights of Migrant Workers (2007), and the World Health Assembly Resolution on the Health of Migrants (2008). At the national level, various legislations and issuances support the advancement of the health of migrants. Among these are the Migrant Workers and Overseas Filipinos Act (Republic Act No. 10022); the Quarantine Act (Republic Act No. 9271); and the Anti-Trafficking in Persons Act (Republic Act Nos. 9208 and 10364).

To serve as the focal point for the institutionalization of a migrant health programme, the DOH will establish a Migrant Health Unit within the Bureau of International Health Cooperation. The DOH Inter-Agency Task Force on Migrant Health will be convened to provide technical and policy direction on migrant health-related issues. An interagency network, the Philippine Migrant Health Network, will also be organized consisting of members from the DOH and other government organizations and NGOs, including the academe, international organizations and the private sector (Department of Health, 2016b).

The DOH is also crafting a national policy to provide a framework for an integrated approach to medical tourism, utilizing PPP and multiagency collaboration among stakeholders in the health and wellness sector and medical travel. Currently, eight groups of health-related facilities are implementing the Philippine Medical Tourism Program, such as tertiary hospitals, wellness and spa, retirement facilities, geriatric and elderly care, ambulatory surgical clinics, dental clinics, ophthalmology clinics, and drug and substance abuse treatment and rehabilitation centres.

3 Financing

Chapter summary

Total health expenditure (THE) of the Philippines has consistently increased since 2005 and compares well with its neighbours. Government health expenditure has increased significantly in nominal terms, but it has been eclipsed by private funding sources, which have grown rapidly with the economy. Much of THE is for personal care, although the Government has raised spending on public health since 2007. The three major components of public health financing have overlapping coverage. The DOH funds regional and apex hospitals, whereas LGUs fund primary- and secondary-level care. PhilHealth reimburses government as well as private health facilities; it reportedly covers 92% of the population, of which 40% of the poor population is subsidized by the Government for premium payments. Covered services are focused on inpatient care, and outpatient benefits cover only the poor with a limited package. Financial protection is limited, resulting in a high level of household OOP payment. Despite efforts to reform financial protection, the support value has not gone beyond 52%, and has stayed at one third of the average value of claims. PhilHealth cannot yet be considered a strategic purchaser of services because it accounts for a small share of THE while OOP spending continues to be the dominant payment mechanism; cost containment is a challenge despite the application of case base payment. Though PhilHealth has been reformed from fee for service to “all-case rates”, these new rates are not based on actual costs but on average claims with a few adjustments and require further fine-tuning. Moreover, the policy of no-balance billing is not yet universal, leaving some providers to charge extra. The move towards adoption of DRG should tighten the purchaser-provider relations and gain more efficiency but more work on patient information is required. Voluntary private health insurance (PHI) is a minor source of funding but provides supplemental insurance to nonpoor households.

3.1 Health expenditure

THE continuously increased from PHP 198 billion in 2005 to PHP 585 billion in 2014. During the same period, per capita health expenditure

also increased from PHP 2624 in 2005 to PHP 5859 in 2014 (National Statistical Coordination Board, 2006a & 2015). The share of THE to GDP increased from 3.9% in 2005 to 4.7% in 2014, compared to 2.9% in Indonesia, 4.1% in Thailand and 7.1% in Viet Nam in 2014. Philippine per capita health spending in 2014 was US\$ 328.9, which is higher than Indonesia (US\$ 299.4), but lower than Viet Nam (US\$ 390.5) (World Health Organization, 2016a).

Government health expenditure, excluding SHI, dramatically increased since 2007, increasing its share in THE from 14.5% in 2005 to 17.4% in 2014. SHI consists of the NHIP managed by PhilHealth and the Employees' Compensation Fund for occupation-related accidents. Though PhilHealth is expanding, SHI accounted for only 16.1% in 2014. Altogether, government health expenditure and SHI accounted for 32.5% of THE in 2014.

The role of donors in health has declined as the country's middle-income country status was consolidated, and as government spending on health soared. Expenditure on foreign-assisted projects shrunk to less than 1% of THE in 2014.

OOP spending continues to have the lion's share of THE. OOP payment as a percentage of THE rose to 53.7% in 2014, a remarkable upward trend when neighbouring countries recorded a downward trend.

The profile of THE has not changed much. More than three fourths was for personal care expenditures, reaching 85.8% in 2014. The share of public health services declined from 11.2% in 2005 to 7.1% in 2014.

Table 3.1 shows selected National Health Accounts (NHA) indicators while Figures 3.1, 3.2 and 3.3 show the Philippine health expenditure data compared with other Asian countries.

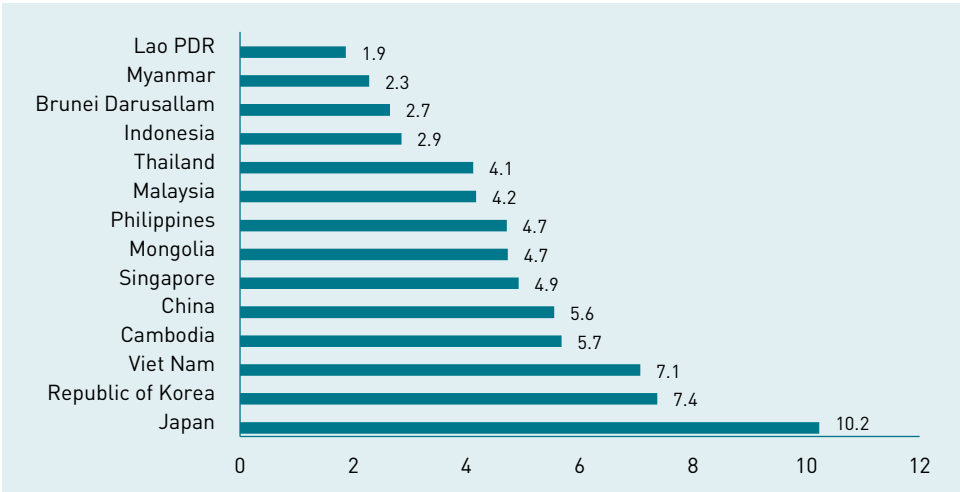
Table 3.1 Trends in health expenditure in the Philippines, 1995–2014

Expenditure	1995	2000	2005	2010	2011	2012	2013	2014
Total health expenditure (\$PPP) per capita (2011 constant prices)	99.6	107.5	166.8	241.6	246.9	274.5	300.4	328.9
Total health expenditure (% of GDP)	3.5	3.2	3.9	4.4	4.3	4.5	4.6	4.7
Public expenditure on health (% of total expenditure on health)	39.5	47.6	38.4	36.0	30.5	31.1	31.8	34.3
Private expenditure on health (% of total expenditure on health)	60.5	52.4	61.6	64.0	69.6	68.9	68.2	65.7
Government health spending (% of total government spending)	7.4	8.4	8.9	9.3	8.1	8.2	8.9	10.0
Government health spending (% of GDP)	1.4	1.5	1.5	1.6	1.3	1.4	1.5	1.6
Out-of-pocket payments (% of total expenditure on health)	50.0	40.5	51.9	54.1	57.7	57.2	56.3	53.7
Out-of-pocket payments (% of private expenditure on health)	82.7	77.3	84.3	84.5	83.0	83.0	82.6	81.7
Voluntary health insurance (% of current health expenditure) ^a	-	6.0	7.2	8.5	10.6	10.9	11.2	13.5

Notes: PPP: purchasing power parity; GDP: gross domestic product

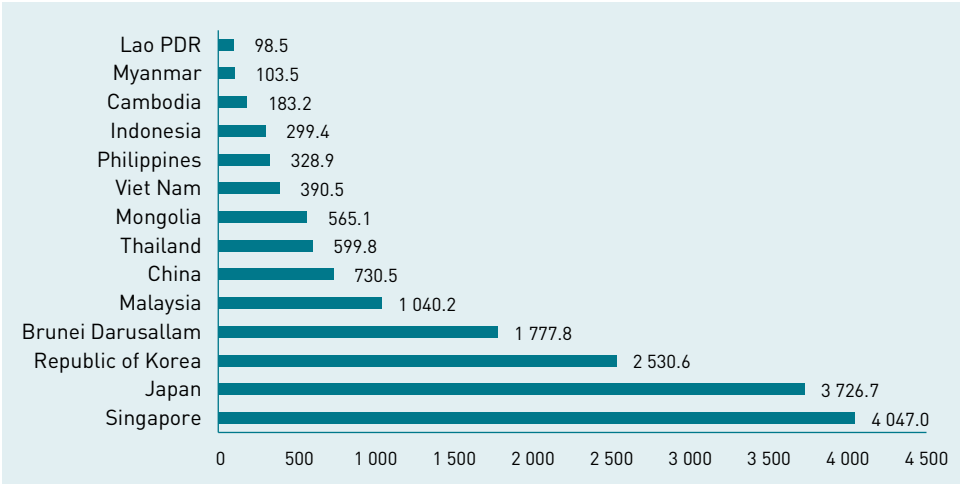
Sources: World Health Organization, 2016a & ^a 2018a

Figure 3.1 Total health expenditure (as % of GDP) in selected countries, 2014



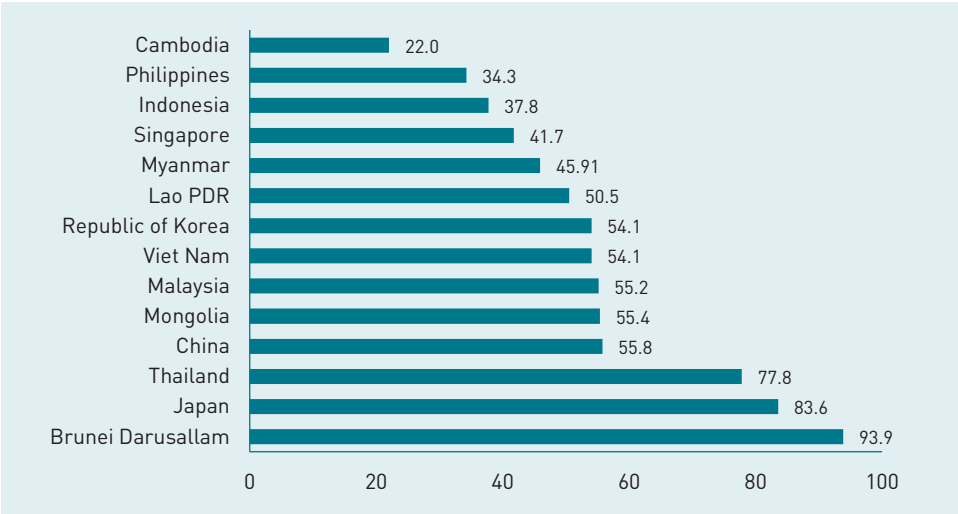
Source: World Health Organization, 2016a

Figure 3.2 Health expenditure per capita, PPP (constant 2011 international \$) in selected countries, 2014



Source: World Health Organization, 2016a

Figure 3.3 Public sector health expenditure (as % of total health expenditure) in selected countries, 2014



Source: World Health Organization, 2016a

3.1.1 General appropriations for health

Table 3.2 shows the general appropriations for the DOH for 2016. Of the PHP 123 billion budget for the year, 75.4% was for technical services for public health, which included a significant amount for the premium subsidy of indigents and senior citizens. Disease prevention and control account for 6.5% of total appropriation. About 14.6% of total appropriation goes to hospital services, the small proportion being due to the devolution of primary and secondary health services to LGUs whose appropriations are outside of the DOH.

Table 3.2 Government appropriation to the DOH by service and budget category, fiscal year 2016

Items	Amount in PHP	% of total health appropriation
General administration and support	8 756 833 000	7.1
a. Personnel services	7 812 299 000	
b. Maintenance and other operating expenditure (MOOE) and others	944 534 000	
Health sector policy services	1 412 270 000	1.2
Technical support services	92 441 749 000	75.4
a. Health human resource development	7 121 896 000	
b. Implementation of the Doctor to the Barrios Program and Rural Health Practice Program	7 042 018 000	
c. Local health systems development	3 331 576 000	
d. Subsidy to indigents under PhilHealth	43 835 766 000	
e. Disease prevention and control	8 036 749 000	
<i>Epidemiology and disease surveillance</i>	150 826 000	
<i>Elimination of diseases as public health threat (malaria, schistosomiasis, leprosy, filariasis)</i>	792 956 000	
<i>Rabies Control Program</i>	505 087 000	
<i>Expanded Program on Immunization</i>	3 999 749 000	
<i>TB Control Program</i>	1 080 348 000	
<i>Other infectious diseases and emerging and re-emerging diseases (HIV/AIDS, dengue, food- and water-borne diseases)</i>	1 057 696 000	
<i>Noncommunicable disease prevention and control</i>	39 030 000	
<i>Environmental and occupational health</i>	411 057 000	
f. Family health and responsible parenting	2 275 078 000	
g. Health promotion	202 663 000	
h. Health emergency management, including emergency drugs and supplies	217 127 000	
i. Health facilities enhancement programme	26 872 368 000	
j. Quick Response Fund for disasters	510 500 000	
Hospital services	17 891 925 000	14.6
a. Blood services	125 174 000	
b. Operation of special hospitals, medical centres for disease prevention and control	6 898 377 000	
c. Operation of regional medical centres/hospitals	10 600 919 000	
d. Operation of dangerous drug abuse and rehabilitation centres	267 455 000	0.5
Health sector regulation services (Food and Drug Administration, quarantine service)	600 331 000	
Counterpart for locally funded projects	1 519 045 000	1.2
Total appropriations	122 630 153 000	100

Note: Minor items are not shown to avoid clutter.

Source: General Appropriations Act of 2016

3.2 Sources of revenue and financial flows

As shown in Table 3.3, there are four major pooled revenue sources: (i) the National Government, represented by the DOH and its attached agencies and retained hospitals; (ii) local governments that manage devolved health services; (iii) the NHIP; and (iv) voluntary PHI and others. There are also institutions that provide additional financial and in-kind resources for health, such as the Philippine Amusement and Gaming Corporation (PAGCOR) and the Philippine Charity Sweepstakes Office (PCSO), but their contributions to health are highly unpredictable. Unpooled health financing comes in the form of OOP expenditures. The ODA is a minor source of financing.

Table 3.3 Revenue as percentage of total health expenditure, by source, 2010–2014

Source of revenue	2000	2010	2011	2012	2013	2014
General government expenditure excluding ODA	48.2	35.5	36.1	30.2	30.4	31.5
National Government, including DOH hospitals	21.5	11.4	12.3	11.8	12.6	10.6
Local Government	19.6	15.2	14.7	7.3	6.9	6.7
Social Health Insurance	7.1	8.9	9.1	11.2	11.4	14.2
Official development assistance (ODA)	-	1.7	0.8	0.8	1.4	0.9
Out-of-pocket payments	41.0	52.5	52.7	57.2	55.9	55.8
Voluntary health insurance	5.9	7.3	7.4	8.4	8.6	8.6
Others (private establishments, private schools)	4.9	3.0	3.0	3.3	3.1	3.1
Total	100	100	100	100	100	100

Source: Compiled by the authors from National Statistical Coordination Board, 2013 & 2016

3.2.1 National Government

The DOH is the central agency responsible for health; it manages public health programmes, and has 70 of the largest hospitals. Four of these hospitals have autonomy under their own separate charters and receive an annual budget from the General Appropriations Act (GAA), and separate from the DOH budget. In varying capacities, they also have their own internally generated funds. In terms of coverage, any patient can use DOH facilities. How these hospitals use their budgets to provide health services varies by facility. Patients and catchment populations are not clearly identified. These hospitals are supposed to cater to the poor, but everybody can use the services. Budgeting is largely incremental, mostly based on installed capacity (number of beds), rather than on actual use and performance.

3.2.2 Local governments

LGUs consist of 80 provinces and 1300 cities and municipalities. Although LGUs have a full range of revenue sources, not all of the revenue sources are tapped comprehensively by each LGU (Table 3.4). Indeed, resource generation is a major concern. The most important source is the Internal Revenue Allotment (IRA) that each LGU receives directly from the DBM, a portion of which each LGU uses to finance the budgetary requirements of its health facilities.

Table 3.4 Sources of revenues for local government units (LGUs)

Classification	Key sources	Other sources
Shares from national tax collections	• Internal Revenue Allotment (IRA)	• Central funds allocated by the DOH to LGUs for drugs and supplies
	• Pork barrel funds (Countrywide Development Fund, Priority Development Assistance Fund, Disbursement Acceleration Program)	• In-kind support provided by the DOH to LGUs (human resources, drugs, supplies)
	• Share from tax revenues of economic zone in the locality	
	• Share in national wealth, e.g. mining concessions in the locality	
Local tax revenues	• Real property taxes	• City or municipal business taxes, amusement taxes, franchise taxes
	• Special levies	
Nontax revenues	• Regulatory fees, e.g. mayor’s permits; Building Code permits; fees on weights and measures; various registration fees; toll fees	• User fees and charges for various city and municipal social services, e.g. garbage collection, health services; parking fees; inspection fees
		• Other receipts, e.g. sales of assets, miscellaneous receipts
		• Receipts from LGU’s own economic enterprises, markets, slaughterhouses, transport terminals, waterworks, rentals, etc.
		• PhilHealth reimbursements to LGU health facilities
Loans and grants	• Foreign and domestic grants, e.g. Calamity Fund, Municipal Development Fund	
	• Domestic loans and borrowings; bond flotation	

Note: Pork barrel is a metaphor for appropriating government spending on local projects solely or primarily to bring money to a representative’s district.
Source: Compiled by the authors from Republic of the Philippines, 1991

The IRA is a block grant based on a formula that takes into account population, land area and LGU income classification. Of the total IRA, 20% is subject to a centrally approved local development plan while 80% is an unconditional grant. The local chief executives and their local councils exercise large discretion in the use of these IRAs. As a result, the funding of LGU health facilities and their associated health programmes is highly variable. Thirty per cent of the IRA has been prescribed as an ideal ratio for the financing of LGU health facilities, but such a ratio cannot realistically be prescribed across the board because of wide differences in the number and level of health facilities owned by LGUs, as well as the utilization of their services. Moreover, some LGUs are fortunate to have a DOH-retained hospital in their midst, which can then be used by their constituents at no cost to the LGU. Finally, some LGUs can easily generate funds internally, in particular, from the more well-off population in more affluent areas. On the other hand, there are LGUs in geographically isolated and depressed areas with little wherewithal to finance health services. Due to porous borders, patients can easily vote with their feet and go to a government facility outside of their locality.

There is no uniform financing or purchasing arrangement for LGU health facilities, and each LGU is independent in managing its health facilities. Only in very rare cases have LGU health facilities been made autonomous (e.g. the La Union Medical Center), and fee retention is not the norm, which means that all internally generated revenues of each facility, including Philhealth reimbursements, go to the general local treasury.

3.2.3 *National Health Insurance Program (NHIP)*

The NHIP is managed by PhilHealth, a government-owned and -controlled corporation. Established in 1995, PhilHealth is the largest health insurance risk pool in the country and has the largest network of accredited medical professional and health facilities. However, the NHIP's contribution to THE is small as it has been for a long time, and it is dwarfed by sizeable OOP payments.

3.2.4 *Other privately pooled spending*

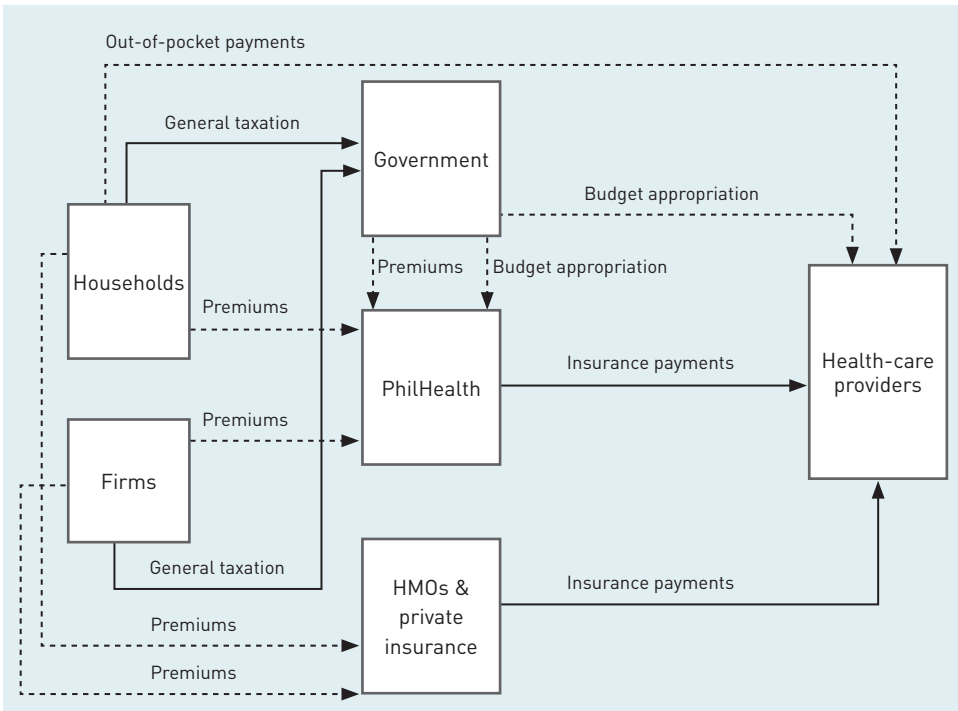
Voluntary health insurance accounts for 8.6% of the country's THE. However, it is growing fast due to the rapid economic growth and increased demand for quality health services.

Private institutional health spending. This covers school-based and employment-based health programmes.

OOP payments. OOP payments are unpooled and spent at the point of service and tend to be inefficient, inequitable and inflationary. OOP payments are mostly spent on over-the-counter drugs and prescription pharmaceuticals. Some are spent on the uncovered portion of PhilHealth and visits to private doctors.

External financing. This accounts for less than 1% of THE and has been declining. Donors provide mainly grants, some of which are coursed through government organizations or NGOs. Figure 3.4 shows the major flows of health financing.

Figure 3.4 Flow of finance in the Philippine health system



Notes: To avoid clutter, the diagram does not include flows from donors, which is small relative to THE. Donor funds are coursed to the Government or to NGOs providing health services.
Source: Romualdez et al., 2011

3.3 Overview of the public financing schemes

Philippine health-care financing is a mix of the Beveridgean system (government tax-funded financing of DOH and LGU health facilities), the Bismarckian system (PhilHealth premium- and tax-funded financing), small-pooled private prepayment schemes, and large unpooled financing comprising OOP expenditures.

3.3.1 Coverage

Who is covered? Republic Act No. 10606, which amended Republic Act No. 7875 (the National Health Insurance Act [NHIA] of 1995), provides for mandatory coverage of all citizens in accordance with the principles of universality and compulsory coverage. This law (i) calls upon PhilHealth, the DOH, LGUs, other government agencies and NGOs to ensure that members shall have access to quality and cost-effective health services; and (ii) calls upon PhilHealth to enrol beneficiaries and issue them health insurance identity (ID) cards and ID numbers for the purpose of identification, eligibility verification and utilization reporting. The law assigns this task to the local offices of PhilHealth. The biggest challenge facing PhilHealth is the non-enrolment of many Sponsored Program members whose premiums have been paid for by the National Government.

Section 7 of Republic Act No. 10606 classifies PhilHealth members as follows: (i) members in the formal economy or workers with formal contracts and fixed terms of employment, including workers in the government and the private sector whose premium contribution payments are equally shared by the employee and employer (1.25% each of payroll, with an effective ceiling of PHP 50 000); (ii) members in the informal economy, or those who are not covered by formal contracts or agreements and whose premium contributions are self-paid or subsidized by another individual or institution; (iii) indigents or persons who have no visible means of income, or whose income is insufficient for the subsistence of the family, as identified by the DSWD, based on specific criteria set for this purpose; (iv) Sponsored Program members (mostly indigents) or those whose contribution is being paid by another individual or institution; and (v) lifetime members or those former members who have reached the age of retirement and have paid at least 120 monthly contributions.

Certain groups are exempt from making formal contributions, namely, Sponsored Program members and indigents. These are the families considered poor under the NHTS-PR and which are supposed to be recipients of the country's CCT programme (or 4Ps) and automatically declared as members of the Sponsored Program.

Membership in PhilHealth is compulsory, but individuals and institutions exploit administrative loopholes to compromise this compulsivity. Some firms show casual employees to escape payment of health insurance

premiums; or report a lower-than-actual number of employees or payrolls (for assessed contributions). Administrative shortcomings at PhilHealth also result in firms' nonpayment, delayed payment or late remittance of premium payments, causing arrears. Other loopholes pertain to workers in labour transition (frictional unemployment or becoming an overseas Filipino worker [OFW]), which results in workers not having coverage. There is no automatic membership at birth because the civil registry system is not yet utilized as a means of universal coverage, enrolment and entitlement.

PhilHealth coverage in 2012 stood at 75% and was reported to be at 89% in 2015 and 92% at present (Department of Health, 2016c). PhilHealth defines the population coverage rate as the total number of members and dependants for a particular year divided by the total Philippine population for that year. Note that many of the Sponsored Program members and their dependants may not even know they have been given premium subsidy by the Government, and may not have been issued PhilHealth membership cards, making them unable to utilize their benefits.

The NDHS 2008 and 2013 showed a dramatic increase in health insurance coverage, with 42.0% in 2008 rising to 62.8% in 2013. Similarly, 37.7% of households reported having PhilHealth insurance coverage in 2008, rising to 60.3% in 2013. While the rate of increase in PhilHealth coverage is certainly dramatic, it is well below the crude population coverage rates reported by PhilHealth; and lower than the NDHS findings.

PhilHealth benefit utilization (i.e. members' use of their entitlement) is low. Using the Annual Poverty Indicator Survey (APIS) 2011 data, benefit utilization was only 4.0% for the Philippines as a whole. Low benefit utilization can be explained by the high maldistribution of health facilities and services as well as weak information, education and communication programmes for members, many of whom either do not know their membership status, or are unable to navigate the complex health system. The public expenditure tracking survey conducted for the Sponsored Program (Action for Economic Reforms, 2013) shows that 30.0% of Sponsored Program members were not aware of the source of their sponsorship while another 9.6% thought that the LGU was their sponsor. Moreover, the respondents are generally not familiar with their benefit package. While 53.0% were aware of the no-balance billing policy, very few were aware of other programme features such as primary care

benefits. This points to a critical need for massive social mobilization and public awareness campaigns by PhilHealth.

Enforcement of social legislation has been challenging owing to the limited number of labour inspectors of the DOLE, and the tendency of formal and informal sector employers to casualize their employees so that they avoid paying mandated social security and health insurance premiums. Smaller enterprises also often escape the regulatory net and fail to enrol their employees.

PhilHealth allows certain population segments to join voluntarily. The Individually Paying Program covers self-employed workers as well as those in the informal sector and individual professionals. This Program had 5.4 million members in 2013, more than double the 2.0 million members in 2006. The Overseas Worker Program is oriented to OFWs. It had 3.1 million members in 2013, up from 1.2 million in 2006. This is the programme with the largest potential as the current membership represents only over a third of the estimated 8 million OFWs.

What benefits are covered? The Republic Act No. 10606 lists the benefit package consisting of: (i) inpatient hospital care, including room and board; services of health-care professionals; diagnostic, laboratory and other medical examination services; prescription drugs and biologicals, subject to specific limitations; and inpatient education; (ii) outpatient care, including services of health-care professionals; diagnostic, laboratory and other medical examination services; personal preventive services; and prescription drugs and biologicals, subject to specific limitations; (iii) emergency and transfer services; and (iv) such other health services that PhilHealth and the DOH shall determine to be appropriate and cost effective.

Although the aim is to provide standard benefits for all, financial and operational constraints make this difficult to achieve. The most favourable benefits are being targeted to Sponsored Program members, many of whom are beneficiaries of primary care benefit (PCB)¹ and PCB² (see *below*) as well as eligible for no-balance billing in wards of government hospitals. These benefits are not extended to non-members of the Sponsored Program.

PhilHealth defines the benefits through specific circulars, i.e. conditions not covered by circulars are not to be covered by PhilHealth. Nonetheless, Section 11 of Republic Act No. 7875 lists down specific excluded

services: nonprescription drugs and devices; outpatient psychotherapy and counselling for mental disorders; cosmetic surgery; home and rehabilitation services; optometric services; and cost-ineffective procedures. The latter point was echoed under Section 11 of Republic Act No. 10606, which specifies that cost-ineffective services through HTA shall be excluded. However, while HTA for drugs is well established, HTA for devices and laboratory and clinical procedures is not.

PhilHealth may also institute additional exclusions and limitations as it may deem reasonable. This is a contentious posture and is subject to a number of interpretations. Some have used this provision to argue that PhilHealth can only provide benefits that it can afford at the present rate of premium while others have argued that the current rates of premium are too low and therefore should be increased to expand the benefit package. In any case, a full actuarial study is needed to calculate the true cost of services and the required premium, but independent observers have repeatedly noted that the current level of contribution rate at 2.5% per employed worker (plus 2.5% equivalent from the employer) is too low to provide a decent package of services for an average family size of five.

Both the DOH and LGU health systems do offer additional benefits beyond the established benefits package by PhilHealth. Indeed, whatever is available in these public health facilities, the members can avail of as citizens, even if they are not covered by PhilHealth. This lack of demarcation and harmonization in premium-funded benefits versus tax-funded services is at the heart of the confusion in Philippine health-care financing. Such parallel funding streams confused the people, leading to fragmentation and duplication, and certain services fell into the cracks as neither the DOH nor PhilHealth covered them. There are no cash benefits (such as sick leave) available under the NHIP. The Program does not provide for a bed-subsidy scheme using private hospitals, either.

How are benefits determined? The PhilHealth Board is composed of members who represent various interests in health insurance, health service providers, members, the DOH and other government agencies. What is remarkable in the Board members' composition is the dominant role of the two social security programmes (Government Service Insurance System and the Social Security System for workers in the private sector) and their pension-fund framework for the oversight of a health insurance fund. PhilHealth evolved from the predecessor organization, the Philippine Medical Care Commission, which used to be lodged between the two pension programmes, and since then, the

prevailing pension-fund mentality has pervaded the institution to this day. Thus, key decisions are seen in the light of financial viability of the NHIP (specifically on keeping a healthy level of reserves) rather than the needs of members and the concerns of providers. Expansion of benefits has been incremental and patchy, and often limited in coverage only to Sponsored Program members or those utilizing government health facilities.

How much benefit cost is covered? PhilHealth's "depth" has been traditionally measured as "support value", or the proportion of total hospitalization costs that are reimbursed by the NHIP. (i) Throughout most of the 2000s and well into early 2010s, PhilHealth's own estimate using claims data show that the support value has been about 33% of the average cost of hospital confinement. With all-case rate payment, the support value had increased to 56% by end-December 2015 (PHIC, 2016). This estimate is based on the average cost of inpatient confinement of PHP 10 388. (ii) Using the NDHS 2013 data, the inpatient support value was estimated at 31.3%; for public hospitals 37.3% and for private hospitals 28.6%. (iii) Using the FIES 2013 data, the inpatient support value was estimated at 31.5%; for public hospitals as 37.3%, and for private hospitals as 28.6%. (iv) Using the APIS 2011 data, the support value was estimated at 58.6%, i.e. only a little more than half of hospitalization costs were reimbursed by PhilHealth. The support value for that year ranged from 77.7% in Region VIII (where there is an active regionwide PhilHealth call centre and claiming system) to only 7.4% in ARMM.

These various data sources indicate that PhilHealth can reimburse only 30–60% of hospitalization costs, leaving 40–70% for patients to bear. Note also that the above figures are average estimates, which means that patients on the right side of the mean value have so much more to pay for. Note further that in some circumstances, especially in private hospitals, the patient has to deposit the money first for the total bill and get reimbursed by PhilHealth later.

Filipinos pay for health commodities and services whether these are purchased under PhilHealth or not. Data from the 2013 FIES show that among the various types of services paid for by OOP expenses, 35.8% were for inpatient services, 31.2% for pharma products, 17.0% for other medical products, and 15.7% for outpatient services (Ulep VGT et al., 2013). Combining inpatient and outpatient services results in a total OOP share of 51.5%, which means that 48.5% of OOP spending was for

drugs, nutraceuticals and medical products. Drugs figure prominently in OOP expenses for four reasons: (i) the chronic shortage of drugs in government health facilities; (ii) lack of PhilHealth coverage of drugs for outpatients; (iii) excessive consumption of nonprescription drugs and nutraceuticals due to poor patient education and aggressive marketing; and (iv) the historically high cost of drugs in the Philippines.

Sponsored Program members in government hospital wards are protected by user charges under the no-balance billing policy introduced in 2011. In addition, government hospitals themselves classify patients according to their ability to pay, and those deemed medically indigent are often channelled to other sources of financing such as PAGCOR, PCSO, the Red Cross or other NGOs. Medically indigent patients who cannot be channelled to any of these other sources of financing are simply accommodated and given care and declared as “quantified free service” (charity cases).

3.3.2 Collection

General Government budget. Government health expenditures (excluding SHI) accounted, on average, for 11% of THE in the latter half of 2010, but climbed to 17.3% in 2014. Of this total share, National Government health expenditures accounted for 10.6% while LGU health expenditures took 6.7%. The re-centralization of health financing starting in 2007, including the large premium subsidy for poor families to be enrolled in PhilHealth starting in 2010, meant that National Government health expenditures have grown much faster than LGU health expenditures.

Of the total PHP 2005.9 billion government expenditure programme in 2013, health accounted for 2.9% (PHP 57.7 billion). Since the health system is devolved, this excludes the health expenditures of LGUs, which come out of their IRA. Such LGU IRA (from which health funds are taken) has risen considerably from PHP 60.0 billion in 2008 to PHP 95.5 billion in 2014.

Government health expenditures are funded out of general tax revenues collected by the Department of Finance. Out of the total government revenues of PHP 1716.1 billion in 2013, 89.5% (or PHP 1535.7 billion) came from taxes and 10.5% from non-tax revenues (PHP 180.4 billion). There was no significant change in the relative share of tax and non-tax revenues in 2016 (Table 3.5). National Government agencies such as the DOH and PhilHealth are then allotted annual budgets by the DBM. Each

LGU also receives a share of taxes from the DBM (the IRA) based on a formula consisting of variables such as land area, population and LGU income classification.

Table 3.5 National Government revenues (in billion PHP), by type and progressivity, 2013 & 2016

Revenues	2013		2016		Remarks
	Amount	% Share	Amount	% Share	
Taxes	1 535.7	89.5	1 980.4	90.2	
• Taxes on net income (personal & corporate)	718.4	41.9	921.2	42.0	Tends to be progressive, but rates and brackets of personal income tax need to be adjusted for inflation
• Taxes on property	3.3	0.2	6.6	0.3	Tends to be progressive, but tax avoidance is high
• Taxes on goods and services	429.8	25.0	554.9	25.3	Value added tax reforms were progressive, according to Newhouse and Zakharova (2007)
• Taxes on international trade	304.9	17.8	396.4	18.1	No available assessment
• Other taxes	79.3	4.6	101.3	4.6	No available assessment
Nontax revenues	180.4	10.5	215.5	9.8	No available assessment
Total	1 716.1	100.0	2 195.9	100.0	

Sources: Philippine Statistics Authority, 2014 & 2017a

National tax and non-tax revenues grew by 42% from 2008 (PHP 1202.9 billion) to 2013 (PHP 1716.1 billion). However, as a proportion of GDP, taxes collected in 2009 were only 12.7% (and 12.4% in 2011), lower than the 18% share registered in 1997 before the Asian economic crisis (Usui N, 2011). A major problem is leakage of direct and indirect taxes collected by the Bureau of Internal Revenue, due to collusion between taxpayers and tax collectors (Vicente FXM, 2006). Compliance has also been low among self-employed professionals due to cumbersome rules and procedures.

The rates of personal income taxes range from 5% (lowest of the seven income brackets) to 32% (highest of the income brackets), which makes the personal tax system look progressive. However, these rates and brackets have not been adjusted for nearly 18 years and inflation has distorted the apparent progressivity by moving the lower-income earners to a higher bracket (thus making them pay more than they otherwise would) while higher-income earners have benefited from the resulting

compression (Balisacan AM, 2015; Senate of the Philippines, 2015). To address this problem requires amendments in the tax code to increase the tax exemption level, and to adjust the brackets and rates to a more progressive system.

Value added tax (VAT) reforms instituted in the mid-2000s were found to be progressive and well targeted (Newhouse DL et al., 2007). However, to mitigate the impact of the VAT reforms on the poor, the authors encouraged several mitigating measures, including targeted transfer schemes (CCTs), which have been adopted.

Local governments are also mandated under the Local Government Code to generate local taxes and charge fees for local services including health. However, the capacity of LGUs to generate local taxes has been highly variable.

There is no up-to-date tax incidence analysis. Devarajan & Hossain (1995) combined tax incidence and spending (benefit) incidence analysis and found that in the 1990s, the incidence pattern of taxes was basically neutral. Contrary to expectations, indirect taxes were only slightly regressive. The pattern of expenditure was found to be progressive (pro-poor). Thus, the combined incidence was progressive. Data from the 2003 FIES also suggested that taxes paid by households were progressive, i.e. the poorest 60% paid less than 6% of the total taxes.

An analysis of the distributional incidence of health financing in 13 Asian countries (O'Donnell O et al., 2008) showed that for the Philippines, as in other countries in the group, the burden of direct taxes was heavily concentrated on the better off (Table 3.6). For the Philippines, the concentration index was 0.8 in magnitude, confirming that the better off paid the largest share of direct taxes. The Kakwani index for direct taxes was positive, indicating progressivity. The positive but smaller magnitude of the concentration index showed that the burden of indirect taxes was also concentrated on the better off. The sign and magnitudes of concentration and Kakwani indices for social insurance and private insurance also reflected progressivity. The high share of direct payments (OOP) and the relatively high concentration index meant that the better off paid more for health care.

Table 3.6 Concentration and Kakwani indices for health financing in the Philippines, by source, 2000s

	Direct taxes	Indirect taxes	Social insurance	Private insurance	OOP	Total financing
% sources of financing	16.9	14.8	5.1	10.3	44.9	100*
Index						
Concentration	0.8297	0.4511	0.5948	0.5100	0.5878	0.6020
Kakwani	0.3809	0.0024	0.2048	0.1199	0.1391	0.1631
Weights	0.1840	0.1607	0.0553	0.1118	0.4882	-

Note: *Includes 8.0% non-tax source

Source: O'Donnell O et al., 2008

Social health insurance. SHI consists of the NHIP and the Employees Compensation Fund, which provides insurance coverage to occupation-related injuries and death. The Employees Compensation Fund is a small programme funded from the contributions of industrial workers. It involves around PHP 100 million expenditure a year, or 0.02% of THE.

The NHIP originated in the late 1960s when the Philippine Medical Care Commission (PMCC) was created. In 1995, PhilHealth took over the functions of the PMCC. PhilHealth contributions by its members, including the transfer of subsidies by the Government for the poor, are deposited into the National Health Insurance Fund (NHIF), which is independent from other funds and is managed by the PhilHealth Board. The NHIF is also the depository for premium contribution subsidies made by the National Government to Sponsored Program members; other appropriations earmarked by National and local governments purposely for the implementation of the Program; and donations and grants.

Section 28 of Republic Act No. 7875 provides that: (i) formal sector employees (government and private sector) are required to contribute a rate not exceeding 3%³ of their estimated actual net income for the preceding year. An equivalent amount is required to be paid by their employer. (ii) Contributions from self-employed members under the Individually Paying Program shall be based primarily on household earnings and assets. However, their total contributions for 1 year shall not exceed 3% of their estimated actual net income for the preceding year. (iii)

3 The law says 3% maximum for each employee and employer, but the Government has always used 2.5%, with a defined contribution ceiling, then matched with an equivalent 2.5% share by the employer.

Contributions made on behalf of indigent members shall not exceed the minimum contributions set for employed members.

The different membership contribution rates of PhilHealth engender inequities. While the PhilHealth premium for formal sector employees is set as a proportion of monthly salary (thus implying proportional contributions – neither progressive nor regressive), the low cap on contributions (PHP 50 000 since 2013) means that those with salaries beyond the ceiling contribute proportionately less than what they could afford, thus making contribution rates less progressive. Moreover, the contribution ceiling is not adjusted for inflation, implying that progressivity until the ceiling is reached is eroded by inflation.

Collection rates for the formal sector are laid down in Republic Act No. 7875. The principles for premium contributions for workers in the informal sector are also defined there.

- Formal sector employees – their monthly contributions shall not exceed 3% of their monthly salaries.
- Individually Paying Program – their contributions are based on household earnings and assets, but these should not exceed 3% of their estimated monthly salaries.
- Overseas Worker Program – for OFWs, payment of PhilHealth premium contributions is supposed to be mandatory. The annual premium is pegged at PHP 2400.
- Sponsored Program – members of the Sponsored Program do not contribute to the NHIF; their premiums are paid for by the National Government.
- Lifetime members – members who have contributed 120 monthly contributions are also exempted from paying premiums once they retire.

PhilHealth does premium collection itself through its regional offices and in some LGUs, even local health insurance offices. However, some employers are not always up to date in remitting premium contributions. Employee contributions may be remitted but not the employer counterpart. From 2001 to 2008, arrears by National Government agencies were estimated at PHP 6.1 billion, of which PHP 1.6 billion was due from uniformed personnel, PHP 0.5 billion from the Executive branch, PHP 0.5 billion from state universities and colleges, PHP 0.2 billion from the Judicial branch, and PHP 51.6 million from the Legislative branch (Legarda L, 2009). No estimates were made for private firms and local governments, but some were also in arrears. In response to this problem,

PhilHealth issued Circular 3 in 2015 defining delinquent employers as those who missed paying monthly premiums for at least 1 month within the past 6 months.

The PhilHealth Board decides on how and where to invest the PhilHealth collections. Under Republic Act No. 7875, portions of the reserve fund not needed to meet current expenditures can be invested in interest-bearing government bonds and securities, interest-bearing deposits and securities in any domestic bank in the Philippines, and preferred stocks or any solvent corporation in the Philippines.

Other sources of tax revenue for health. Republic Act No. 10351, also known as the Sin Tax Reform Law, restructured the existing taxes on tobacco and alcohol to reduce alcohol consumption and tobacco smoking, and to generate additional revenues for health programmes as well as PhilHealth premium subsidies for the poor. As a result of this law, the budget of the DOH increased from PHP 53.2 billion in 2013 (before the Sin Tax increment was available) to PHP 86.97 billion in 2015 (Department of Health, 2016c). The budget increase is being used to enrol and cover more poor families, strengthen preventive health programmes, provide medical assistance in government hospitals, and augment funds for the enhancement of health facilities (Health Facilities Enhancement Program – HFEP).

Premiums for the NHIP as a whole and for the Sponsored Program in particular are subsidized by the following national taxes and other sources of funding:

- The Reformed Value Added Tax Law of 2005 (Republic Act No. 9337), which provides that 10% of the LGU share from the incremental revenue from the VAT shall be allocated for health insurance premiums of enrolled indigents as counterpart contribution;
- Bases Conversion Development Act of 1995 (Republic Act No. 7917), which provides that 3% of the sale of the proceeds of Metropolitan Manila camps shall be given to the NHIP;
- Documentary Stamp Tax Law of 1993 (Republic Act No. 7660), which states that starting in 1996, 25% of the incremental revenue from the increase in documentary stamp taxes shall be appropriated for the NHIP;
- Excise Tax Law (Republic Act No. 7654) of 1993, which states that 25% of the increment in the total revenue from excise taxes shall be appropriated solely for the NHIP.

National lotteries and casinos. Section 6 of the charter creating the PCSO (Republic Act No. 1169) provides that 30% of the gross receipts shall be set aside as contributions to the charity fund to be used as grants for health programmes, medical assistance and services, and for charities of national character such as the Red Cross. Towards this end, PCSO has donated ambulances to selected hospitals and RHUs. More recently, PCSO has introduced the individual medical assistance programme, which aims to provide financial assistance to individuals.

The PAGCOR, operator of casinos, provides in-kind support to public health facilities as well as financial support to hospitalized patients undergoing high-cost procedures. In 2013, the PAGCOR reportedly made PHP 40.5 billion in gross income, half of which (PHP 21.20 billion) was reported in the media to have been remitted to the national treasury for so-called nation-building activities.

Little is known of the actual amounts these two agencies spend on health care, but Caballes (2013) has conducted an analysis of their health operations, both from the providers' and patients' perspectives. From the focus group interviews, he finds that for these two institutions, their threshold of payment is rather arbitrary; their financial support for emergency care and intensive care patients was inadequate; they tend to be biased in favour of inpatient care rather than outpatient care; and their operating procedures need to be harmonized and standardized.

3.3.3 Pooling of funds

The Philippines has no centralized resource allocation authority. Aside from the country having a mixed system of public and private providers and financing agents, the public system itself is fragmented between its Beveridgean supply-side (DOH, LGUs) and Bismarckian demand-side financing (PhilHealth), thus precluding rational resource allocation resulting in gaming for resources by facility managers and programme implementors. These challenges are known as the “who-pays-for-what” and “unclear accountability framework, who accounts to whom (DOH, LGU and PhilHealth)” problems. Decisions about the health-care budget are made at different levels, often resulting in overlaps.

Allocation from collection agencies to pooling agencies

DOH/National Government. The annual process of developing a DOH budget starts with the issuance of the budget call by the DBM around late February to the middle of March. The actual collection of funds is done by the Department of Finance and its bureaus (Customs, Internal Revenue), but the pooling of funds is done by the DBM. The budget call is a DBM advisory asking National Government agencies to start formulating their budget for the year. The budget ceilings issued by the DBM are based on available funds in the National Treasury and projected government income for the year. Line agencies such as the DOH then prepare annual budget proposals based on these set ceilings. The line agency proposals are consolidated into a national expenditure programme, which is submitted to Congress, which then converts the national expenditure programme into a general appropriations bill, which is deliberated on and passed jointly by both houses of Congress.

Table 3.7 shows the allotments, obligations and unobligated balances of the DOH since 2006. Annual budget allotments steadily increased in the decade of the 2000s and ballooned in the following decade. In 2006, allotments more than doubled from the previous year, and this ushered in the era of huge allotments, reaching an annual level of PHP 50 billion in 2012 and well over PHP 90.7 billion in 2016 (see Table 3.8). The annual increases in allotments were due mainly to an increase in revenue collection and the prioritization of social services, particularly those related to achieving the MDGs. With increasing allotments, however, unobligated balances also increased, reaching a level of PHP 12 billion in 2016. On average, only 83% of total appropriations were obligated from 2010 to 2017.

Table 3.7 Allotments, obligations and unobligated balances of DOH (in thousand PHP), fiscal years 2006–2017

Year	Allotment	Obligations	Unobligated balances	Obligation rate (%)
2006	11 941 851	11 239 951	701 900	94.1
2010	28 780 991	22 828 270	5 952 721	79.3
2012	50 094 433	34 928 290	15 166 143	69.7
2014	54 099 521	44 589 152	9 510 369	82.4
2016	90 705 827	78 265 487	12 440 340	86.3
2017	112 246 137	106 720 282	5 525 855	95.1

Note: Allotments constitute only a part of the total allocation of the DOH, so the available budget may in fact be higher.

Sources: Republic of the Philippines, CoA, 2007, 2011, 2013, 2015, 2017 & 2018

Local government units. LGU health expenditure has grown since 2005 by about 12% a year. About 45% of the local government health expenditure is for public health, 28% for personal care (mainly hospital-based) and 27% for others.

LGU health budgets are developed in a slightly different way from the DOH budget. In addition to budget allocation from the revenue generated from local tax, the DBM issues the budget call, which stipulates the IRA that each LGU will receive. The IRA, however, does not stipulate the amount to be allocated for health; this is determined by the local legislative council of each province, city and municipality, often with the strong influence of the local chief executive, depending on the priority she/he gives to health. In addition to the IRA, the LGUs aggregate funds from all sources, such as central DOH funds and in-kind support, income from user fees, PhilHealth payments to local health facilities, and grants from donors or loans from external sources (say, for the construction of a hospital).

These processes have resulted in wide variations in resource allocation across LGUs. In 2011, for instance, LGU expenditures for health, population and nutrition services in per capita terms varied from PHP 63 in Region IX to PHP 556 in the Cordillera Autonomous Region (CAR), with a Philippine average of PHP 231. In terms of share to the total LGU budget, central agencies (DOH, DILG) recommend that 25–30% be spent on health, but only three out of the total 17 regions (CAR, Region VII and Region VIII) are close to achieving this benchmark.

LGUs procure all commodities through their own LGU bids and awards committees, which generally abide by the provisions of the Procurement Law (Republic Act No. 9184). The DOH is attempting to restore some of the purchasing power lost during devolution through the establishment of pooled procurement mechanisms run by ILHZs or groupings of LGUs for cooperation.

Autonomous Region of Muslim Mindanao (ARMM). The ARMM consists of the provinces of Basilan, Lanao de Sur, Maguindanao, Sulu, Tawi-tawi and Marawi City. A regional government authority manages the region and the constituent provincial and city governments report to as well as receive budgets from this authority. Health services in the ARMM are provided mainly through the government health system managed by a regional authority – the DOH ARMM. The ARMM has among the lowest health indicators in the country owing mainly to low health-worker and health-facility-to-population ratios.

A regional health accounts study done by Racelis (2009) showed that in 2006, the ARMM spent an estimated PHP 3.4 billion on health. In terms of sources, the National Government (DOH and DOH ARMM) accounted for 14%, households for 29%, local governments for 2%, and PhilHealth for 4%. The remaining 51% came from foreign-assisted projects, which contrasts sharply with the fact that foreign-assisted projects accounted for just 3.6% of total health spending at the national level. Local government spending is low since health is a non-devolved function and hence is paid for largely by the National and regional governments. PhilHealth shares are also low owing to limited enrolment.

PhilHealth. PhilHealth pools funds across its different membership groups and deposits them in a single, unified fund called the NHIF. The funds are commingled and managed as one fund by the PhilHealth Board. The NHIF being managed as a single fund means the application of one set of standards for actuarial and reserve management as well as investments. In principle, it also means a single set of benefit packages for all members, although in practice there are variations across membership categories due to PhilHealth's limited resources. Specifically, Sponsored Program members are entitled to basic outpatient benefits in RHUs, which other members do not enjoy. In addition, the no-balance billing policy currently covers only Sponsored Program members using government hospital wards.

A major implication of pooling is cross-subsidization across different member groups, giving rise to the concern for progressivity, which can be analysed by comparing the premium contributions of different members versus their benefit payments and then deriving each group's premium-to-benefit ratios. In all four years considered in Table 3.8, the individually paying members' group consistently had benefit payments exceeding their premium contributions. In 2007 and 2011, Sponsored Program members and overseas workers also had benefit payments exceeding their premium contributions. Thus, from 2006 to 2014, it was the contributions from the formal sector employees (government and private) that subsidized these three groups. This seems to be a good pattern of cross-subsidy as the formal sector employees have, in general, higher incomes than Sponsored Program and individually paying members.

Table 3.8 PhilHealth premium collections and benefit payments (in billion PHP), by type of membership, 2006–2014

Membership	Premium collections				Benefit payments				Benefit-to-premium ratio			
	2006	2007	2011	2014	2006	2007	2011	2014	2006	2007	2011	2014
Government employees	4.4	4.5	8.0	36.9	3.9	3.8	6.0	26.6	0.9	0.8	0.8	0.7
Private employees	12.9	14.6	20.0	-	8.3	7.7	12.2	-	0.6	0.5	0.6	-
Individually paying members	0.9	1.0	2.0	5.0	1.4	2.1	5.8	19.3	1.6	2.1	2.9	3.9
Sponsored Program members	3.7	3.0	2.0	36.9	2.8	3.1	7.3	25.4	0.8	1.0	3.7	0.7
Retirees or lifetime members	0.0	0.0	0.0	0.0	0.4	0.9	2.3	5.6	-	-	-	-
Overseas workers	0.6	0.6	0.8	2.5	0.4	0.7	1.2	1.3	0.7	1.2	1.5	0.5
Total	22.5	23.7	32.8	81.3	17.2	18.3	34.8	78.2	0.8	0.8	1.1	1.0

Source: Calculated by the authors from PhilHealth annual reports, 2006–2014

Despite its apparent progressivity, PhilHealth’s overall benefit payments represent less than 96% of total premium collections in 2014. Allowing for admissible administrative expenses (2.5% of premium collections), this means that PhilHealth has been financially stable. However, the low benefits-to-premium ratio for three member groups in 2014 (especially employed members who have borne the bulk of payments) indicates that PhilHealth has provided only limited financial protection to its members.

Allocation of resources to purchasers

DOH as a purchaser of health services from retained hospitals. The DOH controls the behaviour and activity of retained hospitals through hierarchical budgetary structures. In this regard, it is important to distinguish between those with hospital autonomy and independent governance structures and those without this arrangement. Only four of the hospitals under the DOH have hospital autonomy, namely, the four apex hospitals with their own charters (Heart Center, Kidney Center, Lung Center and Children’s Center all located within a stone’s throw of each other in Quezon City). Each of these hospitals has their own line items in the annual General Appropriations, they can set their fee structures, and they can hire and fire staff. The vast majority of retained hospitals does not have such autonomous governance and are treated by the DOH as hierarchical structures in budget allocation.

A study done by Lavado et al. (2010b) showed that until 2008, the DOH spent more than half of its budget for these hospitals (Table 3.9). However, a shift in DOH priority from personal health care to public health in 2008 saw a drastic decline in the allocation to these retained hospitals to just 34.9% in 2008, and to only 14.6% in 2016. Given that the DOH budget accounts for as much as 70% of these hospitals' total funding, the tightening direct budgetary support has been a serious concern. But the DOH has countered that the intention is to make these hospitals more reliant on PhilHealth reimbursements, since this was the focus of health financing reforms. Unfortunately, no study is available on how much these hospitals are generating from PhilHealth revenues.

Table 3.9 DOH budget for retained hospitals, 2003–2016

Year	Budget for DOH-retained hospitals (million PHP)	Total DOH budget (million PHP)	Share of DOH budget for retained hospitals (%)
2003	6 119	9 281	65.9
2004	6 084	9 281	65.6
2005	6 099	9 725	52.4
2006	5 997	10 038	59.7
2007	6 777	11 399	59.5
2008	6 594	18 912	34.9
2016 ^a	17 892	122 630	14.6

Sources: Lavado RF et al., 2010b; ^aRepublic of the Philippines, 2016.

Sources and uses of funds. The total funds available for DOH-retained hospitals come from appropriations from the GAA and hospital income. In the early-to-mid 2000s, Lavado RF et al. (2010b) found that appropriations accounted for around 80% while hospital income accounted for around 20% of these hospitals' funds. However, with PhilHealth reforms going in full swing by the latter part of the previous decade and well into the present, new analyses of more recent 2013 data show that direct budgetary appropriation has been reduced to 45.3% of these hospitals' funding while hospital income has increased its share to 54.7% (Table 3.10). This bodes well for hospital sustainability.

Table 3.10 Sources and uses of funds of DOH-retained hospitals, by level (in million PHP), 2013

Level	Sources of funds			Uses of funds		
	Appropriation	Other income	Total	Personnel emoluments	MOOE	Total
1	15	8	23	9	5	14
2	37	15	52	23	14	37
3	102	99	201	74	28	102
4	206	244	450	151	73	224
All	125	151	276	87	44	131
All	45.3%	54.7%	100%	66.4%	33.6%	100%

Notes: DOH: Department of Health; MOOE: maintenance and other operating expenditures

Source: Author’s calculations based on data from General Appropriations Act of 2013

Basis of allocating resources. General appropriations consist of funding from the DOH (around 80%) through direct release and through suballotments, and special purpose funds (around 10%) through “pork barrel” financing⁴ (about 1% and other special purpose funds, e.g. for calamity response and disaster risk reduction [about 9%]). DOH funding is generally calculated based on the hospital’s installed capacity (number of beds) as well as its number of staff and plans for expansion for the year. In previous years, before the onset of large budgetary infusions, budgeting was traditionally done along incremental lines, using a certain percentage increase in funding over the previous year. This was the accepted standard practice in almost all DOH-retained hospitals.

The incremental budgeting approach, however, flew in the face of bed occupancy rates in excess of authorized bed capacity. Among DOH-retained hospitals, data for 2013 show that while Level 1 facilities had a bed occupancy rate of 70%, those for Levels 2, 3 and 4 had bed occupancy rates of 103%, 114% and 108%, respectively. For the sample of DOH-retained hospitals ($n=51$), the bed occupancy rate was 105%. Thus, using authorized capacity as the budgeting parameter severely underestimates the resource requirements of these facilities, which have to accommodate patient volumes in excess of the authorized number of beds.

With the onset of large budgetary infusions starting in 2008, the incremental budgeting approach has become irrelevant. However, the DOH was slow to adopt bolder approaches appropriate for larger available budgets, mainly because of the Commission on Audit’s heavy restrictions, which precluded the DOH management from being more liberal, and also

4 Pork barrel financing has since been declared unconstitutional by the Supreme Court.

because of the lack of long-term strategic sector planning at the national level, especially on hospital needs.

The budget allocation between personal emoluments and MOOE also led to suboptimal hospital operations. Lavado RF et al. (2010b) showed that there was a steady decline in the share of MOOE in the total hospital budget of retained facilities, from around 44% in 2000 to just 32% in 2008 and 34% in 2013. Small wonder that so many of these retained facilities are in such a poor state of repair.

As the previous decade wore on, even the historical incremental budgeting approach appears to have been replaced by unclear criteria in hospital budget allocation. Lavado's regression analyses of hospital budgets from 2000 to 2008, and the subsequent work by the Philippine Institute for Development Studies on the same topic, showed inconsistent use of three possible criteria: hospital bed capacity, geographical character (catchment population and regional poverty incidence), and number of poor patients served. This inconsistency may be due to the increasing fragmentation of hospital financing as other funds became available, especially pork barrel financing, which are budgetary insertions made by Congressmen during the budget deliberations. These typically come from Congressmen's pork barrel funds or their Priority Development Assistance Fund, which are allocations given to legislators by the National Government to fund local projects. Given the historical, incremental approach to budget-setting, these insertions get carried over in future budgetary appropriations, such that hospital budgets have no semblance to their original per bed per day allocation. These insertions also tend to inhibit rationality in the maintenance and establishment of hospitals in the public sector. Fortunately, following a national uproar over their misuse in 2014–2015, pork barrel financing has been declared unconstitutional by the Supreme Court and is no longer in use.

Resource allocation for retained hospitals is also stunted by sheer lack of planning. Individual hospital planning seems to be ad hoc and lacking in overall strategy, oversight and guidance. This, in turn, could be due to the weak monitoring of retained hospitals. Lavado RF et al. (2010b) found that financial reports are often incomplete, inconsistent and flawed, while hospital statistical reports are rarely checked and encoded.

Internally generated funds. The increasing importance of internally generated funds among DOH-retained hospitals has also made resource allocation more challenging. Hospital income comes from patients' OOP

payments, PhilHealth reimbursements and other income (PCSO, training fees, certification fees, rental income and others). From 2003 to 2007, this was calculated by Lavado RF et al. (2010b) to be around 20% of retained hospitals' funding. By 2013, however, hospital income already accounted for 54.7% as a source of funding for retained hospitals, exceeding DOH appropriations. Retained hospitals have the capacity to retain their fee revenues, as stipulated in the annual GAAs. According to the GAA 2016, hospital incomes can be used to augment the hospitals' maintenance and other operating expenditures and capital outlays, including the payment of PhilHealth's premium of patients under the Point of Care program, provided that 25% of the said income shall be utilized to purchase and upgrade hospital equipment.

The willingness of hospitals to rely on PhilHealth reimbursements, however, varies across hospitals because of the perceived obstacles in making a claim as well as the unpredictability of the amount to be approved by PhilHealth, compared to the certainty of direct budgetary support from the DOH. So there is still some gaming going on in many retained hospitals, but the DOH policy is clear: that direct budgetary infusion will decline while these hospitals are encouraged to rely more on PhilHealth reimbursements.

Lack of risk adjustment. There is no risk adjustment in DOH financing of retained hospitals. While government budgets today are generally hard budgets, they are not adjusted for demographic factors (size, age structure and gender of their catchment population), geographical or spatial factors, or proneness to disasters. Although there is an official definition of a geographically isolated and depressed area, there is no equivalent equity fund to implement this concept. Current budgeting practice uses installed capacity and therefore does not take account of the actual demand as indicated by the volume of patients or utilization of services.

LGUs as purchasers of health services from their own devolved health facilities. With the devolution of primary and secondary health services to the LGUs in 1991, local governments were transformed into purchasers of services to be delivered by local hospitals, RHUs, City Health Offices (CHOs) and BHSs in their respective jurisdictions. The relationship between LGUs and local health facilities is similar to that between the DOH and its retained hospitals. Provincial and district hospitals are funded out of the provincial government's budget while city/municipal

hospitals are financed by municipal/city budgets – which are derived from their IRA, local and non-tax revenues, loans and grants, and central resources from the DOH that are allocated to LGUs either in cash or in kind through personnel deployment programmes, drugs under various central procurement programmes, and capital investments under the HFEP. Many government hospitals that are under the management of LGUs also charge user fees, generally below cost. PhilHealth-accredited LGU health facilities also receive PhilHealth reimbursements or capitation payments. Their management and financial parameters are determined primarily by the local chief executive and, in varying level of influence and technical leadership, the local hospital chief.

LGUs are highly varied, ranging from extremely large and very well-off metropolitan cities, to medium-sized cities, to provincial capitals, and way down to rural municipalities in geographically isolated and depressed areas. These LGUs are also highly varied in terms of revenue-generation capacity, institutional capacity to manage health programmes, health assets (facilities and available health staff) as well as demand on their services. Unfortunately, these huge variances are rarely taken into account in the allocation of resources, although heroic efforts are often made by central authorities (the DOH as well as the DILG) to do so, with checkered results.

Sources and uses of funds. Table 3.11 shows the sources and uses of funds in one province. Of the total available public funds for the province, only 27–30% comes from the province itself. National Government transfers are substantial, accounting for around 30% of total funds. A huge chunk of the transfers is accounted for by the budget of a retained DOH regional hospital in the province. PhilHealth reimbursements comprise 10–15% of total funds available. Note that these data are rather dated; since the onset of KP in 2010, PhilHealth reimbursements have increased significantly. In terms of use, around 58% of the funds are used for hospital services while 42% are used for public health services.

Table 3.11 Sources and uses of health funds in LGUs (in million PHP), 2003–2007

	2003	2004	2005	2006	2007
Sources of funds					
DOH grants to LGU	8.2	8.3	8.1	7.3	8.7
Budget of retained hospital	116.6	116.6	116.6	122.7	117.0
Provincial health budget	122.6	121.8	125.6	131.1	146.2
Municipal health budget	128.6	127.4	133.5	147.2	148.9
PhilHealth capitation to RHUs	1.5	2.2	4.3	2.0	5.5
PhilHealth reimbursements to hospitals	39.3	63.7	55.1	61.3	61.1
Total	420.1	444.0	445.1	473.5	489.4
Uses of funds					
Hospital services	244.8	268.6	262.0	276.6	284.8
Public health services	175.3	175.5	183.2	196.9	204.6
Total	420.1	444.0	445.1	473.5	489.4

Notes: LGU: local government unit; DOH: Department of Health

Source: Lavado RF et al., 2010a

Basis of allocating resources. The pooling and purchasing agencies in a devolved health system are the LGUs themselves, and their health facilities are merely hierarchical units that they fund. The various revenues that the LGU receives are pooled into the LGU budget and are then allocated and budgeted for by the local council, with strong influence from the local government executive and their designated provincial, city or development officer. Several issues continue to bedevil LGU resource allocation for health, among these are the following.

Even in the early days of devolution, researchers found that in some LGUs, the cost of delivering health services is much higher than the resources made available to fund them (Capuno JJ et al., 1996). “The devolved functions of the DOH constituted more than 65% of the estimated total cost of the devolved functions, or about 39% of the DOH’s budget for 1992.” To address this problem, “the estimated costs of devolved functions were taken out of the budgets of the departments and pooled with other revenue collections of the National Government. However, the shares of the LGUs from the IRA are transferred as block grants. Although in most cases the grant is enough to cover the costs of devolved functions, there is no assurance that local health expenditures

will increase under devolution” (Capuno JJ et al., 1996). This problem persists to this day.

Health service norms and standards are outdated and are poorly enforced. The official ratios of health facility- and health worker-to-population ratios were formulated way back in the 1970s and have never been officially updated, except for one (bed per population ratio, which has been changed from 1:1000 to 1:800). Health assets (facilities, staff) were severely maldistributed to start with, and these somehow worsened under devolution as the DOH lost power to enforce standards and manage health system expansion via the erstwhile centralized budget. Licensing became the only tool that the DOH could wield, and even this tool was weakly applied.

The presence of DOH-retained facilities in many localities imply implicit DOH subsidy to the LGU whose residents use it without or with little corresponding budgetary support from the LGU. It also dampened any incentive for the LGU to increase health expenditures. In some cases, LGUs have begun to provide subsidy to these DOH hospitals, but this is the exception rather than the norm.

The interjurisdictional flows and self-referral by patients, especially those living in border towns or close to large cities, have not been given enough attention by fiscal authorities. Nor has there been an adequate solution offered to these major allocation problems (in terms, for example, of interjurisdictional payments, referral bypass fees, outright subsidies to patient-receiving LGUs, use of equalization funds, or use of the concept of a “metropolitan health authority” in large cities and their neighbouring smaller LGUs). ILHZs could solve some of these spill-over problems, but the experience with ILHZs does not bode well for the resolution of these inter-LGU problems, especially if the LGUs concerned belong to different provinces. The Duterte administration is putting greater emphasis on the implementation of SDNs, and this may solve some of the efficiency and equity issues.

Private providers complicate resource allocation in the public sector, because many of these private facilities carry out public health functions for which they are not paid. They also set aside charity wards for medically indigent Filipinos who cannot be accommodated in government hospitals. As PhilHealth is still struggling to complete its reimbursement system so that all Filipinos will eventually be covered by the no-balance billing policy irrespective of ownership of health facility used, there must

be a transitory financing system where these private hospitals at the receiving end of poor patients should be paid. In some rich LGUs (such as Cabuyao and Calamba in Laguna), there is a system in place for the payment of LGU subsidies to private facilities, but in the vast majority of LGUs, there is none.

Devolution was implemented with little regard for economies of scale and economies of scope in the provision of health services and commodities. Economies of scale and scope are important factors in LGU health allocation. Research has shown that the cost of LGU procurement of drugs is almost always higher than central procurement (Picazo OF, 2012b). In small – especially island or hinterland – provinces, economies of scale can also be a major obstacle for cost-effective service provision. Some of the provinces (e.g. Batanes, Siquijor, Biliran) have small populations making it unfeasible to establish the full range of health services needed by their constituents. The IRA formula does include population size and geographical area, but these do not capture the complexity of the effect of economies of scale on resource requirements.

The concept of an officially defined, geographically isolated and depressed area would have been a good resource allocation tool for LGUs. However, geographically isolated and depressed areas remained largely a planning tool but not a budgetary instrument. In the absence of an equity equalization fund, or an incentive allowance for health workers to settle or practise in geographically isolated and depressed areas, or a funded programme to implement in these areas, it remained just a noble concept. The exception may be in the case of HFEP where there were serious efforts to provide village health posts and birthing centres in geographically isolated and depressed areas.

The short term of office of local officials (3 years with a maximum of two re-elections) often precludes long-term planning, especially on capital assets. Political dynasties are a common feature of Philippine local politics, and this surprisingly could have a positive effect on the continuity of health investments. The introduction of the first set of provincewide and citywide investment plans for health (PIPH, CIPH) in the late 2000s launched the era of longer-term health sector planning in LGUs, but while some of the PIPHs and CIPHs were updated 3–5 years later, others were not. Moreover, the changed local administration sometimes did away with the PIPH/CIPH of the previous administration, so their usefulness as planning and resource allocation tools was reduced.

The absence of a comprehensive study on the status of decentralization after nearly 25 years makes it difficult to establish general trends. However, evaluation reports of various projects and programmes (European Union, Health Policy Development Program, Health Facilities Enhancement Program) indicates that local health workers may have been the most severely affected parties in devolution. Congress realized this early and enacted the Magna Carta for Health Workers in the mid-1990s, but its implementation has been chequered, as the law had no teeth to enforce it. Not all LGUs followed the provisions of the law, with many arguing that they did not have the financial means to implement it. Indeed, some LGUs faced a budget squeeze in the ensuing years, forcing them to contract out or casualize (through job orders) what used to be permanent positions. The DOH responded to the shortage of health workers at the local level with national staff deployment programmes (doctors, nurses, midwives and medical technologists) but this merely distorted the budgetary priorities of LGUs as the deployment programme crowded out efforts by the LGU to generate revenues and create permanent health-worker positions, as shown by the poor LGU absorption of deployed health workers.

Internally generated funds and fiscal autonomy. As mentioned above, PhilHealth reimbursements accounted for 10–15% of total funds for the case study province. The lack of fee retention in many LGU health facilities means that all revenues generated by the health facilities were channelled to the local treasury. In some cases, there were trust funds where they were collected and earmarked for future use by the health sector. However, in other cases, they were merely commingled with the other revenues of the LGU. In some LGUs, the hospital is often reduced to a cash cow that the local government milks for resources to be used in non-health interventions. Site visits of various evaluation efforts indicate that in many cases, the annual revenues of the hospital are higher than the annual budget given by the parent LGU. Some LGU health facilities have plans to turn themselves into autonomous units, but so far, only one LGU hospital – the La Union Medical Center – has succeeded in this attempt.

3.3.4 *Purchasing and purchaser-provider relations*

There are three types of purchaser-provider relationships in the Philippine health-care system: (i) that involving PhilHealth as purchaser and public and private health facilities as providers; (ii) that involving the DOH as purchaser and its retained hospitals as providers; and (iii) that

involving each LGU as purchaser and its local hospitals and clinics as providers. Since purchasing done by the DOH and LGUs can be seen as an “integrated model” of purchasing, where the purchaser and the provider is the same entity, there is no real enforceable “purchasing function”. This section focuses on PhilHealth as the purchaser of health services, where PhilHealth serves as the purchaser buying services from competing public and private health-care providers.

(ii) Ordinary inpatient case packages. PhilHealth introduced case payment for inpatient care for the first 23 case rates in 2011, replacing the traditional fee-for-service system. The case-rate system was expanded in January 2014 to cover all inpatient medical and surgical cases (the so-called all-case-rate system). All PhilHealth members are eligible under this payment system, but only Sponsored Program members utilizing government hospitals are entitled to the no-balance billing policy of zero copayments. Government health-care providers are paid a fixed rate and are responsible for distributing the professional fees to physicians; they cannot make additional charges if the patient is a Sponsored Program member. However, non-Sponsored Program patients can still be balance billed in some government hospitals, and private hospital patients can be subjected to balance billing. Thus, non-uniformity of the application of the no-balance billing policy, and its current limitation in application only to Sponsored Program members in government hospitals, leaves much room for copayments to persist.

Relative to the fee-for-service system, the case-rate-payment system appears to have led to lower average cost per case and shorter length of stay. Out of the 23 case rates, all except pneumonia II recorded lower average costs in 2012 compared with the average fee-for-service costs in 2010 (Philippine Health Insurance Corporation, 2013b) without adjustment for cost inflation between 2010 and 2012. Similarly, all conditions except pneumonia II recorded a lower average length of stay in 2012 compared with that under the fee-for-service system in 2010.

Despite these good intentions, some problems continued. Action for Economic Reforms (2013) found that 39.6% of the Sponsored Program patients it surveyed were misinformed about their sponsorship, more than half (53.0%) did not know about the free hospitalization policy, and more than two thirds (69.6%) had to buy medicines outside the health facility while 42.4% paid a portion of the hospital bill (Table 3.12). Moreover, it was found that a few hospitals in Region VIII resorted to

upcoding, i.e. charging a patient under a condition reimbursed at a higher rate than the real condition so that the facility can generate more money, for instance, a paediatric case to a gastroenteritis case. Some government hospitals continued to experience shortage of drugs and medical supplies (Maala JV, 2014), forcing patients to buy them outside the health facility, resulting in default balance billing. Overall, however, the prevalence of balance billing declined from 93% in June 2013 to 59% in June 2014 (Picazo OF, 2014).

Table 3.12 Awareness of PhilHealth Sponsored Program benefits and utilization, 2013

Items	Frequency	Percentage
Awareness about sponsorship		
• Knows National Government/DSWD as sponsor	131	60.4
• Not aware or misinformed about sponsor	69	39.6
• Knows expiration date of sponsorship	156	71.9
Awareness about benefits		
• No-balance billing policy	115	53.0
• Case-rate payment	39	18.0
• Diseases covered under case rate	27	12.4
• Non-case-rate confinement	8	3.7
• Primary care benefit package	10	4.6
Hospital confinement and no-balance billing		
• Patient asked to buy medicines and other supplies	64	69.6
• Patient paid a portion of the hospital bill at the billing station	39	42.4

Source: Action for Economic Reforms, 2013

(ii) Catastrophic case packages. These so-called Z benefits are oriented to disease conditions that are deemed economically and medically catastrophic to the patients and their families. The conditions currently cover: (i) acute lymphatic leukaemia, standard risk for children; (ii) early breast cancer; (iii) prostate cancer, low-to-intermediate risk; (iv) kidney transplant for end-stage renal disease; (v) coronary artery bypass graft surgery, standard risk; (vi) total correction for tetralogy of Fallot in children; (vii) closure of ventricular septal defect in children; (viii) cervical cancer, stages I to IV; and (ix) Z MORPH (mobility, orthosis, rehabilitation and prosthesis help) to support the treatment of disabled persons.

Table 3.13 shows the number of patients and amount of claims of this benefit as of 31 December 2015. Some 2031 patients have availed of it, incurring claims totalling PHP 697.19 million, or an average of PHP

343 274 per patient. In its initial years of implementation, this benefit has reported low utilization mainly because of the limited number of providers, stringent eligibility criteria, and no or limited information campaign for deserving patients. More serious problems have to do with (i) the systematic participatory and transparent mechanisms for inclusion of new conditions/interventions into the Z benefit, especially the use of burden of disease and cost-effectiveness approach, and (ii) the equity implications of the large cost benefiting a few people when in fact there is not even a comprehensive outpatient benefit package that could avert some of the Z conditions and benefit a far larger number of PhilHealth members.

Table 3.13 Number of patients and claims under Z benefits, 2015

Conditions	No. of patients	Amount of claims (PHP million)	Average claim per case (PHP)
Coronary artery bypass graft	458	252	549 672
Kidney transplant	379	225	594 855
Tetralogy of Fallot	290	92	318 897
Ventricular septal defect	273	68	249 817
Breast cancer	517	45	86 847
Acute lymphoblastic leukaemia	63	10	158 889
Peritoneal dialysis first	25	2	72 400
Prostate cancer	20	2	100 000
Selected orthopaedic implants	5	0	88 000
Cervical cancer	1	0	130 000
Total	2 031	697	343 274

Note: Data as on 31 December 2015
Source: Compiled by the authors from PhilHealth

Tan CA (2016) conducted an analysis on the kidney transplant benefit by randomly selecting and interviewing 15 patients out of a total of 333 patients from the National Kidney and Transplant Institute and the Philippine General Hospital from 2012 to 2015. He found that the current benefit of PHP 600 000–630 000 is not adequate as 60% of the patients said that PhilHealth did not cover preoperative check-ups and 40% said it did not cover postoperative medicines (for prevention of graft rejection). Moreover, the patients still incurred significant OOP expenses, varying due to the category of patients into indigents (treated as no-balance billing), fixed copay (for those contributing at least PHP 200 000 for the

procedure) and variable copay (for those paying up to a maximum of PHP 600 000). Most of the interviewed patients had monthly incomes of PHP 10 000 to PHP 30 000, and a third of them said the Z benefit was not sufficient.

(iii) Outpatient and MDG benefits. These benefits have evolved slowly through the years due to concerns about duplication with the DOH, sustainability and efficiency of financing under a health insurance mode, and provider accreditation and monitoring problems. At present, they cover a range of services delivered by accredited and contracted outpatient clinics, birthing centres, free-standing dialysis clinics, ambulatory surgical centres and hospital outpatient departments (Table 3.14).

Table 3.14 Evolution of PhilHealth outpatient and MDG benefits, 2000–2015

Year	Benefits	Providers	Eligible members
2000	Outpatient benefits	Accredited RHUs	Sponsored Program only
2003	+ Maternity care package	Accredited RHUs, accredited birthing centres	All cases
2003	+ TB-DOTS	Accredited TB-DOTS centres (public and private)	All cases
2006	+ Neonatal care package	Accredited RHU	All cases
2008	+ Malaria treatment	Accredited RHU	All cases
2009	+ HIV/AIDS treatment	Treatment hubs, usually government regional hospitals	All cases
2010	+ Animal bite	Accredited animal bite treatment centres in government hospitals and some RHUs	All cases
2014	+ Insertion of intrauterine device	Accredited RHU	All cases
2014	+ Noncommunicable disease drugs (pilot)	Pharmacies in pilot sites	All cases in pilot sites
2015	+ Other primary care	Accredited RHUs	Sponsored Program only

Notes: MDG: Millennium Development Goal; RHU: rural health unit; TB-DOTS: tuberculosis directly observed treatment, short course; HIV/AIDS: human immune deficiency virus/acquired immune deficiency syndrome

Source: Compiled by the authors from PhilHealth

PhilHealth data show that providers of these benefits rose from 1404 in 2011 to 2356 in 2013, mainly due to the large increase in public and private birthing centres. PhilHealth reimbursements correspondingly increased from PHP 1.3 billion to PHP 3.0 billion during the same period.

While these figures look impressive, they hide important problems in the provision of this package. In the case of directly observed treatment, short-course (TB-DOTS), for instance, the following observations can be noted (Picazo OF et al., 2014): after 10 years (2003–2013), PhilHealth had accredited only 59% of the 5084 DOH-licensed TB-DOTS centres in the country. The non-accreditation of TB-DOTS providers, even those operating under the DOH's National Tuberculosis Program, means that many patients do not benefit from PhilHealth's reimbursement for TB care. Indeed, 499 LGUs do not have accredited TB-DOTS providers. While TB patients are overwhelmingly poor, most of them are not included in the government's antipoverty CCT programme and therefore are not automatically enrolled as Sponsored Program members, as stipulated under the law. Thus, undercoverage of the Sponsored Program is severe. Compared with the total cost of TB diagnosis and treatment per patient of PHP 9030, PhilHealth's reimbursement rate only represents a support value of 44%, clearly indicating the need to dramatically increase the rate, as it has not been adjusted for inflation for many years.

The PCB1 package covers primary preventive outpatient consultation services, diagnostics and drugs for four of the most common outpatient conditions. Government-owned outpatient clinics are the accredited providers and receive an annual payment per family of PHP 500. This programme requires providers to open a trust fund in which PhilHealth payments will be collected, and providers must allocate the PhilHealth revenues as follows: 4% for services, 40% for drugs and 20% for incentives for professionals.

The PCB2 package was designed to provide pharmacy benefits for eight drugs to treat hypertension, diabetes mellitus and dyslipidaemia. This programme was piloted in Pateros, a small town in Metro Manila, but a mid-term evaluation indicated that the sample size was not large enough to provide robust findings. Indeed, of the 60 000 total population in the pilot area, only 80 people were found to be eligible and, of these, only five patients accessed the benefit, and only one is making use of it.

Licensing, accreditation and contracting. Since 2012, the process of licensing (formerly a DOH function) and accreditation (formerly a PhilHealth function) has been unified in just one set of licensing standards under the mandate of the DOH. Henceforth, all licensed providers are deemed accredited upon submission of documentary requirements and a pre-accreditation survey is no longer required.

Despite this harmonization, the licensing/accreditation process is still deemed passive, i.e. only those who apply are engaged and only those who are engaged are recorded in the DOH database, which is usually not analysed in terms of important considerations, such as location and concentration of providers, and localities where providers do not exist or are in short supply. This begs the question: how will PhilHealth know how much leveraging power it has and where?

In contrast to the above passive approach, the contracting of providers for the Z benefits is an example of more active purchasing. After PhilHealth determined the Z benefits to be provided, it selected reference hospitals, which then assisted in formulating the guidelines, setting practice standards, costing the package of services and assessing the clinical capability of interested hospitals. Once the guidelines were in place, PhilHealth engaged other hospitals through selective contracting.

Performance commitment is a contracting instrument that PhilHealth uses with both public and private providers, for all services covered. It stipulates providers' undertaking to provide quality health services, willingness to comply with PhilHealth policies on benefits payment, information technology, data management and reporting, and referral. A section of the instrument allows providers to check the services it is able to deliver. The instrument is comprehensive, but the provisions are still general and details about performance indicators and guidelines are still to be formulated.

PhilHealth intends to track provider performance in four dimensions: care quality, patient satisfaction, financial risk protection and fraud, using a variety of monitoring methods. The existing approaches being used, however, are retrospective, mostly along the lines of an audit: medical post-audit system, mandatory monthly hospital report, claims profiling, patient exit surveys and field validation reports of health facilities. PhilHealth has yet to formulate a system of concurrent monitoring of patient services. Moreover, there are not enough human resources required to do even the retrospective quality monitoring. As a stop-gap measure, PhilHealth is utilizing staff of the CARES Program, which deployed 50 nurses as patient navigators in hospitals all over the country in order to guide Sponsored Program members in utilizing their PhilHealth benefits.

Geographical equity. Under the old fee-for-service payment system, PhilHealth introduced incentives for physicians practising at sites

determined to have a shortage of health personnel by adding 10% of their professional fees and allowing them to perform surgical procedures beyond a certain relative value unit. The adoption of the all-case-rates system stipulated that the special fee schedules should be drawn up for geographically isolated and depressed/disadvantaged areas. However, the guidelines on this policy are yet to be stipulated. More generally, the all-case rates and Z benefits have no geographical adjustment factors for cost differences across different areas.

No-balance billing policy. Traditionally, PhilHealth covered a fixed amount per case and all charges in excess of that amount are to be borne by the member through OOP payment or so-called balance billing, or through additional private insurance coverage, if the patient has one. PhilHealth had never regulated user fees or balance billing before the no-balance billing policy was adopted in 2011, at the same time that the first 23 case rates were launched. The no-balance billing policy aims to ensure zero OOP payment, but as of today, it only covers Sponsored Program members using wards in government hospitals, without choice of attending physician. All other PhilHealth member groups are still not covered under the no-balance billing policy, except hospitals that voluntarily adopt this policy. However, even in government hospitals, the no-balance billing policy was met with trepidation from providers who questioned the validity of the PhilHealth package rates, which were based on average fee-for-service claims and did not reflect the actual cost of service. Thus, monitoring provider compliance with the policy has been challenging. Claim forms cannot capture the entirety of the patient's hospital-related expenses because (i) some patients purchase their medicines outside the facility and this does not appear in the claim form, and (ii) physicians collect additional fees from some patients on top of the amount of the package; this is particularly true for patients who make arrangements for certain physicians to treat them. Even though PhilHealth requires all receipts to be attached and reimbursed by the hospital to the patient, there is no way to determine that this has been done unless the patient declares it. Thus, in the absence of a good, functional recording system, the best option is to undertake exit interviews among discharged patients to obtain full cost estimates.

Supplier-induced demand. There are no concurrent mechanisms at present to counter supplier-induced demand since the information system is not yet configured to detect it. The fraud detection unit of PhilHealth relies on audits, which means that this has been done, and

PhilHealth merely disallows the expenditures. Cases of supplier-induced demand have been seen in the spike of cataract removal procedures instigated by unscrupulous ophthalmologists. Caesarean sections also appear to be on the rise as a result of higher reimbursement rates than those for normal delivery. There also seems to be an upswing in elective surgeries; whether these are clinically indicated or not is unclear. Unfortunately, these anecdotal accounts remain conjectures as no empirical evidence has been generated to support them.

PhilHealth can barely control providers, especially private for-profit health-care providers, where balance billing still holds, and where concurrent monitoring is not the norm. Until such time that PhilHealth reimbursement rates approach the true cost of providing care efficiently in the private sector, private hospitals will continue to ask patients to pay balance bills. Under this set-up, the impact of any reforms in provider payment on efficiency and equity will continue to be diluted.

3.4 OOP payments

3.4.1 OOP as a proportion of private health expenditure and THE

The proportion of OOP payment to THE (more than 50%) has been historically high (Table 3.15), compared to 15–30% seen in emerging economies with successful and more equitable health-financing strategies. Even in Asia, this proportion is high compared to 36.8% in Viet Nam, 46.9% in Indonesia, 35.3% in Malaysia and 11.9% in Thailand (World Bank, 2016).

Table 3.15 Private health expenditure in the Philippines (in billion PHP), 2009–2014

Items	2009	2010	2011	2012	2013	2014
Total health expenditure (THE)	342.2	380.8	431	471.1	530.3	585.3
Private health expenditure (PHE)	217.9	239.1	272	324.6	359.2	395.3
Out-of-pocket payment (OOP)	182.4	200	227.2	269.4	296.5	326.8
OOP as % of PHE	83.7	83.6	83.5	83.0	82.5	82.7
OOP as % of THE	53.3	52.5	52.7	57.2	55.9	55.8
% annual growth in OOP	6.6	9.6	13.6	18.5	10.1	10.2
% annual growth in THE	13.3	11.2	13.2	9.3	12.6	10.4

Source: Calculated by the authors from National Statistical Coordination Board, 2013 & 2016

3.4.2 OOP as part of household expenditure

The FIES defines OOP expenditure as the annual spending on drugs, medical charges, dental charges, hospital room charges, other medical goods and supplies, other medical health services and contraceptives. In 2012, almost 80% of all OOP expenditure was from Q4 and Q5 households, and only 10% was from the poorest Q1 and Q2 households (Ulep VGT et al., 2013). Q4 and Q5's share of OOP expenditure to THE was also higher.

Among components of OOP, drugs account for the highest share for both the poorest and richest quintiles (Ulep VGT et al., 2013). Medical products account for around 49% of the total OOP expenditure (Table 3.16). Of these, 64% and 29% are for pharmaceutical products and nutritionals, respectively. Hence, a significant portion of OOP expenditure may not be that medically important, since most nutritionals are supplementary. Indeed, most of those being sold aggressively in the market carry the FDA warning of "no approved therapeutic claims".

Informal payments do not seem to be a major feature of the health system. They have not been reported as a major problem in the literature. They are not currently reported separately in the FIES survey of household health expenditures.

Table 3.16 Composition of household out-of-pocket payments, 2012

Components	Average expenditure (PHP)	Share (%)
Medical products	3 415.1	48.5
Pharma products	2 191.9	64.2
Nutritionals	997.7	29.2
Other medical preparations	107.8	3.2
Other medical products	48.9	1.4
Therapeutic appliances	68.8	2.0
Outpatient services	1 101.0	15.7
Medical services	917.8	83.4
Dental services	89.5	8.1
Paramedical services	93.7	8.5
Inpatient services	2 519.0	35.8
Public	664.1	26.4
Private	1 854.9	73.6

Source: Ulep VGT et al., 2013

The prevalence of impoverished households due to OOP payment has remained fairly stable (Table 3.17). OOP payments worsen poverty in 0.6% (in 2000) to 1.0% (in 2012) of persons. While this percentage may look

small, if one considers this in relation to a population of 100 million, then in 2012, around 1 million people were impoverished by high OOP payments.

Table 3.17 Rates of impoverishment due to out-of-pocket payments, 2000–2012

Indicators	2000	2003	2006	2009	2012
Poverty headcount pre-OOP (%)	23.1	19.2	19.8	18.4	19.4
Poverty headcount post-OOP (%)	23.7	19.9	20.6	19.2	20.4
% of impoverished persons due to OOP	0.6	0.7	0.9	0.8	1.0

Source: Ulep VGT et al., 2013

Table 3.18 shows the share of OOP payments on household capacity to pay and it has increased at a rather alarming magnitude, from 2.8% in 2000 to 4.8% in 2012 overall, but more so for higher-income households.

Table 3.18 Share of out-of-pocket payments on household capacity to pay (%), 2000–2012

Quintiles	2000	2003	2006	2009	2012
Q1	2.4	2.8	3.0	3.0	4.0
Q2	2.8	3.1	3.4	3.5	4.5
Q3	2.9	3.2	3.8	3.7	4.6
Q4	2.8	2.8	4.0	4.1	5.3
Q5	3.0	3.0	4.2	4.6	5.5
All	2.8	3.0	3.7	3.8	4.8

Source: Ulep VGT et al., 2013

An alternative way to analyse the impact of OOP payments on household expenditure is to compare it with total expenditure, discretionary expenditure (expenditure minus food), or disposable income or expenditure, and these are shown in Table 3.19. The proportion of OOP payments to disposable income, per capita income, non-food expenditure and per capita expenditure all rose consistently from 2000 to 2012, clearly showing the seriousness of the OOP payments problem in health; it reflects PhilHealth's deteriorating performance in terms of providing adequate financial risk protection to its members.

Table 3.19 Share of out-of-pocket payments on household income and expenditure (%), 2000–2012

Items	2000	2003	2006	2009	2012
OOP/disposable income	3.8	3.0	3.7	3.3	6.3
OOP/per capita income	1.5	1.6	2.1	2.1	2.6
OOP/non-food expenditure	3.0	3.2	3.9	4.1	5.1
OOP/per capita expenditure	1.5	1.7	2.2	2.2	2.8

Source: Ulep VGT et al., 2013

Policy implications of high OOP. In countries with successful health-financing strategies, OOP payment levels could go as low as 15–30% of THE (Ulep VGT et al., 2013). This proportion has remained in excess of 50% in the Philippines for a long time, indicating the weakness of PhilHealth to provide risk protection, continuing noncoverage of outpatient services under PhilHealth, weakness of the DOH and LGUs in providing full service (including drugs) so that patients do not have to buy them outside health facilities, and limited reach of past DOH supply-driven drug availability programmes.

Cost-sharing. The National Health Care Financing Strategy aims to reduce OOP expenses for health to 35% of THE by 2020, which means that user charges will still likely be a significant source of health financing. Despite this, user charges are not explicitly dealt with as a specific policy agendum at the national level. The PhilHealth policy for inpatient care is to achieve no-balance billing, but this is limited to Sponsored Program members. No time frame has been set for when the no-billing policy will be applied to all types of PhilHealth inpatients. As to PhilHealth outpatient services, its resources currently preclude provision of free services to all members, which means that user charges will continue to be imposed on many members. Table 3.20 shows the different types of user charges in government health facilities.

Table 3.20 User charges for health services in government health facilities, 2010s

Health service	Type of user charge in place	Exemptions and/or reduced rates	Cap on OOP spending	Other protection mechanisms
General practitioner visit	None or nominal fee if in government health facility	NA	NA	Screening by social worker
Primary care	Generally free	NA	NA	NA
Outpatient specialist visit	Generally free if in government health facility		Screening by social worker	Screening by social worker
Outpatient prescription drugs	Generally free in government health facility if supplies are available	NA	NA	NA
Inpatient stay	Case rates of PhilHealth	Case rates of PhilHealth	No-balance billing policy	No-balance billing policy
Dental care	None or nominal if in government health facility	NA	NA	NA
Medical devices	NA	NA	NA	NA

Source: Compiled by the authors

There is no standard level of fee schedule for services across DOH-retained hospitals. Indeed, they are given much freedom in determining the appropriate level of fees to be charged for which services, depending on each facility's budget and financial condition. Hospital managers are responsible for making decisions about the level of cost-sharing. However, there is a standard classification system for identifying indigent patients.

At the local level, the implementing rules and regulations of the Local Government Code of 1991 provide that all LGUs "may improve and collect fees and services charges for any services rendered in an amount reasonably commensurate to such services" (Amatong JD, 2005). Provincial boards or city/municipal councils generally enact ordinances on the rationale of imposing fees, usually on resource-mobilization grounds, given the usually limited budgets of local health facilities. The experience of imposing user charges is varied, with some examples of good collection being cited in the cases, for example, of Leyte provincial health facilities under Governor Jericho Petilla (Picazo OF et al., 2015b) or in the Municipality of Malalag, Davao del Sur (Amatong JD, 2005). However, the impact of user fees on equity has been given less consideration.

Complementary voluntary PHI covering statutory user charges is generally available for inpatient hospitalization among middle- and upper-class households that can afford to pay for it. However, only around 2% of households avail of such supplemental health insurance. Because health insurance expenses are not tax deductible, there does not seem to be any adverse distributional implications of this arrangement.

Direct payments. People are most likely to make direct payments for prescription and non-prescription (over-the-counter) drugs they purchase in pharmacies, for outpatient consultations with primary care physicians or specialists, and for diagnostic tests that their doctor will require in an outpatient setting. These are services for which PhilHealth does not pay at present. Households also pay for necessary mental health services, oral health services, certain devices (eyeglasses, crutches, wheelchairs), and certain life-saving medications (insulin shots) for which PhilHealth currently does not pay. Finally, direct payments are made for balance-billed expenses on items that are currently outside the no-balance billing policy.

Transport costs for poor people obtaining treatment (e.g. those with TB and MDR-TB on a DOTS regimen; people living with HIV/AIDS and on antiretroviral therapy) may also be prohibitive. However, PhilHealth management thinks that these costs are outside their mandate.

Informal payments. In the 1990s and 2000s, informal payments were a major issue in East Asian health-financing systems. Bloom L et al. (2001) gathered various sources and reported the following frequency of informal payments in health services among East Asian countries: Cambodia 55% (2000); China 74% (2001); Indonesia 43% (2001); Thailand 2% (2000); and Viet Nam 81% (1992). Around the same time, Azfar O et al. (2000) conducted a survey of 1100 Philippine households in 19 provinces and found that 15.51% reported informal payments in public health centres. Today, informal payments no longer figure prominently in research and policy discussions. Indeed, in a review of 24 countries that are expanding UHC, including the Philippines, Cotlear D et al. (2015) claimed that for most UHC programmes, informal payments did not appear to be a major issue, maybe because of the widening scope of health insurance reimbursements.

3.5 Voluntary private health insurance (PHI)

Voluntary PHI plays a supplemental role to PhilHealth for most nonpoor Filipinos. PHI is of two types: HMOs and private insurance. In 2014, voluntary PHI accounted for 12.8% of private health expenditure and 8.6% of THE (Table 3.21). It is the fastest growing type of health expenditure, and has expanded by over 60% from 2009 to 2014. The size of the HMO industry in terms of expenditure more than doubled during the period.

Table 3.21 Private health insurance expenditure in the Philippines (in million PHP), 2009–2014

Items	2009	2010	2011	2012	2013	2014
Private indemnity insurance	6 083	6 401	7 222	7 086	9 228	10 111
HMOs	18 199	21 170	24 570	32 273	36 814	40 443
Total private health insurance (PHI)	24 282	27 571	31 792	39 359	46 042	50 544
Private health expenditure (PHE)	217 865	239 139	272 009	324 618	359 207	395 343
PHI as % of PHE	11.1	11.5	11.7	12.1	12.8	12.8
Total health expenditure (THE)	342 164	380 826	431 047	471 108	530 283	585 307
PHI as % of THE	7.1	7.2	7.4	8.4	8.7	8.6

Source: Calculated by the authors from National Statistical Coordination Board, 2013 & 2016

The Philippine National Demographic and Health Survey (NDHS) (Philippine Statistics Authority and ICF International, 2014) shows that PHI and HMOs cover roughly 1.6% of households while other (private) insurance covers 0.3%, or a total of 1.9% household coverage (or roughly 1.9 million population). However, industry data from the AHMOPI showed that its 11 members had a coverage of 3.672 million people while the 12 HMOs that are not members of the Association had 0.328 million persons covered for a total coverage of 4.0 million persons (Da Silva CD, 2015). This number excludes those covered under private indemnity health insurance and other plans. However, it includes a fair number of expatriates.

3.5.1 The factors that drive demand for voluntary PHI

Household income and occupational status are the key drivers of membership in voluntary PHI. In the 2013 NDHS, only 1.6% of all Filipino households reported having PHI coverage (excluding other insurance), ranging from 0.1% among the poorest quintile to 5.2% among the richest quintile. However, as the Philippine economy has boomed, so has the demand for PHI. There is no difference in health insurance coverage between men- and women-headed households, but urban households tend to be covered more than rural households (2.3% versus 0.9%).

The different types of customers of PHI include self-employed people or freelance workers (consultants, artists, entertainers and the like) who need health insurance coverage and who purchase it on an individual basis; corporations that buy health insurance for their salaried employees as additional coverage; expatriates who purchase health insurance on an individual basis; and international health insurance for those travelling abroad. There are 23 HMOs operating in the country, 15 of them under the umbrella organization of the AHMOPI. (Four HMOs left the group in November 2015, leaving only 11 HMO members at present.) All the HMO members are for-profit private companies.

PHI companies have freedom in setting premium rates. However, premium rates for policies other than group insurance require prior approval of the Insurance Commission. For group insurance, companies may adjust approved rates in consideration of the emerging experience of the said group. Health insurance benefits depend on the type of PHI coverage bought. Premium payments on health or hospitalization insurance of an individual taxpayer may be allowed as a deduction from the taxpayer's income, subject to conditions on maximum allowable deduction per family and gross family income.

Health maintenance organizations (HMOs). HMOs were patterned after the American model and employ a combination of the following cost-containment approaches: maintenance of own clinics, claims officers to review clinical charges and procedures, negotiated fees and charges for affiliated health-care providers, patient copayments and deductibles, limits on allowable procedures and benefit amounts, limits on access to non-affiliated providers, monitoring and benchmarking of provider key performance indicators, and automation and streamlining of operation and claims procedures.

Programmes administered by HMOs offer major medical facilities such as outpatient and inpatient services, hospitalization and surgical benefits, cover for medication, laboratory tests, and in some instances, preventive/promotive care. Some of these HMOs offer even cash assistance benefits in case of loss of income as a result of injury due to an accident or illness. Most HMO coverage is purchased by companies as a group plan; rarely is it purchased on an individual basis. Most Philippine HMOs require that a member obtain PhilHealth coverage first.

HMO payments to providers depend on whether the provider is part of the affiliated network of providers contracted by the HMO for specific hospital rates and professional fees. For an affiliated provider, the level of provider remuneration is agreed upon between the provider and the HMO. If the provider (or their group) thinks the rate of payment is too low, it can opt not to partner with, or get accredited by, the HMO. With respect to individual providers, AHMOPI claims that it has signed memoranda of agreement with four medical specialty societies (Philippine College of Surgeons, Philippine College of Physicians, Philippine Society of Anesthesiologists, and the Philippine Obstetric and Gynecological Society).

Private non-HMO health insurance. Non-HMO programmes offer a range of benefits such as inpatient and outpatient services, hospitalization and surgical benefits, cash assistance for loss of income due to accident or illness, or lump-sum payment for death, disablement or dismemberment. The coverage is customized and costed according to the individual corporation's needs.

Private non-HMO health insurance usually pays the providers directly. In this method, the member walks into any of the hospitals in the network and avails of the required hospitalization or treatment without paying the

medical bills since the insurer or third-party administrator settles the bill directly with the hospital. The patient may be required to pay only nominal charges on services not covered by the plan. The depth of benefits depends on which plan the member chooses.

Policy, regulatory and operational issues. Data for 2011 show that administrative costs account for 55% of life and non-life insurance companies' total expenditure; 11.1% for other private insurance and 25.4% for HMOs. For PHI as a whole, the administrative costs account for 32.2% of the industry's THE. Some observers note that these percentages are too high.

The practice of a few private hospitals to require a deposit or cash bonds of varying amounts from HMOs to gain their affiliation or so that their patients can be cared for is a festering issue. Some hospitals claim this guarantees payment of the contractual obligation between the hospital and the HMO, but AHMOPI has always adopted a no-bond policy with its affiliated providers, claiming that there are other means of enforcing prompt and full HMO payment to them. This issue was serious enough to cause the withdrawal of four HMOs from AHMOPI in July 2015.

While AHMOPI is deemed to provide self-regulation of HMOs among its ranks, non-affiliated HMOs remain largely unregulated. Until November 2015, HMOs were under the regulatory supervision of the DOH, which focused only on quality-of-care issues as it is unable to monitor the HMOs' insurance functions. As a result, the DOH has not focused on sustainability issues that plague the industry, leading to the closure of over a dozen HMOs in the past. Thus, in November 2015, the President of the Philippines issued an executive order transferring the regulation of HMOs to the Insurance Commission.

Low barriers to entry and weak regulation have led to the proliferation of HMOs, some of which have inadequate capital. Very tight competition among HMOs, medical inflation and small risk pools lead to low profitability and downward pressure on prices. Thus, a key reform area that the Insurance Commission is pursuing is to increase the paid-up capital of new HMOs from the current PHP 10 million, which is deemed hardly adequate, to PHP 100 million (Anonymous, 2016). The Insurance Commission is also concerned that there are insurance companies doing HMO business for which they are not duly licensed.

Health insurance companies use agents for selling health insurance. Very few restrictions are imposed on those selling health insurance plans. No regulations exist limiting the amount of remuneration (commissions) to health insurance agents. Life insurance companies also pay VAT on services availed of and on goods purchased. Life insurance companies need to maintain a margin of solvency, which shall be in excess of the value of its admitted assets exclusive of its paid-up capital over the amount of its liabilities. Life insurance companies may invest reserve funds in foreign currency bond or share issues.

For health insurance companies, a premium tax of 5% is imposed, whether the plan is first year or renewal. In addition, insurance companies are also required to pay local/municipal licence fees and permits and, in certain localities, on collections.

The ability of the Insurance Commission to properly regulate HMOs is a major risk (Lagman OPJ, 2015). While the Insurance Commission is adept at supervising and regulating life insurance companies, it has little experience in doing the same for HMO companies with plans that require different actuarial treatment and costing of services to determine correct premiums. Moreover, life insurance companies are generally subsidiaries of foreign companies that can provide actuarial support for their subsidiaries, while HMOs are locally grown companies that do not enjoy such technical support.

3.6 Other financing

ODA has been declining for many years, accounting for only 0.9% of THE in 2014. However, the absolute amount of assistance increased from PHP 4.0 billion in 2012 to PHP 5.5 billion in 2014 as a response to the series of disasters that hit the country as well as focused assistance to help the Philippines achieve its MDG goals in maternal health and infectious diseases. ODA still comes in various forms, such as specific projects or technical assistance, or in budget support. The DOH has been cited as being able to organize and harmonize the activities of donors much better than other departments.

Other sources of financing include those of non-profit institutions serving households or patients' groups; those for mental health and social

care services where these are funded separately from general medical services; and increasingly those involved in terminal or hospice care.

3.7 Payment mechanisms

Payment mechanisms for health services vary by the type of ownership of the facility in which the care was provided and the type of funder. Table 3.22 summarizes the prevailing provider payment mechanisms. Public health services are generally provided by LGU health centres and BHS as well as outpatient departments and outreach programmes of DOH-retained and LGU hospitals. Being government owned, the health staff in these facilities are generally paid a salary. If the RHU or city health office of the LGU is accredited by PhilHealth as a provider of primary care benefits, then the health staff in these institutions are also entitled to a proportion of the so-called capitation fund coming from PhilHealth. Private doctors providing public health services (e.g. immunizations in private clinics) are paid on a fee-for-service basis.

Table 3.22 Provider payment mechanisms for different services, 2010s

Services	DOH-retained hospitals	LGU health facilities	PHIC	Private VHI	Cost-sharing	Direct payments
General practitioners	S	S	NA	FFS	FFS	FFS
Ambulatory specialists	S	S	NA	FFS	FFS	FFS
Other ambulatory provision	S	S	C	FFS	FFS	FFS
Hospitals	S	S	CR	FFS	FFS	FFS
Hospital outpatient	S	S	FFS	FFS	FFS	FFS
Dentists	S	S	NA	NA	FFS	FFS
Pharmacies	S	S	NA	FFS	FFS	FFS
Public health services	S	S	C	FFS	FFS	FFS
Social care	S	S	NA	FFS	FFS	FFS

Notes: C: capitation; CR: case rate; FFS: fee for service; NA: not applicable; S: salary

Source: Compiled by the authors

Primary ambulatory care is generally provided by LGU health facilities while specialized ambulatory care is available in referral hospitals of the DOH. The doctors in these health facilities are also paid monthly

salaries. If the care is obtained from private clinics, the doctors are generally paid a fee for services, unless the condition is covered under the patient's HMO, in which case the primary care physician may be paid on a capitation basis.

Pharmaceuticals are funded largely from OOP spending mainly because PhilHealth does not have a pharmacy outpatient benefit, government procurement of drugs faces many constraints especially at the LGU level, and better-off households purchase many over-the-counter drugs and nutraceuticals that have "no approved therapeutic claim".

The Government has instituted several policies to lower the cost of drugs – including the Generics Act of 1998, the use of an essential medicines list (EML), use of a drug price reference index (DPRI), and outright price controls such as the Cheaper Medicines Act – with varying success.

4 Physical and human resources

Chapter summary

The physical infrastructure of the Philippine health sector is composed of 1224 hospitals, 2587 city/rural health units and 20 216 BHSs. Two thirds of the hospitals are Level 1 community hospitals with an average size of 41 beds, and 10% are Level 3 medical centres with an average size of 318 beds. On average, a hospital has 83 beds. The private sector's share of total hospital beds increased from 46% in 2003 to 53% in 2016. The top four category of health professionals working in health institutions are nurses (90 308), doctors (40 775), midwives (43 044) and medical technologists (13 413). The public sector employs a higher proportion of nurses (61%) and midwives (91%). The distribution in terms of place of work is hospital-centric such that 91% of doctors and 74% of nurses work in hospitals. The health centre and its satellite BHSs that serve as the first point of contact for government-provided health services employ only an average of one doctor, two nurses and five midwives.

The geographical distribution of resources varies within the country. Almost two thirds of hospital beds are on the island of Luzon, which includes the NCR. There are 23 hospital beds for 10 000 people in the NCR while the rest of Luzon, Visayas and Mindanao have only 8.2, 7.8 and 8.3 beds, respectively. Operating indicators vary between public and private hospitals. The average bed occupancy rate of public medical centres is significantly higher than that of private hospitals. On average, patients stay about 2 days longer in public than in private medical centres. There are also marked differences in the number of institution-employed health workers available to serve area populations. The density of doctors in the NCR is more than ten times the density in the ARMM, the density of nurses in the CAR is almost twice as that in the Western Visayas and the density of midwives in the CAR is four times as that in the CALABARZON Region. Lack of data limit historical trend analysis and country comparisons. However, recent reforms in the use of routine surveys and online data entry of physical and human resources are expected to provide regular quality data.

4.1 Physical resources

4.1.1 Capital stock and investments

Current capital stock. The capital stock in the Philippines consists of 790 private hospitals, 434 government hospitals (owned by LGUs, the DOH and other government agencies), 2587 city/RHUs and 20 216 BHSs). The current capital stock is located in the 17 administrative regions of the Philippines, within the country's three island groupings – Luzon, which includes the NCR, i.e. Metro Manila and its surrounding cities, Visayas and Mindanao (Table 4.1). The high number of RHUs and BHSs provides a firm infrastructure base for primary care. The RHUs, BHSs and LGU-owned hospitals – which form the bulk of the Philippine capital stock – are owned and operated by local governments as expected from a decentralized health system. Table 4.2 shows that 49% of BHSs are in Luzon, and 4% and 27% are in the Visayas and Mindanao, respectively. About 61% of the RHUs are located in Luzon, and 18% and 21% of RHUs are in Visayas and Mindanao, respectively.

Sixty-six per cent or two thirds of the 1224 hospitals licensed by the DOH in 2016 are located in Luzon.⁵ The high concentration of hospitals in Luzon is observed for both the public and private sectors. Of the 434 public hospitals, 61% are located in Luzon; specifically, 48 hospitals in the NCR and 217 in the rest of Luzon. Of the 790 private hospitals, 66% are located in Luzon; that is, 115 hospitals in the NCR and 410 in the rest of Luzon. Mindanao is the next preferred location for hospitals with 21% public and 23% private hospitals, or a total of 267 hospitals (89 public and 178 private hospitals). The least preferred is Visayas with 18% public and 11% private hospitals, or a total of 167 hospitals (80 public and 87 private hospitals). Luzon has a markedly higher proportion of private hospitals at 66% compared to the Visayas of only 52%.

5 Hospitals licensed by the DOH/HFSRB are in three categories. At the lowest level, Level 1, the hospital will have an operating room with standard equipment and provision for sterilization. DOH Administrative Order 2012-0012, issued on 18 July 2012, delegated the issuance of licences of hospitals not meeting Level 1 standards such as infirmaries to the DOH regional offices or the Council for Health and Development and thus these hospitals are not included in the HFSRB data used here. The change in hospital categories and licensing responsibilities have corresponding reporting and data implications. This limits historical trend analysis of many hospitals.

Table 4.1 Number of health facilities by region, 2016

Group of islands	Regions	Barangay health stations	Rural health units	Government hospitals	Government beds	Private hospitals	Private beds	Total hospitals	Total beds	Average beds per hospital
NCR	1 NCR	20	492	48	17 221	115	12 502	163	29 723	182.3
The rest of Luzon	2 CAR	796	97	14	1 340	11	622	25	1 962	78.5
	3 Ilocos (I)	1 176	150	36	2 093	50	2 044	86	4 137	48.1
	4 Cagayan Valley (II)	1 356	96	25	1 898	32	1 427	57	3 325	58.3
	5 Central Luzon (III)	1 934	293	50	4 064	116	5 866	166	9 930	59.8
Visayas	6 CALABARZON (IV-A)	2 424	225	58	3 342	159	9 086	217	12 428	57.3
	7 Mimaropa (IV-B)	1 104	82	13	920	12	487	25	1 407	56.3
	8 Bicol (V)	1 146	134	21	1 916	30	1 571	51	3 487	68.4
	9 Western Visayas (VI)	1 897	147	34	2 862	27	2 936	61	5 798	95.0
Mindanao	10 Central Visayas (VII)	2 035	163	23	2 060	37	4 376	60	6 436	107.3
	11 Eastern Visayas (VIII)	883	161	23	1 835	23	1 127	46	2 962	64.4
	12 Zamboanga Peninsula (IX)	757	92	13	1 580	31	1 424	44	3 004	68.3
	13 Northern Mindanao (X)	1 307	121	23	2 182	45	3 185	68	5 367	78.9
	14 Davao Region (XI)	1 119	68	13	1 388	42	3 519	55	4 907	89.2
	15 SOCKSARGEN (XII)	1 100	53	12	1 230	45	3 381	57	4 611	80.9
	16 CARAGA (XIII)	698	82	10	725	8	564	18	1 289	71.6
	17 ARMM	464	131	18	715	7	200	25	915	36.6
	Philippines	20 216	2 587	434	47 371	790	54 317	1 224	101 688	83.1

Source: Department of Health-HFSRB, 2016

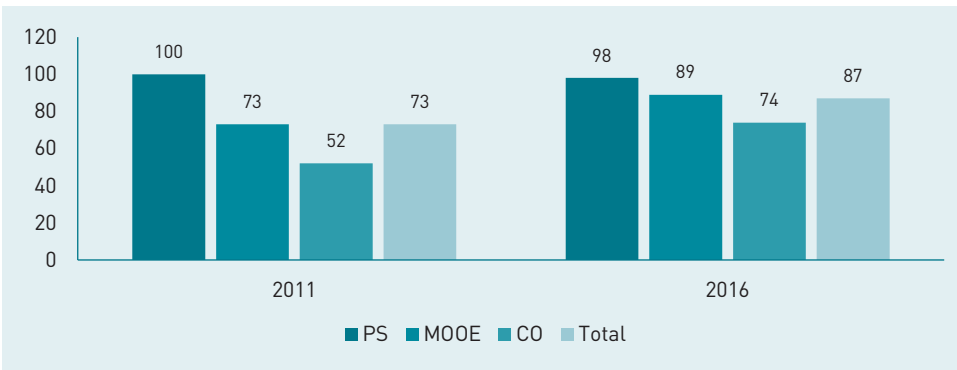
Table 4.2 Number of health facilities by group of islands, 2016

Group of islands	Barangay health stations ^a		Rural health units ^a		Government hospitals ^b		Private hospitals ^b	
NCR	20	0.10%	492	19%	48	11%	115	15%
The rest of Luzon	9 936	49%	1 077	42%	217	50%	410	52%
Visayas	4 815	24%	471	18%	80	18%	87	11%
Mindanao	5 445	27%	547	21%	89	21%	178	23%
Philippines	20 216	100%	2 587	100%	434	100%	790	100%

Sources: ^aDepartment of Health, 2016d; ^bDepartment of Health-HFSRB, 2016

Investment funding and utilization. The bulk of capital investment funding for the public sector comes from the National Government, specifically from its appropriations to the DOH.⁶ The proportion of the DOH’s budget allocated to capital investments jumped from 13% in 2008 to 22% in 2016, i.e. from PHP 2.4 billion in 2008 to PHP 27.5 billion in 2016. Utilization rates of current year budgets range from 73% for 2011 to 87% for 2016 (Department of Health, 2013, 2017b). The expense class-wise analysis shows that personnel services, which cover the salaries of DOH employees and HRH, had the highest utilization rate in 2011 and 2012. Capital outlay, which covers equipment and infrastructure, had the lowest utilization rates (Figure 4.1).

Figure 4.1 DOH budget utilization rate (%) by expense class, 2011 & 2016



Notes: PS: personnel services; MOOE: maintenance and other operating expenses; CO: capital outlay
Sources: Department of Health, 2013 & 2017b.

6 Some capital investment funding comes from National Government appropriations to other government agencies such as the Department of National Defense, Philippine National Police and government-owned universities. Some capital investment funding is from appropriations by LGUs. Also, health facilities may source capital funding from their income with at least 25% for purchase and upgrading of hospital equipment used directly for the delivery of health services.

The DOH's HFEP manages the National Government's capital investments. HFEP aims (i) to improve primary health facilities enabling delivery of preventive health services and performance of "gatekeeping" functions; (ii) to improve LGU hospitals supporting compliance with DOH licensing and PhilHealth accreditation requirements; and (iii) to improve and decongest DOH hospitals, enabling the provision of quality tertiary care and specialized services. The DOH issues guidelines for developing the HFEP component of the National Expenditure Plan, an initial activity in the budget development process culminating in the legislative approval of the GAA.⁷ The 2015 guidelines contain explicit instructions to align investments with the delivery of PhilHealth service packages, prioritizing construction and upgrading of facilities to enable them to meet the requirements of PhilHealth accreditation.⁸

In the 2-year period 2014–2015, the National Government allocated a total of PHP 26.8 billion to HFEP. Almost three fourths (73%) of capital investment was for infrastructure, i.e. new construction, renovation, repair and extension of buildings, and slightly more than one fourth (27%) for equipment. Fifty-five per cent of total capital investments were allocated to 5160 health facilities owned and operated by LGUs and 45% were allocated to 86 facilities owned by the DOH. LGU hospitals were allocated PHP 9.3 billion or a unit investment of PHP 12.2 million. On the other hand, DOH-retained hospitals were allocated PHP 8 billion or a unit investment of PHP 121.0 million, ten times the unit capital investment into LGU hospitals. Furthermore, specialized hospitals of the DOH were allocated a unit investment of PHP 178.6 million. The significantly higher per-facility capital investments in DOH hospitals highlight the concern that this might have further improved the physical capacities of referral hospitals while curtailing improvements in physical capacity of lower-level first point-of-care LGU hospitals. This limits the public sector's solution to constraints reflected in the observed inferior quality of hospitals in the periphery. If this is the case, strengthening primary

7 The Department of Interiors and Local Government spearheads the process of budgeting at the local levels, i.e. bottoms-up budgeting, grassroots participatory budgeting. Planning for health facilities is expected to consider needs and gaps, expected service outcomes, nature of civil work, type of equipment and estimated costs.

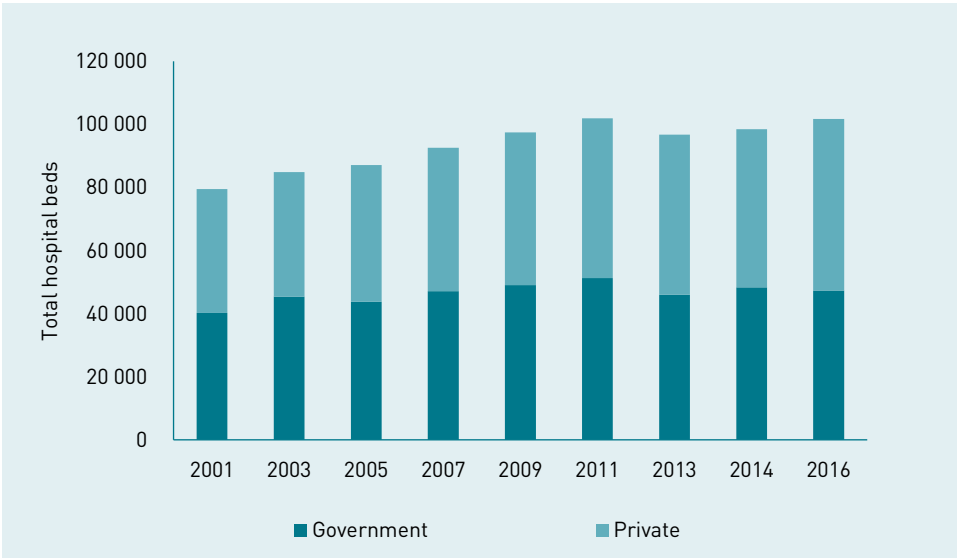
8 "All RHUs and urban health centres will be updated to gain accreditation for the three PhilHealth packages – TSeKap, MCP, TB-DOTS; 43 provinces to establish TseKap-accredited BHS in public elementary schools, 43 provinces to establish BHS birthing homes to be accredited with TSeKap and MCP; 10 Category 1 provinces to pilot mobile dental clinic." *Source*: DOH/HFDB, National Staff Meeting presentation, 21 April 2015.

care at lower-level facilities and redirecting higher-level hospitals to offer purely referral and specialized services will continue to be a challenge.

4.1.2 Infrastructure

The total number of hospital beds increased from 79 444 in 2001 to 101 688 in 2016 (Table 4.1 and 4.2).⁹ These beds are owned and operated almost equally between the public and private sectors. There was a relatively higher share in the number of beds owned by the public sector in the earlier years with a 53.5% share in 2003. The share of the public sector in total hospital beds started declining since 2011 and in 2016, the share of the public sector is at 47% (Figure 4.2). The beds in the private sector increased from 50 045 in 2014 to 54 317 in 2016, contributing to an increase in the sectoral share from 50.9% to 53.4%.

Figure 4.2 Government and private hospital beds, 2001–2016



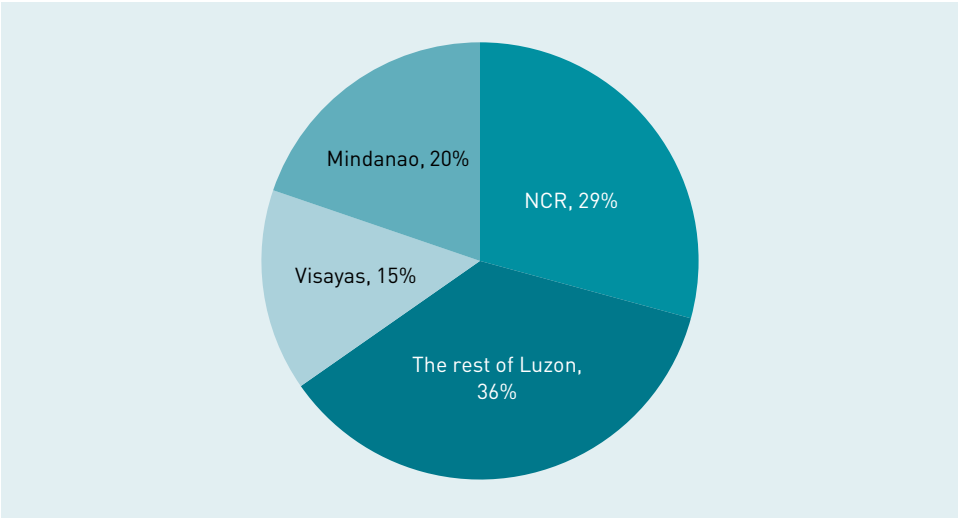
Source: Department of Health-HFSRB, 2016

Hospital beds and any expansion in infrastructure are occurring in the more economically developed island of Luzon, particularly in the NCR. Of the total 101 688 beds, almost two thirds are in the NCR and the rest of

9 A 2012 change in hospital categories and licensing regulations introduced reporting inconsistency thereby limiting historical trend analysis. DOH Administrative Order 2012–0012 issued 18 July 2012, delegated the issuance of licenses of hospitals not meeting Level 1 standards such as infirmaries to the DOH regional offices/CHDs and thus information on these hospitals is not included in hospital licensing data making the 2012 and later years’ data not comparable with earlier years’ data.

Luzon (65% of total beds). Only 20% of hospital beds are in Mindanao and 15% in the Visayas (Figure 4.3).

Figure 4.3 Hospital beds by groups of islands, 2016



Source: Department of Health-HFSRB, 2016

The average hospital size measured by the number of beds is 83.¹⁰ The average size increases to 109 beds for public hospitals. The private sector operates smaller hospitals with an average size of 69 beds. In the NCR, where most medical centres are located, hospitals are bigger (average 182 beds per hospital). Public hospitals in the NCR have an average size of 359 beds and private hospitals 109 beds. Outside the NCR, hospitals are smaller. Hospitals in Luzon excluding the NCR have an average size of 58 beds, the Visayas 91 beds and Mindanao 75 beds. The geographical distribution of hospital beds relative to area population is such that there are 23 hospital beds for 10 000 people in the NCR while the rest of Luzon, Visayas and Mindanao have only 8.2, 7.8 and 8.3 beds, respectively, indicating a significantly higher access to hospitals by people in the NCR compared to those in the rest of the country (Table 4.3).

¹⁰ This refers to the number of beds that is reported by the hospital and subsequently approved by the DOH at the time of licensing, as consistent with standards on staffing and equipment.

Table 4.3 Distribution of hospital beds by ownership and group of islands, 2016

Group of islands	Population ^a	Government ^b		Private ^b		Total hospitals	Total beds	Average beds / island group	Beds / 10 000 population
		Hospitals	Beds	Hospitals	Beds				
NCR	12 877 253	48	17 221	115	12 502	163	29 723	182.3	23.1
The rest of Luzon	44 592 844	217	15 573	410	21 103	627	36 676	58.5	8.2
Visayas	19 373 300	80	6 757	87	8 439	167	15 196	91.0	7.8
Mindanao	24 135 775	89	7 820	178	12 273	267	20 093	75.3	8.3
Philippines	100 979 172	434	47 371	790	54 317	1 224	101 688	83.1	10.1
Average beds/hospital		109.1		68.8		83.1			

Sources: ^aPhilippine Statistics Authority, 2016a; ^bDepartment of Health-HFSRB, 2016

Hospital development planning is routinely conducted mainly for the purpose of bringing hospital facilities on a par with regulatory and accreditation requirements.¹¹ The PHDP 2013 provides a comprehensive description of the intended configuration of the hospital system and its health facilities' structures and functions. The PHDP sets benchmarks for each hospital level, i.e. Level 1 (district hospital and qualified municipal hospital), Level 2 (core district hospital/provincial hospital) and Level 3 (medical centre). A recent review found PHDP 2013's normative guidance useful for planning upgrades and closing gaps between actual status and benchmarks for each of the hospital levels. However, the review concludes that a shift from the current input-based hospital development planning to output- and performance-based planning has the potential to increase efficiency. For primary care facilities, the National Government's Budget Priorities Framework for 2014–2016 offers a guide to recent planning. The Framework identifies 48 high-poverty and disaster-prone provinces for inclusive development. These provinces are prioritized for capital investments in the construction and enhancement of health centres and BHSs.¹²

Hospitals are categorized by service capability as Levels 1, 2 and 3. Level 1 hospitals are district hospitals and municipal hospitals. They

11 Hospital planning covers comprehensive site planning, facility design, equipment testing evaluation or calibration, laboratory and radiation safety evaluation, staffing and systems development. A hospital business plan is subsequently developed.

12 Excerpts from the DOH National Staff Meeting, 17 April 2015, Davao City.

have an operating room with equipment as specified by DOH standards, including provision for their sterilization. Level 2 hospitals are core district hospitals and provincial hospitals, and have the minimum Level 1 capacities as well as provisions for general intensive care, neonatal intensive care, and high-risk pregnancy units. Level 3 hospitals are medical centres that have the minimum Level 2 capabilities as well as provisions for dialysis and blood bank facilities, ambulatory surgical clinic, and a physical medicine and rehabilitation unit. Level 3 hospitals are teaching/training hospitals with accredited residency training programmes in the four specialties – Medicine, Paediatrics, Obstetrics/ Gynaecology and Surgery. Sixty-four per cent of hospitals are Level 1 hospitals; they have an average bed size of 41. Twenty-six per cent of hospitals are Level 2 hospitals; they have an average size of 97 beds. Ten per cent of hospitals are Level 3 hospitals; they have an average size of 318 beds (Table 4.4). About half (51%) of Level 3 hospitals or medical centres are in the NCR.

Table 4.4 Service capability and size of hospitals, 2016

	Hospitals		Beds		Average beds / hospital
	Number	Percentage	Number	Percentage	
Hospital level 1	783	64.0	32 144	31.6	41.1
Hospital level 2	318	26.0	30 781	30.3	96.8
Hospital level 3	122	10.0	38 763	38.1	317.7
Total	1 223	100	101 688	100%	83.1

Source: Department of Health-HFSRB, 2016

Utilization and other operating indicators vary between public and private hospitals. Due to data constraints, utilization indicators of hospitals are computed only for a non-random sample of 21 Level 3 hospitals (medical centres) located in the NCR from a total of 46 NCR medical centres (46%) and from a total of 122 medical centres nationwide.¹³ This sample consists of 12 private and nine public (four LGU-owned and five DOH-owned) hospitals. Public medical centres reported higher and increasing bed utilization compared to private medical centres. The average bed occupancy rate of public medical centres was 81% in 2010 increasing to 103% in 2012, while the bed occupancy rate for private medical centres declined from 59% to 56%. Higher levels of utilization of public sector

¹³ Data constraints were due to the unavailability of electronic data requiring manual entry from the annual hospital statistical report. The DOH has since implemented online data entry of hospital statistical reports, making available electronic data.

tertiary facilities are consistent with high levels of public subsidy to these facilities. Financial protection offered by public hospitals is particularly significant for patients needing tertiary care offered by medical centres. These high levels of utilization may also be explained by longer hospital stay in public hospitals. The average length of stay in LGU-owned medical centres increased from 4.4 days in 2010 to 4.9 days in 2012, and in DOH-owned medical centres from 5.8 days to 6.4 days. The average length of stay in private medical centres remained practically the same at 4.3 days. Thus, patients in private medical centres stay an average of 2 days less than patients in DOH medical centres (Table 4.5).

Table 4.5 Hospital utilization in 21 NCR Level 3 medical centres, 2010–2012

Ownership	Number of medical centres		Bed occupancy (%)		ALOS (days)	
	2010	2012	2010	2012	2010	2012
Private	12	12	58.6	55.9	4.3	4.2
Public-LGU	4	4	66.1	78.0	4.4	4.9
Public-DOH	5	5	97.0	127.9	5.8	6.4
Total samples	21	21	69.7	77.2	4.7	4.9

Notes: NCR: National Capital Region; LGU: local government unit; DOH: Department of Health; ALOS: average length of stay
Sources: Department of Health-HFSRB, 2010 & 2012

The mix of beds differs between the types of medical centres. DOH medical centres have a higher proportion of surgery beds compared to LGU-owned and private medical centres (Table 4.6). Both DOH and LGU medical centres have significantly more obstetrics beds compared to private hospitals at 13%. The public–LGU medical centres have the highest percentage of obstetric, beds at 21% in 2012. Paediatrics beds in LGU medical centres increased in share from 15% in 2010 to 19% in 2012. The bed mix indicators point to a high inpatient load of obstetrics and paediatrics cases in public medical centres. While the higher proportion of surgery beds is consistent with the tertiary-level care expected from public medical centres, the high inpatient load of obstetrics patients is not. There is a need to address the challenge of shifting the obstetrics patient load from medical centres to lower-level hospitals to realize efficiency gains.

Table 4.6 Distribution of beds by specialty in NCR Level 3 medical centres, 2010 & 2012

NCR medical centers	2010					2012				
	Medicine	Obstetrics	Paediatrics	Surgery	Others	Medicine	Obstetrics	Paediatrics	Surgery	Others
Private	26%	13%	15%	15%	32%	29%	13%	16%	16%	26%
Public-DOH	17%	19%	18%	20%	26%	17%	18%	16%	18%	31%
Public-LGU	18%	24%	15%	15%	29%	20%	21%	19%	18%	23%
All	20%	18%	16%	16%	29%	22%	17%	17%	18%	26%

Notes: NCR: National Capital Region; OB: obstetrics; LGU: local government unit; DOH: Department of Health

Sources: Department of Health-HFSRB, 2010 & 2012

4.1.3 Medical equipment

For the four-year period ending on 31 March 2016, the diagnostic imaging equipment licensed by the DOH consisted of 4733 radiography (X-ray) machines, 429 computed tomography (CT) machines, 149 mammography machines and 78 magnetic resonance imaging (MRI) units. These are owned and operated either by public and private hospitals or free-standing imaging facilities. A larger proportion of the diagnostic imaging equipment is owned by hospitals – specifically 55% for X-rays, 82% for CT machines, 93% for mammography and 87% for MRIs.

There are 46 X-ray and 4.2 CT machines per 1 million population. MRIs have the least density with 0.8 MRI units per 1 million population. There are 22.2 mammography units per 1 million women aged 50–69 years. Large differences across regions are observed in the density of diagnostic imaging equipment. People in Luzon including the NCR have the highest physical access to X-ray and MRI equipment while those in Mindanao have the least access. There are 132 X-ray units for 1 million people in the NCR and only 26 in Mindanao. For MRIs, there are 3.3 MRI units per 1 million population in the NCR and only 0.3 units in Mindanao. Mindanao, however, has the highest density of CT equipment at 5.6 units per 1 million population, higher than the national average of 4.2 (Table 4.7).

Table 4.7 Density of diagnostic imaging equipment (per million population), 2012–2016

Group of islands	Radiography (X-ray)*	Computed tomography (CT)	Mammography**	Magnetic resonance imaging (MRI)
NCR	132.1	3.4	-	3.3
Luzon	41.6	4.5	-	0.5
Visayas	28.7	2.2	-	0.5
Mindanao	26	5.6	-	0.3
Philippines	46	4.2	22.2	0.8

Notes: *X-ray machines include radiographic (stationary and mobile) and radiographic/fluoroscopic X-ray machines, but exclude specialized machines such as mobile c-arm, bone densitometer, dental and LINAC machines; **Per million women, age 50–69 years

Source: Calculated by the authors from DOH-Bureau of Health Devices and Technology, 2012–2016

Compared to the ASEAN countries, the Philippines has a low density of CT equipment (1.1 per one million population) and mammography equipment (13.1 for 1 million women aged 50–69 years; Table 4.8).

Table 4.8 Density of selected diagnostic imaging equipment in ASEAN countries

Countries	Computed tomography per million population (2013)	Mammography per million women, 50–69 years (2014)
Brunei	7.2	91.9
Cambodia	1.2	-
Indonesia	-	-
Lao PDR	0.7	0
Malaysia	6.4	86.7
Myanmar	0.1	0.7
Philippines	1.1	13.1
Singapore	8.9	127.6
Thailand	6.0	27.9
Vietnam	-	-

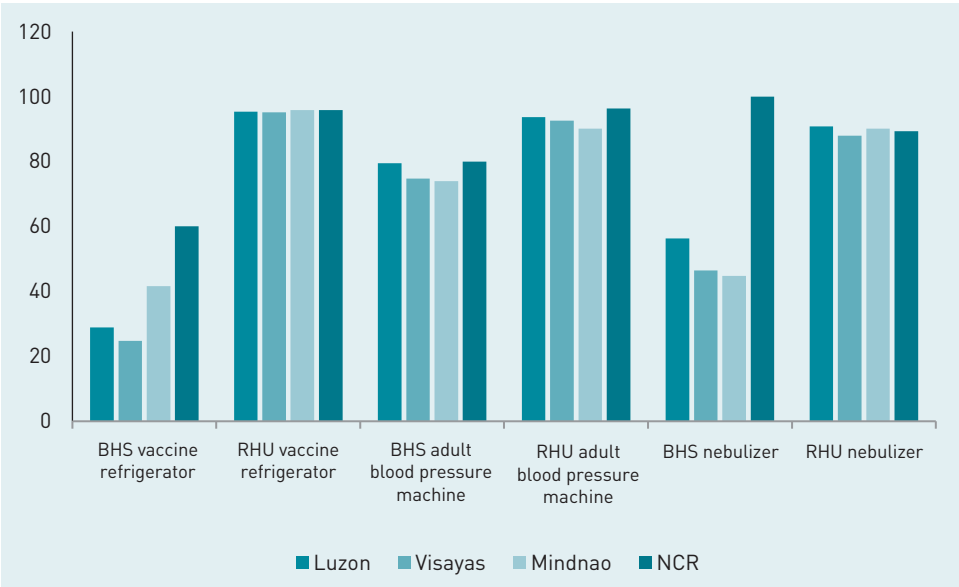
Source: World Health Organization, 2018b

For primary care facilities, basic medical equipment is generally available in RHUs nationwide with little variation across regions. However, basic medical equipment has limited availability at BHSs, with some variation across locations.

On average, 95.5% of RHUs have a functioning refrigerator for vaccines, a proportion observed in all regions. On the other hand, only 31% of

BHSs have a functioning refrigerator for vaccines. The NCR has the most number of functioning refrigerators in BHSs (60.0%), followed by Mindanao (41.6%). For measuring adult blood pressure, 93% of RHUs and 77% of BHSs have functional machines. For respiratory disorders, 90% of RHUs and 51% of BHSs have functional nebulizers and only 45% of BHSs in Mindanao have functional nebulizers (Figure 4.4). Basic equipment necessary for the delivery of primary care are reported to be not available in some RHUs.

Figure 4.4 Basic medical equipment at primary health care facilities



Source: Department of Health, 2016d

4.1.4 Information technology

The World Bank reports 40 Internet users per 100 people in the Philippines.¹⁴ Internet use is higher in the Philippines than in Thailand (35) and Indonesia (17) but lower than in Viet Nam (48.3) and Malaysia (67.5). However, this relatively high number of Internet users in the Philippines is remarkable considering the reported constraints of low download speed. Among 22 Asian countries surveyed, the Philippines has the second to the lowest Internet speed.¹⁵

¹⁴ Data for 2001–2015, the World Bank databank.

¹⁵ *Philippine Inquirer*, 19 June 2016 using data from Internet metrics provider Ookla.

Health-care information technology spending in the Philippines was reported at US\$ 52.4 million in 2015. It estimated an annual growth rate of 4% and projected health-care information technology spending to reach US\$ 60 million in 2019. Hospitals accounted for 88% of the total health-care information technology spending.

For the four-year period 2012–2015, expenditures by the DOH for computer hardware amounted to PHP 261.1 million. These hardware expenditures support the ICT needs of the Central Office (45%), hospitals (15%), regional offices (2%) and DOH-attached and other agencies (0.4%). A significant proportion of computer spending, 37%, was to support the ICT needs of the LGUs at the primary care level.

Table 4.9 DOH spending on ICT hardware, 2012–2015

	DOH expenditure	
	Million PHP	Percentage
DOH central office	117	45
DOH hospitals	39.5	15
DOH regional office	6.1	2
DOH attached & other agencies	1	0.4
LGUs/RHUs	97.5	37
Total	261.1	100

Notes: DOH: Department of Health; LGU: local government unit; RHU: rural health unit
Source: Department of Health, 2016d

The use of ICT for health or e-health is recognized as one of the key enabling strategic instruments supporting and facilitating the achievement of the national health system goals. As early as 1987, the DOH had operationalized this strategy by establishing an office responsible for ICT and management information system (MIS) headed by a director-level officer. The current KMITS of the DOH leads ICT/MIS activities.

The Integrated Hospital Operations and Management Information System (iHOMIS) is one of the tools implementing the integrated hospital operations and management strategy of the DOH. As of 31 March 2016, the iHOMIS was used in 91 DOH and LGU hospitals. The iHOMIS functions as an electronic medical record, hospital information system and health information system. It captures patients’ medical histories and encounters. It records patients’ vital signs, diagnoses, laboratory results, medications and hospital bills, among others. It generates information

for decision support and reports on diseases. The iHOMIS is used as PhilHealth's electronic system for membership verification, claims processing and status verification.

The Integrated Clinic Information System (iClinicSys) is used at the primary level in health centres. For the two-year period 2013–2015, the users of iClinicSys increased by an average annual rate of 34% with 376 users registered by the end of 2015. The iClinicSys has a patient consultation module that captures vital signs and doctor's orders and an e-prescription module that prepares prescriptions for patients. It later links post-prescription inventories with the National Online Stock Inventory Reporting System (NOSIRS). A health programme module records the health service provided by name of the programme, e.g. malaria. Specific functionalities of the iClinicSys include scheduling patients, tracking vaccinations and verifying recipients of the 4Ps and PhilHealth programmes.

The Electronic Field Health Service Information System (eFHSIS) provides the basic service data needed to monitor the activities of various public health programmes. The early version of FHSIS was developed in the late 1980s. Specifically, it provides summary data on health service delivery and selected programme indicators at the barangay, municipality/city, district, provincial, regional and national levels. It consists of (i) web-based online reporting for programmes such as MCH, TB, malaria; (ii) batch offline client-based reporting system; (iii) a web-based data uploading system; and (iv) a report generation system that consolidates data and produces reports, including charts and graphs.

In March 2015, an interagency memorandum of agreement (MoA) was signed to operationalize the Philippine Health Information Exchange (PHIE) implementing the Philippine eHealth Strategic Framework and Plan for UHC.¹⁶ The PHIE is a platform for secure electronic access and efficient exchange of health data and/or information among health facilities, health-care providers, health information organizations and government agencies in accordance with set national standards. It integrates and harmonizes health data coming from different electronic medical record systems and hospital information systems. It provides

16 The memorandum of agreement for the Philippine Health Information Exchange was signed by the Secretary of Health, Secretary of Science and Technology (DOST), President and Chief Executive Officer of PhilHealth, and Executive Director of Information and Communications Technology Office (ICTO) of DOST on 17 March 2015.

an infrastructure for data/information-sharing between health-care providers, and supports access to patients' records across providers in all geographical areas of the country. The PHIE will maintain registries with unique identifiers of health-care service recipients, health-care providers and health facilities. It provides a standards terminology service that manages the unique identification of clinical activities, standard health datasets, terminologies and formats. It has a shared health records service, a repository of clients' records with information in the exchange and, finally, a health interoperability layer that receives communication from various application systems used by health facilities and orchestrates message processing. Point-of-service applications such as the iHOMIS and the iClinicSys will be transformed and serve as building blocks of the PHIE.

The DOH and PhilHealth are currently collaborating on an integrated decision-support and reporting system to foster and support the evolution and optimization of the DOH nationwide disease registry and PhilHealth benefit programmes. This involves the development of standards for the continued harmonization of data collection and reporting of PhilHealth, DOH and partners.

4.2 Human resources

Significant progress is noted in the development and management of HRH following the reformulated HRH Master Plan 2014–2030 targeting responsive health workforce planning, scaling up the health workforce, maximizing efficiency of the workforce and strengthening health workforce governance and leadership. Utilizing the HRH Network Philippines as a catalyst to drive sectoral HRH management and development, the achievements reported include the development of an evidence-based rural health workforce retention plan, scaled-up career paths for nurses, transition of midwifery education from a 2-year diploma to a 4-year BS midwifery curriculum, deployment of allied health professionals to complement the rural health workforce, scaling up of HRH information systems and databases, amendment of outdated professional acts and institutionalization of government mechanisms to mandate continuing professional development.

The DOH now maintains the National Database on Human Resources for Health Information System (NDHRHIS), an online platform that captures basic information on nine health occupational categories or cadres. In 2015, a strong movement to populate the NDHRHIS led to a policy

that requires hospitals to submit NDHRHIS updates as a condition for licensing. Still, the NDHRHIS data remain limited to health workers in health-care institutions. In 2017, the Integrated Database System for HRH Information Systems (IDS) was launched. The IDS houses multisectoral aggregate data on HRH and follows WHO's lifespan strategies approach (entry, workforce, and exit and re-entry). The IDS is bound by a data-sharing agreement among five national government agencies involved in the production, management and migration of health workers.

As of December 2017, the top four categories of health professionals working in health institutions are nurses (90 308), doctors (40 775), midwives (43 044) and medical technologists (13 413)¹⁷ (Table 4.10). The other categories of health workers are pharmacists, dentists, nutritionists, radiology technicians, physical therapists, occupational therapists, X-ray technicians, sanitary inspectors, and barangay or community health workers. Institution-based doctors are affiliated between public and private institutions equally at 50%. Unlike doctors, more nurses (61%), midwives (91%), and medical technologists (53%) work in public institutions. The distribution in terms of place of work of institutional health workers is hospital-centric, thus curative in nature. Among doctors, 91% work in hospitals and 9% work in non-hospital and primary care settings. For nurses, 74% are hospital-based and 26% are in non-hospital and primary care settings. Midwives are almost equally distributed with 49% in hospitals and 51% in primary care. The hospital-centric distribution of doctors and nurses in health institutions is reflective of a model of care that diverges from the ideal set-up of a first point of contact at the primary care level. Mobilizing doctors who are providing services in their own private clinics as the first point of contact in a service delivery care network offers a solution to the challenge of shifting away from hospital-focused services. Expanding the nurse practitioner programme also offers a solution.

17 There are several doctors providing services in their own private clinics. These doctors however are not institutionally employed and thus are not included in the NDHRHIS. No data on the number of doctors in active private practice was accessible.

Table 4.10 Number of health workers in institutions by category, affiliation and region, 2017

Group of islands	Region	Doctors			Nurses			Midwives			Medical technologists		
		Public	Private	Total	Public	Private	Total	Public	Private	Total	Public	Private	Total
NCR	1	6 592	7 468	14 060	9 786	6 971	16 757	3 475	857	4 332	1 611	2 584	4 195
	2	794	339	1 133	2 192	592	2 784	1 675	67	1 742	273	110	383
	3	1 158	905	2 063	3 657	2 086	5 743	2 679	192	2 871	460	259	719
The rest of Luzon	4	712	488	1 200	3 024	1 261	4 285	2 296	147	2 443	366	121	487
	5	1 924	2 235	4 159	4 915	3 856	8 771	3 475	352	3 827	666	679	1 345
	6	1 172	3 044	4 216	4 126	5 494	9 820	3 022	426	3 448	361	572	933
	7	453	132	585	1 514	245	1 759	1 493	90	1 583	138	32	170
	8	914	570	1 484	3 210	1 403	4 613	2 742	296	3 038	349	206	555
	9	1 164	1 241	2 405	3 871	1 703	5 574	3 661	160	3 821	512	268	780
Visayas	10	1 335	1 039	2 374	4 520	3 435	7 955	2 976	296	3 272	492	477	969
	11	787	402	1 189	2 719	490	3 209	2 069	84	2 153	439	175	614
	12	636	349	985	2 349	1 194	3 543	1 567	205	1 772	245	158	403
	13	778	618	1 396	2 445	2 066	4 511	2 327	176	2 503	274	163	437
Mindanao	14	456	1 072	1 528	1 415	2 181	3 596	1 345	175	1 520	240	287	527
	15	558	516	1 074	1 853	1 761	3 614	1 961	299	2 260	285	201	486
	16	428	129	557	1 705	397	2 102	1 348	70	1 418	236	45	281
	17	353	14	367	1 642	30	1 672	1 027	14	1 041	124	5	129
Philippines		20 214	20 561	40 775	54 943	35 365	90 308	39 138	3 906	43 044	7 071	6 342	13 413
		50%	50%	100%	61%	39%	100%	91%	10%	100%	53%	47%	100%

Note: Data as of 31 December 2017

Source: Calculated by the authors from HHRDB, FHSIS & Deployment Program reports

4.2.1 Health workforce in health institutions

The data constraints described above limit any attempt to present historical trends on the health workforce. Data are limited to those working in health institutions.¹⁸ Data for 2017 show marked differences in the number of institutional health workers available to serve area populations. The density of health workers such as doctors and nurses is significantly higher in more urbanized and economically developed geographical locations. A high proportion of health workers are hospital based and areas with more hospitals register a higher density of health workers. This section describes the availability of health workers at the lowest level of the health system (RHUs) using the results of a 2013 national survey. Providing guidance on a minimum standard of the health worker-to-population ratio is expected to redress the unequal locational distribution of health workers (Table 4.11).

Table 4.11 Health workers in institutions per 10 000 population, 2017

Group of islands		Region	Doctors	Nurses	Midwives	Medical technologists
NCR	1	NCR	10.6	12.6	3.3	3.2
The rest of Luzon	2	CAR	6.4	15.8	9.9	2.2
	3	Ilocos (I)	4.0	11.2	5.6	1.4
	4	Cagayan Valley (II)	3.4	12.1	6.9	1.4
	5	Central Luzon (III)	3.6	7.5	3.3	1.2
	6	CALABARZON (IV-A)	2.8	6.5	2.3	0.6
	7	Mimaropa (IV-B)	1.9	5.8	5.2	0.6
	8	Bicol (V)	2.5	7.8	5.1	0.9
Visayas	9	Western Visayas (VI)	3.1	7.2	4.9	1.0
	10	Central Visayas (VII)	3.1	10.4	4.3	1.3
	11	Eastern Visayas (VIII)	2.6	7.0	4.7	1.3
Mindanao	12	Zamboanga Peninsula (IX)	2.6	9.5	4.8	1.1
	13	Northern Mindanao (X)	2.9	9.3	5.2	0.9
	14	Davao Region (XI)	3.0	7.1	3.0	1.0
	15	Soccksargen (XII)	2.3	7.6	4.8	1.0
	16	Caraga (XIII)	2.1	7.9	5.3	1.1
	17	ARMM	0.9	4.2	2.6	0.3
Philippines			3.9	8.6	4.1	1.3

Source: Calculated by the authors from HHRDB, FHSIS & Deployment Program reports

18 Underreporting of doctors is particularly significant since many doctors are private practitioners and thus are not institutionally employed; also, underreporting of medical technologists since many work in free-standing laboratories, which are not captured in the NDHRHIS.

Doctors. The national-level data for 2017 showed that there are 3.9 doctors working in health institutions for a population of 10 000. The highest density is 10.6 in the NCR while the lowest density is 0.9 in the ARMM. Physical access to doctors is also low in the island provinces of Mimaropa (1.9) and Caraga in Mindanao (2.1). On average, there is one doctor in an RHU. The Western Visayas Region has the highest density of almost three doctors in an RHU. RHUs in the NCR have a significantly lower density of doctors (0.98) with the highest level of doctorless RHUs at 13%. The whole Visayas region has the lowest proportion of doctorless RHUs at 5%.

Nurses. There are 8.6 nurses for 10 000 people in 2017. The NCR has the highest density (12.6) while the lowest is the ARMM (4.2). On average, there are two nurses in an RHU. The Visayas region has the highest number of nurses at 2.3 nurses per RHU. The NCR has a significantly lower number of nurses at 1.4 per RHU.

Midwives. In 2017, there are 4.1 midwives for 10 000 people with a variation across regions of a minimum of 2.6 (ARMM) and the maximum of 9.9 (CAR). On average, there are five midwives in an RHU. These midwives, while based in health centres, also provide services in BHSs. The number of midwives in a health centre is higher in the Visayas (7) and in Mindanao (6). The number of midwives in the NCR is significantly lower at two per health centre.

Medical technologists. There are 1.3 medical technologists for 10 000 people in 2017. The NCR has the highest density at 3.2 while ARMM has the lowest density at 0.3. Fifty-three per cent of medical technologists work in government facilities. Eighty-three per cent of them work in hospitals; that is, only 17% of medical technologists work at the primary-level RHU facilities. On average, there are only 0.6 medical technologists per health centre.

Other health workers. Other health workers included the following: dentists, nutritionists/dietitians, pharmacists, occupational therapists, physical therapists and radiologists. Health workers who were specifically hired by the LGUs include sanitary engineers/inspectors, barangay (village) health workers, traditional birth attendants, dental aides.

Comparison within ASEAN. A comparison of the density of nursing and midwifery personnel of the Philippines with ASEAN countries shows that the Philippines has the same density of 12–13 nursing and midwifery

personnel per 10 000 population, which is on a par with Indonesia and Viet Nam but lower than Thailand and Malaysia (Table 4.12).

Table 4.12 Density of nurses and midwives in ASEAN countries

Countries	Nurses and midwives per 10 000 population
Brunei	80.5
Cambodia	7.9
Indonesia	13.8
Lao PDR	8.8
Malaysia	32.8
Myanmar	10
Philippines^a	12.7
Singapore	57.6
Thailand	20.8
Viet Nam	12.4

Sources: World Health Organization, 2015; ^acalculated by the authors from HHRDB, FHSIS & Deployment Program reports

DOH deployment programme. The DOH hires cadres of health professionals to support local health systems development. Health workers are deployed mainly to LGUs that are not able to hire or retain health workers and often these are low-resource municipalities with geographically isolated and disadvantaged areas. The limited capacity of LGUs to recruit and hire HRH is attributed to low levels of local revenues and nationally sourced internal revenue allocation. The limited capacity for retaining HRH in some LGUs is reported to include lack of personal and professional support, heavy workload, inadequate compensation and benefits, and pull factors of better opportunities outside. Doctors providing direct services in doctorless municipalities are deployed through the Doctors to the Barrios programme. For the seven-year period 2011–2017, the DOH deployed doctors, nurses, dentists, midwives and medical technologists as shown in Table 4.13. An increasing trend in deployment to RHUs is observed for doctors, nurses and midwives. For the period 2011–2017, a total of 2241 doctors, 111 668 nurses and 20 730 midwives were deployed to RHUs.

Based on best practices and lessons learnt on the deployment programmes, the DOH in 2015 and 2016 introduced innovations involving the hiring of graduates of medical and nursing schools. Graduates of medical and nursing schools, who were unable to meet the passing grades in licensure examinations, were hired and deployed as UHC implementers and public health associates, respectively. The UHC

implementers were tasked to improve programme management and governance. The public health associates were tasked to improve health information management. These innovative deployment initiatives were replicated in 2017 with the hiring of family health associates to aid in and support implementation of the Responsible Parenthood and Reproductive Health Law.

Table 4.13 Number of health workers deployed by the DOH to LGUs, 2011–2017

Category	2011	2012	2013	2014	2015	2016	2017	Total	Average per year
Doctor in hospital	164	158	161	138	111	35	-	767	135
Doctor in RHU	139	235	276	320	348	407	516	2 241	320
Nurse	20 801	10 000	21 929	11 326	13 371	16 703	17 538	111 668	15 953
Dentist	-	-	-	-	218	202	-	420	210
Midwife	1 127	2 391	2 738	2 700	3 020	4 205	4 549	20 730	2 961
Medical technologist	-	-	-	-	165	267	569	1 001	337

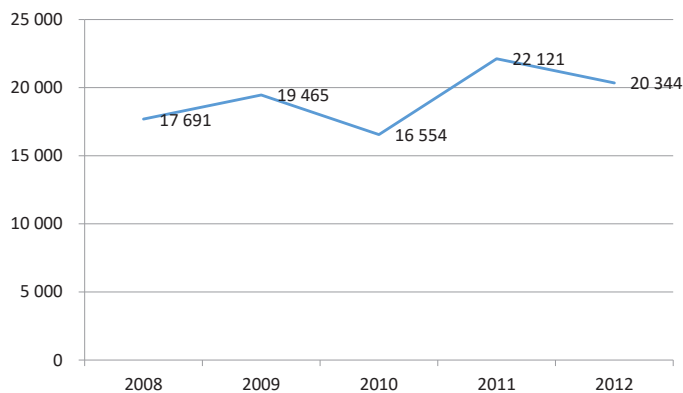
Notes: DOH: Department of Health; LGU: local government unit; RHU: rural health unit

Source: Compiled by the authors from DOH-HHRDB, various years

4.2.2 Professional mobility of health workers

The Philippines is known to be among the highest labour-exporting countries. According to the Commission on Filipinos Overseas, of the 9.4 million Filipinos living abroad as of 2010, 4.3 million were living outside of the Philippines under temporary, work-related residence programmes.

Figure 4.5 Overseas deployment of Filipino health professionals, 2008–2012

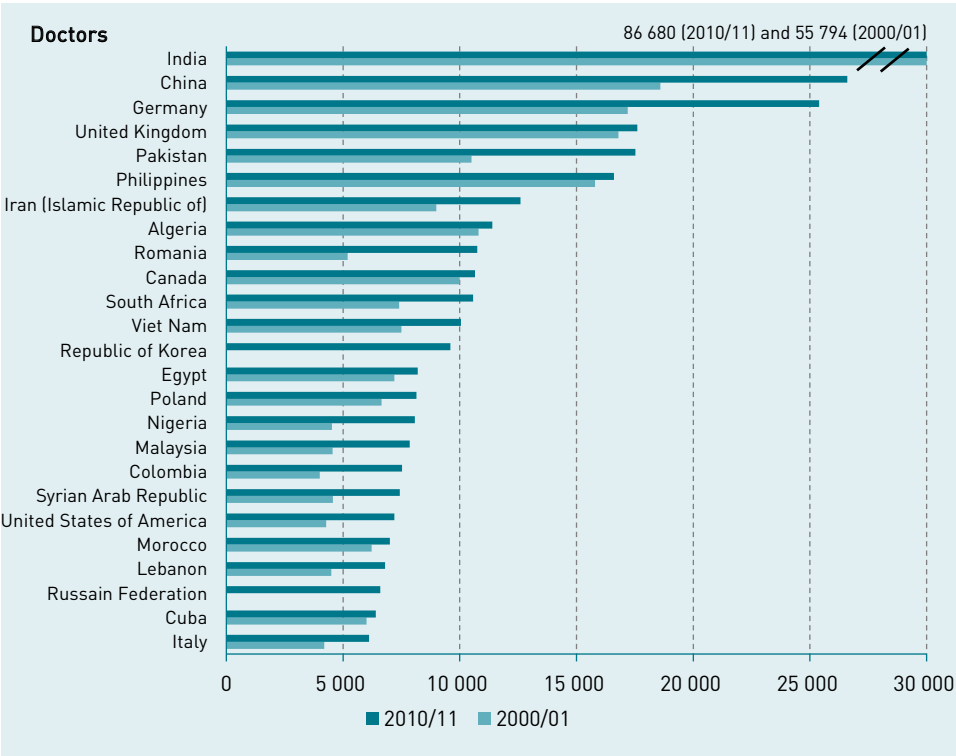


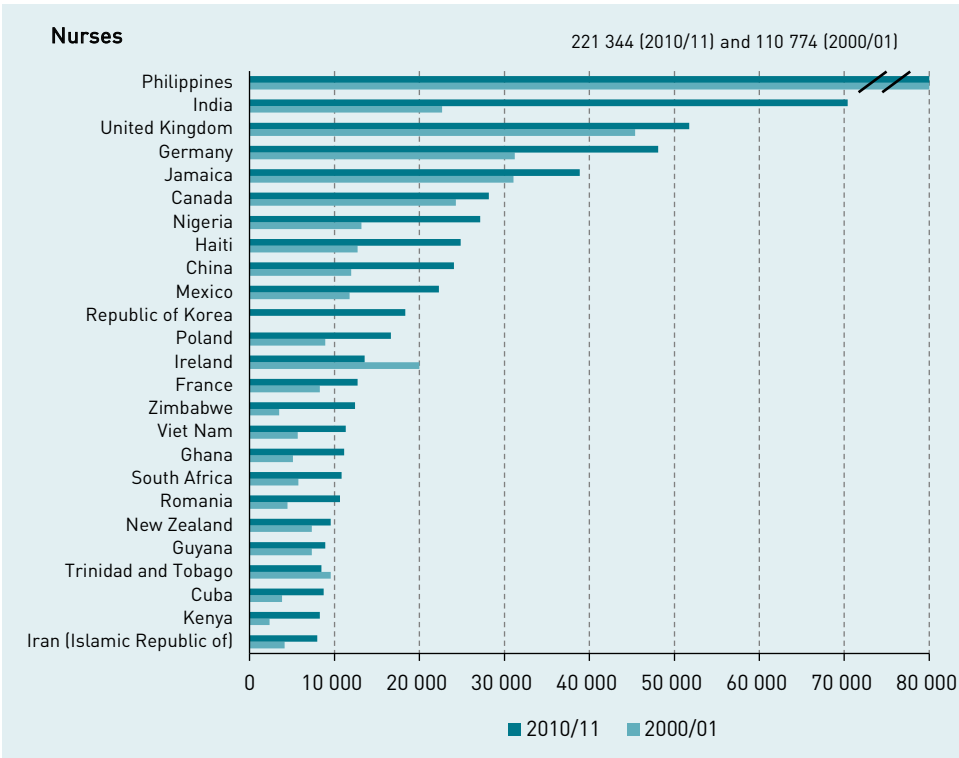
Source: Compiled by the authors

Health professionals are among those living outside the Philippines for work-related reasons. Overseas deployment levels of Filipino health professionals fluctuated between 17 691 workers in 2008 and 20 344 in 2012. It peaked at 22 121 workers in 2011 (Figure 4.5). The majority were nurses, mostly deployed in the Middle East. The destination countries as temporary residents of health professionals, from highest to lowest are (i) Saudi Arabia, (ii) United Arab Emirates, (iii) Kuwait, (iv) Hong Kong, and (v) Qatar. The destination countries of health professionals as permanent residents, from highest to lowest are (i) USA, (ii) Canada, (iii) Australia, (iv) United Kingdom and (v) Japan (Casco LT, 2013).

The OECD International Migration Outlook 2015 reported that the Philippines accounted for significant shares of migrant doctors (6th rank) and nurses (1st rank) in OCED countries (see Figure 4.6). The number of Filipino nurses migrating to the USA increased from 2000 and peaked in 2007 but dropped sharply during 2008–2013 (see Figure 4.7).

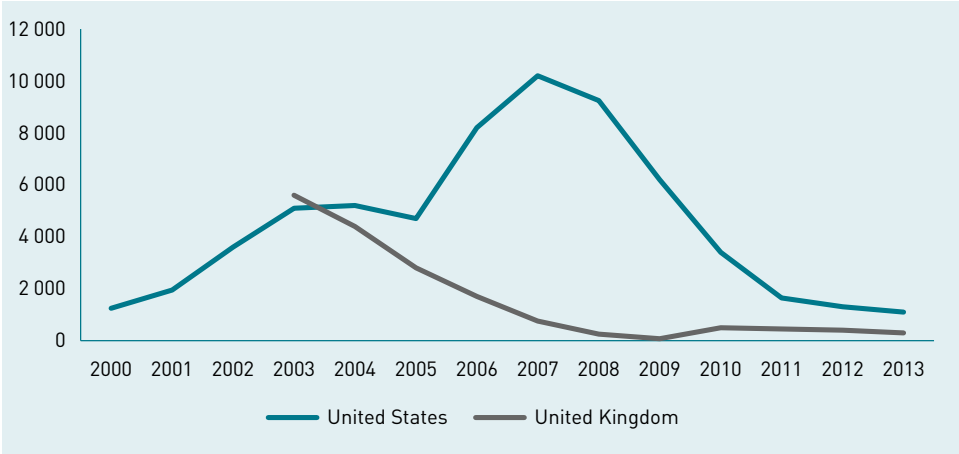
Figure 4.6 Foreign-born doctors and nurses in OECD countries by 25 main countries of origin, 2000/2001 & 2010/2011





Source: Dumont JC et al., 2016

Figure 4.7 Annual flow of Philippine-trained nurses to the United States of America and the United Kingdom, 2000–2013



Source: Colombo F, 2016

A qualitative study on the nurses' brain drain identified conditions internal to the Philippines, which provide reasons for leaving (push factors). Nurses ranked low salary, within both the public and private sectors, as the main push factor. The other key push factors were poor working conditions, outdated health-care technologies and lack of employment opportunities. Attractions related to destination countries (pull factors) are higher salaries, higher-quality working conditions and technologies, and numerous job openings. In addition to the appealing labour conditions, migration is facilitated by destination countries' visa provisions, allowing family members to join the migrating health worker and live in the destination country.

Problems created by the brain drain of health professionals have been identified to include a shift in the focus and quality of education with a corresponding shift in the quality and quantity of supply of health workers. Given the high demand for training to work internationally, the education system is observed to have shifted to match the curriculum to destination countries' preferences for clinical and specialty care. The high international demand has resulted in a drastic increase in the number of schools. The newly established nursing schools were found to be constantly underperforming in nurse licensure examinations, an indicator of low-quality education.

The WHO Global Code of Practice on the International Recruitment of Health Personnel, adopted at the 2010 World Health Assembly, encourages bilateral labour agreements as a way to ensure that destination countries' recruitment does not produce or aggravate negative health or workforce outcomes in source countries. Since the 1960s, the Philippines has been forging bilateral labour agreements (BLAs) with various countries to facilitate employment and provide protection to Filipino workers. The BLAs are in the form of MoU or MoA arrangements. For health professionals, the Philippines has BLAs with several countries in the Middle East and Africa – Bahrain, Iraq, Jordan, Kuwait, Lebanon, Libya, Qatar, Saudi Arabia and United Arab Emirates. There are also BLAs with Canada (Alberta, British Columbia and Manitoba, Saskatchewan), Germany (2013), Japan, New Zealand, Norway, Spain, Switzerland, Taiwan, China, United Kingdom of Great Britain and Ireland, and the Commonwealth of Northern Marianas Islands.

Recent BLAs have provisions for exchange of labour market information, procedures for recruitment and selection of workers, setting of minimum

employment standards, mandatory orientation for workers, protection of workers, formation of a joint consultative committee, and mechanism for mutual development of HR to promote sustainability. In March 2013, the Philippine–Germany MoA was signed. It provides for government-to-government hiring of Filipino nurses, resulting in reduced hiring fees paid for by the workers (Casco LT, 2013).

4.2.3 Training of health workers

Two government entities are responsible for training, qualifying and continued professional development of health workers. The CHED is mandated to prescribe standards for quality health science education and the health science curriculum, and to regulate public and private higher education institutions in the country. The PRC is tasked to promote honest and credible licensure examinations of health professionals, provide continuing education and development, and ensure effective regulation of professional practice.

Education of health professionals. Medical education in the Philippines is conducted by government-recognized medical schools in the country. It takes a minimum of 8 years of schooling to become a licensed doctor. Philippine medical schools are postgraduate schools offering the Doctor of Medicine (MD) degree. Before applying to any medical school, a candidate must earn a bachelor's degree, a 4-year programme with credits in certain required subjects. The most common bachelor's degrees are biology, pharmacy, medical technology, biochemistry, nursing and physical therapy. In addition, the candidate must take the National Medical Admission Test (NMAT), the national entrance examination for all medical schools. Medical schools are accredited by the Association of Philippine Medical Colleges. It is a 4-year programme. The MD curriculum includes medical theories, practices, technologies and problem-solving. The completion of the MD programme and 1-year postgraduate internship qualifies a candidate to take the licensure examination for medical doctors.

To be qualified as a specialist in a field of practice in medicine, a medical doctor is required to undergo additional years of training. Obtaining a specialist's credential starts with a residency training in accredited hospitals and clinics, which takes 3 years and up to 6 years, depending on the field of specialization. After the residency, the trainee may take the diplomate board examinations provided by various medical specialist boards such as the Philippine Specialty Board of Internal Medicine,

Philippine Board of Surgery, Philippine Academy of Family Physicians Board of Examiners. After passing the diplomate board, specialist physicians may opt to undergo further training in a subspecialty such as neurosurgery for a surgery specialist, oncology for an obstetrics and gynaecology specialist and infectious disease for a paediatrics specialist. The subspecialty training is usually completed in 3 years.

All registered nurses in the Philippines are required to have a Bachelor's degree in Nursing. It is a 4-year programme. The curriculum offers a combination of competency-based and community-oriented courses, promising more than a solely skill-based curriculum. The Bachelor's degree in nursing meets the minimum entry requirement for professional nursing practice.

The Diploma in Midwifery programme is a 2-year programme that provides students with knowledge and skills about the foundations of midwifery, normal obstetrics and care of the newborn, and basic family planning. The programme also includes topics related to managing pregnancy, the postpartum period, high-risk obstetrics, midwifery ethics law and practice. Completion of high school and passing the national college entrance examination are requirements for enrolment to the midwifery programme.

To meet the minimum requirement for professional medical technology practice, one must complete a 4-year programme and obtain a Bachelor of Science (BS) in Medical Technology degree or a BS in Medical Laboratory Science degree.

The CHED has recently emphasized outcome-based education focusing on the need to prepare health professionals for community-oriented health interventions. The CHED is rolling out outcome-based education processes consisting of needs assessment; setting of curriculum objectives; development of content, teaching-learning activities, resources, etc. and evaluation of achievements for each of the professional categories. It is revising policies, standards and guidelines, specifying the core competencies expected of graduates of higher education institutions, including health profession schools.

Continuing professional development. Continuing professional development is under the oversight of professional health regulatory boards, which are mandated to have their own continuing professional development councils. Registered professionals will earn credit units for

attending or participating in programmes and activities such as formal postgraduate education, seminars and conventions. These programmes and activities are approved or accredited by the continuing professional development councils. Programmes and activities that are accredited by the Council of Professional Health Associations have been designed for the following professions: medicine, nursing, midwifery, dentistry, medical technology, nutrition and dietetics, optometry, pharmacy, physical and occupational therapy, radiology technology and veterinary medicine.

Republic Act No. 10912, also known as the Continuing Professional Development (CPD) Act of 2016, requires completion of the mandated continuing professional development units for the renewal of professional licences. All registered and licensed professionals are to complete the required credit units within a compliance period, which is usually 3 years. These credit units may be obtained through a professional track where units are granted for participating in recognized events, an academic track where units are granted for acquiring relevant academic degrees or credentials, and a self-directed track where units are granted for participating in accredited training and education programmes.

For health-care professionals in medicine, nursing, midwifery, nutrition and dietetics, dentistry, occupational therapy, optometry, pharmacy, physical therapy, radiological technology, respiratory therapy, sanitary engineering and psychology, 45 credit units are required within a 3-year compliance period. For health-care professionals in dental, medical or laboratory technology, X-ray technology, 30 credit units are required within a 3-year compliance period.

4.2.4 Health workers' career path

The Human Resources for Health Management and Development Programme (HRHMD) of the DOH is implementing systems to ensure the mobility of all government health workers since it was observed that health workers in LGUs were cut off from possible career mobility in the DOH and DOH-retained hospitals. The Programme is undertaking career mapping and position profiling of RHU positions such as doctors, nurses, midwives, dentists and medical technologists. The career mapping and position profiling provide guidance on potential career paths, serving as the basis for professional development of a health worker towards the desired career path. In general, there are two career tracks for a government health worker – the clinical or hospital track and the public health track. The hospital career path will take the health worker through

ascending levels of hospitals, i.e. the district hospital, provincial hospital, regional hospital and medical centres with a correspondingly higher level of clinical responsibilities and salary grade positions. The public health career track will take the health worker through administrative and organizational health units, i.e. city health office, provincial health office, provincial DOH office, DOH regional health office and DOH central office, with correspondingly higher-level public health technical and management responsibilities and salary grade positions. While the above-described vertical career path is the common practice, a health worker can take on a career path that involves lateral and diagonal movements. Moving up the career path follows a competitive process as prescribed by the policies of the Civil Service Commission. A notice of vacancy is circulated, and all interested parties are encouraged to apply. A selection committee identified by the head of the recruiting agency evaluates the past performance and credentials of applicants against the requirements of the job. Decisions on promotions are made at the local levels. Moving up the career path to higher-grade positions often means taking on supervisory and management positions.

4.2.5 Dual practice

Administrative Order No. 172 series 2001 of the DOH dated 9 January 2001 allows dual practice by medical professionals. Specifically, doctors in public sector employment can provide clinical services outside public facilities and outside the contracted hours of public sector employment. The Administrative Order on dual practice identifies the following expected benefits of dual practice: increased income of hospitals as doctors bring in private patients; increased hospital attendance of doctors as they attend to private patients in hospital; ensured supervision and guidance of patient care; increased training opportunities for hospital resident trainees. To be qualified for dual practice, doctors are required to submit an application that includes credentials such as PHIC accreditation, updated 1-year performance evaluation showing a rating of “Very Satisfactory” and a certificate of no pending administrative cases. A credential review committee evaluates the application. The Secretary of Health or an authorized representative issues the authorization for dual practice based on the results of the evaluation. Unfortunately, no research evidence estimating the prevalence and analysing the benefits and costs of dual practice was found to inform broader health reform questions on improving efficiency, effectiveness and equity in the health sector, and specific questions on improving public sector HRH management.

5 Provision of services

Chapter summary

The DOH sets policies, standards and guidelines at the national level for public health programmes. These vertical programmes, including for immunization, TB control, family planning and many others, are implemented at the local government level by provinces and municipalities that comprise the devolved health system. Local governments have administrative authority over their health services and derive technical guidance and in-kind commodity support from the DOH.

Public and private health-care facilities exist for all levels of care, primary to tertiary. 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 as they wish.

Public health services are availed of more by the poor than by the rich; thus, inefficiencies in delivering public services have a greater negative impact on the poor who rely on them. The rich more frequently seek health services in private facilities to get better quality but more expensive services. Private hospitals and clinics can be found in highly urbanized areas as well as in rural settings; remote areas are largely dependent on government services.

The policy of UHC initiated in 2011 and continued to the present has resulted in gains in population coverage for PhilHealth social insurance, largely enabled by significant legislative allocations from sin taxes. PhilHealth mainly funds inpatient care and provides some measure of financial protection. But OOP expenses for hospitalization remain prominent, disproportionately impacting the poor who often go without the needed services. Ambulatory primary care benefits from PhilHealth are limited and are designed mainly towards financing medicines for chronic conditions such as diabetes and hypertension, TB and HIV.

In the spirit of UHC, the National Government has undertaken strengthening of the devolved public system through subsidy of PhilHealth

premiums for indigents, enhancement of health facilities, deployment of doctors and nurses to poor and underserved communities, and national procurement of commodities, including vaccines, TB medicines, insecticide-impregnated bednets and other medicines.

The budget of the DOH has increased 12-fold over the past 12 years, from PHP 10 billion in 2005 to PHP 123 billion in 2016, reflecting the increased priority accorded to health care and the vision to reach UHC of the population. Recent DOH initiatives to strengthen the SDN at the local level are aimed at addressing gaps and inefficiencies in health-care provision.

5.1 Provision of health services by National and local governments

The mandate for providing health services is shared by the National and local governments. The DOH sets policies, standards and guidelines at the national level for public health programmes. These vertical programmes, including for immunization, TB control, family planning and many others, are implemented at the local government level by provinces and municipalities that comprise the devolved health system. Local governments have administrative authority over their health services and derive technical guidance and in-kind commodity support from the DOH.

Table 5.1 shows the responsibilities of the National and local governments in the provision of health care. Note that there are three categories of local governments – provinces, cities and municipalities – all of which are political jurisdictions with elected officials. Municipal facilities mainly provide primary care services in health centres. Provinces provide primary-level care in infirmaries and secondary-level care in district hospitals (Level 1) and provincial hospitals (Level 2). Cities provide primary and secondary services; however, a few large cities may operate tertiary-level hospitals (Level 3). The DOH operates tertiary-level hospitals in the NCR as well as in the various regions of the country. There are other National Government agencies that run tertiary hospitals, including the military and the University of the Philippines. (See Chapter 4 for the definitions of Levels 1, 2 and 3 hospitals.)

Table 5.1 Services that the national and local governments provide and pay for

Role	Public health	Personal care		
	Population-based care	Level of care		
Provider	Department of Health Local governments	Primary	Secondary	Tertiary
		Municipal & city governments	Provincial & city governments	National Government
Payer	Department of Health Local governments	Municipal & city governments	Provincial & city governments	National Government
Source of funds	General Appropriations Act, which includes internal revenue allotment for local governments (tax-based)	• General Appropriations Act, which includes internal revenue allotment for local governments – 30%		
		• PhilHealth – 14%		
		• Out-of-pocket – 56%		

Source: Compiled by the authors

Over the past 12 years, the budget of the DOH, which had the lion’s share of the national budget for public health services, increased 12-fold: from PHP 10 billion in 2005 to PHP 123 billion in 2016. Of the PHP 123 billion DOH budget for fiscal year 2016, PhilHealth premiums for indigents comprised the largest line item at PHP 44 billion (36%). Other budgetary items that reflected DOH priorities included: health facilities enhancement at PHP 27 billion (22%); operations of DOH hospitals and medical centres at PHP 17.5 billion (14.2%); various disease prevention and control programmes at PHP 8 billion (6.5%); deployment of nationally funded personnel at PHP 7 billion (5.7%); immunization and vaccines at PHP 4 billion (3.2%); family planning at PHP 2.3 billion (1.9%); antituberculosis medicines at PHP 1.0 billion (0.8%) (see Chapter 3, Table 3.2) (Republic of the Philippines, 2016).

5.1.1 National programmes

Notable among the public health services are four national programmes for immunization, maternal health, TB and malaria. For these national programmes, the DOH continued to provide local governments with commodities, which were procured in bulk at the national level. These included vaccines, TB medicines and insecticide-impregnated bednets for malaria-endemic provinces. The National Government also provided capital outlays to improve facilities for maternal and newborn care called BEmONC (basic emergency obstetric and neonatal/newborn care) and CEmONC (comprehensive emergency obstetric and neonatal/newborn care).

Table 5.2 shows the overall performance of these four programmes from 2010 to 2015. Immunization rates have fallen while facility-based deliveries, TB control and malaria control have shown steady improvement. These programmes will be discussed later in this chapter.

Table 5.2. FHSIS monitoring of four national programmes (immunization, maternity services, TB and malaria), 2010–2015

Key indicators	Year					
	2010	2011	2012	2013	2014	2015
Proportion of fully immunized children (FIC)	84%	82%	80%	89%*	87%	69%
Facility-based deliveries (FBD)	-	63%	70%	77%**	80%	86%
TB case detection rate, all methods	64%	77%	85%	87%	83%	92%
TB treatment success rate	88%	88%	89%	88%	90%	92%
Number of malaria-free provinces^a	23	24	27	27	28	32
Malaria cases detected^a	19 217	9 217	8 154	7 720	4 172	8 301

Notes: FHSIS data are derived from rural health units, and these do not include data from public and private hospitals,

*NDHS 2013 estimate of fully immunized children is 61.8%,

**NDHS 2013 estimate is 61.1%,

Sources: Department of Health, 2010c; ^aDepartment of Health, 2010–2015

To assess implementation of the national programmes, national surveys are conducted periodically. These surveys include, among others: the NDHS last done in 2017 ($n=27\,496$ households); the Family Health Survey (FHS) last done in 2011 ($n=53\,000$ households); and the National Tuberculosis Prevalence Survey last done in 2016 ($n=46\,689$).

These national surveys produce national statistics for mortality (e.g. maternal mortality) and health service utilization, e.g. immunization coverage and contraceptive prevalence rate. Survey results are used to validate FHSIS data, which are collected from routine implementation reports.

To monitor the performance of LGUs, a health scorecard has been developed, which is a self-reporting instrument with 34 indicators classified in the following six categories: (i) efficient health sector spending (four indicators); (ii) health facility enhancement (two indicators); (iii) human resources (three indicators); (iv) health governance (six indicators); (v) public health interventions (14 indicators); and (vi) financial risk protection (five indicators).

In 2014, the performance of LGUs on the goal to reducing child mortality was assessed against two benchmarks: the 2012 baseline average and the 2016 national targets. Below is a quotation from the DOH report:

“The health sector still falls short of reducing child mortality which is one of the commitments in the Millennium Development Goals. Looking at the proxy indicators for child health – namely the percentage of fully immunized children and the percentage of 0–6-month-old infants exclusively breastfed – more than half of the provinces and cities were still below the 2012 national baselines of 76.91% (fully immunized children) and 61.81% (exclusive breastfed infants)” (HIV/AIDS ART Registry of the Philippines, 2016).

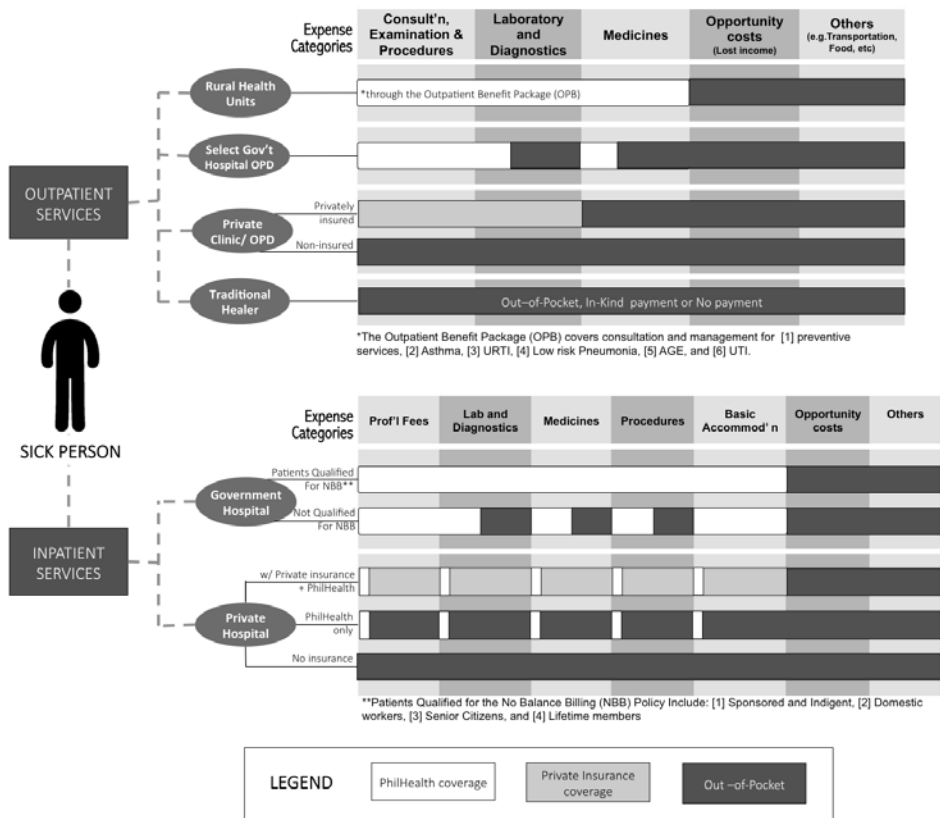
Recognizing that poor performance at the LGU level has been a binding constraint in the provision of health services, the DOH took steps to strengthen local governance. From 2013 to 2016, for example, the DOH partnered with the Zuellig Family Foundation, an NGO specializing in health governance, to provide leadership and management training to local government executives and health personnel. By 2016, this partnership reached 600 municipalities throughout the country. There is evidence that in municipalities where local governance has improved, facility-based deliveries have increased and maternal deaths have fallen (Zuellig Family Foundation, 2016) (see Table 5.2).

5.2 Patient pathways

Personal health services are provided by the public and private sectors, which run parallel to each other across the various levels of care in a free-market situation. There are no gatekeepers of the system. Filipino patients can choose to access services from either sector depending on their needs, preferences, proximity to the health facility and capacity to pay.

Figure 5.1 illustrates the choices of ordinary Filipinos when ill. The journey begins with a choice of going to a primary-level facility in a rural or urban area. This facility may be either public (e.g. RHU) or private. If a public or private hospital is nearby, the patient may choose to consult at the hospital's outpatient department. In remote rural areas, patients may visit a traditional healer (*herbolario* or *albularyo*) who may provide them with traditional treatment, e.g. local herbs, acupuncture or massage.

Figure 5.1 A patient can choose a pathway to health care



Source: Compiled by the authors

Figure 5.1 also shows the various instances where a patient will have to spend OOP to access outpatient or inpatient services. For example, a patient without private insurance who visits a private clinic will need to pay for all services OOP. For poor patients visiting an RHU, food and transportation are a common expense; lost income is also a consideration. In public facilities, consultations are free; medicines are also given free of charge if supplies are available. When the stocks of medicines run out, patients are asked to buy the medicines from private pharmacies in the neighbourhood.

Inpatient services in government hospitals are totally covered by PhilHealth for indigents and a no-balance billing policy is enforced. OOP expenses for inpatient care in private hospitals can be substantial, even with PhilHealth and private insurance coverage.

5.2.1 Universal health care/*Kalusugan Pangkalahatan*

Since the National Government declared UHC (*Kalusugan Pangkalahatan*, KP) the overarching policy for achieving health for all Filipinos, PhilHealth has instituted a number of initiatives to improve population and service coverage. These include, among others:

- implementation of all-case rates for inpatient care in 2011;
- no-balance billing policy in public hospitals in 2011;
- online membership registration in 2012;
- point-of-care enrolment in public hospitals in 2013 (in view of Typhoon Yolanda and the Bohol earthquake);
- enrolment of senior citizens and domestic helpers in 2014.

UHC/KP and the passage of the 2014 Sin Tax Revision Law effectively increased PhilHealth support to local governments. This occurred in two ways: one, through the enrolment of indigent families and two, via payment to health providers in RHUs and hospitals (both public and private) for their services to PhilHealth members.

5.3 Primary/ambulatory care

For an extensive discussion of PhilHealth outpatient primary care services, please refer to Chapter 3, section 3.3.4 (iii). See also the PhilHealth website <https://www.philhealth.gov.ph/benefits/>.

Chapter 4 discusses the equipment in primary care facilities while Chapter 6 provides information on the accreditation of primary care facilities by PhilHealth.

In the urban setting, ambulatory services are available in health centres operated by the city government, private clinics and the outpatient department of private hospitals. Also, there now exist mall-based primary clinics, which offer a wide range of diagnostic services. These mall-based services are operated by large private hospitals, health-care companies and pharmacy retail stores, which target the large number of people who visit malls every day. For private hospitals, these primary clinics become steady sources of referrals.

The NDHS 2103 showed that more patients seek consultation in public facilities compared to private facilities. Of 7482 persons surveyed, 11% had sought consultation at a primary facility 30 days before the survey: 7% went to public facilities, while 4% visited private facilities. The reasons

given for seeking health care were: sickness/injury 60.5%; medical check-up/medical requirement 24.3%; requirement of CCT programme 5.6%; prenatal/postnatal check-up 4.8%; immunization 2.9%; dental care 1%; gave birth 0.5%; family planning 0.2% (Philippine Statistics Authority and ICF International, 2014).

Across all the regions of the archipelago, the percentage of patient visits to government facilities ranged from 48.5% (NCR) to 70.3% (ARMM) as compared to patient visits to private facilities of 22% (ARMM) to 44.8% (Central Luzon) (Philippine Statistics Authority and ICF International, 2014).

The poorest quintile went to government facilities, while the wealthiest went to private facilities. Of the lowest quintile, 83.4% went to government facilities compared to 9.8% who visited private facilities. Of the highest quintile, 20.6% visited government facilities while 72.6% went to private facilities (Philippine Statistics Authority and ICF International, 2014).

In an RHU or city health centre, the average number patients seen daily was 50 but this number could be as high as 250 with the recent upgrading of facilities through the HFEP of the DOH (Picazo OF, 2016).

Finally, so-called “medical missions” are also organized by various groups with the purpose of providing primary care to poor communities. In these medical missions, teams of doctors and nurses are organized to visit a poor community to do physical examination of patients, provide blood pressure readings and distribute free medicines. In some cases, these medical missions provide surgical services such as cataract operations, cleft lip repair and implantation of hormonal contraceptives. Medical missions are organized by all sorts of groups, including NGOs, charity organizations, politicians and US-based Filipino physicians who come home to visit relatives. There are no data on the number of medical missions in the country, but hundreds are undertaken every year.

5.4 Inpatient care

Inpatient care is available in public and private hospitals, which are located in highly urban or semi-urban settings. According to NDHS 2013, 5% of the 7482 respondents were hospitalized within 12 months before the survey. Of the hospitalized patients, 55% were in public hospitals compared to 44% in private hospitals (Philippine Statistics Authority and ICF International, 2014).

In reviewing the patient pathways for hospitalization (see Section 5.2), referral to the appropriate facility and specialist can either be “facilitated” or “not facilitated”. Facilitated means that a relative or friend of the patient provides specific advice about navigating the health system – identifying the hospital, recommending a doctor, advising on the needed medical tests or procedures. This type of facilitation can cut short waiting times, lead to quick service and even influence the course of treatment. The following stories are illustrative of tertiary care in a highly urban setting such as Metro Manila.

Box 5.1 Patient pathway showing referral across private and public hospitals

Ruptured brain aneurysm. Juana de la Cruz (not her real name), a 42-year-old woman, from Iloilo province, suffered from high blood pressure. She worked as a household help in Metro Manila. One day, she had a stroke. Her employer took her to a nearby private medical centre in Metro Manila where a computerized axial tomography scan showed that she had burst an aneurysm. Afraid of the expensive medical bills in the private hospital, her employer had Juana transferred to a government medical centre upon the advice of a friend who worked in the DOH. Juana was enrolled into PhilHealth upon admission and confined to the intensive care unit. (PhilHealth allowed point-of-care enrolment for unenrolled indigents in government hospitals but not in private hospitals.)

The patient was treated for her condition, observed for 5 days and declared a candidate for surgery to remove the blood clot in her brain. For the surgery to take place, she had to be transferred again to another government medical centre in Metro Manila, which had a functioning neurosurgical microscope. She underwent the neurosurgical operation to remove the blood clot in her brain and after 6 weeks was well enough to be discharged. Upon discharge her relatives took her back to the Iloilo where she was cared for at home. Follow up was organized at the Western Visayas Medical Center in Iloilo City.

All OOP expenses for Juana’s care were borne by her employer who felt morally obliged to support her medical bills. OOP expenses for her hospital bills alone reached PHP 200 000 (US\$ 4000), which accounted for about 70% of the total hospital bill; PhilHealth covered 30%. In this case, the policy of no-balance billing was not applied since the employer was capable and willing to pay for the balance. Because of personal connections of the employer with the surgeons, there was no charge for professional fees.

Whether a patient is treated in a public or private hospital, there are OOP payments to be made. As a general observation, the price of a private room in a public hospital is less than that in a private hospital. PhilHealth would cover 50–70% (average at 56%) of the total hospital bill in a public facility compared to only 30% or less in a private facility (Philippine Health Insurance Corporation, 2015a).

Inpatient services cover both ordinary as well as life-threatening, catastrophic conditions for which PhilHealth has created the Z benefit package. Please refer to Chapter 3, section 3.3.4(i) for ordinary inpatient care packages and section 3.3.4 (ii) for catastrophic case packages.

When patients need resources to finance treatment, they apply for support from government charity institutions. Box 2 describes this situation.

Box 5.2 Patient pathway to get funds for cancer treatment

Lymphoma. Leonora Gonzales (not her real name), 30 years of age, developed weight loss, loss of energy and lumps in various parts of her body. Her aunt described Leonora's symptoms to a physician friend who advised that Leonora seek consultation in a DOH tertiary hospital in Metro Manila. Leonora was seen in the hospital and diagnosed to have an aggressive type of non-Hodgkin lymphoma. Treatment was started but could not be maintained. An application for a medical grant to the PCSO was initiated but did not materialize. Access to the Z benefit package of PhilHealth, which includes inpatient cancer treatment, was not possible because the family could not afford to pay prior OOP expenses before hospital admission could be undertaken. The family did not have the resources to continue the treatment and after several months, Leonora passed away.

Sophisticated care is available in private tertiary hospitals in Metro Manila and Cebu. Affluent patients seek treatment in these hospitals or opt to go to hospitals abroad.

Box 5.3 Patient pathway to acquire hip replacement

Hip prosthesis. Rosendo de Leon (not his real name), 75 years old, affluent businessman from Cebu, had been active in sports all his life. His right hip had worn out and he needed a hip prosthesis. He consulted an orthopaedic surgeon in one of Cebu City's top private medical centres and was cleared for surgery. He underwent hip replacement. Rosendo was not covered by PhilHealth's Z benefit package, which was allowed only in government hospitals. He had to pay OOP expenses for his operation and prosthesis but he could well afford these. He underwent rehabilitation post-surgery and was very happy with the results of his surgery.

Please refer to Chapter 7 for a discussion on the quality of hospital care through accreditation.

5.5 Pharmaceutical care

How do Filipinos access their medicines? Mostly, they buy them from private retail drugstores, which can be found in urban and rural communities. In big cities, drugstore chains have the lion's share of the

market. In municipalities, local pharmacists and physicians operate pharmacies. At the barangay (village level), a variety store (*sari-sari* store) may sell popular brands of analgesics and antipyretics over the counter. In 2011, there were an estimated 32 538 retail outlets in the country, the majority of which were found in more densely populated urban areas (Reyes CM et al., 2011). Medicines can also be bought from hospital pharmacies, which usually cater to inpatients who are a captive market. In the hospital setting, prices of medicines are usually higher.

Poor patients should be provided medicines in public facilities, including health centres as well as district and provincial hospitals. When out-of-stock situations occur, patients have to buy medicines from a private pharmacy nearby.

Local governments are responsible for ensuring the availability of essential medicines in their health facilities. However, because of budgetary limitations or inefficiencies in procurement systems, the supplies of medicines in front-line health facilities are unreliable. The National Online Stock Inventory Reporting System, which was put in place by the DOH in 2007, has not been successful in monitoring the availability of medicines in public sector facilities to address stock-outs and overstocking (Salenga R et al., 2015).

For example, under the TB-DOTS programme, the DOH procures medicines and distributes them to health centres in the country. The bulk purchase of medicines is based on an estimate of the number of TB cases needing treatment for the year. But a 2015 study of the supply chain of anti-TB medicines showed that DOH warehouses in the regions and provinces reported stock-outs in the past 12 months: 63% of provinces compared to 38% of regions reported stock-outs. The duration of stock-outs ranged from 38 days to 123 days (Brown M et al., 2015).

The following anecdote illustrates what patients have to do when anti-TB medicines go out of stock in an RHU or district hospital.

Box 5.4 Patient pathway to access anti-TB medicine

Tuberculosis. Luis Torres (not his real name), 54 years of age, from a barangay of Dipolog, Zamboanga del Norte had a chronic cough. He had been diagnosed to have pulmonary TB. When he became very weak and drowsy, he had to be admitted to the provincial hospital. The hospital had run out of supplies of TB medicines, which was a common occurrence. The patient's relatives sought to be registered at the TB-DOTS clinic of the RHU where nationally procured drugs were stocked. Patients registered for treatment at the TB-DOTS clinic were guaranteed a 6-month supply of medicines to conform to the prescribed regimen for TB treatment. Unfortunately, TB medicines were also out of stock at the RHU.

Luis's wife had to buy medicines from the local pharmacy so that TB treatment could be started. Luis's brother, who was a security guard in Manila, sent money by wire transfer for the needed medicines. The relatives took Luis home against advice since medications could not be sustained. Unfortunately, a few days after discharge, Luis Torres passed away.

To supplement the supply of medicines procured by municipalities for their health centres, the DOH implements the Medicines Access Program, which does bulk procurement and nationwide distribution of essential medicines. Included in the Medicines Access Program are medicines for hypertension and diabetes (e.g. metoprolol, amlodipine, losartan and metformin), DOTS therapy, antipsychosis medications, contraceptives, antiretrovirals for HIV, among others. The malaria and schistosomiasis control programmes also procure medicines for distribution to endemic areas. The DOH reported reaching 8.5 million indigent patients with medicines for hypertension and diabetes from 2011 to 2014 (Department of Health Regulation News, 2015).

Since medicines constitute one of the biggest costs for health care, the Government has enacted policies to keep their prices down. For example, in the late 1990s, the DOH pursued the policy of parallel importation by importing a selected number of medicines (e.g. antihypertensives, antidiabetes, anti-asthma medicines) from India where the prices of these products were at least ten times less expensive (University of the Philippines Press, 2004). While the Generics Act of 1988 provided the consumer the benefit of generic substitution of originator products, control of the retail industry by huge drugstore chains kept prices high. In recent years, the rise in generic medicine retailers, which expanded through franchising, has provided competition to the large drugstore chains in the cities. These generic retailers, located in high-density low-income neighbourhoods in cities like Metro Manila, sell high-volume over-the-counter medicines at lower costs than the drugstore chains.

A 2012 survey on the impact of the Generics Act showed that 55% of respondents were aware of the Generics Act; of these, 91.7% agreed that generics were cheaper than branded drugs and 25% requested for a generic alternative (Wong JQ et al., 2013). Translated into affordability of medicine for a daily wage earner getting about PHP 300 (US\$ 6) a day, it would cost 0.8 days for an originator brand of the antibiotic amoxicillin to 15.4 days for an originator brand of omeprazole for the treatment of ulcer (Clarete R, 2017).

After the passage of the Cheaper Medicines Act in 2008, the DOH developed various mechanisms to monitor the prices of medicines. For example, the DPRI was designed to provide transparency in the pricing of essential medicines and to guide government hospitals in the procurement of essential medicines. Also, an electronic drug price monitoring system was established in 2015 to consolidate and compare the prices of medicines in leading drugstore chains and hospitals nationwide; this information is made available to consumers through the DOH website (Department of Health Regulation News, 2015). The effectiveness of these monitoring systems needs verification.

5.6 Expanded Program on Immunization (EPI)

Immunization services are available in public health centres nationwide. Health staff follow up infants in their catchment areas to ensure that they receive all the required vaccinations by their first birthday. Private practitioners participate in the EPI by following national guidelines and vaccination regimens in private clinics and hospitals where 18% of babies are delivered. However, the adherence of the private sector to the national guidelines is not well documented. A 2014 study analysing hepatitis B vaccination, which is part of the EPI regimen, found that only 50% of private facilities provided timely hepatitis B vaccination (Patel MK et al., 2014).

The NDHS 2013 reported that “a child aged 12–23 months is considered fully immunized if he or she had BCG, measles, and three doses each of DPT, polio, and hepatitis B vaccines before the first birthday.” Overall, in 2013, 61.8% of children aged 12–23 months were fully immunized (Philippine Statistics Authority and ICF International, 2014).¹⁹

19 Note that this figure derived from a national survey is much lower than that estimated by FHSIS in 2014 in Table 5.2 because FHSIS reports the percentage of immunized children from among targeted infants known to RHU personnel resulting in smaller denominators, which lead to higher percentages.

The NDHS 2013 data further showed that full immunization coverage declined as birth order increased. It, however, increased with wealth status: it was 59% in the lowest quintile compared to 81% for the highest quintile. ARMM ranked lowest among the 17 regions at 29% while CAR achieved 84%. The NCR had 80% of fully immunized children (Philippine Statistics Authority and ICF International, 2014). These figures provide evidence for the inequitable coverage of immunization across economic groups and geographical areas.

Began in 1976, the vaccines of the EPI were provided free by UNICEF. By 1990, the national coverage of fully immunized children had risen to 70–80% to set the stage for poliomyelitis eradication (Zimicki S et al., 1994).

As the Philippine economy improved, the DOH began to purchase its own supply of vaccines in the mid-1990s. Vaccines were procured in bulk through domestic or international tender. But whenever there was a failure in vaccine procurement, immunization rates would fall. This was the case in 2001 when due to a shortage of polio vaccine, polio cases reappeared in several places in the country requiring the DOH to launch two campaigns to vaccinate 12 million children (University of the Philippines Press, 2004). More recently in 2012–2014, a global shortage of pentavalent vaccine (diphtheria, pertussis, tetanus, hepatitis B and *Haemophilus influenzae* type B) caused stock-outs in health centres. This is one reason why immunization rates in 2015 declined (personal communication, DOH Head Executive Assistant Dr Yolanda Oliveros, 15 June 2016).

Furthermore, because there are various pentavalent vaccines being used by private practitioners, not all conform to the antigens specified by the National Immunization Program. This also partly explains why the NDHS 2013 recorded a relatively low value for fully immunized children (personal communication, Assistant National Statistician Wilma Guillen, Philippine Statistics Authority, 16 June 2016).

Better management of national procurement for vaccines, more effective planning of the vaccination regimen and better coordination in the delivery of services at the local government level are ongoing concerns to ensure herd immunity against preventable childhood diseases.

5.7 Maternal health services

It is the policy of the government that all pregnant women be delivered in a health facility such as a health centre or a hospital. PhilHealth accredits these birthing facilities for them to be eligible for the maternity care package (see Chapter 3, section 3.3.4 (iii)).

All pregnant women are required to undergo at least four antenatal visits; be delivered by a skilled birth attendant at a properly equipped facility; and undergo postpartum care. An RHU with the capacity to handle normal deliveries is called a BEmONC facility while district hospitals and provincial hospitals capable of handling complicated deliveries are designed as CEmONC.

This approach has led to an increase in facility-based deliveries from 63% (2011) to 77% (2013) to 86% (2015) in the devolved public system (see Table 5.2).²⁰

A big difference in facility-based deliveries between the rich and the poor is observed. For the lowest quintile, facility-based delivery is at 33%, while for the highest quintile, it is 91% (Philippine Statistics Authority and ICF International, 2014). This rich–poor gap reduced over time as NDHS 2017 reports facility-based delivery of 58.4% among the lowest quintile (Philippine Statistics Authority and ICF International, 2018).

A 2014 maternal health study undertaken by an academic institution in the Eastern Visayas post-Typhoon Yolanda (Haiyan) showed that the rate of facility-based deliveries was 83%, even higher than the pre-Typhoon Yolanda figure of 80%; although figures for prenatal care (80%) and postpartum care (60%) did not change significantly pre- and post-Typhoon Yolanda. These results show corroborating evidence of improved maternal health services in this poor region (Ramirez C et al., 2016).

20 These figures are higher than the nationwide estimates of 61% (NDHS 2013) and 78% (NDHS 2017). Again, as with immunization rates, this discrepancy stems from the different methodologies employed by the FHSIS and NDHS.

Box 5.5 Patient pathway for facility-based delivery

Childbirth. Julieta Catubig (not her real name), 35 years of age, from Northern Samar was pregnant with her sixth child. She had delivered her previous children at home where she was attended by a traditional birth attendant (*hilot*) who took care of her needs during and after delivery, including cooking her meals. However, for this delivery, a municipal ordinance had prohibited delivery of babies at home. The *hilot* advised Julieta to seek health care at the district hospital, which had facilities for delivering babies.

Julieta underwent four antenatal visits with a midwife and delivered her child at the birthing facility. She received an incentive of PHP 1500 (US\$ 30) for delivering in the health centre. Her delivery was covered by PhilHealth and she was not charged for the services. However, the family did have to pay for transportation to and from the health centre and for other miscellaneous expenses for family members who accompanied her at the health facility. Though Julieta had been used to delivering at home, this new experience was very positive for her in that she received much-needed advice and services for prenatal care, delivery and postpartum care. She also received advice on proper breastfeeding and immunization for the child. While Julieta's husband refused to undergo a vasectomy, he was persuaded to agree to Julieta having a bilateral tubal ligation.

The maternal mortality ratio (MMR) has remained at a high level over the past 25 years. In 2010, the official government figure was 162 maternal deaths per 100 000 live births. To achieve the maternal mortality target for the MDGs, this figure had to be reduced to 52 but this target was not achieved.

There is some evidence which suggests that even if facility-based deliveries have increased, maternal deaths now occur in the birthing facilities because mothers arrive there too late and the facilities are ill-equipped to handle cases of difficult labour where the mother is already exhausted and has lost blood excessively (Garilao E, 2016).

See Chapter 7 for more discussion on the quality of antenatal and maternal care.

5.8 Family planning services

Family planning services are available in RHUs as well as public and private hospitals. However, the use of family planning methods by married women of reproductive age has hovered at 50% since 1995 (National Statistics Office, 2012).

NGOs have been active in the provision of family planning services. Private clinics and private practitioners offer family planning services for

a fee. Large corporations have committed to providing family planning services in-house, in the form of condoms or hormonal contraception as part of the occupational health services for employees.

Of current users of selected modern contraceptive methods, 45% got their supplies from the public sector, specifically government hospital (17.6%); rural/urban health centre (13.5%); BHS (13.4%). Fifty-four per cent got their supplies from the private sector: private hospital/clinic/doctor 9.8%; pharmacy 44.1% (National Statistics Office, 2012).

Knowledge of family planning methods is very high, ranging from 98% for women in the lowest wealth quintile to 100% for the middle and highest wealth quintiles. But despite almost universal knowledge of family planning methods, contraceptive prevalence rates remain at 50% for women in the lowest and highest wealth quintiles. Women in the middle wealth quintiles have a higher contraceptive prevalence rate at 60% (National Statistical Coordination Board, 2013).²¹

Thus, eliminating the unmet need for family planning services has been a major goal of the government's family planning programme. This intervention is believed to also contribute to reducing maternal mortality by reducing unwanted pregnancies. Unmet need refers to the proportion of currently married women who are not using any method of family planning but who do not want any more children or want to space births. This unmet need ranged from 37.0% for married women aged 15–19 years to 7.8% for women aged 45–49 years (National Statistics Office, 2012).

The Responsible Parenthood and Reproductive Health Law (Republic Act No. 10354), which was passed in 2012, aimed to strengthen the family planning programme by empowering local governments to provide reproductive health services. But opponents challenged its constitutionality, and implementation was stalled until the Supreme Court ruled on its constitutionality in 2014. Full implementation of the law was further delayed because of a Supreme Court Temporary Restraining Order in 2015 requiring the FDA to recertify all contraceptive products in the market as non-abortionifacient. In November 2017, the FDA completed the recertification of 51 contraceptive products as non-abortionifacient (Santos TG, 2017). The law is now being fully implemented but at the time

21 In 2013, the Philippine Statistics Authority was created with the merger of the National Statistics Office and three other government statistical agencies.

of writing this report, official data were still unavailable regarding any change in contraceptive prevalence rates.

5.9 National Tuberculosis Program

Persons who need anti-TB treatment can go to public health centres where diagnosis by sputum microscopy and medicines should be available.

The Philippines is one of the 22 countries with the highest burden of TB. Before the 2000s, the treatment of TB in private and public clinics was confusing and disorganized. In 1994, the Philippine Coalition Against Tuberculosis (PhilCAT) was formed, unifying public and private stakeholders in the fight against TB (Philippine Coalition Against Tuberculosis, 2014). By 2004, the country attained the global target of 70% case detection and 80% treatment completion for DOTS (World Health Organization, 2004).

Two successive national plans in 2006–2010 and 2010–2016 led to the successful achievement of the 2015 MDG to halve the 1990 figure for TB deaths and illness. By 2015, case detection rates and treatment success rates had both reached 90% (Table 5.1) (Philippine Council for Health Research and Development, 2017).

Among the success factors for the achievement of the MDG goal for TB were the strategy of public–private mix DOTS (PPMD) conceptualized by PhilCAT and the PhilHealth benefit package for TB-DOTS.

PPMD clinics are of two types. A public PPMD clinic is a PhilHealth-accredited public facility (e.g. city health office, RHU, district hospital, etc.), which treats TB patients, including those referred to them by private physicians. A private PPMD clinic is likewise PhilHealth-accredited to treat TB patients. The PhilHealth benefit package for TB-DOTS pays accredited PPMDs for their services as well as provides incentives for physicians who refer patients to public PPMDs. By 2008, there were approximately 220 PPMD clinics nationwide. Today, PPMDs are predominantly public in nature as private PPMDs have been difficult to sustain without subsidy for their operations. See Chapter 3, Section 3.3.4 (iii) for more details on the accreditation of TB-DOTS clinics by PhilHealth.

With the achievement of the MDGs, the DOH National TB Program commissioned the National TB Prevalence Survey (NTPS) in 2016 to

gather updated information on the status of TB in the country and to provide a baseline for the Sustainable Development Goals (SDGs). The last NTPS was done in 2007.

The NTPS 2016 found no evidence that the prevalence of TB had decreased since the last NTPS in 2007.

It estimated a prevalence of 1159 per 100 000 bacteriologically confirmed pulmonary TB in persons 15 years or older, suggesting that 1 million Filipinos had TB whether they knew it or not. Risk factors associated with pulmonary TB included previous TB treatment, older age group, being men, having diabetes mellitus, smoking, being poor and urban dwellers (Philippine Council for Health Research and Development, 2017).

Of those with TB symptoms, only 41% took action, with the majority (67%) consulting a public facility. Causes for inaction included the perceived trivial nature of symptoms and costs associated with work-days lost, travel and medicines. Forty per cent self-medicated (National TB Prevalence Survey, 2016) (Philippine Council for Health Research and Development, 2017).

Why did the TB prevalence rates not decrease from 2007 despite high case-finding and successful treatment rates? The use in the NTPS 2016 of a novel diagnostic tool, Xpert MTB/RIF, could partly explain why Xpert MTB/RIF is a novel DNA amplification technique 1.7 times more sensitive than MTB culture in field conditions. This new technology puts the current case-finding approach, which relies on symptomatology and sputum microscopy, in a new light: current case-finding misses one third to two thirds of active TB cases that would have been identified had MTB culture and/or Xpert MTB/RIF been also used as case-finding tools. Furthermore, the use of Xpert MTB/RIF would enhance early detection of drug-resistant cases, making this a strategic first-line diagnostic tool for TB elimination (Philippine Council for Health Research and Development, 2017).

A strategic TB elimination plan has been formulated for 2017–2022 (PhilSTEP1) based on Republic Act No. 10767 or the Comprehensive TB Elimination Plan Act of 2016 signed by the President on 26 April 2016. PhilSTEP1 envisions a TB-free Philippines by reducing TB incidence and mortality by 90% and 95%, respectively, by 2035 (Philippine Council for Health Research and Development, 2017).

5.10 Malaria prevention and control

The country has made good progress in its malaria elimination programme. With the assistance of the Global Fund, antimalaria drugs and mosquito nets were procured by the DOH and provided free to local governments. Insecticides for indoor residual spraying were also provided by the National Government. Services for case-finding have been available in RHUs. Thirty-two provinces out of 81 have been declared malaria-free. The MDG target to halt and reverse the incidence of malaria was achieved.

5.11 Schistosomiasis prevention and control

There is an ongoing effort to eliminate schistosomiasis as a public health problem. Infection by the *Schistosoma japonicum* parasite is prevalent in 28 provinces with estimated prevalence rates of 1.6% in Luzon provinces, 4.1% in the Visayan provinces and 0.6% in the Mindanao provinces (Magalhães RJS et al., 2014).

A recent study in four municipalities in Palo, Leyte where mass drug administration has been conducted at regular intervals for many years, showed infection rates of 12.5% among 951 study participants. This suggested that poor implementation of mass drug administration may be jeopardizing national efforts to eliminate schistosomiasis as a public health problem (Liwanag HJ et al., 2017).

5.12 Human immunodeficiency virus/AIDS prevention and control

The DOH has designated 50 hubs nationwide where antiretroviral medicines are available. These hubs are found in designated public hospitals and social hygiene clinics in the various regions of the country (Philippine Council for Health Research and Development, 2016). Antiretrovirals are provided free for confirmed cases of HIV.

About 10 000 patients are being treated at two HIV treatment centres in Manila, namely, the Philippine General Hospital and the Research Institute of Tropical Medicine, which are the busiest hubs (Salvana E, personal communication). But one of the biggest challenges faced by these treatment hubs is the loss to follow up of individuals who test positive. Of 50 725 cases diagnosed to have HIV infection since January 1984, 19 023 (38%) were lost to follow up after the diagnosis was confirmed (Epidemiology Bureau-DOH, 2018). There are many reasons for

this loss to follow up. Social reasons include stigma and discrimination. Internal attitudes and behaviour as well as economic hardship on the part of the persons with infection are major barriers. And the inability of the health-care system to reach out to the HIV-infected plays a major part (United Nations Development Program, 2017).

To reach out to persons with HIV, social media websites have been set up where enquiries are made and answered.

The DOH maintains an AIDS Registry. Of great concern is the rising prevalence of HIV as 30 new infections have been reported every day (Department of Health, 2017a). Men who have sex with men (MSM) and bisexual men accounted for 81% of total infections in 2017: MSM (49%) and bisexual men (32%) (Department of Health, 2017a).

Molecular epidemiology studies have shown that the HIV subtype has changed. From 1985 to 2000, subtype B was predominant. It has been found that the more aggressive CRF01_AE has become the more dominant subtype (Salvana EMT et al., 2017).

The Philippines did not achieve the 2015 HIV target for the MDGs and now has the dubious distinction of having the fastest-rising epidemic in the Asia-Pacific region (Cepeda M, 2017). Efforts of the DOH to promote health education and increase the coverage of antiretroviral treatment are an ongoing challenge.

5.13 Epidemic surveillance

There is a network of epidemiology and surveillance units, composed of units at the central, regional, provincial and city levels. This nationwide network of epidemiology and surveillance units undertakes surveillance for acute flaccid paralysis for poliomyelitis. It has played a leading role in the surveillance and control of emerging infections such as Middle East respiratory syndrome (MERS) coronavirus, Ebola and severe acute respiratory syndrome (SARS).

At the central level, the DOH Epidemiology Bureau publishes disease surveillance statistics, e.g. HIV infections. In addition, the Epidemiology Bureau undertakes acute outbreak investigations. These investigations are conducted by field epidemiology fellows who train for 2 years to be experts in outbreak investigation and disease surveillance. Graduates of this training programme go on to work as field epidemiology specialists

in national and local governments. The Philippines Field Epidemiology Training Program (FETP) is part of a global network of FETPs. It was recently accredited by TEPHINET (Training Programs in Epidemiology and Public Health Interventions Network) (2017).

Coordination with hospitals and LGUs continues to be a challenge to ensure timely detection and management of outbreaks. Also, close coordination with the Bureau of Quarantine is required for routine disease surveillance of incoming passengers at airports and seaports.

5.14 Noncommunicable disease prevention and control

Legislation has become the cornerstone of the Philippines's efforts to control NCDs.

With the passage of the Sin Tax Reform Law in 2012, which raised excise taxes on tobacco products, a huge step was made in controlling NCDs (Congress of the Philippines, 2012). The Law caused doubling in the inflation-adjusted price of cigarettes, from PHP 336 per month in 2009 to PHP 678 in 2015. In 2015, the DOH declared that the increase in cigarette prices effectively 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 (Department of Health-Philippine Statistics Authority, 2015; Geronimo JY, 2017).

Complementing the increase in prices of tobacco products, the graphic warning signs on cigarette packs and ordinances banning cigarette smoking in public places were also thought to have contributed to the decrease in tobacco use.

On 16 May 2017, President Rodrigo Duterte signed Executive Order No. 26 establishing smoke-free environments in public and enclosed spaces. Executive Order No. 26 reinforces the Tobacco Regulation Act of 2003 (Republic Act No. 9211), which “prohibits the purchase and sale of cigarettes and other tobacco products to and by minors and in certain places frequented by minors”. All cities and municipalities were enjoined to conform to Executive Order No. 26 (Marcelo, 2017).

In December 2017, a recent law entitled The Tax Reform for Acceleration or Inclusion (TRAIN) was signed into law in December 2017. The law

mandates that sugar-sweetened drinks will be taxed with the twin aims of raising revenues and fighting NCDs (ABS-CBN News, 2017).

Using health promotion approaches, the DOH organizes healthy lifestyle communication campaigns on a yearly basis. It encourages the organization of hypertension and diabetes clubs, the scoring of risk factors of individuals, and the provision of free medicines for hypertension and diabetes (see Section 5.5 Pharmaceutical care). PhilHealth has developed a primary benefit package for hypertension and diabetes, which has had limited roll-out so far. Please see Chapter 7 for a more detailed description of PhilHealth’s primary benefit packages.

Dialysis services for end-stage renal disease are available in free-standing dialysis centres and hospitals nationwide. The PhilHealth package covers 90 days of dialysis per year at a subsidy of PHP 2500 per dialysis session to cover payment for facilities and professional fees of attending physicians (PhilHealth, 2015).

5.15 Mental health

Patients with mental health issues seek services from psychiatrists in private clinics in major cities or in hospitals with mental health services. The case rate to cover professional and hospitalization fees is PHP 7800 or US\$ 150 (Dinah Nadera, psychiatrist, personal communication). Those in the rural areas go undiagnosed and untreated (Box 5.6).

Box 5.6 Patient pathway for mental health services in a rural setting

Chronic mental illness. Zosimo Fernandez (not his real name), 21 years old, who lived in a remote rural barangay in Davao del Norte, was considered to be possessed with evil spirits by neighbours because of increasingly erratic and violent behaviour. Attempts to exorcise the spirit failed. Zosimo’s family was very poor and did not have the resources to take Zosimo to the doctor and did not want to invest in his care, thinking that it would be a waste of money. He was confined to the chicken coop under the family house and kept there for several years. An NGO on a medical mission discovered him, diagnosed him as schizophrenic and organized free medication. When the medicines ran out, his symptoms returned and he was relegated to the chicken coop once more. The family thought it was better to keep Zosimo in the cage for his own safety but also because they did not want him wandering around the village and be a source of shame for the family.

There are an estimated 490 psychiatrists and 1000 government nurses working in psychiatric care in a country where 0.7% of households interviewed in a 2004 survey said that it had a member with a mental

disability. Also, the number of addiction specialists, psychologists, occupational therapists, guidance counsellors and social workers are extremely inadequate to meet the mental health needs of 100 million Filipinos (Legarda L, 2011).

The larger proportion of mental health services is private in nature as the government has limited facilities for patients with mental health problems. For example, only 10 of the 72 DOH hospitals in the country have outpatient services for mental health. There are two mental hospitals, 46 outpatient facilities, four day-treatment facilities, 19 community-based psychiatric inpatient facilities and 15 community residential (custodial home-care) facilities for the whole country (Legarda L, 2011).

Started in 1992, the National Mental Health Program relied mainly on the resources of the National Center for Mental Health, the premier mental health facility in Metro Manila with 3800 beds (Department of Health, 1992). The 2001 Mental Health Policy gave the directive to integrate mental health care into the general health services and to move from hospital-oriented care to community-based care.

At the time of writing this report, the comprehensive mental health bill, which failed to be passed by previous administrations, has been passed in both houses of Congress. It is awaiting the signature of the President. The law upholds the right of citizens to mental health services at all levels of care. It mandates the strengthening of community mental health services (Soto III et al., 2017).

5.16 Disaster risk management for health

In times of disaster, local governments are the first responders on site. Each local government has a disaster risk reduction and management unit. At the national level, disaster response and rehabilitation efforts are coordinated by the National Disaster Risk Reduction and Management Council (NDRRMC), which is a network of government agencies headed by the Office of Civil Defense of the Armed Forces of the Philippines. The Health Emergency Management Bureau of DOH is a member of the Council. The Philippine National Red Cross, a nongovernmental agency, is also at the forefront of relief and rehabilitation efforts. Please see the discussion on disaster risk management in Chapter 7.

After Typhoon Haiyan ravaged the Eastern Visayas region in November 2013, the DOH collaborated with WHO, the International Medical Corps, Save the Children and Médecins Sans Frontières to scale up psychosocial counselling in the affected areas. The Mental Health Gap Action Programme (mhGAP) curriculum was used to train health personnel in 155 of the 159 RHUs (98%) and 29 of the 32 district and provincial hospitals (91%) in the region (World Health Organization, 2017a, b). In a year's time, there was a rapid increase in the national and local capacity to promote psychosocial well-being in the affected communities of Eastern Visayas, where a million people live (World Health Organization, 2017b).

5.17 Drug rehabilitation

A person needing rehabilitation for substance abuse would find services in any of the 49 rehabilitation facilities in the country, 46 of which provide residential care. Families of the patients would have to pay for these services. With the current emphasis of President Rodrigo Duterte on the problem of illegal drugs, public facilities are being geared up to rehabilitate patients who cannot pay for these services. For example, a mega drug rehabilitation centre of 10 000 beds was recently opened in the province of Nueva Ecija for this purpose (Andrade JI, 2017).

With the new mega rehabilitation centre, the total bed capacity nationwide would be 15 854 beds. There are 366 DOH-accredited physicians working in these centres, a sharp increase from 120 in 2014 (Department of Health, 2017a).

The Dangerous Drugs Board (DDB), an agency under the Office of the President, oversees drug rehabilitation efforts. For the year 2016, the DDB of the Philippines reported a total of 6079 cases who were treated in public and private rehabilitation facilities as inpatients (96%) or outpatients (4%). Cases were predominantly men; the men-to-women ratio was 13:1. Their profile included the following: single (49%); unemployed (45%); and college-level education (29%). Cases belonged to families with an average monthly income of PHP 14 000 suggesting a low socioeconomic status. The most commonly abused substances are methamphetamine hydrochloride (*shabu*), cannabis (marijuana) and inhalants (contact cement adhesive). The DDB reported that the 2016 counts were higher than those for 2015 (5420) and 2014 (4392) (Department of Health, 2017a).

5.18 Emergency care

Very few cities (e.g. Davao City) have a government emergency service, which is able to respond within minutes of a call. In most places, available ambulance services are operated by private businesses.

In August 2017, the President signed into law Republic Act No. 109321 to increase the penalties for the refusal of hospitals to administer appropriate initial medical treatment and support in time of emergency. This law strengthens a previous law, which forbids hospitals from demanding a deposit from patients before administering emergency care.

5.19 Long-term care

Long-term care of the elderly, disabled persons and chronically sick persons are left to families to undertake. There are no public facilities for long-term care. Some religious congregations make it their vocation to care for the elderly and set up long-term care facilities. In these few facilities, families confine their elderly and advance the financial resources for their care. It is not unknown for elderly persons to be abandoned by their families in these facilities.

Affluent families may employ caregivers to care for their sick relatives at home. Rarely, some affluent families admit their sick elderly relatives in private hospitals where they can have professional care 24 hours a day.

For poor families, as they cannot afford to employ caregivers, responsibility for the care of a chronically ill individual is undertaken by the family members.

5.20 Palliative care

Palliative care is available in about 45 medical centres in the country based on information from the National Hospice and Palliative Care Council of the Philippines. A specialty organization named the Philippine Society of Hospice and Palliative Medicine was established in 2002; its membership now comprises 40 palliative care specialists. In 2016, hospice and palliative care was integrated into the Family Medicine Residency as a foundation course (Bausa CA, 2014).

The capacity to prescribe morphine for the palliative care of terminally ill patients is authorized by an S-2 licence and issuance of “yellow prescription pads” by the Philippine Drug Enforcement Agency

(PDEA). Not many physicians bother to get an S-2 licence due to the inconvenience of going to the PDEA office and fulfilling the requirements through an online application system.

To make morphine more widely available, President Gloria Macapagal Arroyo signed Proclamation 2016 in March 2010, declaring that the National Hospice and Palliative Care Council be a conduit of the DOH in nationwide distribution of morphine to patients of its accredited members (Government of the Philippines, 2010).

5.21 Dental care

Dental services are provided in public health centres, hospitals and in schools. However, there is a shortage of dentists and dental services in many parts of the country; a 2011 national survey found that 77% of Filipinos had never been to a dentist. The same survey found that 87% of Filipinos suffer from dental caries (Department of Health, 2012c).

Promotion of dental health is mainly the domain of commercial enterprises that sell toothpaste and toothbrushes.

5.22 Complementary and alternative medicine (CAM) and traditional medicine

Because of the small numbers of practitioners of traditional and complementary medicine (T&CM) in the country, access to these services is very limited. Presently, PhilHealth does not cover T&CM services.

There is no T&CM educational institution in the country; T&CM practitioners usually get their training abroad, e.g. acupuncturists get training in China.

Accrediting and regulating T&CM practitioners has been the mandate of the Philippine Institute of Traditional and Alternative Health Care (PITAHC). The Institute seeks to build the knowledge base and ensure the quality of products, practices and practitioners. Guided by World Health Assembly resolution WHA67.18 in 2014 on Traditional Medicine, the Institute is tasked with developing national policies to integrate T&CM into the health-care delivery system.

In 2016, a total of 88 T&CM practitioners were certified, including 76 acupuncturists, five naturopaths, three chiropractors and four

homoeopaths/homoeotoxicologists. T&CM practitioners have organized annual national conventions to update each other on research, educational and advocacy initiatives (Department of Health Regulation News, 2016).

5.23 Health services for specific populations

Indigenous populations that live in remote, underserved areas rely on the general public health services for their health care. Moreover, the DOH has a Medicines Access Program for Indigenous Peoples with hypertension and diabetes.

Senior citizens who are 60 years and older are legally entitled to PhilHealth benefits and 20% discount on health-related goods and services.

For persons with disabilities, the DOH recently released guidelines for the implementation of at least 20% discount and exemption of VAT on all medical and health-related purchases.

Commercial sex workers undergo regular check-ups in social hygiene clinics managed by city health offices to diagnose the presence of sexually transmitted infections.

6 Principal health reforms

Chapter summary

The chapter is divided into four sections. The first section presents an overview of past reforms and highlights the chronological development of policies in the past 20 years. It continues the narrative from the first edition of the *Philippines health system review* to link the past reform efforts to the most recent ones. The second section analyses the government's health reform policy, called *Kalusugan Pangkalahatan* or KP (meaning UHC), between 2010 and 2016. The analysis focuses on health service delivery and the health financing system. Health-related legislations and relevant administrative policies issued within this period are likewise examined in terms of their coherence with KP. The third section identifies the challenges to implementing KP. Finally, the fourth section describes the direction of health reform from 2016 onwards and other future developments.

The Government took the health-care reforms to a whole new level under the Aquino Administration (2010–2016). Building on past efforts at health reform and fuelled by the challenges of the new administration, the DOH embarked on pursuing UHC by laying out three key reform strategies: universal and sustainable PhilHealth membership, upgrading and modernizing government health facilities through the HFEP and fortifying efforts to achieve the MDG targets. Dubbed KP, implementation of the Aquino Health Agenda for Universal Health Care became a presidential priority. This health reform was aided by the Sin Tax Law and the Reproductive Health (RH) Law in 2012, and amendment of the National Health Insurance Law in 2013.

These reforms resulted in a population coverage of 84%; 4920 local health facilities were upgraded and constructed, and about 4000 additional local government health facilities were started. These capital investments were complemented by deploying 23 800 health professionals and mobilizing 51 594 community health teams. Moreover, national government hospitals were upgraded, and critical equipment and health commodities were distributed to LGUs. Preliminary assessment of these investments

showed increased health service coverage, including facility-based deliveries, and utilization of outpatient and inpatient care. However, these gains were not obtained early enough to contribute to attaining several MDG targets by 2015.

Despite improvements in the health system, much remains to be done to achieve the goals of UHC. These include strengthening the governance and accountability of key actors – the DOH, PhilHealth, LGUs, health-care providers, both government and private; pragmatic assessment of the unmet health-care needs of the population and persistent inequities; rationalizing capital investments consistent with reconfiguration of the service delivery system; systematic tracking of the health system's progress using a combination of data collection mechanisms; fostering partnerships with the private sector and other government institutions; aligning the health professional education system with international standards; and developing the capacity for and managing the risks that future developments could create in the health sector.

The real test of the Philippines' commitment towards the SDGs is in its implementation and monitoring of its policies and programmes. The SDGs allow the natural progression of KP to the Philippine Health Agenda, which incorporates strategies between the health and non-health sectors.

6.1 Overview of past reforms

Between 1979 and 2009, the Philippines pursued health-care reforms to address poor access, and inequities and inefficiencies in the health system by transforming the way health services were delivered, regulated and financed (Romualdez et al., 2011). The adoption of the primary health care (PHC) approach in 1979 was reinforced by the passage of the Local Government Code of 1991. While the health services were brought closer to the people and communities, the transfer of responsibility for delivering primary health services, particularly to the mayors of cities and municipalities, resulted in fragmentation (World Bank, 2011b). Decentralization of health services was one of the most radical in the developing world, with all DOH facilities at the local level, including 490 of 534 public hospitals and 12 580 RHUs, city health centres and BHSs transferred to LGUs (Perez JIA, 1995). About 75% of the DOH's field staff (45 945) were devolved to the barangay, municipal, city and provincial levels (Brillantes ABJ, 1998), effectively removing the public health services and hospital operations from the central financial or managerial

control of the DOH. The Health Sector Reform Agenda (1999–2004) tried to address this fragmentation by strengthening the service delivery system through self-governing ILHZs. These ILHZs were supported by investments in physical and management infrastructure at all levels of the health-care delivery system and provided technical guidance by the DOH from both the Central and regional levels.

Regulatory reforms also aimed at ensuring the availability of affordable and quality medicines, health technology and medical devices at all levels of care. Four key regulatory policies were enacted within this 30-year period. The *Philippine National Drug Formulary*, first published in 1987, provides the list of essential drugs that became the basis for public procurement of medicines. The Generics Act of 1988 promotes and requires the use of generic terminology in the importation, manufacturing, distribution, marketing, prescribing and dispensing of drugs. The Cheaper Medicines Act of 2005 allows the government to adopt appropriate measures to ensure access to affordable quality medicines, including parallel drug importation, price controls and generic substitution at the point of sale. Finally, reform on a key regulatory body was enacted through the Food and Drug Administration Act of 2009 to strengthen the administrative and technical capacity of the FDA in regulating the establishments and products under its jurisdiction; ensuring the monitoring and regulatory coverage of the FDA; and providing coherence in the regulatory system of the FDA.

Major reforms in health financing started with the establishment of the Philippine Medicare Care Commission in 1969 to manage the Medicare Program by directly paying the accredited providers or by reimbursing patients for actual expenses incurred. However, more than half of the population had no coverage, especially the poor, self-employed and informal sector workers (Solon O et al., 1995). This triggered the passage of the NHIA to establish the NHIP and to place the entire population in a single pool where resources and risks would be shared and cross-subsidization maximized. The Health Sector Reform Agenda and FOURmula One for Health (Department of Health, 2005a) further elucidated strategies to increase PhilHealth coverage (Table 6.1).

Table 6.1 Major health reforms in the Philippines, 1995–2016

Year	Reform	Brief description
1995	Republic Act No. 7875 National Health Insurance Act	<ul style="list-style-type: none"> Seeks to provide all Filipinos with the mechanism to gain financial access to health services, giving priority to those who cannot afford such services.
1999	Health Sector Reform Agenda	<ul style="list-style-type: none"> Aims to improve the way health care is delivered, regulated and financed through systemic reforms in public health, the hospital system, local health, health regulation and health financing.
2005	FOURmula One (F1) for Health	<ul style="list-style-type: none"> Implements the reform strategies in service delivery, health regulation, health financing and governance as a single package that is supported by effective management infrastructure and financing arrangements, with particular focus on critical health interventions.
2008	Republic Act No. 9502 Universally Accessible Cheaper and Quality Medicines Act	<ul style="list-style-type: none"> Allows the government to adopt appropriate measures to promote and ensure access to affordable quality drugs and medicines for all.
2010	Expanded Senior Citizen's Act of 2010 [Republic Act No. 9994]	<ul style="list-style-type: none"> Grants additional benefits and privileges to senior citizens, including 20% discount and exemption from the value-added tax (VAT) on the purchase of the following: <ol style="list-style-type: none"> medicines, pneumococcal vaccines and other essential medical supplies, accessories and equipment; professional fees of attending physicians in private clinics and hospitals and of caregiver recommended by private hospital; on medical and dental services, diagnostic and laboratory fees in all private hospitals, medical facilities, outpatient clinics, and home health-care services;
		<ul style="list-style-type: none"> Free medical and dental services, diagnostic and laboratory fees in all private outsourced, medical facilities, outpatient clinics, and home health care services;
		<ul style="list-style-type: none"> Administrative Order No. 2010-0032 provides the guidelines and mechanisms to implement the provisions of Republic Act No. 9994.
2010	Health Financing Strategy 2010–2020	<ul style="list-style-type: none"> Supports the overall sector goals of improving financial protection, achieving efficiency gains and ensuring access to quality care through five pillars: creating more fiscal space for health (pillar 1), sustaining membership in PhilHealth-pooling (pillar 2), who pays for what (pillar 3), provider payments (pillar 4), and fiscal autonomy of health facilities (pillar 5).

Table 6.1 Major health reforms in the Philippines, 1995–2016 (contd)

Year	Reform	Brief description
2010	Aquino Health Agenda for Universal Health Care [Administrative Order No. 2010-0036]	<ul style="list-style-type: none"> Seeks to improve, streamline, and scale up the reform strategies laid out in the Health Sector Reform Agenda (1999) and the FOURmula One for Health to address inequities in health outcomes by ensuring that all Filipinos, especially those belonging to the lowest two income quintiles, have equitable access to quality health care. Specifically, this policy reform aims to (i) strengthen the National Health Insurance Program (NHIP) as the prime mover in improving financial risk protection; (ii) generate resources to modernize and sustain public health facilities; and (iii) improve the provision of public health services to achieve the Millennium Development Goals (MDGs). More popularly known as <i>Kalusugan Pangkalahatan</i>
2011	Mandatory Infants and Children's Health Immunization Act of 2011 [Republic Act No. 10152]	<ul style="list-style-type: none"> Declares that the government shall take a proactive role in the preventive health care of infants and children, particularly in providing the mandatory basic immunization for all infants and children for the following vaccine-preventable diseases: (i) tuberculosis; (ii) diphtheria, tetanus and pertussis; (iii) poliomyelitis; (iv) measles; (v) mumps; (vi) german measles; (vii) hepatitis-B; (viii) <i>H. influenzae</i> type B (HiB). All infants shall be given the birth dose of the hepatitis-B vaccine within 24 hours of birth. These mandatory basic immunizations shall be given free at any government hospital or health centre to infants and children up to five (5) years of age.
2012	Sin Tax Reform Act of 2012 [Republic Act No. 10351]	<ul style="list-style-type: none"> Aims to (i) raise revenues for health and (ii) discourage the consumption of the tobacco products and alcoholic beverages by imposing higher excise taxes on "sin" products.
2012	Responsible Parenthood and Reproductive Health Act [Republic Act No. 10354]	<ul style="list-style-type: none"> Guarantees universal and free access to nearly all modern contraceptives for all Filipinos, including impoverished communities, at government health centres. The law mandates reproductive health education in government schools and recognizes a woman's right to post-abortion care as part of the right to reproductive health care. Reinforced by Executive Order No. 12 2017, Attaining and Sustaining Zero Unmet Need for Modern Family Planning through the Strict Implementation of the Responsible Parenthood and Reproductive Health Act, Providing Funds Therefore and for Other Purposes.
2013	The National Health Insurance Act of 2013 [Republic Act No. 7875 as Amended by Republic Act No. 9241 and Republic Act No. 10606]	<ul style="list-style-type: none"> Salient amendments include: (i) provision of full National Government subsidy to enrol poor families identified by the DSWD's National Household Targeting System – Poverty Reduction (NHTS-PR) and coverage for pregnant women; (ii) simplified membership requirements; (iii) simplified availment rules and increased financial protection for the poor through no-balance billing; (iv) streamlined accreditation process, and (v) better administration of the National Health Insurance Program.

Table 6.1 Major health reforms in the Philippines, 1995–2016 (contd)

Year	Reform	Brief description
2014	Republic Act No. 7432, as Amended by Republic Act No. 9994 and Republic Act No. 10645 Act Providing for The Mandatory PhilHealth Coverage for All Senior Citizens	<ul style="list-style-type: none"> Provides for mandatory coverage of all senior citizens by the National Health Insurance Program of PhilHealth. The funds needed to ensure PhilHealth coverage shall be sourced from the proceeds of Republic Act No. 10351, also known as Sin Tax Reform Act of 2012.
2016	The Philippine Health Agenda [Administrative Order No. 2016-0038]	<ul style="list-style-type: none"> Building on previous reforms, the Philippine Health Agenda (PHA) aims to (i) ensure the best health outcomes for all, without any form of inequity; (ii) promote health and deliver health care through means that respect, value, and empower clients and patients as they interact with the health system; and (iii) protect all families especially the poor, marginalized, and vulnerable against the high costs of health care. The PHA guarantees that health services are (i) available for both the well and the sick at all life stages and responsive to the triple burden of disease; (ii) delivered by a functional network of health facilities; and (iii) financed predominantly by PhilHealth.

Source: Compiled by the authors

6.2 Analysis of recent major health reforms

The analysis of recent health reform strategies (2010–2016) focuses on three goals of KP or UHC and along three areas of reform: (i) service delivery, (ii) health financing and (iii) governance. Gaps between the intention of the policy and the implemented strategies are highlighted and barriers to implementation identified. Enabling health-related legislations and relevant administrative policies issued within this period are examined in terms of coherence with KP.

6.2.1 Health service delivery

Service delivery objectives under KP are two-pronged: (i) to improve the delivery of health services by modernizing government facilities through the HFEP, and (ii) to strengthen the mechanisms to ensure delivery of priority public health services to achieve MDG targets. Strategies for improving access to quality hospital and other health facilities include: (i) utilizing the HFEP to upgrade the capacity of public health facilities to adequately manage the most common causes of mortality and morbidity,

including trauma; (ii) establishing public–private partnerships (PPPs) to support the immediate repair, rehabilitation and construction of selected priority health facilities; (iii) establishing regional clustering and referral networks of health facilities to mitigate the impact of devolution that led to service fragmentation; (iv) ensuring access to quality medicines; and (v) deploying health professionals to augment the local health workforce.

Strategies to ensure the attainment of the MDG targets include: (i) deploying community health teams (CHTs) to assist families in navigating the health system; (ii) using the life-cycle approach for providing health care, including family planning, ANC, delivery in health facilities, essential newborn and postpartum care, and the *Garantisadong Pambata* package for children 0–14 years of age; (iii) aggressively promoting healthy lifestyles to reduce NCDs; and (iv) ensuring public health measures to prevent and control communicable diseases, tighten health surveillance, and prepare for emerging and re-emerging diseases.

The health system is generally unable to respond to the growing population as shown by the stagnant number of hospitals and RHUs (World Bank, 2011b). Government health facilities have deteriorated due to inadequate investments in upgrading their capacity and improving the quality of services. As of October 2010, 892 RHUs and 99 public hospitals did not qualify for PhilHealth accreditation (Department of Health, 2010b). Hospitals categorized as Level-1, which account for almost 56% of the total number of hospitals, have very limited service capacity, comparable only to infirmaries (Department of Health, 2009b). To address the low capital investment in health facilities, the DOH lobbied for creation of the HFEP in 2007 to revitalize PHC facilities and rationalize the various levels of hospitals to decongest end-referral hospitals.

Although the Philippines is one of the largest exporters of health personnel in the world, there are shortages of physicians and nurses in the country. In particular, LGUs have difficulty in attracting and retaining medical professionals to comply with the staffing required by the DOH licensing policy. This is often due to the low level of remuneration and widespread partial compliance with Magna Carta benefits²² (World Bank, 2011a).

22 Magna Carta benefits include the principle that everyone is subject to the law and guarantees the rights of individuals, the right to justice and the right to a fair trial.

Lack of availability of medicines remains one of the foremost reasons why patients self-medicate or utilize higher-priced private hospitals. Despite enactment of the Cheaper Medicines Act of 2005, extreme variations in procurement of medicines were reported both at DOH hospitals and at LGUs (Haasis MA et al., 2015; World Bank, 2011a). For instance, provinces and municipalities, on average, pay 3–4 times the international reference prices for generic drugs. Moreover, selection of medicines by LGU hospitals often shows signs of poor practice and instances of inappropriate influence by the pharmaceutical industry (World Bank, 2011a). The market share of generic medicines is increasing and generics prescribing is high in both public and private facilities (Pharmaceutical Healthcare Association of the Philippines, 2015; Wong JQ et al., 2013).

Challenges remain in the provision of priority public health programmes. TB case-finding and cure rates have improved, but the disease burden is still high; the prevalence of HIV/AIDS is increasing among at-risk groups; MMR remains high due to inadequate facilities for emergency obstetric care; high rates of immunization coverage are maintained but fall short of the target, and the integrity of the (national) cold chain requires evaluation; and family planning and reproductive health are de-prioritized by the National Government due to political pressures from pro-life advocates and the Catholic Church. The general perception that primary care facilities such as RHUs and health centres provide only preventive and not curative services drives patients' preference to seek care at hospitals (World Bank, 2011a).

Under KP, the DOH invested heavily in upgrading and modernizing government health facilities, including neglected local health facilities, through the HFEP that was started through the FOURmula One reform. In 2012, the HFEP budget of PHP 5.1 billion upgraded government hospitals to comply with the new licensing requirements of the DOH (Department of Health, 2012d), expanded the services of tertiary government hospitals as training and end-referral hospitals, and strengthened the comprehensive emergency obstetric and newborn care services (CEmONC) facilities. Preliminary assessment of HFEP implementation showed that hospitals and infirmaries built and equipped through the HFEP provided more services than non-HFEP-supported facilities. On average, HFEP facilities reported three times more deliveries, 2.3 times more outpatient consultations, and nearly twice (1.8 times) the number of inpatients than facilities not funded by the HFEP (Picazo OF, 2016). By end of 2016, 4920 local health facilities were upgraded and/or constructed (14% LGU hospitals, 48% RHU and city health centres, 38% BHSs), and around

4000 other local health facilities are in various stages of implementation (Department of Health, 2017b).

Aside from capital investments, the DOH also supported local health service delivery by deploying doctors, nurses, rural midwives, medical technologists and dentists. Public health associates were also assigned to RHUs and health centres to assist in management functions, including operational health planning, health research, disease surveillance, staff capacity-building and programme management. CHTs were mobilized to assist families with their health needs, provide them with the necessary health information and, if needed, assist them in seeking health care with appropriate health providers (Health Policy Development and Planning Bureau-DOH, 2016). By end of 2016, 503 doctors, 16 703 nurses, 4205 midwives, 441 medical technologists, 267 dentists and 1681 public health associates were deployed by the DOH (Department of Health, 2017b). Their services were complemented by 51 594 CHTs (Villaverde MC et al., 2016).

The Philippines was also progressing towards its MDG targets through better advocacy and reliable service delivery. The target of reducing iron deficiency anaemia among infants and pregnant women had been reached, but the percentage of low-birth-weight infants and underweight children under 5 years of age showed minimal or no improvement. While there is a lack of recent data on vitamin A deficiency among children under 5 years of age, participation in the *Garantisadong Pambata* vitamin A supplementation showed a slight declining trend from 84.5% in 2008 to 81.7% in 2013. In contrast, the impact of widespread implementation of Essential Intrapartum and Newborn Care (EINC) and Infant and Young Child Feeding (IYFC) can be gleaned from the increasing breastfeeding initiation rates, from 51.9% in 2011 to 77.1% in 2013 (Acuin C et al., 2015), and increasing exclusive breastfeeding rates, from 48.9% in 2011 to 52.3% in 2013 (Food and Nutrition Research Institute-DoST, 2015).

Significant progress has been made in reducing child mortality, but the target rates for perinatal, neonatal, infant and under-5 mortality are not likely to be met (Villaverde MC et al., 2016). Various sources reported variable levels of coverage of fully immunized children; from 62% (Philippine Statistics Authority and ICF International, 2014) to 68.4% (Food and Nutrition Research Institute-DoST, 2015) and 89% (Health Policy Development and Planning Bureau-DOH, 2016). The stagnant immunization coverage rate received three booster shots during this

reform period: the enactment of Republic Act No. 10152²³ mandating free provision of eight basic immunizations at government health facilities; the UHC High Impact Strategies, which identify active seeking of immunization defaulters as a key strategy; and injection of funds from Sin Taxes to provide three doses of pneumococcal conjugate vaccine, dengue vaccine, HPV vaccine, measles–rubella vaccine and tetanus–diphtheria vaccines to targeted children from 2015 to 2016 (Department of Health, 2016e).

Among the MDG targets, the reduction in maternal deaths is the most unlikely to be attained. However, improvement in health facilities through the HFEP, enactment of the Responsible Parenthood and Reproductive Health Law in 2012 and amendment of the PhilHealth Law in 2013, which provides automatic insurance coverage for all women about to give birth, contributed to improvements in maternal care and family planning indicators. Between 2008 and 2013, there was an upward trend in the number of antenatal visits to at least four (increased from 77.8% to 84.3%), skilled birth attendance (62.2% to 72.8%), facility-based deliveries (44.2% to 61.1%) and modern contraceptive use prevalence rates (33.9% to 37.6%) (National Statistics Office and ICF Macro, 2008; Philippine Statistics Authority and ICF International, 2014). Although still far from the zero target, the downward trend in the unmet need for family planning (22.3% to 17.5%) over the same period is expected to get stronger impetus with the implementation of Executive Order No. 12, which directs intensive community-based demand generation and referral services to cope with unmet family planning needs.

The attainment of MDG 6 targets is mixed. For HIV/AIDS, while the prevalence in the Philippines has been maintained at less than 1% of the total population, the goal of halting and reversing the spread of HIV/AIDS in the country by 2015 seemed implausible with the number of cases exponentially increasing from 1591 cases in 2010 to 9264 cases in 2016 (Department of Health, 2017b; Villaverde MC et al., 2016). In contrast, there has been a continuous and marked decline in the malaria burden in the country over the past decade. Not only were the targets for malaria morbidity and mortality rates achieved, 32 of the 53 (60%) malaria-endemic provinces were declared malaria-free in 2016. The Philippines continues to have a high burden of TB, but there has been a progressive decline in the TB prevalence rate, from 502 cases per 100 000 population

23 Also known as Mandatory Infants and Children's Health Immunization Act of 2011, which mandates basic immunization for eight vaccine-preventable diseases for all infants and children, to be provided free at government clinics and hospitals.

in 2010 to 417 cases per 100 000 population in 2014. Correspondingly, the mortality rate due to TB continued to decline, from 33 deaths per 100 000 population in 2010 to 10 per 100 000 in 2014 (Health Policy Development and Planning Bureau-DOH, 2016). But improvements in health service coverage or health status often conceal inequities across regions, between urban and rural areas, and along education and socioeconomic status (National Statistics Office and ICF Macro, 2008; Philippine Statistics Authority and ICF International, 2014). Exceptions are the EPI, vitamin A supplementation and prenatal care, where changes in coverage are not associated with poverty level (Acuin C et al., 2015).

6.2.2 Health financing

Universal and sustainable PhilHealth membership is the purview of the health financing reforms. These reforms are aimed at improving benefit delivery ratios²⁴ by (i) expanding the enrolment of the poor in the NHIP; (ii) promoting quality outpatient and inpatient services at accredited facilities through reformed capitation and no-balance billing arrangements for sponsored members, respectively; (iii) increasing the support value of SHI by upgrading information technology (IT) to facilitate faster claims; and (iv) using evidence to guide PhilHealth's benefit development processes for targeted services to a prioritized population.

Despite being the focus of health financing reforms since its creation in 1995, PhilHealth continued to be challenged by administrative loopholes that hampered the enforcement of mandatory health insurance coverage to all Filipinos. These barriers ranged from limited capacity of PhilHealth to inspect workplaces to ensure employers' compliance with the SHI programme; lack of institutional mechanisms to effectively and efficiently collect contributions from informal workers, self-employed individuals and OFWs; and politicized implementation of the Sponsored Program (Picazo OF, 2012a; World Bank, 2011a & 2011b).

Problems in health financing continue to plague the country, despite the health financing reform strategies implemented through the Health Sector Reform Agenda and FOURmula One. Chronic underinvestment in health continues as the country's total health spending remained at

24 A cumulative indicator that measures: (i) health insurance coverage, i.e. the number of people enrolled in the NHIP; (ii) the number of NHIP members using health services; (iii) the level of financial protection (support value) of NHIP benefits measured by the amount of claims paid through the NHIP, and the amount paid on an OOP basis by the patient.

3–4% of its GDP between 1995 and 2010 (refer to Chapter 3). Lack of opportunities to raise additional public resources for health and the low priority accorded to health in the past (World Bank, 2011b) limited the country's fiscal space. PhilHealth's shortcomings are complicated by government hospitals' failure to provide comprehensive services, forcing patients to buy medicines or have diagnostic tests done outside the hospitals (Manasan RG, 2011; Picazo OF, 2012a; World Bank, 2011a). These implementation challenges are linked to how past programme implementers' mindset viewed the NHIP, i.e. not as an SHI fund, but as a pension fund.

In October 2010, the DOH used KP as a platform for advocacy to forge multisectoral efforts to pursue universal PhilHealth membership. This policy was drum-rolled through a nationwide multidepartmental event called the National PhilHealth Registration Day led by President Aquino himself with key departmental heads. It enjoined LGUs to enrol the poor in their localities and facilitate enrolment of the informal sector in PhilHealth. Together with the DSWD's NHTS-PR, the mechanism for identifying the poorest families in the country led to the enrolment of 5.2 million poor families (Department of Health, 2013).

The implementation of PhilHealth's Sponsored Program has many problems, ranging from the process of identifying the poor, dependence of Sponsored Program membership on the term of the political official sponsoring the indigent, to the administrative cost of annual negotiation with and collection of premium counterparts from 1715 LGUs. From the LGU's perspective, limited interest in enrolling their poor constituents to PhilHealth is both political and economic. Local officials would much rather reserve discretionary funds to provide personalized, direct assistance to their poor constituents rather than allocate these to support the full coverage of indigents under a national programme (World Bank, 2011b). LGUs are also constrained financially when they allocate funds to enrol their constituents and, at the same time, have to finance their local health services (Chakraborty S, 2013).

PhilHealth has not flexed its purchasing muscles to improve the financial protection it accords its members and design benefit packages that are responsive to the health needs of Filipinos. PhilHealth does not negotiate more reasonable prices with providers based on patient volumes, and has no policy initiative to control hospital and physician fees and balance billing practices. PhilHealth continues to allow accredited providers to

charge balance bills; does not cover outpatient services that include consultations, diagnostics and outpatient medicines; and develops fragmented benefit packages.

Intractable OOP expenses continued to drive the catastrophic and impoverishing cost of care. Analysing OOP expenses using the Family Income and Expenditure Survey data from 2002 to 2012, Ulep and Dela Cruz (2013) observed that the proportion of households incurring catastrophic payments increased from 0.49% in 2000 to 1.50% in 2012 (Ulep VGT et al., 2013).

Recognizing the limitations of using a targeting system for enrolling all poor Filipinos in PhilHealth, the PhilHealth Board approved the enrolment of the poor at the point of care in DOH hospitals. This allows government hospitals to pay a one-year premium for an indigent patient upon admission, provided that such an indigent patient is not included in the NHTS list and the patient's economic status is assessed by the hospital's medical-social worker (Department of Health and PhilHealth, 2013; Philippine Health Insurance Corporation, 2013c). This is also supported by a special provision in the General Appropriations Act allowing DOH hospitals to use their income to pay the premium of poor patients identified at the point of care (Republic of the Philippines, 2015).

PhilHealth initially piloted the shift of provider payment from fee for service to case rates for 23 medical conditions and surgical procedures (Philippine Health Insurance Corporation, 2011). This circular also laid down the rules for no-balance billing for the Sponsored Program members admitted in government health facilities. For accredited health providers, case-rate payment would mean faster claims processing and payment for their services. After two years of implementation, the fee for service was phased out and case-rate payment was applied to all medical conditions and procedures paid by PhilHealth (Philippine Health Insurance Corporation, 2013a).

PhilHealth updated its predominantly inpatient benefits by amending the outpatient benefit package as PHC benefit (Philippine Health Insurance Corporation, 2012b). This benefit package promotes appropriate utilization of preventive and promotive personal care; gives incentives for health providers to promote healthy behaviour; supports the prevention and treatment of the most common diseases seen at the primary care level; and facilitates appropriate referral. Mindful that the main driver of OOP spending in health care is for outpatient medicines, PhilHealth

tested an outpatient medicines package for NCDs dispensed through accredited drug stores via an electronic prescription (Philippine Health Insurance Corporation, 2014a). The pilot benefit provides first-line medicines for selected high-burden NCDs, adopts the DOH guideline (Department of Health, 2011d) for managing these diseases, pays for the medicines at negotiated prices from an accredited pharmacy, and enforces the no-balance billing policy. This package was tested at a local health centre in partnership with an LGU and a generics pharmacy.

PhilHealth further recognized that there are medical conditions requiring prolonged hospitalization and extremely expensive therapies that deplete the patient's financial resources. Catastrophic benefit packages, called Z benefits, are developed for medical conditions requiring a high level of clinical expertise and costly management but result in good survival rates if treated early and appropriately (Philippine Health Insurance Corporation, 2012a). Z benefits are managed through cost-efficient quality interventions. Unlike other inpatient benefits, Z packages are contracted with tertiary hospitals that have demonstrated expertise in providing Z benefit packages (Philippine Health Insurance Corporation, 2015c).

Mindful that benefit delivery ratios would not improve with limited accredited facilities, PhilHealth took the streamlining policy even further (Department of Health, 2011b) between DOH licensing and PhilHealth accreditation by automatically accrediting DOH-licensed health facilities (Philippine Health Insurance Corporation, 2012c). This means that health facilities licensed by the DOH need only to comply with documentary requirements to become accredited with PhilHealth. This intention was also supported by a special provision in the General Appropriations Act of 2012, which provided that all government health facilities would be deemed automatically accredited by PhilHealth.

The devolution of health to LGUs not only fragmented service delivery and financing but also highlighted the lack of management capacity. The local health planning and budgeting process tends to be compliance-oriented rather than needs- and evidence-based (World Bank, 2011b). Loss of the district health system when district and provincial hospitals were devolved to the provincial government, and RHUs and health centres to municipalities and cities led to a breakdown in the referral system (Department of Health, 1999). Lack of interjurisdictional payment systems for referrals and frequent bypassing of primary care and district hospitals contributed to fragmented financing of care (World Bank, 2011a). The

DOH addressed these challenges in various ways: it incentivized LGUs to develop a provincewide investment plan for health by using it as the basis for DOH's financial health and in-kind support. LGUs are encouraged to form ILHZs. An LGU scorecard was developed and institutionalized to assess the overall outcome of implementing health reforms in the provincewide health system. The DOH funded the construction and rehabilitation of LGU-owned health facilities using HFEP funds. The national agency also deployed key health professionals to far-flung LGUs. More efforts also went into developing a health information system that would generate harmonized, quality, relevant and responsive data for better decision-making (Department of Health, 2012a).

Both the HSRA and FOURmula One laid out the objectives for health regulation: more effective regulation of private providers and health commodities, and harmonizing the licensing, accreditation and certification of facilities; issuing quality seals; and assuring the availability of low-priced quality essential medicines commonly used by the poor. But these regulatory strategies have shown patchy results. La Vincente and others (2013) reported that a sound plan and budgets are not the only considerations in influencing the delivery of local services. Local political considerations and issues related to devolution influence prioritization and adoption of the provincewide investment plan for health (Vincente SL et al., 2013). The World Bank (2011a) reported that LGU scorecards were weak and required an external verification process; some harmonization in DOH licensing and PhilHealth accreditation have been achieved but duplication of processes remains; licensing allows small facilities with inadequate capacity to be licensed as hospitals, and the pro-business thrust of reforms has not produced private and local investments in health. The report also noted that the availability of essential medicines in the public sector remains low and LGU procurement prices are still high.

Building on the gains of previous reforms, and referring to the Health Care Financing Strategy of the Philippines for financing strategies (Department of Health-Health Policy Development and Planning Bureau, 2010), the Aquino Health Agenda for Universal Health Care articulated the key reform policy under the Aquino administration. More popularly known as KP to engender support from all sectors of society, Administrative Order No. 2010-0036 laid out three key reform pillars: universal and sustainable PhilHealth membership, upgrading and modernizing of government health facilities, and enhancing efforts to achieve the MDG targets (Department of Health, 2010b). The NOH 2011-2016 (Department

of Health, 2012a) established the indicators and performance targets to measure the country's progress in achieving the KP goals.

Governance-related strategies were also identified: setting up fiscal autonomy and income-retention schemes for government health facilities; streamlining DOH licensing requirements and PhilHealth accreditation of hospitals and health facilities to promote access to care; and harnessing the strengths of interagency and intersectoral cooperation to achieve health system goals.

KP identified sound strategies to achieve UHC, particularly through its two pillars, i.e. expanding PhilHealth coverage, especially for the poor, and securing access to quality health services. Moreover, supportive governance strategies were identified to facilitate the implementation of these two pillars: streamlining regulatory requirements for health facilities; income retention for government health facilities; complementary deployment of critical health professionals; and ensuring regional clustering of facilities to re-establish the referral pathway. However, the sequence and logic of how strategies in the third pillar would lead to achieving the remaining MDG targets are not apparent. The NOH 2011–2016 complements the KP policy by providing KP targets and identifying public health programme targets that are not emphasized in KP.

6.2.3 Regulatory reforms and governance

The following section describes the implementation of the reform pillars and enactment of enabling laws and administrative policies that support KP. Chapter 7 provides the conclusive effects of reform strategies and other public health programmes.

Unlike previous health reforms in the Philippines, KP benefited from Presidential support, cooperation with other government agencies, close collaboration between the DOH and PhilHealth, and widespread cooperation from other stakeholders. President Benigno Aquino III made a firm commitment to support UHC through his social contract with the Filipino people (The President of the Philippines, 2011). His strong political allies in Congress helped to pass enabling legislations that he certified as urgent, particularly the Sin Tax Reform in 2012 and the Responsible Parenthood and Reproductive Health Act of 2013 (Fonbuena C, 2012b; Kaiser KA et al., 2016; Rappler, 2012).

The DOH collaborated with the DSWD to identify the poorest families to be provided PhilHealth coverage (Health Policy Development and Planning Bureau-DOH, 2016). The health agency also formed a coalition with the Office of the President, Department of Finance, civil society, medical professionals and international development partners to push for Sin Tax reform to promote health and raise revenues for KP (Chavez JJ et al., 2014; Kaiser KA et al., 2016). Implementation of the Sin Tax Law led to a huge increase in the DOH budget, from PHP 24.7 billion in 2010 to PHP 122.6 billion in 2016, with an additional PHP 43.8 billion for health insurance premium subsidies (Health Policy Development and Planning Bureau-DOH, 2016). The fiscal space for financial protection increased tenfold, from PHP 3.0 billion in 2011 to PHP 43.8 billion in 2016, for the coverage of poor families identified through the NHTS as well as senior citizens. The largest portion of the DOH budget was invested in government health facilities and other health programmes (Health Policy Development and Planning Bureau-DOH, 2016; Kaiser KA et al., 2016).

The dynamic leadership of the PhilHealth Board of Directors and highly motivated executive management of PhilHealth during this period ushered in the expansion of PhilHealth membership, transition of the payment mechanism from fee for service to all case rates, streamlining of DOH licensing and PhilHealth accreditation requirements, and development of new packages of benefits. Understanding the critical cooperation between the DOH and PhilHealth, the Office of the Chairman in PhilHealth was established in 2010. Streamlining the DOH licensing requirements (Department of Health, 2011b & 2012d) with the PhilHealth accreditation rules and procedures (Philippine Health Insurance Corporation, 2012a & 2012c) led to an increased number of accredited health facilities, particularly those providing primary care services such as primary care benefit, maternal care package, newborn care and TB-DOTS package. The automatic accreditation of licensed health facilities was reinforced by the implementing rules and regulations of the NHIA of 2013. Similarly, accreditation of health professionals was also simplified (Philippine Health Insurance Corporation, 2014b). The number of accredited health facilities increased from 89% in 2010 to 99% in 2016 (Villaverde MC et al., 2016).

KP also aimed to improve the governance and fiscal autonomy of DOH hospitals and enjoin income retention for LGU health facilities. While these models were discussed in various health forums (e.g. the 7th National Staff Meeting in 2013 showcased good practices in corporate

management of health facilities) and exemplary models of hospital governance were studied and documented (Picazo OF et al., 2015a), the DOH lobbied with Congress to legislate the corporatization²⁵ of 25 DOH hospitals. Even without a law that authorizes conversion of government hospitals into corporate entities, there are some enabling²⁶ policies that hospital directors can use to effectively govern their health facilities. For instance, as a special provision in the General Appropriations Act, DOH hospitals are allowed to retain 100% of their income since 2003. DOH hospitals are also enjoined to seek ISO certification, as mandated by Executive Order No. 605²⁷ s. 2007 to institutionalize the quality management system. In 2012, the DOH was the first government agency in the country certified to have a departmentwide ISO 9001: 2008 for implementing a quality management system. With 17 Central Office bureaus, centres and services, and two pilot regional offices in Metro Manila and CALABARZON, the DOH also had the distinction of being the biggest organization ever to be certified in the country (Department of Health, 2012b). By the end of 2016, 56 out of 70 (80%) DOH hospitals were ISO certified (Department of Health, 2017b).

The DOH is also building capacity to generate and use information effectively. It increased its funding for health research and formalized the health research system management (DOH Department Order No. 2012–0197), which led to more health system studies being undertaken along the strategic thrusts of KP. There is an even greater demand for reliable and efficient IT infrastructure. In response, the DOH and DOST updated the Philippine e-health Strategic Framework and Plan 2014–2020. This latest e-health Strategic Plan endeavours to improve the quality and safety of the health system by empowering Filipinos to better understand and manage their health records. It allows health-care providers access to a patient’s available information at the point of care, provides decision-

25 House Bill No. 6069 or An Act Creating National Government Hospital Corporations, authored by Bacolod City Representative Anthony Golez. Senate Bill No. 3130 or the National Government Hospital Corporate Restructuring Act, a counterpart measure of House Bill No. 6069, is authored by Senator Franklin Drilon.

26 These policies include the General Appropriations Act, various years beginning 2003; DOH AO No. 2006–0029. Guidelines for Rationalizing the Health Care Delivery System based on Health Needs; DOH AO No. 2006–0039. Amended Policies and Guidelines for the Institutionalization and Decentralization of the Department of Health Drug Consignment System; Republic Act No. 10606 Sections 44 and 45.

27 Executive Order No. 605 s. 2007 Institutionalizing the structure, mechanisms and standards to Implement the Government Quality Management Program, Amending for the purpose of Administrative Order No. 161, s. 2006

support tools and a knowledge-based information system for timely guidance, thereby reducing medical errors, improving treatment and monitoring of individual patients, and allowing efficient and effective disease surveillance (Department of Health-Department of Science and Technology, 2014).

The high cost of medicines not only discourages patients from utilizing appropriate care; it also drives patients to incur catastrophic payments (Bredenkamp C et al., 2015). It was also observed that extreme variability in drug procurement prices at the national and local levels was not associated with volume, brand or geographical location of the health facility. To ensure better value for money, the DOH started publishing the *Drug Price Reference Index* (Department of Health-Pharmaceutical Division, 2016). Now in its third edition, the DOH continues to promote the use of the *Drug Price Reference Index* among government institutions, including PhilHealth, to improve efficiency in the pricing and procurement of medicines in the public sector by establishing a transparent and publicly available reference price for affordable and quality medicines.

Mid-way into KP implementation, an external review panel organized by the DOH in October 2013 and February 2014 assessed the progress of the Philippines in health financing to achieve UHC. The review panel acknowledged the sound programmatic design of KP and the huge financial investments mobilized for its implementation between 2010 and 2014. But the experts also underscored the challenges that needed to be resolved urgently. First was the supply-side bottleneck, including PHC services, stagnant hospital beds, and non-availability of ancillary services for basic and advanced care. Second, the inadequate design of purchasing health services for the poor and lack of enforcement of the no-balance billing policy resulted in substantial OOP payments by the poor. Given these challenges, the review panel recommended the following actions in February 2014 (Tangcharoensathien V et al., 2014).

1. **Mobilize more fiscal and health insurance resources for health** based on public expenditure review and fiscal space forecasting of the continuing requirements for subsidizing the premiums of the poorest 40%, employ tougher premium collection strategies, exercise PhilHealth's authority to raise the contribution rate to 5%, and exert the corporation's quasi-judicial power to impose penalties on individuals, enterprises and corporations not compliant with mandatory PhilHealth membership.

2. **Increase allocative efficiency** by redirecting DOH and LGU resources towards preventive and promotive services, rationalize the administrative costs of PhilHealth and review the optimum level of reserve.
3. **PhilHealth to undertake strategic purchasing and reform the provider payment system** by moving as much supply-side financing of the DOH to PhilHealth, improving the rationality of benefit development starting with developing a primary care benefit package and rolling it to all Filipinos by 2015; undertaking appropriate full costing of services under case rate, and expanding no-balance billing to all members using both public and private providers.
4. **Improve management and governance of health facilities** by ensuring the functionality of RHUs and district hospitals; improving generation and fee retention of LGU hospitals, and strengthening the management and governance of local hospitals.
5. **Strengthen the supply side by rationalizing the HFEP** using the Service Availability and Readiness Assessment (SARA) tool to identify priority health needs of the district health services, mandating national health service for medical and allied health graduates, and recruiting rural or ethnic minority high school students for medical and nursing training for eventual home-town placement.
6. **Intensify the effectiveness of monitoring and evaluation (M&E)** by working with the Philippine Statistics Authority on longitudinal household and facility surveys, and strengthening routine administrative data so that they become the basis for planning and policy-making.
7. **Build capacity for evidence generation in health**, especially in HTA, and establish the National Health Financing and Systems Institute.

Heeding the advice of the expert panel, PhilHealth started reviewing the case rates for conditions related to orthopaedic cases. Pending the full costing of all medical and surgical conditions and PhilHealth's political will to negotiate for costly medicines and diagnostic procedures, the implementation of no-balance billing will fall short of its design to ensure financial risk protection. Moreover, PhilHealth developed a comprehensive primary care benefit package that covers preventive and promotive care, and includes management and treatment of the most common diseases seen at the primary care level, including some NCDs.

Called Tsekap²⁸ (Philippine Health Insurance Corporation, 2015b), the benefit package includes: (i) comprehensive health profiling (health check-up) upon enlistment with a primary care provider; (ii) general consultations; and (iii) diagnostic tests and medicines for common infectious and noncommunicable illnesses. Laboratory tests will be done only as deemed necessary by the primary care doctor. The package of services and medicines addresses the prevention and early treatment of health conditions that contribute to a substantial burden of disease in the country.

Beyond being a benefit package, Tsekap is a vehicle to transform the primary care delivery system in the country. First, Tsekap creates financial incentives to providers to do at least one comprehensive health check-up every year for every client registered in their facility. Second, the medicine benefit provides complete treatment, ensuring treatment compliance and promoting complete care of the patient. Pharmacies will be accredited for this benefit, removing the problem of drug stock-outs and preventing delayed or inadequate treatment. Fixed prices for each type of medicine are negotiated based on the *Drug Price Reference Index* developed and updated by the DOH, and the no-balance billing policy will be applied, thus preventing patients from incurring OOP health-care expenses and contributing to better financial protection. Third, accrediting private facilities to deliver the Tsekap package increases access points to this benefit package, thereby preventing long waiting times for patients. This is also in preparation for rolling out the benefit to other PhilHealth members. Finally, requiring an electronic information system at facility level that is linked to the PhilHealth Healthcare Provider Portal for accreditation of Tsekap ensures availability of regular and real-time information on timely payment, monitoring and clinical audits, thus promoting efficiency, transparency and quality of care.

Although the circular was published on 1 February 2015 and highlighted through the Nationwide Run as PhilHealth celebrated its twentieth anniversary, this benefit has not been implemented. The advisory suspending its implementation was published on 1 November 2015 (Philippine Health Insurance Corporation, 2015d). Instead, the DOH launched a programme in March 2016 with the same name, and

28 Tsekap stands for Tamang Serbisyo sa Kalusugan ng Pamilya, a more comprehensive primary care benefit developed by PhilHealth in 2014 (PhilHealth Circular No. 02 s. 2015 is a demand-side measure). The DOH adopted the same name to distribute a package of primary care instruments and selected NCD medicines to rural health units and barangay health stations as a supply-side measure.

distributed Tsekap packages to municipalities. Each package contains two non-contact thermometers, one stethoscope, one digital BP apparatus, one glucometer set (for measurement of blood sugar), one dressing set (for sterile wound care) and two nebulizers (for asthma relief). The Tsekap programme provides free check-ups and screening for the poor for early detection of lifestyle-related diseases such as heart disease, diabetes and cancers. For diagnosed patients, maintenance medications for diabetes and hypertension are available in health facilities to ensure compliance with medications and control of the disease. These packages are expected to facilitate the provision of basic health services for the poor through primary care facilities such as BHSs, RHUs and health centres (Department of Health, 2017b).

6.3 Challenges in implementation

The increased fiscal space for health in the past 5 years has not made any impact on financial risk protection. In 2014, despite increasing benefit payments, PhilHealth spent PHP 476 per capita, which represented 14% of total health spending. This amount should be much higher, given PhilHealth's report of providing coverage for 87% of all Filipinos (Herrin A et al., 2016). The OOP share of total health spending remains high, but the trend declined between 2011 and 2014, from 58.0% to 55.8% (refer to Chapter 3). High OOP spending is shown to be driven by the cost of medicines, with the share of medicines in total reported health spending higher among the poor (76%) compared to the rich (58%). Worse, the cost of medicines is also the main driver of catastrophic spending, especially among the poor (Bredenkamp C et al., 2015). Moreover, after 3 years of implementing the no-balance billing policy, only 51% of Sponsored Program members admitted in public hospitals enjoyed zero co-payment (Villaverde MC et al., 2016). The main reasons for spending during confinement include drugs and medicines, medical supplies and laboratory or diagnostic procedures done outside the hospitals (Diaz GSA, 2014). These problems can be addressed by improving the governance of government hospitals (Picazo OF, 2015) and implementing the PhilHealth Tsekap benefit (Bredenkamp C et al., 2015). The implementation of Tsekap, however, was deferred in late 2015 with no clear explanation (Philippine Health Insurance Corporation, 2015b) or any timeline for implementation.

The massive increases in the DOH budget led to increased scale and scope of programmes but the capacity of the DOH to effectively utilize its budget has become strained. Delays in bidding out and awarding of HFEP projects and inadequate numbers of technical officers at the

regional offices to monitor the progress in construction and upgrading of health facilities resulted in missed opportunities for providing more and better health services (Herrin A et al., 2016). According to Picazo, Pantig & Dela Cruz (2015), on average, it took 1 year to complete a birthing clinic, 1.8 years for an RHU, 3 years for an infirmary, 3.7 years for a primary hospital and 4 years for a secondary hospital (Picazo OF et al., 2015a). The protracted construction of these facilities was due to stakeholders' disagreements on the design of buildings, the multiple construction assignments of some contractors, poor coordination and maintenance of services during construction. As of 2015, the completion rate for HFEP investments was 64.9% for hospitals and infirmaries, and 75.9% for RHUs and city health centres (Picazo OF, 2016). Once the construction of facilities is completed, problems in operating them abound. The 2015 study by Picazo, Pantig & Dela Cruz reported that RHUs and health centres were partially or not at all functional because of problems in human resources (e.g. lack of doctors, lack of trained and accredited midwives), physical facilities (e.g. major construction defects, lack of electricity, poorly located, duplicative birthing centres) and equipment (e.g. defective or uninstalled autoclave, broken ambulance, improper maintenance of medical equipment during construction and undelivered equipment) (Picazo OF et al., 2015a). Hospitals and infirmaries were not functional because the project remained unfinished due to the inadequacy of HFEP funds, licensing problems that led to severe underutilization of hospital capacity and equipment, and undelivered key medical equipment.

In providing services to achieve the MDG targets, Acuin et al. (2015) reported that lack of trained staff, equipment and supplies diminished the contributions of the Integrated Management of Childhood Illnesses (IMCI) to reducing child deaths, and lack of urgent and directed action to reduce the prevalence of underweight and stunting among under-5 children hampered the achievement of MDG 4. The Reproductive Health Law's full potential to enable provision of services to the most vulnerable groups – teenagers and women with an unmet need for contraception, which put them at risk for abortions – has yet to be realized. Delayed implementation of the Reproductive Health Law brought about by continuing legal actions to block the delivery of RH services (Geronimo JY, 2015b; Soria F, 2016) and initially, lack of a budget to support its implementation (Geronimo JY, 2016) contributed to slow improvement in maternal health. Acuin and colleagues (2015) further pointed out that while targets for malaria and TB had been achieved, HIV/AIDS reached epidemic proportions. Despite enabling policies,

widespread multisectoral support and a multistakeholder implementing arrangement, programme implementation has not prevented transmission among most-at-risk populations, particularly men who have sex with men (MSM). The programme therefore needs to urgently and drastically refocus its strategies (Acuin C et al., 2015).

Despite the gains from KP implementation, several challenges remain to be addressed: strengthening the governance and accountability of key actors – the DOH, PhilHealth, LGUs, health-care providers of both the government and private sectors; pragmatic assessment of the unmet health-care needs of the population and persistent inequities; rationalizing capital investments consistent with reconfiguration of the service delivery system; systematic tracking of the health system's progress using a combination of data collection mechanisms; fostering partnerships with the private sector and other government institutions; and aligning the health professional education system with international standards (Health Policy Development and Planning Bureau-DOH, 2016; Picazo OF et al., 2015a; Tangcharoensathien V, 2016).

6.4 Future developments

The Philippines joined other UN Member States in unanimously adopting the 2030 Sustainable Development Agenda in a historic summit in September 2015. The Philippines expressed a strong commitment to implementing the SDGs, echoing the country's own priorities on migration, vulnerabilities, collective action for conservation and addressing inequality of opportunities. The last priority reflects the country's social development aspirations, particularly in achieving UHC and pursuing the MDG's unrealized targets in maternal and reproductive health. This new global commitment coincided with a new government, providing the country with the opportunity to align Agenda 2030 with the Philippine long-term vision, *AmBisyon Natin 2040*, and to incorporate this in the Philippine Development Plan 2017–2022.

However, the real test of commitment is in implementation and monitoring. With 17 goals, 169 targets and 230 indicators, the SDGs create an incredible demand on the Philippines to upgrade its administrative data systems, especially in civil registration, education, health and environment; to rationalize, harmonize and prioritize nationwide surveys; and to foster partnerships with data providers in the private sector in the context of Big Data (Perez JB, 2016). This also requires upgrading of the capacity to use the data to inform policy development, as well as programmes designed and evaluated such

that they uplift the lives of Filipinos (Manasan RG, 2016). The Philippine Statistics Authority has been mandated²⁹ to monitor implementation of the SDGs, to ensure timely and accurate generation of data from data source agencies, including LGUs, and to serve as an official repository for SDG implementation.

The inclusion of UHC in the SDGs allows the natural progression of KP to the Philippine Health Agenda. Building on the lessons learnt from past reforms, the Philippine Health Agenda aims (i) to ensure the best health outcomes for all, without any form of inequity; (ii) to promote health and deliver health care that respects, values and empowers clients and patients as they interact with the health system; and (iii) to protect all families, especially the poor, marginalized and vulnerable against the prohibitive costs of health care. To achieve these aspirations, the DOH guarantees that health services would be available for both the healthy and the sick, at all stages of life and addresses the triple burden of disease, delivered by functional networks of health facilities and financed predominantly by PhilHealth. The Philippine Health Agenda also incorporates strategies to enhance the resilience of health systems in mitigating the impact of climate change and disasters, and reinforcing drug rehabilitation services to complement the Government's war on drugs.

The DOH, however, needs to navigate the impending changes that will have a profound impact on the health sector. Considered by proponents as a better alternative than the current unitary government, federalism is anticipated to address the problems of poverty, inequality and instability, and to provide a system where national unity is maintained while protecting the diversity of Philippine society. While the potential benefits of a federal form of government include better efficiency, improving the welfare state and enhancing the accountability of local governments, it may also widen regional disparities if fiscal equalization is weak (Manasan RG, 2017). It is prudent to consider the risks³⁰ in the health sector, given the current inequities in access to health care, health services coverage and health status.

29 Enjoining government agencies to provide data support for the Sustainable Development Goals (Philippine Statistics Authority, 2016b).

30 Adopts the definition "any internal or external situation or event that has the potential to impact an agency, preventing the agency from successfully achieving its objectives, delivering its services, capitalizing on its opportunities or carrying out its projects or events" (International Development Advisory Services, 2014).

Similarly, it is also judicious to examine the opportunities and risks that the following changes may bring to the health and well-being of Filipinos: the implementation of regional commitments such as the ASEAN Mutual Recognition Agreements on Professional Services, especially in the context of ensuring availability and appropriate distribution of nurses, dentists and medical practitioners in the country (Mendoza DR et al., 2017); the impact of discontinuing the DSWD's conditional cash transfer programme on the health gains of its beneficiaries (World Bank, 2013); the effects of rapidly expanding the private sector with both domestic and international investments in access, availability, affordability and quality of care (World Bank, 2016; Oxford Business Group, 2017); the transformative provisions of the UHC bill; and the anticipated financial and health outcomes of enacting the Tax Reform for Acceleration and Inclusion bill with its provision for taxing sugar-sweetened beverages. Given the various types of risks that these changes may create, e.g. political, fiduciary, governance and management risks (International Development Advisory Services, 2014), and the complexity of governing the health sector, it is imperative that the DOH invests in building its own capacity in identifying and managing such risks.

7 Assessment of the health system

Chapter summary

The national objectives for health are well specified, although local-level expression of similar objectives is highly uneven due to devolved health financing and service delivery. While PhilHealth membership coverage has expanded, the benefit package remains slim and financial protection leaves much to be desired. Access remains highly inequitable due to the maldistribution of facilities, health staff and specialists. Deployment programmes are easing these problems somewhat, but they engender monitoring and sustainability problems. Patient satisfaction and user experience of health services are improving, except with the continued patient balance billing and outside-hospital purchases. The limited number of health facilities relative to the growing population, overprovision of physicians and underprovision of care, and poor physician adherence to clinical practice guidelines make the quality of care poorer than it otherwise could be. Governance reforms have visibly improved specific facilities and programmes, but inertia, lack of scale of the reforms, and uncertain and sometime weak local leadership beleaguer the rest of the health system, despite a dramatic increase in budgetary resources at the national level. Health outcomes are generally improving, but the stalled MMR and neonatal mortality rate (NMR) are worrisome, and the rate of improvement in outcomes is lower than in neighbouring countries. The system is generally transparent and accountable, but data-gathering and use – especially on hospital statistics – need to be intensified and modernized, and citizen participation in LGU decision-making has to be strengthened.

7.1 Stated objectives of the health system

7.1.1 *Formulation and implementation of health policies*

The NOH 2011–2016 (Villaverde MC et al., 2016) and the Health Care Financing Strategy 2010–2020 (Department of Health-Health Policy Development and Planning Bureau, 2010) state the goals, objectives and targets of the Philippine health sector over the medium term. Both

documents are being revised since President Rodrigo Roa Duterte took his oath in June 2016. The stated objectives of the health system under the past administration were to achieve UHC for all Filipinos; to protect Filipinos, especially the poor, against the catastrophic cost of ill-health; and to enhance the responsiveness of the health system and client satisfaction by improving the quality of health services. The Philippine Health Agenda under the Duterte administration continues these goals, but they have been restated as three guarantees of addressing the triple burden of disease, providing universal health insurance and implementing service delivery networks (Department of Health, 2017c).

In recent years, the Philippine Congress enacted six laws on health: two focusing on health financing (the Sin Tax Law of 2014 and the National Health Insurance Act of 2013) and four focusing on health and health service delivery (the Reproductive Health Law of 2012, the Graphic Warnings Act of 2014, the Immunization Law of 2011 and the Tuberculosis Law of 2016). Though these laws are implemented at various speeds and to various extents, the Sin Tax Law has already generated significant revenues, which are being used to subsidize the poorest 40% of the population to access health services and other priorities in the health sector. Amendments to the Health Insurance Act are being implemented by PhilHealth under the KP initiative to support effective implementation of UHC. After three decades of national wrangling, the Reproductive Health Law is seeing implementation, but it again faced a serious challenge as its major flank – the provision of contraceptive implants – has been challenged in the Supreme Court and a temporary restraining order issued. Nevertheless, the other provisions of the Reproductive Health Law are being pushed by advocates and programme managers.

7.1.2 *Intersectoral approaches to health*

As discussed in Section 2.6, the Government has institutionalized intersectoral approaches to health in its investment programming at the national and local levels, in having a unified targeting system to identify the poor, responding to disasters and epidemics, and formulating policies that require multisectoral actions, e.g. nutrition, service provision to Indigenous Peoples, school health and mitigating the adverse impacts of climate change on health. However, the manner in which multisectorality is practised leaves room for improvement. Participating agencies sometimes complain of too frequent meetings, indecision and

poor monitoring of who is to do what. Policy intentions have yet to be translated into reality to achieve the desired outcomes.

7.1.3 Conclusive evidence on the effects of reforms

Directly associating improvement in health status with a health policy or intervention is difficult because of the many factors needed to have good health. However, there are a few documented cases where a specific health intervention led to a specific improvement in health status. These include deworming, nutrition supplementation, smoking cessation, anaemia reduction, disease eradication programmes, and price and taxation policies on products hazardous to health such as tobacco, alcohol and sweetened beverages.

PhilHealth reforms have increased the utilization of health services. Kozhimannil et al. (2009) showed that PhilHealth membership increased the odds of receiving at least four prenatal visits during the first trimester of pregnancy. However, the study population comprised all Filipino mothers and it was less clear if there was a differential effect across mothers' socioeconomic groups. Huntington, Banzon & Recidoro (2012) also showed that maternal mortality decreased after the introduction of systemwide reform and increased PhilHealth coverage. However, the study was descriptive and the authors did not conduct statistical tests.

A new study showed that increased PhilHealth membership has increased utilization of maternal and child health services among the poor, but the increased utilization did not automatically link with improved health outcomes. Ulep VGT (2016) estimated the impact of PhilHealth membership on maternal and child health outcomes among poor Filipino women who became pregnant from 2010 to 2013. Using semi-parametric and non-parametric average treatment effects estimators, the study analysed the 2013 NDHS with four maternal and child health outcomes: recommended number of prenatal care visits, birth weight, facility-based delivery and postnatal care. The results of the study suggest that mothers enrolled in PhilHealth had a higher probability of completing the recommended number of prenatal visits and delivering in health facilities, but PhilHealth membership had no significant effect on birth weight (which is influenced by other independent factors such as maternal nutrition and poverty) and postnatal care. This result was consistent with many studies that showed insurance membership led to higher utilization of health services such as prenatal visits and facility-based delivery (Comfort AB et al., 2013).

The HFEP also increased the utilization of health services (see details of HFEP in the section on health facility planning in Chapter 2). Between 2010 and 2014, the Program funded a total of 1199 hospitals and infirmaries with an aggregate infrastructure funding of PHP 11.7 billion, and a total of 2968 RHUs, city health offices and birthing centres with an aggregate infrastructure funding of PHP 5.2 billion. Using a sample of 159 RHUs/city health offices and 107 hospitals/infirmaries in 26 provinces, Picazo et al. (2016) showed the following: for hospitals and infirmaries, the average outputs in three indicators of health services (birth deliveries per month, outpatient consultations per day and inpatients per day) were higher in facilities that received HFEP than those that did not (Table 7.1) (Picazo OF et al., 2016). For deliveries, hospitals with HFEP had an average of 98 deliveries, three times more than the 32 deliveries in hospitals without HFEP. For outpatient consultations, hospitals with HFEP had an average of 70 patients, or 2.3 times more than in those without HFEP, which had an average of 30 patients. For inpatients, HFEP-supported hospitals had an average of 47 inpatients per day, nearly double (1.8 times) the 26 average inpatients in those that did not receive HFEP.

Table 7.1 Comparison of the average volume of services in hospitals with and without HFEP, by type of service, 2006–2015

Items	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
No. of birth deliveries per month										
With Health Facilities Enhancement Program (HFEP) (n=77)	81	82	86	94	96	95	111	117	122	114
Without HFEP (n=6)	25	29	29	29	31	34	36	32	39	48
No. of outpatient consultations per day										
With HFEP (n=76)	65	64	68	72	73	72	73	73	73	71
Without HFEP (n=6)	28	29	28	26	28	29	31	32	37	49
No. of inpatients per day										
With HFEP (n=77)	37	38	40	45	49	50	52	56	57	57
Without HFEP (n=6)	17	17	28	28	31	28	27	28	26	14

Source: Picazo et al., 2016

Governance reforms have also improved the sustainability of hospitals and expanded their services. Picazo (2015) documented four cases of governance reforms in public hospitals in the Philippines, which led to better and more expanded services as well as more sustainable financing. All the reforms in the four case studies responded to the need for a stronger financial base to support and sustain better services. The

reforms were achieved primarily through the expansion of internally generated (non-budgetary) funds, initially through patient fees and increasingly through PhilHealth. Almost all the reforms that have succeeded are based on central PhilHealth financing, without which internal revenue generation (based on patient fees and other non-insurance sources) would have been grossly inadequate and inequitable (as the poor cannot afford to pay and consequently access health services). Table 7.2 summarizes the reforms and their results.

7.1.4 Reforms that have had mixed results

While there have been successful reforms, there have also been reforms that were less successful or had unintended negative consequences. The slow PhilHealth accreditation of TB-DOTS providers may have reduced the uptake of patients. PhilHealth approved TB-DOTS as a covered benefit in 2003, though this was previously covered by the government TB programme. However, out of a total of 5084 facilities providing TB-DOTS in the country, PhilHealth has accredited only 1455 facilities (29%). Out of the 2473 DOTS facilities being coordinated by the DOH's National Tuberculosis Program, PhilHealth has accredited only 59%. Finally, out of the 1634 LGUs in the Philippines, only 1135 (70%) have PhilHealth-accredited TB-DOTS providers. Thus, by any measure, the proportion of TB-DOTS accreditation by PhilHealth leaves much to be desired. Non-accreditation results in the facility's inability to receive reimbursements from PhilHealth, which deprives it of additional funds to defray the running costs of medicines, staff incentives and facility upkeep. According to providers, there is not much value added to PhilHealth accreditation; it is just simple paperwork. Because the DOH-National Tuberculosis Program licenses each and every TB-DOTS facility, the accreditation process is merely ceremonial, yet PhilHealth has found it difficult to do. Thus, it is recommended that PhilHealth do away with the accreditation as it is obviously an example of overregulation. PhilHealth should have recognized the DOH-National Tuberculosis Program license of all TB-DOTS facilities and immediately approved DOTS service reimbursement.

The Sentrong Sigla (Center of Vitality) certification of RHUs has been shown to be ineffective. In 1998, the DOH implemented the Sentrong Sigla QAP starting with PHC units (RHUs). The DOH certified those RHUs that complied with a list of quality standards and conferred on them the seal of quality. Three years after the quality assurance (QA) programme was

implemented, GTZ funded a study (Catacutan AR, 2005) to assess it in terms of preventive, curative and M&E service coverage by comparing a sample of 82 certified Sentrong Sigla RHUs (cases) with 88 non-certified ones (controls).

Paradoxically, findings showed that certified facilities had significantly less success in preventive and monitoring programmes than non-certified facilities, but were not significantly different in curative programmes. Neither type of facility reached the targets set for them under the NOH. After adjusting for clustering, certified facilities showed significantly lower service coverage compared with non-certified facilities. The study concluded that unlike previous studies, the present study showed that in general, the Sentrong Sigla QA programme had not improved the processes required to achieve better health outcomes.

Among the factors that contributed to the inconsistent results were the poor quality of data, the standards' focus on inputs rather than processes, structural constraints (perennial lack of drugs and staff), and the fact that certified facilities expended considerable effort on the certification process itself rather than on improving service coverage. In other words, "paperwork overwhelmed patient work".

7.2 Financial protection and equity in financing

7.2.1 Financial protection

Both the National Health Accounts and the FIES provide evidence of high OOP spending. At the national level, OOP spending as a proportion of THE has been above 50% since the 1990s; it increased from 51.9% in 2005 to 55.9% in 2013. This trend persists, despite consistent increase in population coverage by PhilHealth, while neighbouring countries have shown declining trends in OOP spending relative to THE. At the household level, FIES data show that OOP spending as a percentage of disposable income increased from 3.8% in 2000 to 6.3% in 2012 (Ulep VGT et al., 2013). Thus, OOP spending is crowding out other important household expenses. Longitudinal data show that the extent, distribution across wealth quintiles and structure of OOP spending has not improved as desired in nearly two decades, as discussed in Chapter 3.

Although the FIES data do not directly ask for household affordability of health care, they can be used to estimate poverty headcount before

and after OOP payment – the measurement of medical impoverishment. The analysis by Ulep VGT et al., 2013 shows that the prevalence of impoverished persons due to OOP spending has climbed steadily from 0.6% in 2000 to 1.0% in 2012. The 2012 proportion means that, given a Philippine population of around 100 million, 1 million nonpoor people were impoverished due to high OOP payments in health care.

High OOP spending occurs as a combined result of gaps in the breadth, scope and depth of coverage. (i) While PhilHealth claims near-universal population coverage of 92% (crude coverage), members' awareness of their entitlements, and their access and utilization of services is far lower. The 2013 DHS shows that only 62.8% self-reported that they were members of PhilHealth, far lower than the 92% population coverage rate claimed by PhilHealth. (ii) The scope of PhilHealth benefits is still narrow, with outpatient benefits still not a universal entitlement. At present, only Sponsored Program members are entitled to it, and only if they use RHUs/city health offices. The large number of unaccredited maternal care package providers and TB-DOTS providers, even though they have been licensed by the DOH, are the main barriers to improving TB coverage. (iii) The value of PhilHealth support has, for a long time, remained stagnant at around 33% of the value of claims, reaching 56% in 2015. This means that on average, only a little more than half of the hospitalization claim is reimbursed by PhilHealth. Balance billing continues among Sponsored Program non-members and those using private hospitals. Frequent stock-outs of drugs in government hospitals also make Sponsored Program members subject to de facto balance billing. (iv) Large over-the-counter household purchases of unnecessary medicines and nutraceuticals also contribute to high OOP spending.

Reforms to strengthen financial protection have been checkered; success has been sporadic. PhilHealth has been indecisive on the provision of a basic outpatient benefit package to all, arguing that it cannot afford to pay for these benefits. But it has not had the political will to argue for a higher premium rate, which would be necessary to widen the benefits and increase support value – and thereby reduce OOP spending. Because of its continuing limited role in overall health financing (SHI accounted for only 14% of THE in 2014), PhilHealth has not been able to evolve into a large, strategic purchaser of health services. Given the limited spending, though PhilHealth had introduced case-based payment, there is still a large proportion of non-case-based reimbursement. The lack of effective audits to ensure the transparency

of reimbursement by providers is one of the major causes of failure to achieve value for money.

7.2.2 Equity in financing

Because of the multiple flows of health financing in the Philippines, it is difficult to arrive at a single conclusion regarding whether such a financing system is equitable or not. In terms of individual financing flows, the following conclusions can be made. (i) Financing PhilHealth premiums is not as progressive (pro-poor) as it could be because of the premium ceiling of PHP 30 000 among contributing members. (ii) LGU financing tends to be regressive across the LGUs because of the way the internal revenue allotment was designed (richer LGUs have more internal revenue allotment appropriations) and the lack of a national equalization fund to correct inter-LGU inequities. (iii) DOH financing, which relies on corporate and personal income taxes, has historically been progressive, but due to caps in personal income tax, it may tend to be less progressive.

Does the health financing system result in a redistribution of resources from richer to poorer members of society? In PhilHealth, analysis of the benefits-to-premium ratios of different membership categories shows that the financing scheme does result in redistribution of resources from contributing members to poor and near-poor non-contributing members. For supply-side government health services, benefit-incidence analysis of public spending on health (Manasan RG et al., 2007) is summarized in Table 7.2. LGU spending on health is progressive, and spending on public health services are more progressive than hospital services. One explanation for this unsurprising result is the fact that LGU health facilities are closer to rural residents who are poorer than those utilizing National Government/DOH-funded retained hospitals located in Metro Manila and regional capitals. The functioning close-to-client services at PHC level is the major hub in translating KP policies into outcomes of more equitable access and financial risk protection. These results are in keeping with those of other countries' benefit-incidence analysis of their health sectors. The analysis is obviously dated and should be updated using the results of the 2013 DHS (Philippine Statistics Authority and ICF International, 2014).

Table 7.2 Progressiveness of National Government and LGU health spending, by type of health service, 2003

Type of health service	Health spending	
	National Government	LGU
Public health	Progressive, Suits index* = 0.1649	Progressive, Suits index = 0.1766 (more progressive than NG)
Hospital services	Regressive, Suits index = -0.0432	Progressive, Suits index = 0.0737
Overall	Regressive, Suits index = -0.0116	Progressive, Suits index = 0.1247

Note: *The Suits index measures tax progressiveness by comparing the area under the Lorenz curve to the area under a proportional line. It is positive when the tax is progressive tax, zero when it is proportional, and negative when it is regressive.

Source: Manasan RG et al., 2010

7.2.3 The impact of reforms on increasing financing equity

The Sin Tax and earlier fiscal reforms resulted in substantial budget increases of the DOH, but underspending has become a problem. In PhilHealth, the reforms to provide premium subsidies to the poor and near-poor have resulted in wider coverage and potential equity, to the point that the country is now approaching UHC in extent. However, utilization of health services has lagged behind, and the benefit package remains narrow due to inadequate coverage of primary care benefits, including chronic outpatient pharmacy benefits. Moreover, although the stated policy is no-balance billing, some providers continue to do balance billing, and inadequate supplies at public hospitals results in de facto balance billing for the patient, who must buy these missing supplies elsewhere. Finally, the value of the support remained stagnant at around a third of total hospitalization costs well until the early 2010s, although 2015 PhilHealth estimates show that it has reached 56% (Philippine Health Insurance Corporation, 2015a). Thus, risk protection by PhilHealth remains a promise.

7.3 User experience and equity of access to health care

7.3.1 Public satisfaction with the health system

Four studies assessing the Filipinos’ level of satisfaction with their health system have been undertaken since 2000, and these are summarized in Table 7.3.

Table 7.3 Summary of selected studies on Filipinos' level of satisfaction with their health system, 2000–2014

Year, study, funder	Sample	Coverage	Key findings
2001, Filipino Report Card on Pro-Poor Services, World Bank	1200 households nationwide; Social Weather Stations (SWS) survey done March–April 2000	Health and other government social services	Primary facilities are noted for their low quality.
2010, SWS Survey on Healthcare Services and Financing, funded by Philippine Healthcare Association of the Philippines	1200 households nationwide; SWS survey done January–February 2010	Health and funding for government health services	60% are satisfied and 30% are dissatisfied with government performance in providing health services.
2014, Citizens' Report Card on the Sponsored Program, Action for Center for Research and Communications, under Action for Economic Reforms Project, funded by USAID and R4D	527 households in 5 municipalities and 3 regions in Luzon	Sponsored Program membership and eligibility, access and utilization of services	68.4% were satisfied and 21.7% were dissatisfied with primary care benefit; 81.5% were satisfied and 18.5% were dissatisfied with inpatient benefit.
2013, Saint Louis University (SLU) Hospital (Banawol et al., 2014)	SLU Hospital	125 OPD patients	Level of satisfaction high (80–95%) for personnel, physical appearance, and lab/diagnostics but low (~65%) for medicine availability and hospital record retrieval.

The Filipino Report Card on Pro-Poor Services (World Bank, 2001) found that “primary facilities are noted for low quality, and are often bypassed. People’s satisfaction is lowest for frontline BHSs and RHUs where diagnosis is poor mainly because of unavailable or poorly maintained equipment, resulting in repeat visits. Medicines and supplies are inferior and rarely available. Staff members are often absent, especially in rural areas, and are perceived to lack medical and communication skills. Waiting time is long, schedules are very inconvenient, and facilities are rundown.”

The Survey on Healthcare Services and Financing (Social Weather Stations, 2010) found that 87% of adult Filipinos expect the government to provide health care. Some 60% of the respondents are satisfied while 30% are dissatisfied with the performance of the government in providing health services; 10% were undecided. Younger people were more satisfied

than older people (66% satisfaction among those aged 18–24 years versus 47% among those aged 65 years and above).

The Citizens' Report Card on the PhilHealth's Sponsored Program (2014) has a more restricted focus and scale than the two earlier studies. However, in general, there seems to have been an increase in people's satisfaction with government health services. The level of satisfaction in 2014 was 68.4% among PHC patients and 81.4% among inpatients, compared to an overall combined rate of 60% in 2010.

7.3.2 Efforts to ensure confidentiality of personal information

Concerted efforts have been made to ensure confidentiality in health care. Article 3, Section 3 of the Bill of Rights of the 1987 Constitution provides that "the privacy of communication and correspondence shall be inviolable except upon lawful order of the court, or when public safety or order requires it". Republic Act No. 10175 or the Cybercrime Prevention Act of 2012 also cites offenses against the confidentiality of computer data, including medical records (illegal access, interception and interference). Under Republic Act No. 10173 or the Data Privacy Act of 2012, Section 13 protects the privacy and confidentiality of personal information, including life and health data and medical treatment, while Section 20 requires institutions to implement reasonable and appropriate measures for the protection of personal information. The Philippine Medical Association's code of ethics states that "the physician should hold as sacred and highly confidential whatever may be discovered or learned pertinent to the patient even after death, except when required in the promotion of justice, safety, and public health."

Legal and administrative protection on the confidentiality of patients' information is adequate. Despite this, several versions of a more comprehensive Magna Carta of a patient's bill of rights and obligations have been pending in Congress since 2004 (Antonio CA et al., 2013). The latest version, authored by Senator Pia Cayetano, provides a more specific provision for the right to privacy and confidentiality: "The patient has the right to privacy and protection from unwarranted publicity. The right to privacy shall include the patient's right not to be subjected to exposure, private or public, either by photography, publications, videotaping, discussion, or by any other means that would otherwise tend to reveal his person and identity and the circumstances under which he has, he is, or he will be under medical or surgical care and treatment... All identifiable information about a patient's health status, medical

condition, diagnosis, prognosis and treatment, and all other information of a personal kind, must be kept confidential even after death.” The bill also lists specific exceptions.

7.3.3 *Patients’ involvement in their own treatment*

Filipinos’ involvement in their treatment must be made in the context of their cultural beliefs (especially religion), socioeconomic environment, level of education, and familial relations and dynamics. Unfortunately, while a plethora of literature exists on the behaviour of Filipino immigrants when they get sick, very little research on this topic has been done for those living in the Philippines.

Despite this shortcoming, it is well known that Filipinos show a high percentage of self-treatment; in a WHO household survey, over half of the medications taken during an acute illness were self-prescribed or prescribed by a non-health professional (Batangan DB et al., 2009). Because prescription drugs are easy to obtain over the counter, and because of the proliferation of substandard medicines, self-care can be dangerous.

Care-seeking behaviour among Filipinos is largely dictated by the ability to pay (household income) and, because of financial constraints especially among the poor, care-seeking is often delayed. Similarly, elective medical and surgical conditions are often not dealt with early enough because of cost considerations and lack of health insurance. Until the condition becomes serious, the patient may opt for self-care or take alternative remedies, including traditional healing. If the condition becomes serious enough to warrant hospitalization, admission would require family consensus, and a high-cost procedure would even involve the extended family, friends and neighbours because of the financial support needed. In the case of chronic conditions, the situation is even more complex. It has been estimated, for instance, that over 50% of people with diabetes are undiagnosed (Chan J et al., 2014). As for decisions regarding terminal care/end-of-life, the family is heavily involved, although with the movement towards palliative and hospice care beginning in the 1980s, doctors and nurses are increasingly being relied upon for opinion. In all of the above, religion plays a big role. About 80% of Filipinos is Catholic, with a strong pro-life attitude. Euthanasia is still illegal.

7.3.4 Impact of reforms to improve user experience

The Citizens Report Card on the Sponsored Program provides indications of the impact of reforms on improving user experience, especially among the poor (*n*=112 Sponsored Program-confined patients). Table 7.4 shows that there is much room for improvement in the Sponsored Program, especially in the area of balance billing where more than a third (37%) continued to pay a proportion of the bill, and 87% continued to buy part of their medicines outside the hospital. One in four Sponsored Program members also encountered difficulty in processing insurance (eligibility verification). While 71% of the patients reported seeing a PhilHealth personnel (most likely a PhilHealth CARES staff), only 60% of them explained the PhilHealth process. Thus, until the eligibility system for PhilHealth is fixed, and until balance billing among Sponsored Program members is truly eradicated, SHI reforms in the country will continue to sputter along, making members dissatisfied.

Table 7.4 Experiences of PhilHealth Sponsored Program members during hospital confinement, 2014

User experiences	Percentage
Patient given three meals a day	92.0
Patient had potable water from the hospital	71.7
Patient was in clean hospital room	90.1
Patient room was well ventilated	86.4
Patient shared room with others	55.0
Patient was asked to buy medicines/supplies	86.9
Patient paid something at billing station	63.3
PhilHealth personnel was present in the hospital	71.0
PhilHealth personnel explained the process	60.4
Patient encountered difficulty/problem with Sponsored Program insurance processing	25.4

Source: Action for Economic Reforms, 2014

The Philippine DHS includes travel time of patients to the nearest health facility. Travel time appears to have declined from 38.7 min in 2008 to 33.6 min in 2013. This is true across quintiles 1 to 4, but not for the richest quintile of the population, which may be due to worsening traffic in the metro areas during the period. Studies on the waiting time of patients to see a provider or obtain a service, however, are rare. A study at the Philippine General Hospital found that 82% of the patients waited for nearly 6 hours to get a bed (Pagkatipunan PMN, 2012).

7.3.5 Equity of access to health services

Access to health services has generally improved (higher proportion of households seeking care, shorter travel time to health facility), but inequity in access remains by geographical region, urban/rural residence, wealth quintile, gender and age. As an illustration of geographical inequity in access, in 2013, facility-based delivery was 61.1% nationwide, varying from 82.1% in NCR and 75.0% in CAR (the two best-performing regions) to 43.4% in Zamboanga Peninsula and 12.3% in ARMM (the two worst-performing regions). The gap between the best-performing and worst-performing regions appears to be widening, with NCR increasing its rate from 69.3% in 2008 to 82.1% in 2013 and ARMM witnessing a reduced rate from 14.7% in 2008 to 12.3% in 2013.

Inequity in access can also be seen in wealth quintiles and trends during 2008–2017, as shown in Table 7.5.

Table 7.5 Access to health services and commodities (selected indicators), by wealth quintiles, 2008–2017

Indicators	Year	Lowest Q1	Q2	Q3	Q4	Highest Q5	All
% of women (15–49 years old) currently using modern contraceptives	2008	26.0	35.7	36.6	38.5	33.1	34.0
	2013	33.0	40.3	41.4	39.1	34.0	37.6
	2017	43.8	46.2	41.1	36.9	33.4	40.4
% of pregnant women receiving antenatal care from skilled provider	2008	77.1	91.4	95.9	97.6	98.3	91.1
	2013	88.5	96.3	96.7	99.4	98.6	95.4
	2017	86.4	94.9	95.8	97.4	97.5	93.8
% of pregnant women receiving antenatal care from a doctor	2008	8.6	24.0	39.6	61.6	80.1	39.1
	2013	9.5	20.9	40.7	61.7	81.1	38.9
	2017*	-	-	-	-	-	-
% of mothers delivering at a health facility	2008	13.0	34.0	48.3	68.7	83.9	44.2
	2013	32.8	55.0	69.0	81.5	91.2	61.1
	2017	58.4	74.5	84.4	91.4	96.9	77.7

Table 7.5 Access to health services and commodities (selected indicators), by wealth quintiles, 2008–2017 (contd)

Indicators	Year	Lowest Q1	Q2	Q3	Q4	Highest Q5	All
% of mothers who had first postnatal check-up with a doctor, nurse or midwife	2008	23.6	52.7	69.2	80.2	89.9	59.9
	2013	49.8	75.7	85.5	93.4	96.9	77.2
	2017*	-	-	-	-	-	-
% of children (12–23 months) who received all vaccinations	2008	63.6	81.6	82.3	89.4	87.1	79.5
	2013	59.2	64.8	68.4	77.8	80.8	68.5
	2017	57.5	71.3	72.8	80.7	75.0	69.9

Note: *Disaggregated data not available

Sources: National Statistics Office and ICF Macro, 2008; Philippine Statistics Authority and ICF International, 2014 & 2018

7.3.6 Distribution of health facilities

In 2013, the number of hospitals per 1000 population was 1.33, with wide variation ranging from 2.50 in NCR to 0.43 in ARMM. Similarly, the percentage of hospitals with X-ray equipment varied from a high of 92% (of all public and private hospitals) in NCR to 43% in CARAGA, while the percentage of hospitals with ultrasound machines varied from 87% in NCR to 24% in CARAGA. In general, NCR as well as the neighbouring regions (Regions III and IVA) are the best endowed while ARMM and CARAGA in Mindanao are the least endowed. It is important to note, however, that there are also significant inequities within regions and across LGUs in those regions. In general, small island provinces and hinterland towns are less endowed compared to their counterparts in the plains, and in major trading areas and transport corridors.

7.3.7 Distribution of health workers

Health workers in general are poorly distributed across and within regions. In 2014, the number of doctors per 100 000 population was 36.94 nationwide but varied from 102.68 (NCR) to 2.15 (ARMM). The number of nurses per 100 000 population was 46.99 nationwide but (National Statistics Office and ICF Macro, 2008) varied from 98.15 (NCR) to 3.07 (ARMM).

Using the DOH National Database for Human Resources, it can be shown that Region IVB (Mimaropa), Region V (Bicol Region), Region VIII (Eastern

Visayas) and the Mindanao regions (especially ARMM) have the lowest population density of health workers (Table 7.6). Among provinces, the worst doctor-deprived provinces are Aurora (in Region III), Masbate (in Region V), Antique (in Region VI), Compostela Valley (in Region XI) and Saranggani (in Region XII). Analysis of the density of PHIC-accredited specialists (1 specialist per 100 000 PhilHealth members) also shows serious inequity in many specialties across regions. The most specialist-deprived regions appear to be ARMM, Region IVB, Region V and Region VIII.

Table 7.6 PHIC-accredited specialists per 100 000 population, 2014

Specialties	Density (per 100 000 population)	3 Highest-density regions	3 Lowest-density regions
General practitioner/family medicine	11	Region X (32.3), CAR (16.1), Region I (12.0), CARAGA (12.0)	Region IVB (6.0), Region V (6.2), (ARMM (2.9)
Obstetrics/gynaecology	1.2	Region X (5.3), NCR (4.0), Region IVA (1.7)	Region V (0.2), CARAGA (0.2), ARMM (0.1)
Paediatrics	1.3	Region X (4.4), NCR (3.1), Region IVA (1.8)	Region IVB (0.4), Region VIII (0.4), ARMM (0.1)
Medicine	5.9	Region X (18.8), NCR (9.7), Region III (9.1)	Region VIII (2.4), Region V (2.1), ARMM (1.1)
Surgery	0.9	Region X (4.3), NCR (2.6), Region XI (1.1)	Region V (0.2), Region VIII (0.2), ARMM (0.0)
Anaesthesia	0.5	Region X (1.9), NCR (1.7), Region VII (0.7)	Region IVB (0.2), Region VIII (0.2), Region V (0.1), ARMM (0.0)
Pathology/radiology	0.2	Region X (0.5), CAR (0.4), NCR (0.3)	Region IVB (0.1), Region VI (0.0), ARMM (0.0)

Source: Compiled by the authors from PhilHealth

7.3.8 Barriers to access among specific population groups

Indigenous Peoples, comprising 13% of the Philippine population, are among the most disadvantaged population and are especially vulnerable to inequities in access to health services (Epidemiology Bureau-DOH, 2013). Their geographical isolation (most of them live in remote mountain areas), physical segregation and social exclusion act as barriers to care-seeking. Lack of Indigenous Peoples-specific data also makes it difficult to plan for their needs. On 19 April 2013, the DOH, the National Center for Indigenous Peoples and Department of Interior and Local Government signed a joint memorandum circular to address the challenges to the delivery of basic health services for Indigenous Peoples.

Stigma remains a major barrier to care. A study on the health infrastructure in Manila shows that despite the existence of antidiscriminatory legislation, discrimination still occurred in practice (Ortega NL et al., 2007). The nine-country report on HIV stigma in the Asia-Pacific Region also notes that some people living with HIV avoided clinics and hospitals for fear of being discriminated against because of their HIV-positive status. In health-care settings, confidentiality, verbal insults and involuntary testing for HIV were cited as issues of concern (UNAIDS, 2011). In the study by Ortega et al. (2007), discrimination was attributed to an absence of written regulations in health facilities and inadequate training among health staff.

Self-stigmatization also occurs. For instance, multidrug-resistant TB (MDR-TB) patients are often lost to follow up due to self-stigmatization, whereby the patients themselves decide not to continue the therapy (Tupasi TE et al., 2016). The PhilHealth TB-DOTS benefit has recorded low utilization due, among others, to stigma: patients may be reluctant to disclose that they have TB to their employers, colleagues, relatives or friends, even though they could get treatment and social support if they did so.

7.3.9 Impact of reforms to increase equity of access

There has been a significant increase in treatment-seeking among Filipino households, based on DHS data in 2008 and 2013. In 2008, 7.9% of households sought care when ill; in 2013, this proportion had increased to 10.7%. There has also been increasing use of RHUs, city health units and BHSs, and declining use of private clinics. Households' use of RHUs, city health units and BHSs increased from 34.2% in 2008 to 49.0% in 2013, most likely as a result of the increased focus of PhilHealth on primary care (primary care benefit 1, maternity care benefit), PHC network expansion arising from the HFEP, and the various staff deployment programmes of the DOH and LGUs.

7.4 Health outcomes, health service outcomes and quality of care

7.4.1 Population health

Morbidity and mortality patterns. Morbidity and mortality indicators in the Philippines show a clear pattern of the ongoing health transition characterized by the double burden of disease, i.e. infectious and

communicable diseases coexisting with NCDs (see Chapter 1, Table 1.4). Several infectious diseases have also been eliminated or contained in certain provinces (e.g. malaria), although some have re-emerged (schistosomiasis, filariasis). Owing to poverty and geographical and social inequity, key indicators of maternal and childhood mortality have remained stagnant or have stalled. The MMR has not declined in 30 years. The trend in MMR is flat, and the Philippines did not meet its MDG target 5 on MMR. Infant death rates declined in the 1980s but have remained flat thereafter; neonatal death rates have also been flat (Ramos R, 2016).

Risk factors. According to the 2010 Global Burden of Disease (Institute for Health Metrics and Evaluation, 2010), “the three risk factors that account for the most disease burden in the Philippines are dietary risks, tobacco and smoking, and high blood pressure. The leading risk factors for children under 5 and adults aged 15–49 years were childhood underweight and dietary risks, respectively, in 2010.” The other risk factors, in declining level of importance, are: household air pollution, alcohol use, high fasting plasma glucose, high body mass index (obesity), physical inactivity, childhood underweight, occupational risks, iron deficiency, high total cholesterol, suboptimal breastfeeding, ambient particulate matter pollution and drug use.

Obesogenic environment. Obesogenic environment refers to an environment that promotes weight gain and one that is not conducive to weight loss. It includes the sociocultural rules that govern these environments, physical design (built environment), as well as the socioeconomic status of these environments. The prevalence of obesity and overweight in adults and diabetes mellitus has increased at an alarming rate (Table 7.7).

Table 7.7 Prevalence of obesity and diabetes in the Philippines, 1998–2013

Indicators	1998	2003	2008	2011	2013
Prevalence of obesity and overweight (%)					
Adult obesity (BMI ≥25)	3.3	4.3	6.3	-	-
Adult overweight (BMI ≥30)	20.2	24.0	26.6	28.4	31.1
Adult females with high waist circumference	10.7	17.0	19.0	19.9	23.1
Adult females with high waist-hip ratio	39.5	54.8	65.5	62.5	63.2
Prevalence of diabetes mellitus (%)					
Fasting blood sugar >125 mg/dL ^a	3.9	3.4	4.8	-	5.4
Diabetes mellitus based on history ^a	-	2.6	4.0	-	-
Fasting blood sugar, oral glucose tolerance test or history ^a	-	4.6	7.2	-	-

Note: BMI: body mass index

Sources: Food and Nutrition Research Institute-DoST, 2014; ^aJimeno C et al., 2015

Increasing socioeconomic status, urbanization and globalization of diets all contribute to the increasing prevalence of obesity. A longitudinal household study in metropolitan Cebu (Kelles A et al., 2009) shows that Cebuano offspring consume more of an obesogenic diet than their mothers, as influenced by the changing socioeconomic status and urbanization (Table 7.8). Analysing the same Cebu Longitudinal Health and Nutrition Survey, Adair and Popkin (2012) found that obesity could be due to an increasing shift away from home dietary intake, with the Cebu youth consuming nearly 40% of total calories from such foods. Snacking is also common, with approximately 86% of Cebu youth reporting it.

Table 7.8 Dietary calories from fat consumed by mothers and their offspring (%), 1994–2005

Subjects	1994	1998	2002	2005
Mothers	15.8	17.1	16.0	15.7
Female offspring	17.2	22.1	26.6	25.8
Male offspring	16.9	21.8	22.2	21.6

Source: Kelles A et al., 2009

In terms of physical aspects or design of the built environment, the lack of urban planning and poor enforcement of land-use policies have resulted in Philippine cities having fewer parks and open spaces for exercise as well as footpaths for safe walking and lanes for biking. Congested living

among low-income households means that they have limited opportunity for physical activities.

Natural or human-induced hazards. According to estimates of the country's burden of disease (Institute for Health Metrics and Evaluation, 2010), air pollution causes the loss of 10 million DALYs a year from COPD and asthma, and 13 million DALYs a year for asthma alone. Interpersonal violence results in the loss of 14 million DALYs a year. Road injury causes a loss of 2 million DALYs a year while falls cause a loss of 4 million DALYs.

7.4.2 Improvements in health attributable to the health system

Avoidable maternal mortality. Maternal mortality remains a serious problem due to the still-low rate of use of modern contraceptives, high and increasing rate of teenage pregnancy and inadequate family planning/RH services owing partly to the resistance of conservative elements of society. Up to two thirds of the maternal mortality and up to three fourths of the neonatal mortality are avoidable (Ramos R, 2016), so it is expected that with the recent approval of the Responsible Parenthood and Reproductive Health law, the major impediments to information, commodities and services will be removed, and they will be more readily available.

Full-scale implementation of maternal and neonatal mortality reduction programmes in Leyte Province, Eastern Visayas region, shows clearly how the deaths associated with delivery can be reduced (Table 7.9). Leyte is one of the poorest provinces, but its MMR and IMR after the combined support of the Japan International Cooperation Agency (JICA), United States Agency for International Development (USAID) and the government are now much better than the region as a whole and the national figure as well. While the national MMR is 162/100 000 live births and the regional (Eastern Visayas) MMR is 93/100 000 live births, the provincial MMR is a low 70/100 000 live births. Similarly, the provincial IMR is more than half lower than the national IMR. Much of the reduction in MMR has been due to the rapid increase in the percentage of facility-based deliveries and skilled birth attendance.

Table 7.9 Selected maternal and child health indicators in Leyte Province, 2009–2012

Indicators	2009	2010	2011	2012
MMR Leyte	39.6	74.5	67.0	70.4
MMR E. Visayas	84.3	91.6	79.0	93.0
MMR Philippines	162 in 2010s*			
IMR Leyte	7.6	6.0	7.4	6.2
IMR E. Visayas	9.0	7.8	9.4	7.0
IMR Philippines	23 in 2013			
FBD Leyte (%)	42.3	55.5	73.1	83.0
FBD E. Visayas (%)	54.6	50.3	57.6	66.3
FBD Philippines (%)	60 in 2013			
SBA Leyte (%)	79.5	81.5	84.0	85.0
SBA E. Visayas (%)	71.5	78.8	75.0	79.3
SBA Philippines (%)	72 in 2013			

Notes: FBD: facility-based delivery (percentage of all birth deliveries); SBA: skilled birth attendance (percentage of all births delivered); IMR: infant mortality rate (per 1000 live births); MMR: maternal mortality ratio (per 100 000 live births)

* These are DOH data. Other MMR estimates are 113 in 2013 (ADB) and 114 in 2015 (the Interagency Group on Maternal Mortality). The Millennium Development Goals for MMR is 52 per 100 000 live births by 2015, which the Philippines did not meet.

Source: Department of Health-JICA, 2013

Cancer survival rates. There has been improvement in the health status of cancer patients, which is attributable to the health system. The data are based on the cancer registry system in Metro Manila and Rizal Province. The Philippines is the lowest-performing among comparator countries with respect to the survival of patients with breast and cervical cancer, and the second lowest for colorectal cancer (Table 7.10). Incidence/mortality ratios reflect the number of new cancer cases over the number of new deaths; thus, the higher this number, the better the health system is in treating cancer and in averting cancer deaths. Tables 7.10 and 7.11 show that the Philippines is on a par with Malaysia, Thailand and Viet Nam in dealing with these three cancers.

Table 7.10 Five-year relative survival rate (%) for breast, cervical and colorectal cancer in selected countries (cancer diagnosed in the mid-1990s)

Countries	Breast cancer	Cervical cancer	Colorectal cancer
Republic of Korea	79	79	60
China	82	67	44
Turkey	77	63	52
Singapore	76	66	52
Thailand	63	61	35
India	52	46	28
Philippines	47	37	40

Source: Laudico AV et al., 2010

Table 7.11 Incidence/mortality ratios of breast, cervical, and colorectal cancers in selected countries, 2000s

Countries	Breast cancer	Cervical cancer	Colorectal cancer
Republic of Korea	07:01	04:01	03:01
Japan	05:01	04:01	03:01
US	05:01	03:01	03:01
EU	05:01	03:01	03:01
Israel	05:01	03:01	03:01
Singapore	04:01	02:01	03:01
China	04:01	02:01	02:01
Malaysia	03:01	03:01	02:01
Philippines	03:01	02:01	02:01
Thailand	03:01	02:01	02:01
Viet Nam	03:01	02:01	02:01

Source: Laudico AV et al., 2010

Amenable mortality. Mortality amenable to medical interventions refers to deaths from causes where death should not occur if people have access to timely and effective health care (Nolte E et al., 2008). Estimated in the context of Member countries of the Organization for Economic Co-operation and Development (OECD), amenable mortality includes about a dozen health conditions such as bacterial infections, treatable cancers, diabetes (death under 50 years), ischaemic heart disease (with 50% of patients deemed treatable), other treatable cardiovascular and cerebrovascular diseases, complications of common surgical procedures, intestinal infections, whooping cough, childhood diseases such as

measles and respiratory infections, and leukaemia (Nolte E et al., 2008). Unfortunately, no epidemiological study has been done in the Philippines on how many deaths from these conditions can be, or have been, averted with better health services to address them.

7.4.3 Health service outcomes and quality of care

Quality of preventive health: childhood immunization. The Philippines is way behind comparator Asian countries in percentage immunization rate for diphtheria–polio–tetanus third dose (DPT3), measles-containing vaccine (MCV) and hepatitis B (Table 7.12). Among the reasons for the relatively lower performance are the lack of aggressiveness among LGUs to pursue immunization, religious or cultural beliefs of some families against immunization, and lack of coordination between the public sector (source of vaccines) and private medical practitioners, where a significant number of mothers go to for well-baby check-ups.

Table 7.12 Immunization rates (%) for DPT3, MCV, and hepatitis B in selected Asian countries, 2012

Countries	DPT3	MCV	Hepatitis B
China	99	99	99
Thailand	99	98	98
Malaysia	99	95	98
Viet Nam	97	96	97
Asia	92	92	89
Philippines	86	85	70
Indonesia	64	80	64

Source: OECD/WHO, 2014

Quality of antenatal and maternal care. In a review of the state of maternal care in the Philippines, Ramos (2016) noted that at least one third of patients in RHUs experienced potentially harmful delivery practices, only 22% of district hospitals could perform a caesarean section, less than 70% could provide blood transfusions, and only a fourth of private lying-in clinics have drugs for eclampsia. Thus, although the number of birthing clinics has dramatically increased through the HFEP, the quality of maternal care still leaves much to be desired, as reflected by the stagnant MMR.

The quality of PHC also varies by the income level of the patient. Table 7.13 shows the percentage of women aged 15–49 years with a live birth in the preceding 5 years using MCH services by their household

wealth quintile. While the quality gap for basic care has narrowed, higher-level procedures (urinalysis, blood testing) still show large variance between the richest and the poorest groups of mothers.

Table 7.13 Quality of care indicators for maternal health services by wealth quintiles, 2013

Quality indicators	Poorest Q1	Q2	Q3	Q4	Richest Q5	All	Difference between Q5 and Q1
Took iron tablets or syrup (%)	85.1	92.5	93.9	96.2	96.6	92.1	7.0
Informed of signs of pregnancy complications (%)	74.0	79.5	80.9	82.5	87.1	80.3	6.3
Weight taken (%)	93.3	96.8	98.1	98.9	99.4	97.1	3.8
Height measured (%)	70.6	77.5	80.0	84.5	88.1	79.4	8.8
Blood pressure measured (%)	94.8	98.2	99.4	99.5	99.4	98.1	3.3
Urine sample taken (%)	36.9	57.1	72.6	80.0	89.5	65.1	28.2
Blood sample taken (%)	34.5	50.1	65.3	71.2	83.8	59.0	24.5
Took 2 or more tetanus toxoid injections (%)	44.2	53.5	58.9	58.1	56.1	53.6	9.4

Source: Philippine Statistics Authority, 2014

Quality of child health care. The quality of medical treatment of children in the Philippines was explored in a study involving 143 public and private doctors whose knowledge and practices were assessed using 160 clinical performance vignettes from November 2003 to December 2004 and September 2006 to June 2007 (James CD et al., 2011). The doctors were randomly selected and asked how they would treat a sick child (under 5 years) and given the vignettes. The analysts then disaggregated their responses into how much of an evidence-based essential treatment plan they completed and the number of non-essential treatments that the doctors gave. The results show that of the 160 cases, (i) doctors gave both insufficient and unnecessary treatment in 69% of the cases; (ii) in 118 of the cases (or 74%), doctors gave non-essential care mostly in the form of overuse of antibiotics (47%) and unnecessary hospitalization (34%); (iii) in only 8 cases (or 5%) did the doctors give full and sufficient treatment. The findings of the study are alarming, for either underprovision or overprovision of care, or both, can be dangerous and costly. The findings

also show the sizeable inefficiency and mediocre quality of child health services in both the government and private sectors.

Avoidable hospital admissions. The Philippines' hospital admission rate per 10 000 population is 538 (ranked #75), higher than China's 418 (#83) but lower than the Republic of Korea's 620 (#64), Malaysia's 717 (ranked #64) and Singapore's 1174 (ranked #39) (WHO, 2014). Given the high poverty rate as well as the geographical maldistribution of hospitals, it is not clear whether this rate of hospital admission is optimal. However, there are many instances of admissions that could and should have been averted.

For pneumonia, a study on community-acquired pneumonia in the University of Santo Tomas hospital involving a review of patients' medical charts showed that 22% of the admitted patients did not require hospitalization for pneumonia. Five (5%) were actually asymptomatic while 17 (22%) required hospitalization only due to comorbidities (Tan CC et al., 2006). This study reflects substantial clinically unjustified admission, and warrants effective clinical audits by PhilHealth and professional bodies.

The size and profiles of hospital admissions that should be dealt in ambulatory settings are discussed. For asthma, admission to a hospital during an asthma attack may indicate the first episode of the disease or a failure of preventive care for the disease or proper management of ambulatory care such as the correct use of an inhaler. According to the *Global Asthma Report* (Global Asthma Network, 2014), one out of 10 Filipinos (or a total of 10 million) suffers from asthma, but 98% lack proper ambulatory treatment. The problem is that sufferers mostly rely on family members, friends and the Internet for information rather than on a doctor. This results in poor asthma control, which in turn leads to a higher probability of emergency room visits or hospitalization, both of which are more costly than if the disease was properly managed in ambulatory care and the home setting.

For COPD, PhilHealth's Circular No. 007-2015 recognizes that "COPD exacerbations can often be prevented. Smoking cessation, influenza and pneumococcal vaccinations, knowledge of therapy including inhaler technique, and treatment of long-acting inhaled bronchodilators... are all interventions that reduce the number of exacerbations and hospitalization" (Philippine Health Insurance Corporation, 2015e). Yet, because these outpatient services are not covered by PhilHealth benefit

packages, there is no recourse but to hospitalize the COPD patient for reimbursement.

For diabetes, OECD considers four types of diabetes as potentially not requiring hospitalization, including uncontrolled diabetes, diabetes with short-term complications, diabetes with long-term complications and lower-extremity diabetes-related amputation. In 2013, the prevalence of diabetes among 20–79-year-old Filipinos was 6.0%, higher than Indonesia's 5.8% and Thailand's 5.7%, but lower than China's 9% and Malaysia's 10% (OECD/WHO, 2014). However, there are no data to distinguish the four types of diabetes as potentially not requiring hospitalization.

For heart disease, a meta-analysis of studies in low- and middle-income countries has shown that heart failure accounts for 2.2% of hospital admissions, with an average length of stay of 10 days (Callender T et al., 2014). The leading causes of admission in these countries are ischaemic heart disease and hypertension, which can be averted with better health promotion, preventive care and early diagnosis, and outpatient pharmacy benefit.

Quality of care for chronic conditions. With the rapid rise in the prevalence of NCDs, intermediate and chronic care linked with acute care will become even more important. Chronic care can be exemplified by the service in dialysis centres for patients with end-stage renal disease. Haemodialysis is reimbursed by PhilHealth and, as a result, dialysis centres have sprung all over the country, either as a unit of a hospital or as stand-alone clinics. However, a large proportion of patients present late for diagnosis and treatment, with advanced kidney failure and multiple complications. For some reason, PhilHealth decided to reimburse the expensive haemodialysis treatment rather than the more cost-effective peritoneal dialysis and, as a result, 86% of incident dialysis patients are started on haemodialysis while only 14% are treated with peritoneal dialysis (Cruz DN et al., 2011). The preservation of residual renal function appears to be the most important factor in selecting the modality of dialysis. In any case, one commentator has noted that “hemodialysis centers are in disarray in the Philippines. Therefore, an improvement of hemodialysis centers should be facilitated by adaptation of disease prevention programs with internationally accepted key performance and infection control indicators. There is an immediate need of reassessment of all hemodialysis centers” (Khan AA, 2014).

Quality of care for acute conditions. The quality of care for acute exacerbations of chronic conditions can be measured using in-hospital mortality rates (within 30 days of admission) following acute myocardial infarction (AMI), haemorrhagic stroke and ischaemic stroke. Stroke is the second leading cause of death in the Philippines. Its prevalence varies from 0.5% of the population reported in the 2005 PNA Study (Navarro JC et al., 2014), to 1.6% in the 2009 Currimao Study (Collantes E, 2009), to 1.9% in the 2005 National Nutrition Survey (The Stroke Society of the Philippines, 2010). Ischaemic stroke comprises 70% of the cases while haemorrhagic stroke comprises 30% (Navarro JC et al., 2014).

Table 7.14 shows the in-hospital case fatality rates within 30 days of admission for AMI in Western Pacific countries. The case fatality rate is a useful measure of the quality of acute care as it reflects the processes of care, such as effective medical interventions, including thrombolysis or treatment with aspirin when appropriate, and coordinated and timely transport of patients (OECD, 2012).

Table 7.14 In-hospital case fatality rates within 30 days after admission for acute myocardial infarction among countries of the Western Pacific Region, 2009

Country	Age-sex standardized mortality rate (%)	Crude mortality rate (%)
Australia	3.2	5.2
New Zealand	3.2	5.3
Republic of Korea	6.3	7.8
Philippines	n.a.	8.9
Singapore	8.2	9.3
Malaysia	n.a.	9.7
Japan	9.7	12.8

Note: n.a.: not available
Source: OECD, 2012

Among Western Pacific countries, the Philippines occupies a midway slot in the quality of care given to AMI patients.

The main quality problems in the management of stroke appear to be: (i) the low neurologist-to-patient ratio of 1 per 330 000 patients, with 67% of neurologists practising in urban centres; (ii) the largely private delivery of stroke services, with costs mainly funded OOP and beyond the reach of

poor households; and (iii) the difficulty of delivering adequate support to stroke patients in rural communities (Navarro JC et al., 2014).

To deal better with chronic and acute care patients, Khan (2014) suggested introducing “long-term acute care hospitals, which are facilities that specialize in the treatment of patients with serious medical conditions that require continuing care but no longer require intensive care or extensive diagnostic procedures”. These types of facilities are “often housed within the walls of an acute care hospital but function independently. They are able to provide more cost-effective care than if these same patients were kept in acute care facilities. The types of procedures typically seen in these facilities include prolonged ventilator use or weaning, ongoing dialysis for chronic renal failure, intensive respiratory care, multiple intravenous medications or transfusions, complex wound care or care for burns, etc.”

7.4.4 Quality of hospital care through accreditation

Accreditation is intended to improve and sustain the quality of care. Global literature suggests that the introduction of accreditation has had the beneficial effect of improving the quality of care (OECD/WHO, 2015). In 2001, PhilHealth developed the *Benchbook on quality assurance*, which introduced process- and outcome-focused standards of accreditation. The *Benchbook* focuses on the safety, effectiveness and appropriateness of health care, consumer participation, access to services and efficiency of service provision. Anecdotal evidence suggests that the improved quality of services in PhilHealth-accredited hospitals has been associated with the use of the *Benchbook*. As of 2010, there were 56 centres of excellence, 259 centres of quality and 1263 centres of safety among PhilHealth-accredited hospitals.

While the use of the *Benchbook* as an accreditation standard may have improved quality, it certainly also reduced the number of facilities that PhilHealth members can access, especially in the poorest regions where a limited number of facilities are accredited. A comparison of the DOH list of licensed government hospitals with the list of PHIC-accredited hospitals shows that only 68% of government hospitals were able to get PHIC accreditation (Table 7.15). Hospital directors usually cite the stringent (often perceived as “higher than necessary”) PhilHealth standards as a reason for their not being able to meet the requirements. In some instances, meeting the standards (e.g. for specialist staff requirements) was deemed too costly. Because of the low level of

accreditation (68%), around one out of three government hospitals remained outside the ambit of PhilHealth reimbursements in 2014. This is a serious problem that must be addressed as the country inches ever closer to achieving universal coverage in membership, for it means that a significant proportion of the population will continue to not have physical access to a government health facility. The challenge is the lack of effective mechanisms for quality improvement in these non-accredited hospitals.

Table 7.15 Government hospitals with PHIC accreditation, 2014

Level	DOH-licensed hospitals, 2013	PhilHealth-accredited hospitals, 2014	% of accredited government hospitals
Level 1	417	273	65
Level 2	73	46	63
Level 3	48	45	94
All	538	364	68

Source: Calculated by the authors from PhilHealth

The rates of PHIC hospital accreditation are particularly low in the poorer regions of the country. Overall, 75% of all public and private hospitals are accredited by PHIC. Among private hospitals, the rate is 79% while it is 68% for government hospitals. Table 7.16 shows the percentage of government and private facilities in regions where PhilHealth accreditation is lowest. These regions are also the poorest in the country, which means that the people in these poorest regions find it much harder to access quality care and be reimbursed by PhilHealth compared to those in richer regions.

Table 7.16 Percentage of hospitals with PHIC accreditation in regions with the lowest accreditation rates, 2013–2014

Regions	Government hospitals	Private hospitals	All hospitals
Region II (Cagayan Valley)	63	77	70
Region IVB (Mimaropa)	33	29	31
Region V (Bicol)	33	52	43
Region X (Northern Mindanao)	59	58	58
Region XI	40	47	46
CAR	32	59	40
ARMM	27	64	38

Source: Compiled by the authors

7.4.5 Appropriateness of care through the use of clinical practice guidelines

Clinical practice guidelines (CPGs, or clinical pathways) have been formulated for 87 disease conditions in the country. Ideally, CPGs should be formulated for all the major disease conditions, but these are available only for conditions that are reimbursable by PhilHealth or being provided in public health facilities. CPG formulation in the Philippines, as in other South-East Asian countries, has been slow because of “guideline development processes that are enormously time, skill, and resource intensive” (Turner TJ, 2009). In the Philippines, poor access to global evidence arises from a shortage of computers, slow Internet and lack of subscription to international journals, aside from the difficulty of achieving consensus among stakeholders.

Of the existing CPGs, little has been done to evaluate physicians’ adherence to them. A sample of studies (Table 7.17) shows generally poor adherence of Filipino surgeons to CPGs. Only 13% of the surgeons sampled for the study on antibiotic prophylaxis for elective surgeries conformed to all the parameters of their CPG (Nabor MIP et al., 2015). In a Philippines General Hospital study, only 46% of the surgeons had fair knowledge of the CPG on antimicrobial prophylaxis for elective surgery, and there were misconceptions regarding the definition of surgical prophylaxis, its use in the type of surgical procedure, the timing and repeated dosing (Mondala AT et al., 2002).

Table 7.17 Summary of selected studies on Filipino physicians' adherence to clinical practice guidelines, 2000–2015

Author (year)	Disease or aspect of care, study site	Method	Results
Nabor MIP et al. (2015)	Antibiotic prophylaxis for elective surgeries (surgical site infections), Philippines General Hospital (PGH)	Medical records based, cross-sectional study (n=244 cases)	Of the 244 cases, 44% conformed with the guidelines for type of antibiotic, 39% for dose, 100% for route, 45% for timing, 93% for redosing and 67% for duration. Only 13% conformed with all parameters of the clinical practice guideline (CPG).
Navarro-Locsin CG et al. (2015)	Allergic rhinitis, National Capital Region hospitals	Cross-sectional survey (n=100 specialists and 100 general practitioners [GPs])	Knowledge of acute rhinitis was adequate among 58% of specialists and 39% of GPs. Adherence to the CPG was 84% for specialists and 54% for GPs. Diagnostic tests were not routinely used.
Mendoza E et al. (2012)	Venous thromboembolism, University of Santo Tomas (UST) Hospital	Survey (n=58 internists)	72% aware of CPG to prevent venous thromboembolism; most deemed their knowledge moderate. But internists tended to overlook borderline cases with 2 or 3 risk factors.
Tan CC et al. (2006)	Community-acquired pneumonia, UST Hospital	Retrospective observational study (n=102 cases admitted in 2004)	Of the 102 cases, 5 were asymptomatic and diagnosed using chest X-ray alone and 17 did not need hospitalization. Of the remaining 80 cases, 50 had community-acquired pneumonia III and 12 were community-acquired pneumonia IV. Only 8 of these cases were appropriately admitted to the ICU. Microbiological studies were underutilized. Sputum and blood culture studies were performed in only 23 cases. Only 58% were given empirical antibiotic treatment. Overall assessment of conformity fell short of the CPG.
Sacdalán DL et al. (2003)	Acute uncomplicated cystitis, PGH	Prospective, blinded, randomized study (n=31 residents, 24 of whom completed the study)	Better compliance with CPG was observed as the study progressed, but residents had a tendency to deviate from it in giving advice regarding patient follow up.
Mondala AT et al. (2002)	Antimicrobial prophylaxis for elective surgery, PGH	2-stage study: (i) evaluation of physician's antibiotic use; (ii) questionnaire on physicians' knowledge, attitude and practices (KAP), PGH	Only 46% of surgeons had fair knowledge of the CPG, and there were misconceptions regarding the definition of surgical prophylaxis, its use in the type of surgical procedure, timing and administration of repeated doses.

Low adherence to CPGs was also observed among non-surgeons. Only 58% of the sampled allergy specialists and 39% of the sampled GPs had adequate knowledge of the CPG on acute rhinitis, and while 84% of the specialists adhered to the CPG, only 39% of the GPs did so (Navarro-Locsin CG et al., 2015). Physician conformity to the CPG on community-acquired pneumonia in a large urban tertiary hospital was very poor, and indeed 22% of the patients did not need to be hospitalized (Tan CC et al., 2006). For acute uncomplicated cystitis, a study involving residents showed increasing adherence to the relevant CPG for treatment but adherence appeared to decline during patients' follow-up visits (Sacdalan DL et al., 2003).

Why is adherence to CPGs among Filipino physicians so low? Physicians were concerned about the cookbook approach of the guidelines (rigidity), the poor presentation of the guidelines, lack of harmony between textbook and CPG content, inertia of previous or existing practice and simple lack of awareness of the existing guidelines. Awareness-raising and a strategy to intensify CPG implementation are needed to improve compliance.

A more serious criticism of CPGs, especially those that have not been "Filipinized", is their possible adverse impact on equity and disadvantaged communities. To address this, Dans et al. (2007) recommend looking at CPGs with an equity lens using five questions: (i) Do the public health recommendations in the guidelines address a priority problem for disadvantaged populations? (ii) Is there a reason to anticipate different effects of interventions in disadvantaged and privileged populations? (iii) Are the effects of the intervention valued differently by disadvantaged compared to privileged populations? (iv) Is specific attention given to minimizing barriers to implementation in disadvantaged populations? (v) Do plans for assessing the impact of recommendations include disadvantaged populations? (Dans A et al., 2007)

7.4.6 Patient safety

The DOH's National Policy on Patient Safety is contained in Administrative Order No. 2008-0023, which spells out the following key priority areas: proper patient identification, assurance of blood safety, safe clinical and surgical procedures, provision and maintenance of safe quality drugs and technologies, strengthening of infection control standards, maintenance of the environment of care standards, and energy and waste management (Office of the Secretary, 2008). A major problem in this area

is the difficulty of getting adequate and reliable data. Joson (2015) notes that all hospitals and medical centres somehow have a patient safety programme but that they vary considerably in their extent of development, with a few well-developed programmes but the majority underdeveloped. PhilHealth uses a three-tier hospital classification system that indicates an increasing level of sophistication as well as more stringent safety standards, i.e. centre of safety, centre of quality and centre of excellence.

Culture of patient safety. The culture of patient safety among health workers in the Philippines is just beginning to be studied. Using the Hospital Survey on Patient Safety Culture, a tool developed by the Agency for Healthcare Research and Quality of the USA, a group of researchers (Tan C et al., 2013) analysed the behaviour of nurses in three hospitals in Metro Manila and found that there was a more positive response of Filipino nurses regarding safety culture composites such as teamwork, organizational learning, feedback and communication about error, and patient handover and transition compared to benchmarks in the database of the Agency for Healthcare Research and Quality. Another study estimated the prevalence rate of patient safety practices of nurses in the Philippines (Borromeo RC et al., 2014) and found that there were significant differences in safety communication and prevention of infection when nurses were classified according to years of experience.

A third study (Guzman DE et al., 2012) looked at the culture of adverse event reporting among Filipino nurses. Using the Patient Safety Questionnaire of the Agency for Healthcare Research and Quality on a sample of 54 practising nurses, the study found that the majority (87%) had reported no more than two incidents over the past 12 months. Most respondents (53%) gave an “acceptable” grade while only 6% gave an “excellent” grade in reporting adverse events in their health unit. The focus group discussions of the study concluded that Filipino nurses use incident reporting to determine who is to blame for patient injuries and death, and that they more readily report errors with lesser or no liabilities. These findings reflect a culture that is reactive and punitive, which are also reported in the international literature on the subject. To ensure the provision of safe and quality care, this culture needs to shift to an honest, non-punitive and blame-free environment, and reorient towards risk management and prevention, and collaborative teamwork. This is a major challenge among nurses working in the Philippine health-care system.

Pharmacovigilance. Pharmacovigilance is the detection, evaluation, understanding and prevention of adverse drug reactions (ADR) or adverse events (AE). The major concerns in this area differ by social class of the patient. Among the poor, the key issues are the proliferation of fake drugs, many of which are bought cheaply from the streets. Problems with dose and duration of treatment also occur because the poor often have to buy medicines piecemeal and frequently interrupt the required daily regimen by 2–7 days or until money becomes available (Guzman DE et al., 2014). Abuse of antibiotics occurs if the patient hesitates to go to the doctor for a prescription (because it entails additional expense) and merely buys it off the shelf, which is easy to do. Even in RHUs and private health clinics, doctors tend to provide more drugs than needed, with as much as 47% of doctor–patient encounters resulting in unnecessary prescription of antibiotics (James CD et al., 2011).

Among the well-off, the key problems are polypharmacy (consumption of too many drugs), which is a major cause of drug-related morbidity, and high consumption of nutraceuticals, even with an explicit FDA warning of “no approved therapeutic claims”. ADRs often occur due to non-rational prescribing and overmedication.

Overprescribing is worsened by the adverse incentive structure of the pharmaceutical retail trade, a major flank of which consists of outlets owned by doctors or pharmacists working in the government health facilities right beside them (the so-called physician-linked pharmacies). One study (James CD et al., 2009) shows that, all things considered: (i) customers using a physician-linked pharmacy spent 49.3% more than those using other pharmacies; (ii) patients who used pharmacies located in the immediate vicinity of a town’s public hospital spent 63% more than those who used other pharmacies; and that (iii) customers using physician-linked pharmacies had 5.4 times greater odds of having a prescription from a public-sector hospital physician and spent 49% more than those using other pharmacies.

Pharmacovigilance in the use of modern drugs has been established using a number of communication and training packages with the intention of advocating safer medicines and rational drug use (Hartigan-Go, 2002). However, a key issue is the considerable use of traditional folk medicine, especially herbal medicine. According to Hartigan-Go (2002), there have been few ADR reports, perhaps in part because the AEs are unrecognized, or misconstrued as part of the healing action, and because

practitioners of these systems of medicine are unlikely to report them. Households using herbal medicines are usually the poor who are likely to believe in unscientific claims and are also not likely to report what they suffered.

Medication errors. A medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health-care professional, patient or consumer. Such events may be related to professional practice, health-care products, procedures and systems, including prescribing, order communication, product labelling, packaging and nomenclature; compounding; dispensing; distribution; administration; education; monitoring and use (United States Food and Drug Administration, n.d.). Among the key factors contributing to medication errors in the country are staff shortage and high workload, and lack of health-worker experience. The most common type of medication error in the Philippines, as in other South-East Asian countries, is wrong dosing, omission of a medicine and wrong timing (Valdez LP et al., 2013). Other factors include distraction of the nurse or doctor, incorrect interpretation of the prescription or medication chart, and lack of knowledge of the provider (Salmasi S et al., 2015).

Prescribing and dispensing errors often occur because of the unreadable handwriting of the doctor. A study done in public and private hospitals of Quezon City found that 28% of the sampled patients could not read their doctors' prescriptions well, which led to medical consequences such as improper dosage and even death (Arias JB, 2015). Poor handwriting appears to be constant across physicians' specializations. The study also found that pharmacists were more likely to be able to interpret doctors' handwriting than patients. The poor handwriting of doctors was commonly attributed to their being in a rush, when they were doing their rounds during peak hours or when they were tired. A key barrier to improvement in this area is the poor state of the medical information system.

Another common cause of medication error in the Philippines is the existence of look-alike, sound-alike medication names. Examples cited by the Philippine College of Physicians are Mesulid versus Mellaril; Ceporex versus Leponex; thiamine versus Thorazine; Terbulin versus Theo-Dur; and EMB versus EMBR. Unclear expiry dates of drugs as well as the

mislabelling of IV fluids have also been reported (Philippine College of Physicians, 2016).

Hand hygiene. Hand hygiene prevents health-care-associated infections, thus reducing mortality, costs and emergence of MDR organisms. However, a study (Gaboy AFA, 2013) conducted at the medicine wards and intensive care units (ICUs) of the Philippines General Hospital among doctors, nurses and students showed that compliance with hand hygiene was extremely low at 10.6%, despite years of campaigning and despite fair knowledge of the benefits of hand hygiene and a positive attitude towards it. The main reason for non-compliance was the lack of sinks, hand hygiene products and hand hygiene reminders in the workplace. In another study involving nurses in one private Metro Manila hospital (Mandy A et al., 2014), compliance with hand hygiene was only 26.3%, lower than that of most published studies on health workers. These two Philippine studies indicate the huge challenge of improving hand hygiene among Filipino health workers. In the context of global threats from AMR, hand hygiene as a priority intervention has to be rapidly scaled up among health personnel, patients and their relatives.

Other patient safety concerns. Other serious safety concerns involve (i) the implementation of patient identification procedures, (ii) improvement of communication during patient handover, (iii) implementation of protocols on performance of the correct procedure at the correct body site, (iv) labelling and administration of concentrated electrolyte solutions, and (v) ensuring single-use injection devices. Research in these areas, however, has been scant.

Impact of reforms on quality of care and health outcomes. Quality has not been given prominence in Philippine health-care reforms as the focus has been on access and equity. Some efforts at quality have not fully delivered the hoped-for results (e.g. Sentrong Sigla certification and seal of good quality, Benchbook accreditation), while simple measures that are effective (e.g. hand hygiene) have not been given prominence. Thus, quality advocates should be more circumspect in pushing for specific quality initiatives. More attention is needed on (i) the formulation of and practitioner adherence to CPGs, (ii) pharmacovigilance, (iii) patient safety, and (iv) patient satisfaction and confidentiality. The country also needs to gear up and adopt higher-level national quality indicators. The application of the OECD quality indicators in the Philippines' context is extremely useful in this regard, and efforts should be initiated to adopt them.

7.4.7 Equity of outcomes

The Philippines has achieved substantial reduction in maternal and child mortality over the past few decades, but the rates of decline have slowed down in recent years.

The under-5 mortality rate has fallen from approximately 59 per 1000 live births in 1990 to 25 deaths per 1000 live births in 2015. The decline in under-5 mortality was rapid in the early 1990s, averaging 4.5% per annum, but has slowed since 1996, dropping to half the previous rate of decline to only 2.1%. The NMR has shown a stagnant trend at around 18 deaths per 1000 live births over the same time period. This suggests that neonatal deaths comprised more than half of all under-5 deaths by 2015 (up from 30% in 1990) and almost three quarters of infant deaths (up from 48% in 1990). Effective interventions are available but have yet to be upscaled and were hampered by the quality of ANC in screening for high-risk pregnancies and services offered by PHC facilities.

The national figures for maternal and neonatal mortality hide worrisome spatial and socioeconomic variations. The slowing progress appears to be leading to widening disparities among geographical regions. Regression analysis by Kraft et al. (2013) used data from four DHSs (1993, 1998, 2000, and 2008) and made forecasts till 2015. They found substantial variation across urban-rural, regional and wealth quintiles, and predicted that the gaps between the best- and the worst-performing subpopulations would either be maintained or widen in the future.

Differences across urban-rural residence. Kraft et al. (2013) observed that while the decline in the under-5 and infant mortality rates is there in both urban and rural areas, children residing in urban areas are better off than their rural counterparts. Moreover, while evidence suggests that the urban-rural divide in under-5 mortality is closing slowly, the gap in infant and neonatal mortality rates appears to have widened, as both rates dropped faster in urban areas while rates in rural areas stagnated due to inaccessibility to neonatal and infant treatments in rural areas.

Differences across regions. Kraft et al. (2013) found that the downward trend in child mortality was not uniform throughout the country, with some regions reducing their child mortality rate faster than others, and others experiencing an uptrend. The downward trend in child mortality rates has been sustained in NCR and CALABARZON Region, but four

regions (Ilocos, Central Visayas, Northern Mindanao and Davao) have experienced negative annual rates of reduction.

Differences across wealth quintiles. Kraft et al. (2013) also found significant variations by wealth quintiles in neonatal, infant and under-5 mortality rates. Mortality is much higher at the lower end of the socioeconomic spectrum, and the gap between the two lowest quintiles and the upper three wealth quintiles has not narrowed (Kraft A et al., 2013). In the future, it is likely that the upper three quintiles will achieve convergence but the lowest two quintiles will be left far behind. Moreover, the seemingly upward trend in mortality, especially neonatal mortality, in the second-lowest quintile, indicates that government efforts at reaching the poorest of the poor, though commendable, is not enough as the near-poor could be missed out, even as their living conditions, risk factors and barriers to care may not be much different from those in the bottom quintile (Kraft A et al., 2013).

Inequity in health outcomes as highlighted by Kraft et al. (2013) can be explained by the inequitable geographical distribution of the health workforce – both basic and specialist – quality primary care and funding, all of which limit access to quality MCH services.

Differences across gender. According to the 2013 World gender report, the Philippines ranked fifth out of 136 countries in terms of measured progress in closing the gender gap in economics, politics, health and education (Schwab K et al., 2013). The report focused on how the female population fared against the males (outcomes), instead of gauging how well a country invested in female-sensitive policies and their implementation (inputs and processes). The Philippines ranked first (tied with 31 other countries) in terms of women's health and survival. What more needs to be done? The report recommends paternity leave, which encourages men to do more and take part in child care, which would allow more women to return to the workforce.

Differences across ethnicity. The regions in the Philippines were demarcated largely to reflect linguistic and cultural groupings, e.g. Ilocos for the Ilocanos, the Cordillera Autonomous Region for the Indigenous Peoples living in the mountains, Calabarzon for the southern Tagalogs, Bicol for the Bicolanos, Western Visayas for the Ilongos, Central Visayas for the Cebuanos, Eastern Visayas for the Warays, ARMM for the Muslims, and the rest of Mindanao as a melting pot. Thus, health outcomes by ethnicity can generally be inferred by looking at regional differences,

although these differences are conflated by geography and the level of development in each region. In general, poorer health status has been observed in ARMM (Muslim areas), certain remote regions in Mindanao, Eastern Visayas and Bicol Region, and the islands consisting of Mimaropa.

Impact of reforms on health inequities. The Philippines has generally succeeded in closing the gender gap, as measured by life expectancy at birth. However, progress in reducing maternal and neonatal mortality is slowing down, and differences in urban/rural residence of households, their wealth quintile and their regional location have persisted. Even more worrisome is the risk of widening differences not only among regions but within regions. The large-impact strategy of the Government and donors tends to focus on larger provinces with denser populations, but this means that the hinterlands and remote islands have been given less priority even though they may need as much, if not more, assistance. This finding requires that priority groups be identified for more intensive support. While geographically isolated and depressed areas have been enshrined as a concept, little by way of funding has been done to implement the concept. An equalization fund for intensive improvement in health services in these areas is called for.

7.4.8 Disaster risk management for health

The country's risk profile shows 20 earthquakes per day, many unfelt; 22 active volcanoes; 20 typhoons a year; and 36 289 km of coastline. Between 1900 and 2014, the Philippines experienced 25 volcanic eruptions, 314 tropical storms and typhoons, 136 floods, 18 epidemics, 28 felt earthquakes and 8 droughts. In 2013, disasters caused 7458 deaths, injured 31 802 and 1170 were missing. They affected 5.7 million families and 27 million persons, and totally damaged 534 930 houses and partially damaged 818 475 more (Philippine Statistics Authority, 2014). The cost of damage to property was placed at PHP 105.5 billion for that year alone. Diseases and epidemics occur in the wake of disasters, and health facilities can get damaged while local health workers themselves may become disaster victims, making disaster risk management for health a daunting challenge.

Typhoon Yolanda (Haiyan), the most destructive storm in recorded history, struck central Philippines on 8 November 2013 with deadly winds (Category 5) and devastating storm surges, which caused widespread flooding, leaving 6000 dead, 4 million displaced and 16 million affected. It also damaged 2000 health facilities. At the height of the response effort,

277 medical teams were active, 124 foreign and 153 local. Rehabilitation efforts are still ongoing.

Governance, policy, planning and coordination. In 2009, Congress enacted the Climate Change Act and in 2010 the Philippine Disaster Risk Reduction and Management (DRRM) Act (Republic Act No. 10121). The latter acknowledges the need “to adopt a DRRM approach that is holistic, comprehensive, integrated, and proactive in lessening the socioeconomic and environmental impacts of disasters including climate change, and to promote the participation of all sectors”.

The National DRRM Council, with 44 members chaired by the Secretary of National Defense, is the highest policy-making and coordination body on matters pertaining to disasters. The Council has four vice-chairpersons, namely, the secretaries of DOST, DILG, DSWD and the NEDA. Membership also includes local government leagues, civil society organizations (e.g. the Red Cross) and financial institutions, in what is dubbed as “the whole society” approach to DRRM. The Office of Civil Defense acts as the secretariat. The National DRRM Framework was approved in June 2011. Based on this framework, the Office of Civil Defense prepared the National DRRM Plan with four thematic areas of disaster prevention and mitigation, disaster preparedness, disaster response, and disaster rehabilitation and recovery.

A recent assessment of the country’s DRRM (Commission on Audit, 2015) concludes that “a basic institutional and legislative framework is in place and there are existing policies that support effective implementation of DRRM. There is a marked improvement in terms of developing a regulatory framework that promotes and supports dialogue, exchange of information and coordination. However, the complexity of large-scale disasters usually undermines existing policies and structures. An organizational structure with a multisectoral, multiagency and multilevel approach renders it difficult to come up with an appropriate and immediate response, thus delaying critical disaster response and recovery. Republic Act No.10121 and other laws passed by the Government have provided solid plans, but there have been significant questions about its implementation, both in terms of the funding made available to support implementation and the consistency in approach throughout all levels of government.” The overall organization is rather ad hoc; while this provides for flexibility, it also poses coordination problems (Commission on Audit, 2015).

With respect to the health sector, the Health Emergency Management Service has been institutionalized within the DOH, headed by a director. The DOH has also issued several relevant administrative orders, from macro ones such as those pertaining to the acceptance and processing of foreign and local donations during emergency and disaster situations (Administrative Order No. 2007–0017), to micro ones such as a policy on the management of dead and missing persons during emergencies and disasters (Administrative Order No. 2007–0018). In the wake of Typhoon Yolanda, the DOH also issued Memo Order No. 61 dated 18 November 2013, mandating the DOH to assume direct supervision and control over the health and sanitation operations of LGUs affected by Typhoon Yolanda.

Information and knowledge management. Preparedness through proper information to the public before disaster strikes is a key action to mitigate its adverse impacts. In the case of Typhoon Yolanda, in retrospect, the Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA, the weather bureau) fell short in conveying the gravity of the storm. Many people misunderstood the terminology that the weathermen used (storm surge) and although an equivalent word exists in the local language (*dilubyo*), the weathermen failed to use it. PAGASA weathermen should have likened the storm surge to a tsunami, which common folk understood, but they did not. This is an object lesson in DRRM: to use the right words that people understand.

There is a need to generate local information on hazards, vulnerabilities, capacities and actual losses due to disasters. Although the majority of LGUs have no capacity to establish a database or databank for disaster preparedness, some have succeeded in mapping vulnerabilities with donor support, e.g. Albay Province where Mayon Volcano is located.

A financial information management system is badly needed at all levels of disaster management (Commission on Audit, 2015). At present, a major challenge is how to validate financial information across a wide range of players. Because of the sudden surge in parties keen on providing assistance, a comprehensive report on the sources and utilization of funds is often impossible to prepare.

Health and related services in disasters. Surveillance Post Extreme Emergencies and Disaster (SPEED) is an award-winning mobile- and Internet-based disease surveillance system developed by the DOH's Health Emergency Management Service after the devastation caused by Typhoon Ondoy and subsequent flooding of Metro Manila in 2009. It uses

cellphones for field epidemiologists to record data and observations. If a disease threshold is breached based on the inputted data, the SPEED server sends a message to DRRM managers regarding the possibility of a disease outbreak. This alert system dramatically shortens the response time for a disaster, thus averting further damage from a disaster.

The DOH, DSWD, other government agencies, NGOs and grass-roots organizations involved in the disaster response have developed a list of health services and commodities (basic medicines and supplies) in case of disasters. A DOH administrative order also requires the Government and community service organizations to distribute women's "dignity kits" as part of their disaster response. The kit consists of 22 items of women's personal care, including soap, toothbrush, towel, malong and, in the case of women with infants, baby supplies.

Resources allocated to DRRM for health. The Commission on Audit (COA) (2015) lists down the eight major programmes and projects, implementing agencies, budgets and outputs of DRRM in the country in recent years. In 2013, these eight projects had a total amount of PHP 312.6 billion. In addition, the National Government makes appropriations to a special-purpose Calamity Fund intended for aid relief and rehabilitation services to communities and areas affected by human-induced and natural calamities, and to repair or reconstruct permanent structures damaged by disasters. Between 2008 and 2011, Calamity Fund disbursements averaged PHP 330.7 million a year. The appropriated amount of the Calamity Fund in 2013 for DRRM implementation was PHP 7.5 billion, a sizeable increase from PHP 4.3 billion in 2009 (Table 7.18), indicating that the Government is shifting its fiscal priority towards DRRM. Twelve government agencies are recipients of the Calamity Fund, including the DOH. Table 7.18 shows the funds released to the DOH, which doubled from PHP 243.5 million in 2009 to PHP 500.0 million from 2013.

Table 7.18 Calamity fund releases to the DOH, 2009–2013

Items	2009	2010	2011	2012	2013
Total amount of Calamity Fund released (PHP million)	4 303.5	2 989.7	5 920.9	6 538.5	7 450.4
Released to the DOH (PHP million)	243.5	–	–	–	500.0
% of amount released to the DOH to total released	5.7	–	–	–	6.7

Source: Commission on Audit, 2015

The Office of Civil Defense Memorandum Order No. 61, s. 2013 directed the DOH to assume supervision and control over health and sanitation operations of LGUs affected by Typhoon Yolanda. In this light, it is important to inquire about how the DOH funds were actually used. The COA report noted that all of the DOH appropriations were used for the disaster response; none was used for preparedness, mitigation or recovery and rehabilitation. The COA report also shows that only 55% of the DOH's total appropriations were disbursed, resulting in 45% being unutilized. The low budget utilization rate can be explained by onerous audit requirements; specifically, the use of programming practices for regular projects and activities that are required to be used also for disasters and emergencies whose timing, occurrence and magnitude cannot be ascertained beforehand. The composition of National Government expenditure (i.e. mostly for response but little for preparedness) leaves little room for flexibility to allow a bigger impact on disaster spending (Commission on Audit, 2015).

Under devolution, LGUs are mandated to set aside 5% of their budget for calamity funds. The problem is that for poor LGUs (such as small island provinces, or those in the hinterlands, which face higher risks of erosion and landslides), there is no actual cash back-up to fund this item as they cannot fully collect the estimated revenues that are the basis for the budget. These LGUs in areas highly prone to disasters face a cyclical problem: they cannot be disaster-prepared because they lack the local budget for disaster preparedness and mitigation, and they lack the local resources because they are frequently faced with disasters, which disrupt normal economic activities.

7.5 Health system efficiency

7.5.1 Allocative efficiency

Burden of disease versus provision of health services. The Philippines is clearly undergoing a health transition, leading to the so-called “double burden” of diseases. Despite the unmistakable rise in NCDs, very little is being done to provide preventive and promotive services and programmes focusing on them. Screening programmes barely exist within the public health system (DOH, LGUs), except for a few interventions that lack scale. PhilHealth's benefit package still does not include screening programmes or cost-effective interventions (such as provision of statins for heart disease). The lack of outpatient pharmacy benefit, in particular, essential

medicines for the management of NCDs by PhilHealth, also deprives thousands of members who otherwise could benefit from them.

Priority-setting and use of evidence of effectiveness and cost-effectiveness. Priority-setting in the use of government resources to finance health services should be promoted. An example in the Philippines is MDR-TB (Picazo OF, 2015); current funding for treatment comes from the Global Fund to Fight AIDS, Tuberculosis and Malaria. The cost per DALY of MDR-TB in the Philippines has been estimated to be US\$ 143, which is certainly less than a third of the country's per capita GDP of US\$ 2765 in 2013. PhilHealth should provide MDR-TB drugs and care in its benefit package. Despite the cost-effectiveness of this measure, and despite the high infectivity of this disease, PhilHealth has continued to be noncommittal about funding its treatment. And yet, it has approved much less cost-effective interventions, such as haemodialysis rather than the more cost-effective peritoneal dialysis. It is noted that the Philippines is among the 20 high TB-burden countries based on the absolute number of incident cases (World Health Organization, 2016b) where the estimated number of MDR/rifampicin-resistant (RR)-TB cases was 15 000 in 2015.

Use of risk adjustment and quality adjustment in resource allocation. The Philippines does not yet have a budgetary formula using risk- and quality adjustment. (i) The DOH uses traditional incremental budgeting for its DOH-retained hospitals. Moreover, these hospitals rely increasingly on PhilHealth reimbursements. The lack of harmonization between what the hospital gets from the DOH and what it generates from PhilHealth reimbursements often leads to gaming by the hospital authorities on which revenue source to tap, and lack of accountability to the DOH and PhilHealth, as there are multiple strands that finance the hospital. (ii) LGU health financing is largely ad hoc because their budgets are highly dependent on what the local executive decides, and the percentage of the internal revenue allotment going to health is not fixed and subject only to what the local councils approve. (iii) PhilHealth uses case rates for all hospitals with no quality adjustment. However, it is considering moving to DRGs, although there is no timeline yet for its adoption.

Trends in the balance of allocation among different sectors. The allocation to the health sector has grown rapidly in recent years, reaching PHP 132.7 billion in 2016. Health now accounts for around 4% of the national budget (Table 7.19). The allocation given to the DOH hides the sizeable expenditures on health incurred by LGUs directly using their internal

revenue allotments as well as subsidy to LGUs. Social services as a whole have garnered an expanding share of the pie, accounting for 37.3% of the total government expenditure. Much of the increase has been due to the sizeable conditional cash transfer programme, which is now one of the largest such programmes in the world.

Table 7.19 Government expenditure programme (in billion PHP), 2012–2016

Items	2012	2013	2014	2015	2016
Total government expenditures	1 829.0	2 005.9	2 359.5	2 966.7	3 001.8
• Of which, social services	592.2	699.4	764.6	952.7	1 119.8
• Of which, health	52.4	57.7	85.0	96.3	132.7
% share of health to total expenditures	2.9	2.9	4.2	3.7	4.4
Subsidy to LGUs	101.1	111.9	126.4	144.3	158.6

Source: Philippine Statistics Authority, 2014 & 2017a

Influence of ODA and aid effectiveness. Donor health expenditure is small, so their allocation is also small. There is no major issue regarding aid effectiveness in the country, except the large administrative costs of the projects they support.

7.5.2 *Pharmaceutical care*

Uptake of generics. The Generics Drug Law (Republic Act No. 6675) was passed by Congress in 1988 to promote the use of medicines identified by their generic names. However, for many years thereafter, the law limped along without much success because there were not enough retailers of generics, and branded medicines continued to dominate the market. Before the end of the previous decade, the overwhelming demand for drugs was for originator brands and branded generics; true generics accounted for a very small percentage (about 3%) of sales, whereas it accounted for as much as 50% of the US market (Picazo OF, 2012b). In the mid-2000s, generics became available, including the initial importation of generic drugs from India and Pakistan, the use of village pharmacies (Botika ng Barangay) and government-supported private drug franchises (Botika ng Bayan) as a government-supported programme, which demonstrated that generics can be successfully sold in the private market (Picazo OF, 2012b). At their peak, Botika ng Barangay numbered 16 350 by the end of 2010 (serving an average of one village pharmacy per three villages) while Botika ng Bayan numbered 2256 in as many municipalities.

Government promotion of generic drug manufacturers also led to the thriving manufacture of generics, which today involves no fewer than 50 firms. The market share of generics rose from 45% in 2009 (Department of Health, 2012a) to 65% in 2016, based on industry data provided by the Philippine Healthcare Association of the Philippines (Garin J, 2016). Household use of generics increased from 47% in 2003 to 55% in 2008, according to a survey conducted by the Social Weather Stations. Other studies have also confirmed the increasing availability of generic drugs, although there are lingering doubts about their quality (Sarol JN, 2014). A survey showed that only two out of five consumers reported being offered generic alternatives in the pharmacy, indicating that while generics are being prescribed universally by doctors as per the law, the weak link in the chain is the dispensing pharmacists who substitute the prescribed generics (Wong JQ et al., 2013).

Readmission. Wagner et al. (2008), using PhilHealth inpatient claims, described costs to PhilHealth for hospitalizations classified by discharge diagnoses. Among 60 659 patients admitted during the first 18 months of the study with a diagnosis of essential or secondary hypertension, 9% were re-hospitalized for treatment of hypertensive sequelae.

Inappropriate use of antibiotics. Dy (1997) documented instances of inappropriate use of antibiotics in the Philippines as well as their consequences. He found that this has been a long-standing problem in the country, and that inappropriate antibiotic use comes from a multiplicity of factors, including: (i) the community/consumer who is influenced by drug misconceptions leading to possible overuse, and financial constraints leading to underuse – noncompletion of dosage or therapy – as soon as the patient feels a little better; (ii) pharmacists' or drug sellers' practice of selling drugs without prescriptions; (iii) physicians' behaviour, which may be influenced by lack of access to unbiased drug information and national treatment guidelines. Local antimicrobial resistance commenced in 1988, and Dy (1997) noted that there has been an upward trend in the resistance rates of most microorganisms.

Adherence to cost-effectiveness guidelines. HTA is yet to be fully established, utilized and institutionalized in all aspects of care (medicines, devices, procedures) in the country. HTA and cost-effectiveness principles have been most intensively used in the approval of medicines by the FDA as well as the NCPAM. This has led to the development of an Essential

Medicines List (EML), which is used by government hospitals to procure drugs and by government doctors to prescribe.

However, technology assessment and cost-effectiveness in medical devices and procedures is yet to be applied. HTA needs to be institutionalized in the Philippines at the earliest.

7.6 Transparency and accountability

7.6.1 Transparency

Public participation. In December 2010, National Budget Memoranda Nos. 107 and 109 mandated six departments, including the DOH, to conduct consultations with CSOs (Cabrera III WS, 2014). Following this, CSOs become engaged in budget advocacy by submitting feedback to the government agencies and securing budget information and utilization for the coming year. This initiative has not been evaluated, but it somehow led the government to launch the large bottoms-up budgeting effort that has been formalized and given resources by the DBM.

In LGUs, participation of CSOs in provincial, city and municipal councils is highly uneven as it depends on the openness of the local government executive. The Galing Pook (Excellent Places) award identifies many LGUs that have excelled in tapping public participation through NGOs, CSOs and other organized groups, but other local governments remain less open.

In PhilHealth, representation on the board is lopsided in favour of government; only one slot is devoted to consumer/patient representation. The lack of an organized citizens' effort (such as a watchdog) to look after SHI issues and proposals is a major shortcoming.

Patient empowerment. In 2013, the Bureau of Internal Revenue mulled over the idea of requiring doctors to post their fees at their clinics, but the draft circular was withdrawn. Even practitioners involved in medical tourism are reluctant to publicize their prices on their websites; this lack of transparency reduces the competitiveness of the Philippines. However, this idea of publicizing doctors' fees and hospital costs still has proponents in Congress.

Cabrera (2014) identified 59 patient organizations such as groups of people with cancers, disabilities and orphaned disorders. These organizations conduct a wide range of activities, including public

information seminars, counselling and therapy sessions, psychosocial and other support, and fund-raising and advocacy. Many of them fall under the Philippine Alliance of Patient Organizations. However, it lacks the capacity and resources for long-term sustainability and technical capability for more effective advocacy.

An avenue for patient empowerment in the Philippines is through digital health care (e-health). A survey commissioned by the Research Partnership (The PL et al., 2012) shows the already high frequency of using the Internet for health among Filipinos (94%, the highest among six Asian countries included in the study), mainly for information on the condition and treatment options.

Awareness of health rights and entitlements. Health is guaranteed as a right under the Philippine Constitution, the right to health of the people, according to section 15 of Article II. The poor are presumably already covered by a premium subsidy in PhilHealth, but their awareness of the health benefits they are entitled to remains low.

PhilHealth has established a programme called PhilHealth CARES, which deploys dedicated staff (usually a newly graduated nurse) to hospitals to assist a poor patient in utilizing his benefits. PhilHealth CARES is just a stop-gap measure; the far better approach is for PhilHealth to systematically orient its members on their benefit entitlements and health facilities in their localities.

Availability of government health statistics and budget data. General appropriation and allocation data are easily obtainable, and the health budgets can be accessed from the DBM website. NGOs such as the Freedom from Debt Coalition watch over these. However, budget use and spending are much more difficult to obtain. LGUs are mandated to post their annual budget, procurement and expenditure data on public bulletin boards, and many of them do so. However, aggregating the LGU health expenditure is almost impossible to do, because of the sheer number of LGUs (81 provinces and 1300 cities and municipalities).

PhilHealth data are generally difficult to obtain and difficult to extract from the corporation's information systems. PhilHealth annual reports also have differing reporting formats for certain key items (e.g. accredited providers), making it difficult to identify trends. PhilHealth-commissioned studies or own-staff analyses of PhilHealth operations are not posted on any public website.

National health statistics are generally available. However, data from the Field Health Service Information System (FHSIS) are incomplete and often late. Public reporting of hospital performance is not available. Although the DOH requires hospitals to submit hospital statistical reports, these are not encoded, making it impossible to generate trends unless a study is conducted for the purpose.

Procurement, wastage and leakage. The existing Procurement Law is deemed not suitable for many health sector transactions as it is too focused on the lowest-cost provider with little concern for quality. Skills in procurement are also scarce, especially in LGUs. LGU-procured drug prices are often higher than those procured by the Central DOH (Picazo OF, 2012b). Lack of procurement planning, including drug quantification, small purchases (diseconomies of scale) and emergency procurements are often cited as the reasons behind the higher prices. Corruption was reported to range from 10% to 70% of the contract price of drugs (OlarTE AM et al., 2015).

On occasion, PhilHealth is wracked by fraud due to unscrupulous providers. In 2014, PhilHealth investigated six health facilities for actively soliciting patients for cataract removal (Geronimo JY, 2015a). In other cases, patients with eye conditions were herded during medical missions and other mass gatherings and were then channelled to health facilities for cataract operations, sometimes without their informed consent. In 2014, cataract removal ranked fourth among PhilHealth's top conditions, with the total benefits paid reaching PHP 3.7 billion.

The PCSO as well as PAGCOR, the Government-owned and -controlled corporations managing the casinos, provide substantial benefits to medically indigent patients. However, an assessment done by Caballes, Sollner & Nanagas (2012) indicates poor transparency in the determination of beneficiaries, leading to much leakage and inadequate coverage.

The impact of reforms to enhance transparency is yet unclear. What seems to be an emerging issue is the unintended consequence of focusing on increasing administrative requirements for transparency and punitive actions against health staff for failure to meet these paper requirements rather than increasing the environment of trust in the health sector as a whole, and on individual health settings in particular. As modernization of the health system proceeds, trust should be built hand in hand with efforts to increase transparency.

7.6.2 Accountability

Monitoring system

National objectives for health. Despite the comprehensiveness of the strategic objectives and targets (Table 7.20), the needs of a rapidly modernizing economy indicate that additional areas should be incorporated, and with it, additional data-gathering exercises, including the prevalence and health needs of disabled persons and Filipino migrants, the health impact of disasters and climate change, and the health needs of an ageing society.

Table 7.20 Strategic objectives, indicators and data sources of the national objectives for health, 2010–2016

Thrusts	Areas covered	No. of strategic objectives	No. of indicators	Data sources
Financial risk protection	UHC, health service utilization and OOP	3	5	PHIC, NSO
Improving access to quality hospital and health services	Facilities, pharmaceuticals, human resources	10	26	DOH, PHIC, FDA, PHAP
Attaining better health outcomes	27 different health conditions and areas	84	138	NSO – NDHS, APIS DOH – FHSIS, IHBSS, NTPS, STH, NMEDS FNRI-NNS DOLE
Health systems	LGUs, e-health, and logistics and procurement	9	26	DOH, PHIC
Total	–	106	195	–

Key for agencies/offices: DOH: Department of Health; FNRI: Food and Nutrition Research Institute; DOLE: Department of Labor and Employment; FDA: Food and Drug Administration; NSO: National Statistics Office; PHAP: Philippine Healthcare Association of the Philippines; PHIC: Philippine Health Insurance Corp.; PSA: Philippine Statistics Authority

Key for data and surveys: APIS: Annual Poverty Incidence Survey; FHSIS: Field Health Service Information System; IHBSS: Integrated Health Behavioral Surveillance Survey; NDHS: National Demographic and Health Survey; NMEDS: National Medical and Dental Survey; NNS: National Nutrition Survey

Key for others: STH: soil-transmitted helminths

Source: Epidemiology Bureau-DOH, 2012

LGU balanced scorecard. The LGU balanced scorecard is applied to 80 provinces and 17 cities and municipalities in the National Capital Region. The achievements are benchmarked against external and internal targets using 2006 as the baseline year. Little analysis has been done on the scorecard. It needs to be studied in relation to the level and allocation of health spending by LGUs. LGU officials have also complained about the values assigned to certain indicators (e.g. total population in the catchment area, population of children under 5 years), which are nationally determined and not always consistent with the local data.

Ensuring accountability. The accountability of LGUs has not been given much attention, despite the move to increase health expenditure at that level. Key LGU accountability issues have to do with the level of internal revenue allotment to be devoted to health, the use of PhilHealth capitation funds and reimbursements, politicized staff appointments, procurement of drugs and medical supplies (often deemed to be high priced), the increasing contractualization of local health workers (termed as “job orders” or “Endo”, end of contract), and the politicized identification of medically indigent households.

Local health boards, which are supposed to include wide representation, are rarely operational. Local health accountability also includes the examination of local health problems and the formulation of responsive local health policies that are supposed to address them. However, in many areas, there is very little local capacity to address these technical matters, and neglect often ensues.

Accountability at PhilHealth also needs to improve beyond the Institution’s traditional obsession with financial sustainability. Important areas should be given more attention, including membership coverage (actual count and location of members), their utilization of services, the quality of care they receive, and the financial protection they enjoy (or alternatively, the financial risks they continue to get exposed to even after they have become PhilHealth members). Part of the problem is that the current composition of PhilHealth underrepresents patients and providers and overrepresents the Government, especially financial departments (Monetary Board, Department of Finance, Social Security System, Government Service Insurance System). In addition, there is currently no watchdog on PhilHealth affairs partly because of the intimidating nature of SHI.

Capacity for monitoring performance. The fragmented nature of health financing, the devolved structure of service delivery, and the mixed public–private health system pose immense challenges to monitoring the performance of the Philippine health sector. At the national level, existing surveys include the NDHS, done every 3–5 years; the FIES, done every 3–5 years; and the Annual Poverty Indicator Survey (APIS). The National Health Accounts exercise is done annually, although usually often two years late.

What is missing is longitudinal household- and facility-level panel data to measure the reach, breadth and impact of UHC, both from the supply side (provision by hospitals and health centres) and from the demand side (coverage, access and utilization by households). Household-level data are needed because while utilization can be tracked, need is often intractable, mainly because it may not be expressed in the market, especially by the poor who face many obstacles in accessing care.

Current service statistics are obtained from the FHSIS of the DOH as well as the hospital statistical reports annually submitted by health facilities to the DOH. The FHSIS suffers from incomplete and delayed reporting, and is thus not very useful. The hospital statistical reports, although a rich source of data, are not encoded and thus cannot be aggregated and analysed to yield data that can be used by analysts. The DOH should provide an annual budget for the hospital statistical reports to be encoded, aggregated and analysed.

The challenge of including the private sector in existing data-generating exercises remains daunting. Private sector inputs (investments, facilities, staffing), outputs (volume of service provided) and outcomes are not regularly reported and combined with the public sector data to achieve a complete picture of the health system. As a result, a large part of the Philippine health system remains hidden from view.

PhilHealth membership and claims data have not been adequately mined due to existing difficulties in extracting such data as well as institutional secretiveness about them. One approach to deal with this problem is to train PhilHealth staff themselves so that they can do the analysis properly. The approval of the Freedom of Information Bill in Congress should also make it easier for researchers to access data from institutions reluctant to share them.

Electronic medical records software have rapidly entered the Philippine market. Twelve of them are being used by facilities and LGUs. Making these IT systems interoperable is the key challenge for the Department of Science and Technology.

Conflict of interest. In the Philippines, a conflict of interest in health care is most starkly manifested in the growing links between the health professions and the pharmaceutical industry, including free drug samples from medical representatives, outright gifts, industry payment for physicians' travel to conferences, industry-sponsored research funding and honoraria, CME funding, funding of key opinion leaders in the medical and pharmaceutical professions, ghost-writing of journal articles, industry funding of the formulation of diagnostic and treatment guidelines, public relations campaigns, including unbranded disease-oriented advertising, funding of patient groups and medical societies, market-seeding research (or so-called Phase IV studies without clear scientific objectives), Internet advertising, journal supplements and free journals, and pharmacy discounts (Elicano T, n.d.).

The Philippines has dealt with the problem of conflict of interest in many ways. The DOH has formulated an administrative order requiring its staff to report any interaction they have with medical representatives. Philippine medical societies (such as the Philippine Medical Society, the Philippine College of Physicians and specialty societies) have also formulated codes of ethics, which include provisions with respect to physician dealings with the pharmaceutical and related industries. Large hospitals (such as the Philippine General Hospital) have also formulated guidelines on physicians' ethical relationships with pharmaceutical companies. Finally, ethics committees have been created, most notably the Philippine Medical Association Ethics Committee, with representatives from the Philippines Medical Association (PMA) chapters, subspecialty societies, academia and a legal specialist. National ethical guidelines for health and health-related research have also been formulated (Philippine Health Research Ethics Board, 2017).

An assessment of these efforts indicates a few weaknesses, including the continuing overreliance of the medical profession on external sponsorship for its activities, conflicting priorities and lack of unity with

the component societies of the PMA and some influential individual members on the issue of their relationship with the pharmaceutical industry, and lack of congruence between central (Manila-based) societies and their chapters' policies (Elicano T, n.d.).

8 Conclusions

8.1 Key findings

The Philippines is currently one of Asia's fastest growing economies, registering a GDP growth of 6.7% for the year (World Bank, 2018b). Filipinos tend to live longer now than in previous decades, with life expectancy at birth increasing from 62.2 years in 1980 to 69.1 years in 2016. This is attributed mainly to the improving living conditions in the country. The past is characterized by difficult times with sporadic armed conflicts in the countryside, pervasive political unrest and mass protests in urban centres, widespread poverty and income inequality across the country, and poor nutrition and inadequate health care among the underprivileged majority. The country continues to combat pneumonia and TB as leading causes of death, and faces a growing incidence of diseases of the heart, vascular system, malignant neoplasms and diabetes (Philippine Statistics Authority, 2014). The Philippines ranks third in the world in terms of exposure to disaster risk, with strong typhoons occurring with high regularity (Hilft BE, 2017).

The NOHs are well specified, although local-level expression of similar objectives is highly uneven. The Local Government Code of 1991 (Republic Act No. 7160), which devolved health services from the National Government to the LGUs, fragmented the system into thousands of local health systems run by provinces, cities and municipalities, often lacking coordination and having great variation in local resources for health. The devolution and inadequate transfer from the National Government to poorer LGUs contributed to underfunding of local hospitals and health units, resulting in poorly equipped facilities and an inadequate complement of human resources. Inequity is, however, masked by the dramatic increase in PhilHealth coverage resulting from the increased budgetary allocation to the DOH as a result of the Sin Tax Law, which earmarked substantial resources for health, particularly in ensuring social insurance coverage for the lowest 40% of the poor, elderly and persons with disabilities. Wide variation in PhilHealth coverage was observed across regions in 2012, ranging from 94% in

the National Capital Region to only 68% in Regions II and III. While the LGUs were given responsibility as managers and providers of direct health services at the local levels, the DOH maintained its role as the steward of national policies, plans, standards and regulations on health. Recently, the DOH issued Administrative Order No. 2014-0046 promoting the establishment of service delivery networks – which are expected to be fully functional, located closed to the people, providing 24/7 services in line with clinical guidelines – to respond to the health needs of the population.

While the Government aims to optimize synergy between the public and private sectors to effect equitable provision of health services through PhilHealth, the national health insurance carrier has yet to scale up its capacity to perform a strategic purchasing function and improve financial risk protection; as spending by PhilHealth was 11.5% of THE in 2013 while overall OOP spending remained high at 56% of THE (National Statistical Coordination Board, 2013). The higher the OOP payment, the higher the incidence of catastrophic health spending and medical impoverishment. Despite the massive financial space created by the national subsidy to enrol the poor and the elderly, PhilHealth has yet to translate these resources into a comprehensive health benefit package and to enforce its contracts with its accredited providers to ensure the delivery of quality care; this was reflected by most of PhilHealth's support being of low monetary value and balance billing charged directly to the patients.

THE has consistently increased since 2005 and compares well with that of its neighbours. Government health expenditure has increased significantly in nominal terms, but it has been eclipsed by the private sector, which has grown rapidly with the economy. However, the support value remained low at one third of the average value of claims, despite the shift to “all-case rates” from a “fee-for-service” provider payment system. OOP spending therefore continues to be the dominant source of health financing, since the shift was a mere cost containment measure rather than a reflection of the true cost of care.

Health resources are inequitably distributed. The physical infrastructure of the Philippine health sector is composed of 1224 hospitals, 2587 city/rural health centres and 20 216 village health stations (Department of Health-HFSRB, 2016). The top four cadres of institution-employed health workers are nurses (90 308), doctors (40 775), midwives (43 044) and

medical technologists (13 413) Hospitals employ more than 90% of the doctors and nurses in the Philippines. The private sector shows growing ownership of resources, with total hospital beds increasing from 46% in 2003 to 53% in 2016. The doctors are equally distributed across public and private sectors, whereas more nurses (61%), midwives (91%) and medical technologists (53%) work in public sector. Almost two thirds of hospital beds are in the island of Luzon, which includes the NCR. There are 23 hospital beds for 10 000 people in the NCR while in the rest of Luzon, Visayas and Mindanao, they have only 8.2, 7.8 beds and 8.3 beds, respectively (Department of Health-HFSRB, 2016).

International migration of health personnel to seek employment in OECD Member countries remains a protracted challenge, as the main push factors in the country were not solved in the light of attractive pull factors. Among others, low salaries in both the public and private sectors, poor working conditions and outdated health-care technologies in the public sector, and inadequate career advancements are major push factors. Reported pull factors from high-income countries are higher salaries, better working conditions and technologies, and numerous job openings. International migration, lack of effective policies to retain the health workforce in rural and underserved areas, such as government bonding (as most of the medical schools are private and students are self-funded) are major factors for weak health delivery systems. The inadequate numbers of health personnel is the main bottleneck to achieving UHC.

The DOH embarked on pursuing UHC by laying out three key reform strategies: universal and sustainable PhilHealth membership, upgrading and modernizing government health facilities and fortifying efforts to achieve the SDG targets. Dubbed *Kalusugan Pangkalahatan* or KP, the implementation of DOH Administrative Order No. 2010-0036 or Aquino Health Agenda for Universal Health Care (Department of Health, 2010b) became a Presidential priority, aided by the Sin Tax Law in 2012, the Reproductive Health Law in 2012 and the amendment of National Health Insurance Law in 2013.

The budget of the DOH has increased 12-fold over the past 12 years, from PHP 10 billion in 2005 to PHP 123 billion in 2017, reflecting the increased priority for health care and the vision to reach UHC of the population. As a result, SHI coverage reached 92% of the population in 2015; 4920 local health facilities were upgraded and constructed, and about 4000 additional LGU facilities were created.

8.2 Lessons learnt from health system changes

Through the years, the Philippine Government's aspirations to improve the health outcomes of its people, provide them protection from the impoverishing effects of the increasing cost of care and ensure that the health system is responsive to the population's health needs were embodied in several iterations of its health reform policies. The DOH was successful in generating political and financial support to pursue its recent health reform, KP, and bringing the health agenda at the forefront of National Government priorities. The strong political leadership legislated various policy proposals that had been languishing with Congress for several years, most notably the Sin Tax Law and the Reproductive Health Law.

However, strong political support and wider fiscal space do not automatically translate to improvements in the health system, as there is a lack of institutional capacity to translate policy into effective programme implementation, monitoring and evaluation. National-level directives and huge financial resources need to be translated to the operations and delivery of critical programmes. For instance, while PhilHealth's membership coverage has expanded and its payment mechanism has improved, strategic purchasing has yet to ensure access to comprehensive and quality health services by its members. Meanwhile, despite the DOH's investments to construct and upgrade local health facilities and deploy critical health staff, access remains highly inequitable due to the maldistribution of facilities, health personnel and specialists. This either reflects that the investment is too small to make a change or there are efficiency challenges. With the increased financial resources for health, overlapping areas occur in financing and delivering health services, while critical health needs such as addressing the increasing burden of NCDs, including mental and oral health, remain inadequately funded.

Governance reforms compelled by key legislations have visibly improved specific facilities and programmes. These legislations include the Sin Tax Law and the National Health Insurance Act of 2013 that raised and allocated more resources for health, the Reproductive Health Law that guarantees universal and free access to most modern contraceptives for all Filipinos, and the Philippine Disaster Risk Reduction and Management Act that ensures engagement of all stakeholders in pursuing a holistic, comprehensive and integrated approach to reducing the socioeconomic and environmental impacts of disasters.

At the LGU and health facility level, progressive local government leaders and hospital managers direct governance reforms to expand services and improve the sustainability of operating government health facilities regardless of the public hospital's governance structure (i.e. autonomous or not). Reforms were achieved by expanding internally generated (non-budgetary) funds, initially through patient fees and increasingly thorough PhilHealth payments. Thus, the basic institutional and legislative framework to implement governance reforms is not enough. Inertia, lack of scale in implementing reforms, and cautious or tentative leadership can hamper efforts to improve and sustain reforms in governance, financing and delivery of care.

In mitigating the impact of disasters, using appropriate messages best understood by the population in a timely manner can save lives. During Typhoon Yolanda (Haiyan), if the disaster warning had been translated to a local language to convey the gravity of the impending disaster, more lives could have been saved. Thus, the Government's investments and initiatives to generate timely information must also incorporate effective messaging directed to the affected population.

8.3 Remaining challenges

Addressing health system inefficiencies and health inequities brought about by the very characteristic of the Philippine health system remain critical challenges in the Philippines. The fragmented nature of health financing, devolved structure of service delivery, and mixed public-private health system pose immense challenges to correcting the inefficiencies and monitoring the performance of the Philippine health sector. For instance, PhilHealth, the DOH and LGU health facilities are spending on the same MCH services while the growing number of cases of NCDs, including the emergency care these conditions often require, are inadequately funded and poorly prioritized. Parallel funding by three sources (DOH, PhilHealth and LGUs), and lack of demarcation and harmonization in premium-funded benefits versus tax-funded services are the primary reasons for confusion and inefficiencies in health-care financing. Additionally, engaging the private sector in delivering health care in the UHC context requires strong regulatory capacity, using not only command and control mechanisms but also leveraging financing incentives. These strategies, however, are yet to be developed and harnessed.

Meanwhile, the absence of a facilitated referral system robs the patient of the opportunity to navigate the health system effectively – from identifying the appropriate hospital, getting recommended to a doctor, to getting advice on the needed medical tests or procedures and referral back from the hospital to primary care for continued health care. Such a referral system can cut short waiting times, lead to timely care, prevent duplication of diagnostic tests and procedures, and even improve the course of treatment. Lack of gatekeeping at the primary care level also contributes to inefficiencies and increasing the cost of care as patients with simple conditions that can be treated at the primary care facility, such as simple pneumonia and normal deliveries, bypass primary care and are upcoded to be admitted to hospitals. Investments in health infrastructure and human resources must also be continued and sustained to narrow the gap in utilization of health services between urban and rural areas. As intended by the DOH, upgraded local health facilities should get PhilHealth accreditation and the income from PhilHealth payments must be retained to sustain the operations of service delivery, especially in isolated and hard-to-reach areas.

Another set of challenges lies in implementing the NHIP to provide financial risk protection and leverage its payments to ensure quality and responsive health care. The different membership contribution rates of PhilHealth engender inequities. While the PhilHealth premium for formal sector employees is set not to exceed 3% of the salary, the low ceiling on contributions (PHP 50 000 since 2013) means that those in the upper salary brackets contribute proportionately less than what they could afford, i.e. a fixed amount of PHP 1500 per month for the employee and the same amount for the employer, thus making contribution rates regressive. Moreover, the contribution ceiling is not adjusted for inflation, implying that the progressivity diminished when inflation was taken into account. Meanwhile, the benefit package covered by PhilHealth remains inadequate and does not respond to the changing health needs of the population. The provision of primary and palliative care, including for dental health, mental health, among others, has lagged, particularly in remote areas, leaving room for private practitioners to fill in the gap but at prices beyond the reach of the masses or resulting in catastrophic spending when care was sought.

Engaging the public in improving transparency and accountability in the budgeting, planning, implementation, monitoring and evaluation of government programmes remains more of a rhetoric than a reality.

While there have been efforts to encourage the public and civil society in governing health programmes, the participation of CSOs in provincial, city and municipal councils is highly uneven as it depends on the openness of the local government executive. In PhilHealth, representation on its Board of Directors is lopsided in favour of government *ex-officio*, with only one slot devoted to consumer/patient representation. The lack of an organized citizens' effort (such as a watchdog) to oversee SHI issues and proposals for reforms are also major shortcomings.

Medical care is fraught with serious information asymmetry between provider (hospitals, doctors) and patient, as well as funder (health insurance, HMO) and patient. Empowering patients with information is often seen to tilt the balance in their favour, but actual restructuring of relationships and redistributing the power between providers/payers and patients has yet to happen. Patient empowerment is particularly critical and challenging in the Philippines, especially in view of pervasive income inequality (forcing doctors and hospitals to practise price discrimination among patients categorized according to capacity to pay), incomplete evolution of SHI (with large balance billing), lack of advertising in the medical profession (thus limiting information dissemination), and pervasive lack of people's knowledge with regard to fees and prices. Legislative attempts to arm patients with this information has failed. Similarly, keeping the poor informed of their rights and entitlements remains an administrative and logistical challenge as PhilHealth fails to issue membership cards to them to facilitate access and navigate and utilize the health services.

8.4 Future prospects

The Government continues to aspire to an efficient, effective and responsive health system that delivers affordable and quality care. To achieve this end, the DOH pursues another wave of health reforms through the Philippine Health Agenda (2016) (Department of Health, 2016a). This policy addresses the aforementioned challenges by doing the following:

1. guaranteeing population- and individual-level interventions to promote health, prevent and treat the triple burden of disease, delay their complications, facilitate rehabilitation and provide palliation. Addressing the triple burden of disease means focusing resources and strategies to deal with the backlog of reducing or eliminating communicable diseases and neglected

tropical diseases; tackling the challenges of NCDs such as cancer, diabetes, heart disease and their risk factors like obesity, smoking, poor diet, sedentary lifestyle and malnutrition; and cooperating with other sectors to undertake strategies to manage health problems related to globalization, urbanization and industrialization, including injuries, substance use and abuse, mental illness, pandemics, travel medicine and other health consequences of climate change. The strategies will also include strengthening the delivery of MNCH services, especially in geographically isolated and disadvantaged areas, and making vaccines available, including for Japanese encephalitis, neonatal tetanus and other vaccine-preventable diseases (World Health Organization, 2017c);

2. ensuring that all Filipinos have access to appropriate health services through functional service delivery networks. These aim to address fragmentation issues in service delivery by streamlining the management of health facilities, rationalizing multiple payers of care, linking public and private providers, rationalizing vertical public health programmes and establishing continuity of care. The DOH envisions service delivery networks as being closely located to people and supported by an effective gatekeeping mechanism, consisting of fully functional health facilities that provide services 24/7 and comply with clinical practice guidelines and enhanced by telemedicine. This new wave of reform builds on the assumption of a strong PhilHealth that purchases strategically, and a fully supportive private sector that actively participates in the service delivery networks;
3. assuring that PhilHealth's support value is 100% or there is zero copayment for the poor and those admitted in basic accommodation; and a predictable amount (fixed copayment) for those admitted in private accommodation. PhilHealth's benefit packages will be comprehensive and guided by HTA, covering outpatient diagnostics, medicines, and blood and blood products. PhilHealth will also update the costing of current case rates to ensure that they cover the full cost of care and that payment is linked to the quality of service provided. Finally, PhilHealth will improve its capacity to enforce its contracting policies and aspire to become a strategic purchaser of health services;
4. the DOH and PhilHealth will engage the private sector in planning supply-side investments, forming service delivery networks, and expanding PhilHealth accreditation to all benefit packages.

They will also engage NGOs and other professional organizations to ensure good governance through advocacy, community mobilization and health promotion. The DOH will also continue to promote better performance and transparency by publicizing health information, such as the prices of common drugs and services, noncompliant/erring providers, targets of the NOH and various health scorecards;

5. the DOH will coordinate with other stakeholders to ensure that all Filipinos, especially the poor, understand their health entitlements. This will be coupled with mechanisms to promote participation in programme planning and implementation, and address complaints effectively.

9 Appendices

9.1 References

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9.2 Useful websites

- Asian Development Bank-Philippines <https://www.adb.org/countries/philippines/main>
- Commission on Higher Education <https://ched.gov.ph/>
- Department of Budget and Management <https://www.dbm.gov.ph/>
- Department of Finance <https://www.dof.gov.ph/>
- Department of Health <https://www.doh.gov.ph/>
- National Economic Development Authority <http://www.neda.gov.ph/>
- National Government Portal <https://www.gov.ph/>
- Philippine Council for Health Research and Development <http://www.pchrd.dost.gov.ph/>
- Philippine Health Insurance Corporation <https://www.philhealth.gov.ph/>
- Philippine Institute for Development Studies <https://www.pids.gov.ph/>
- Philippine Overseas Employment Administration <http://www.poea.gov.ph/>
- Philippine Statistics Authority <http://psa.gov.ph/>
- Professional Regulation Commission <https://www.prc.gov.ph/>
- Senate of the Philippines <http://www.senate.gov.ph/>
- Social Weather Stations <https://www.sws.org.ph/swsmain/home/>
- The World Bank <https://www.worldbank.org/>
- UN data <http://data.un.org/>
- UNICEF Philippines <https://www.unicef.org/philippines/>
- United Nations Development Programme – Philippines <http://www.ph.undp.org/>
- University of the Philippines – Manila <https://www.upm.edu.ph/>
- University of the Philippines <https://www.up.edu.ph/>
- World Development Indicators Databank <http://databank.worldbank.org/data/home.aspx>
- World Health Organization <http://www.who.int/>
- World Health Organization – Western Pacific Region <http://www.wpro.who.int>

9.3 HiT methodology and production process

HiTs are produced by country experts in collaboration with an external editor and the Secretariat of the Asia Pacific Observatory based in the WHO Regional Office for South-East Asia in New Delhi, India.

HiTs are based on a template developed by the European Observatory on Health Systems and Policies that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The template has been adapted for use in the Asia Pacific region and is available online at: <http://www.who.int/iris/handle/10665/208276>

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents to published literature. Data are drawn from information collected by national statistical bureaux and health ministries. Furthermore, international data sources may be incorporated, such as the World Development Indicators of the World Bank. In addition to the information and data provided by the country experts, WHO supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the Global Health Observatory (GHO) data and Global Health Expenditure Database. HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are subject to wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following.

- A rigorous review process consisting of three stages. Initially, the text of the HiT is checked, reviewed and approved by the Asia Pacific Observatory Secretariat. It is then sent for review to at least three independent experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health, or appropriate authority, and policy-makers within those bodies to check for factual errors.

- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are widely disseminated (hard copies, electronic publication, translations and launches). The editor supports the authors throughout the production process and, in close consultation with the authors, ensures that all stages of the process are taken forward as effectively as possible.

9.4 About the authors

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