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Primary Health Care and Management of Noncommunicable Diseases in the Philippines

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ABSTRACT

As the Philippines adopts major reforms under the Universal Health Care Act and embarks on an integrated and primary health care (PHC)-oriented system, it is critical to assess its readiness to manage noncommunicable diseases (NCDs)—the leading disease burden in the country. In 2019, NCDs accounted for about 70 percent of 600,000 deaths nationwide. Today, premature deaths caused by NCDs are increasing at a much faster rate, especially in poor communities. The Philippine health system, however, is historically designed to address infectious diseases and maternal and child health conditions. The delivery of health services in the country has also remained episodic and fragmented, a model unfit for the management of NCDs. This study assesses the readiness of the country's PHC in the context of governance, financing, service delivery, human resources, and information and communications technology. It identifies challenges in the availability, quality, and equity of the country's health system, which hamper the provision of comprehensive and continuous healthcare services in local communities.

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INTRODUCTION

Noncommunicable diseases (NCDs) are the leading cause of disease burden in the country. In 2019, NCDs accounted for 70 percent of the total 600,000 deaths and 65 percent of 33 million disability-adjusted life years (DALYs) (IHME 2020). NCDs are conditions of long duration and slow progression. Its common types are cancers, chronic respiratory diseases, cardiovascular diseases, and diabetes, among others.

In the Philippines, where out-of-pocket (OOP) expenses remain the major source of health spending, poor and near-poor patients can be impoverished because of the large and recurring health expenditures on NCDs (Allen et al. 2016; Flores and O'Donnell 2016). This has a tremendous consequence on a country's macroeconomic growth and poverty-reduction efforts (Bertram et al. 2019). The growing NCDs epidemic can result in cost pressure in the health systems of countries (WHO 1999) since NCDs are expensive to treat and require periodic laboratory diagnostics, physician consults, maintenance medications, and hospitalizations for complications (Kankeu 2013; Subramanian 2018). Given the possible economic and health consequences of NCDs, the government must adopt effective and efficient approaches to reduce the burden of NCDs in the country.

Robust primary health care (PHC) is critical in addressing NCDs (WHO 2011a, 2018; Demaio et al. 2014). PHC serves as the initial point of contact of individuals, families, and communities with a healthcare system. It provides greater access to early management of diseases through first contact and continuous healthcare services. Ideally, NCDs are managed in local communities, where people are closer to home, and interventions are more appropriate and less expensive (WHO 2020; NCD Alliance n.d.). PHC handles NCDs in mature health systems. However, it remains weak in most low- and middle-income countries (LMICs) (Islam et al. 2014; Elias et al. 2017).

This study assesses the readiness of PHC in the country by identifying challenges in its health system that hinder the comprehensive and continuous delivery of NCD interventions. It is of high relevance as the Philippines embarks on major health reforms under the Universal Health Care (UHC) Act.

NCD BURDEN IN THE PHILIPPINES

NCD deaths in the country have continuously increased in recent years. The contribution of NCDs to total deaths rose from 39 percent in 1990 to 64 percent in 2019 (IHME 2020). While infectious diseases (e.g., tuberculosis and lower respiratory tract infections [LRTI]) and maternal and child health conditions comprise a significant proportion of the disease burden, their share has declined in the past three decades. On the other hand, almost all NCDs have increased precipitously (IHME 2020). For example, the burden of ischemic heart disease in DALYs increased from 1.9 percent in 1990 to 7.5 percent in 2019. Other NCDs, such as stroke, LRTI, chronic kidney disease, and diabetes, are included in the top 10 burden of diseases in the country (Table 1) (IHME 2019, 2020).

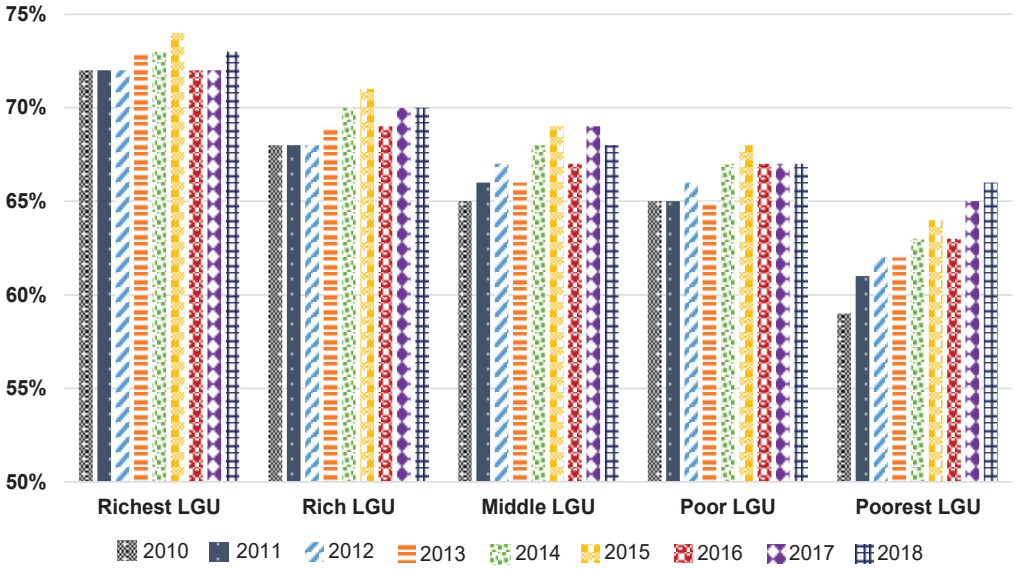
Table 1. Top burden of diseases and share of total DALYs in the Philippines by cause, 2019

Rank	Cause	Share of total DALYs			
		1990	2000	2010	2019
1	Ischemic heart disease	1.9%	4.4%	6.7%	7.5%
2	Neonatal disorder	11.2%	11.1%	9.5%	7.4%
3	Stroke	2.0%	3.7%	6.0%	6.3%
4	Lower respiratory tract infections	11.3%	8.8%	7.0%	6.0%
5	Chronic kidney disease	1.5%	1.9%	2.9%	3.5%
6	Tuberculosis	4.5%	4.5%	3.9%	3.5%
7	Diabetes	2.4%	2.4%	2.5%	3.2%
8	Low back pain	2.5%	2.5%	2.7%	3.0%
9	Interpersonal violence	4.0%	4.0%	2.9%	2.8%
10	Congenital defects	3.1%	3.1%	3.3%	2.7%

DALYs = disability-adjusted life years
Source: IHME (2019, 2020)

NCDs afflict the poor segment of the population. Latest mortality data from the Philippine Statistics Authority (PSA 2018) suggest that NCDs are increasing at a much faster rate in poor than in rich communities. Figure 1 shows the share of NCD deaths in municipalities and cities in the last decade, disaggregated by local government unit (LGU) poverty incidence. While the share of NCD deaths among all deaths in the poorest communities was lower than in rich communities, an upward trend over the last decade was observed. Meanwhile, the share of NCD deaths in relatively rich communities remained stagnant.

Figure 1. Share of NCDs in total deaths by year and municipal poverty incidence



NCDs = noncommunicable diseases; LGU = local government unit
Note: Poverty incidence of LGUs are from the PSA.
Source: Authors' analysis of mortality data from PSA (2018)

The growing burden of NCDs has socioeconomic consequences (Engelgau et al. 2011), particularly on poor communities, which typically do not have enough resources to diagnose and manage NCDs. Because of the chronic nature of NCDs and the high health care costs associated with them, poor households are further pushed into extreme poverty, either through OOP health spending or loss of economic productivity (Datta et al. 2018; Rijal et al. 2018; Verma et al. 2021).

The epidemiologic transition to NCDs can be partly attributed to the fast-changing demographics (Omran 2005). Epidemiologic transition refers to the change in disease patterns and causes of death. This means children born in the 1900s would have likely died due to infectious diseases, but children in the 20th century will most likely die because of NCDs (Omran 2005).

The Philippine population is relatively young but now starting to age. Aging happens when fertility rates drop, and life expectancy remains unchanged or improves (Population Reference Bureau 2020). In the Philippines, the total fertility rate, or the average number of children a woman would have at the end of her reproductive period (WHO n.d.), has declined in recent decades (World Bank 2020). With such patterns, deaths attributed to infectious diseases and maternal and infant deaths will further decline, but the burden related to NCDs will increase.

Changing socioeconomic status explains the increasing NCD risk factors. In the Philippines, the percentage of the population living in urban areas had increased from 30 percent in the 1960s to 50 percent in 2019 (World Bank 2020). In the past decades, traditional communities in the Philippines experienced hurried and unforeseen urbanization, which resulted in lifestyle changes like unhealthy dietary patterns and sedentary behaviors (McDade and Adair 2001).

The nexus of PHC and NCDs

PHC serves as the entry point of a population to a healthcare system. It ensures that people receive comprehensive and continuous care ranging from promotion, prevention, treatment, rehabilitation, and palliation. As such, PHC should also be delivered in communities (WHO 2019). Table 2 shows the examples of PHC services for NCDs by prevention strategy.

Table 2. Examples of PHC services for NCDs by prevention strategy

Primordial (Interventions before risk factor)	Primary prevention (Control of risk factor)	Secondary prevention (Screening)	Tertiary prevention (Control the disease or minimize the disability)
• Promotion of physical activities • Population-based anti-smoking campaigns and tobacco ban advertising or promotion • Promotion of healthy diet and reduction of salt and fat intake	• Smoking cessation interventions • Weight control	• Pap smear (for possible cervical cancer) • Colonoscopy (for possible colon cancer) • Risk-screening for cardiovascular diseases • Clinical breast exam (for possible breast cancer)	• Control blood glucose of diabetic patients • Blood pressure control or provision of maintenance drugs for hypertension

PHC = primary health care; NCDs = noncommunicable diseases

Source: Authors' compilation; WHO (2011b)

Primordial prevention is the reduction of risk factors targeted toward an entire population. It focuses on social and environmental conditions and intends to decrease risk exposure. Primary prevention means preventing the occurrence of diseases, thus targeting healthy individuals susceptible to risk factors. Secondary prevention focuses on early detection through screening of people exhibiting signs and symptoms of a disease. Tertiary prevention targets to lessen the effects of a disease on an individual (Kisling and Das 2021).

Primary care facilities (PCFs) should serve as the first point of contact of patients, families, and communities with the healthcare system to access basic and comprehensive health services. If specialized care is needed, patients are referred to hospitals within the healthcare provider network (HCPN), which must have a network of PCFs like rural health units (RHU), *barangay* (village) health stations (BHS), and other private PHC facilities (DOH 2020).

PHC is critical in achieving a country's health system goals. It improves population health, healthcare access, and health system efficiency and equity. PHC increases access to essential health services, which is of great concern, especially to those living in isolated areas. As their initial contact with the health system, primary care providers can help discuss health issues prior to referral, if needed (van Weel and Kidd 2018; Smith 2019). Studies show that PHC reduces all-cause mortality (WHO 2008, 2018a; Kruk et al. 2010) and has resulted in the reduction of maternal, child, and neonatal deaths in LMICs (Perry et al. 2017; WHO 2018b). PHC is also linked with health system efficiency. This means wasteful use of healthcare resources, such as labor and capital, are minimized (WHO 2018a). Wastes in healthcare resources include avoidable hospitalizations, readmissions, and unnecessary emergencies.

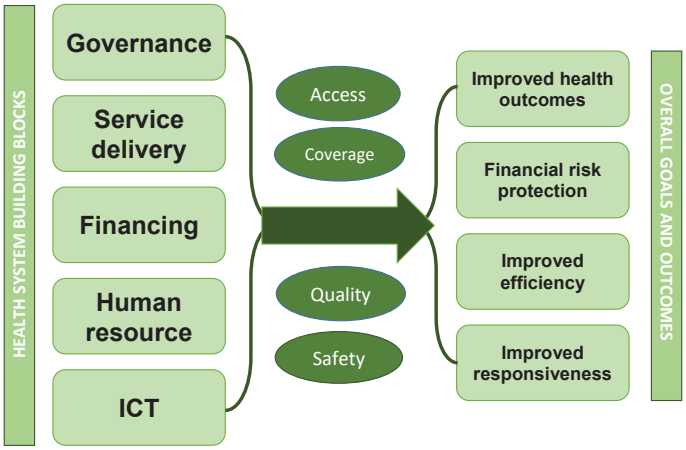
Robust PHC is essential in addressing the increasing number of NCDs. The clinical goal is to improve the quality of life (e.g., reduce symptom or pain), which requires constant monitoring and evaluation of patients and referral between specialists and primary care practitioners. This goal will help the health system move away from episodic delivery of care and shift to a more integrated and whole-person approach (Kruk et al. 2015). Episodic care can be acceptable in infectious disease management because, in general, the health system aims to treat a patient until the infection is cured. However, this kind of single encounter between a patient and health providers does not address the needs of NCD patients.

METHOD

Analytical framework

This study adopts the World Health Organization (2007) health system framework as a guide in the analysis (Figure 2). The health system framework identifies the pillars or building blocks of a health system, such as governance, financing, health service delivery, human resources, and information and communications technology (ICT). This paper examined the state of the building blocks of the country's health system and determined if it can make PHC a strategy to address NCDs. Through immediate goals like access, coverage, quality, and safety, the building blocks should be strengthened to achieve the overall goals of any health system, such as improved health outcomes, financial risk protection, efficiency, and responsiveness. If these goals are achieved, the health system will be more capable of dealing with the burden of NCDs.

Figure 2. Health system framework



ICT = information and communications technology
Source: Adapted from WHO (2007)

Data

This study gathered information from a qualitative assessment or desk review of official government documents and relevant literature. It was supported by a quantitative analysis of secondary data from the National Demographic and Health Survey (NDHS) (PSA 2017), a national survey providing updated estimates of the basic demographic and health indicators; the Philippine National Health Accounts (PNHA), which presents data and analyses on healthcare financing, provision, and consumption; and the Department of Health's Service Capability Survey for Primary Care Facilities, which provides data on the indicators of PCFs' service capability (DOH 2019).

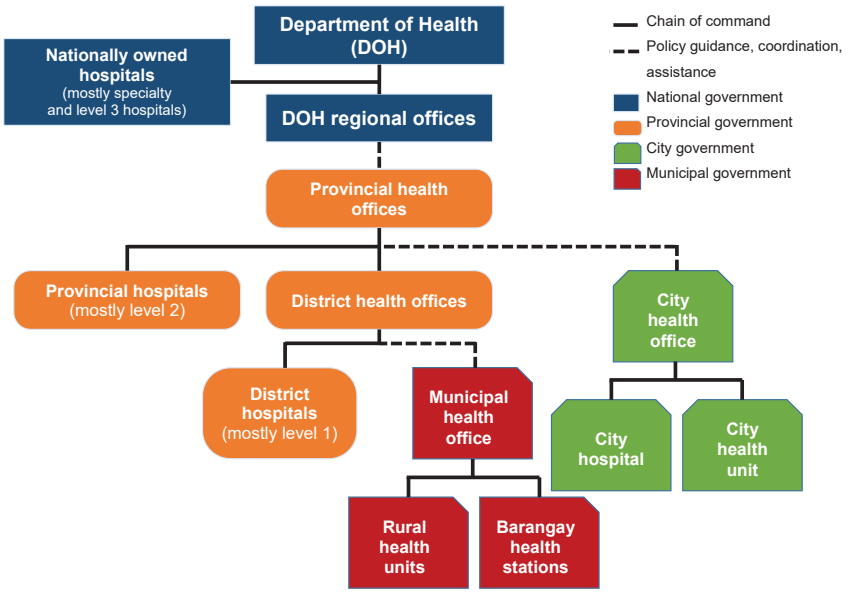
RESULTS AND DISCUSSION

This section presents the results of the assessment of the current state and readiness of the country's PHC in the context of health system building blocks, namely, governance, service delivery, financing, human resources, and ICT.

Governance

The Philippine health system is known to be highly decentralized. As mandated by the Local Government Code of 1991, the national government only sets national health policies and standards and provides assistance to the LGUs. Provinces and municipalities are responsible for the actual delivery of healthcare services and are autonomous from the national government. Figure 3 shows the current governance structure of the Philippine healthcare system. Provinces own and operate the district and provincial hospitals, while municipalities and cities are in charge of the RHUs and BHS. Both facilities provide population- and individual-based PHC services (Dayrit et al. 2018).

Figure 3. Governance structure of the Philippine public healthcare system



Source: Adapted from Dayrit et al. (2018)

The country's governance structure is fragmented. It caters to different levels and types of healthcare services under various political jurisdictions and leaderships. Individual health facilities provide different levels of care. These facilities operate in silos and do not have formal coordination in their clinical, managerial, and financing functions.

The delivery of public healthcare services is in parallel with the private system, but in a noncoordinated and fragmented fashion. The private sector provides healthcare services similar to the public system, but independently from the public system, and targets mostly the richer segment of the population. The private sector, however, is not formally integrated into the public system in providing comprehensive and coordinated healthcare services (Dayrit et al. 2018). Referral system between private and public health facilities is practiced in some LGUs but not formally institutionalized. Fragmentation makes care integration episodic and challenging to implement.

Service delivery

The country's health service delivery system is composed of the BHS, RHU or CHU, infirmaries, and hospitals. Ancillary facilities, such as standalone laboratories, pharmacies, and specialized facilities, support the functions of core facilities. RHUs and infirmaries are the main providers of PHC, while BHS can serve as extensions of RHUs in villages. BHS, RHUs, and infirmaries should provide primordial, primary, and secondary prevention for NCDs. Table 3 shows the different NCD services that are supposed to be provided in public PHC facilities.

Table 3. NCD services offered in public PHC facilities

Facility type	Owner	Catchment	NCD functions
Barangay health stations	Barangay or village executive head; barangay chairman	Barangay	• Primordial • Primary and secondary prevention (but limited)

Rural health units, city health units, or infirmaries	Municipality or city	Municipality or city	• Primordial (e.g., antismoking and other healthy lifestyle campaigns)
			• Primary care prevention (e.g., screening and diagnosis)
			  • Cardiovascular diseases - cardiovascular risk screening in adults
			  • EKG, CBC, and urinalysis capacities
			  • Cancer - annual physical checkup, clinical breast exam, cervix acetic-acid wash, hepatitis B/HPV vaccinations, smoking cessation, counseling, and education
			• Tertiary prevention - surveillance and monitoring of diagnosed patients (e.g., follow-up checkup and monitoring of hypertension)

District hospital (level 1 hospital or specialized clinic)	Provincial; some municipalities own a level 1 hospital	District (group of municipalities) or province	• Specialized outpatient facility (e.g., diagnostic and medical consultation) • Management of early stages of cardiovascular diseases • Telecardiology, x-ray, and clinical chemistry, such as FBS/lipid profile/creatinine, capacities

NCD = noncommunicable disease; PHC = primary health care; EKG = electrocardiogram; CBC = complete blood count; HPV = human papillomavirus; FBS = fasting blood sugar
Source: Authors' compilation

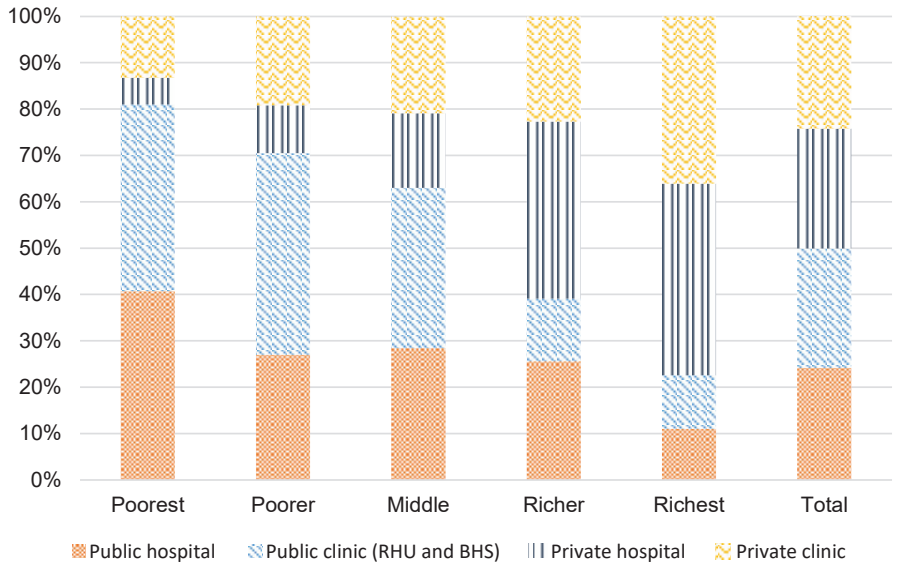
The national goal is for all Filipinos to have access to a PHC facility within 30 minutes. According to the DOH (2020), the Philippines currently has 2,600 RHUs and needs 2,600 more to reduce the gap in physical access. Moreover, based on a geospatial analysis, only half of the population have access to an RHU within this time duration (DOH 2020).

The Bangsamoro Autonomous Region in Muslim Mindanao, Bicol Region, and MIMAROPA (Occidental Mindoro, Oriental Mindoro, Marinduque, Romblon, and Palawan) have the highest percentage of population without timely access to RHUs. Private clinics provide nonhospital-based health services, but the DOH does not have complete data on private nonhospital facilities. Given that almost a fourth of PHC visits happen in private PHCs, its current supply is more or less similar to the number of public PCFs.

Data from the 2017 NDHS (PSA 2017) showed that a large population of the country was bypassing PHC. Figure 4 shows the shares of health visits due to NCD-related concerns by type of facility and wealth quintile.

Almost 50 percent of the population who visited health providers due to non-emergency and NCD-related concerns sought either private or public hospitals. The rest visited either private or public PHC facilities. However, the distribution shows a highly segmented market. Poor patients tend to visit public facilities, while rich patients tend to visit private facilities. The distribution of hospital and PHC visits are relatively equal across socioeconomic statuses. The large percentage of patients seeking health services in hospitals for non-emergency and NCD-related concerns suggests the lack of an effective gatekeeping mechanism in health facilities.

Figure 4. Shares of health visits due to NCD-related concerns by type of facility and wealth quintile

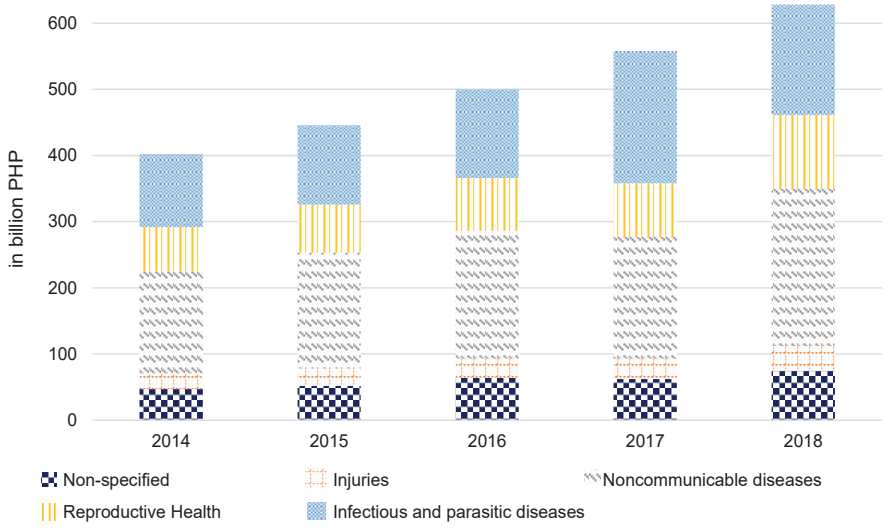


NCD = noncommunicable disease; RHU = rural health units; BHS = barangay health stations
Note: NCDs considered include hypertension, kidney disease, diabetes, and asthma. Ambulatory or outpatient cases wherein the purpose of visit is only medical checkup were excluded.
Source: Authors' analysis of the 2017 NDHS (PSA 2017)

Financing

In 2018, the country spent about PHP 640 billion on health care. Of this amount, about 40 percent were accounted for by NCDs. Figure 5 shows health spending data by disease category from the PNHA. From 2014 to 2018, health spending on NCDs increased from PHP 154 billion to nearly PHP 240 billion (in real terms using 2018 prices). Given the projected growth in prevalent cases, NCD-related health spending is expected to increase in the medium to long term.

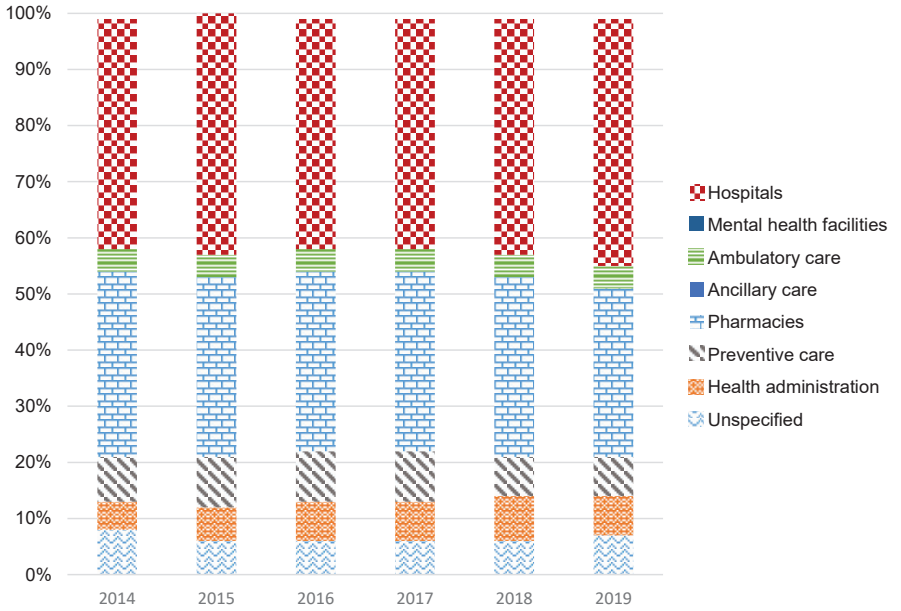
Figure 5. Health spending by disease category



PHP = Philippine peso
Source: Authors' analysis of the PNHA data from PSA (2019) deflator using World Economic Outlook data from the International Monetary Fund (2018)

Moreover, only a small percentage (4%) of the country's health spending was accounted for by PHC facilities (Figure 6).

Figure 6. Share of total health expenditure by health providers, 2019

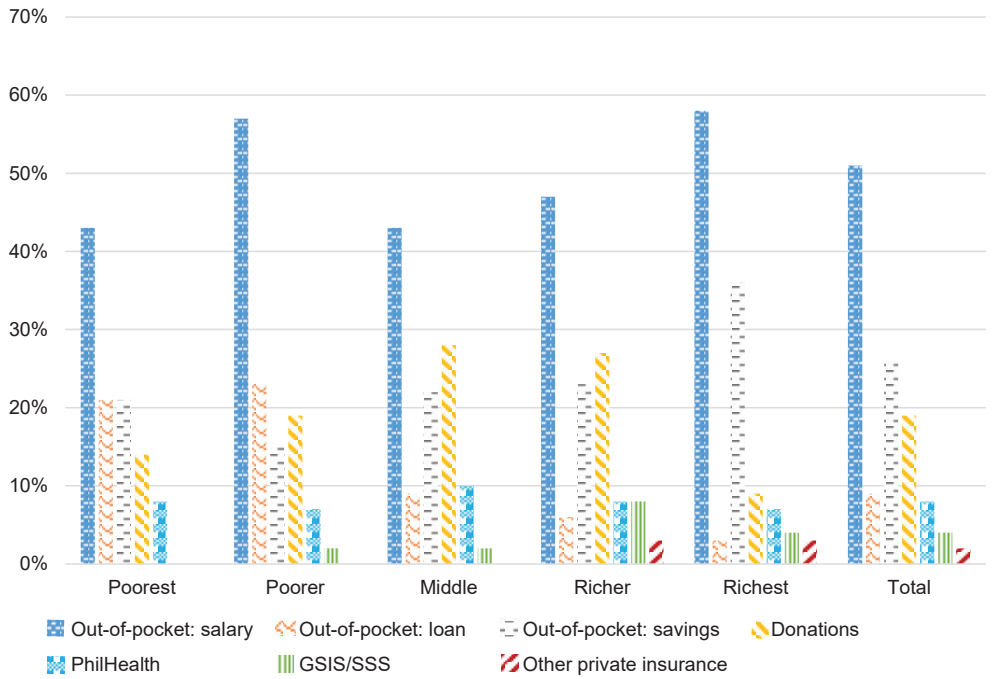


Note: Ambulatory care can be used as a proxy for PHC facility.
Source: Authors' analysis of the PNHA data from PSA (2019)

Based on the 2019 PNHA, if the country's health spending was disaggregated by type of healthcare provider, nearly 30 percent were accounted for by pharmacies, 19 percent for general public hospitals, 16 percent for private hospitals, and only 4 percent for PHC facilities.

In addition, OOP expenses are a major source of PHC spending. According to the 2019 PNHA, 52 percent of health spending accounted for OOP. The rest are public spending (e.g., national government, local government, and Philippine Health Insurance Corporation [PhilHealth]) and other private spending. The PNHA does not disaggregate the financing sources of PHC, but the majority of health spending in PHC facilities must be OOP because public spending is limited. PhilHealth, for instance, mostly covers inpatient benefits (i.e., 99% of total insurance claims are hospital claims). Figure 7 shows the sources of funds for PHC visits due to NCDs. Almost 50 percent used their salary to finance their PHC visits, and more than 20 percent of the poorest patients used loans. The large share of OOP, especially loans, and the low share of social protection schemes, such as PhilHealth, exposed households to financial catastrophe and impoverishment.

Figure 7. Sources of financing during NCD-related non-emergency visits



NCD = noncommunicable disease; PhilHealth = Philippine Health Insurance Corporation; GSIS = Government Service Insurance System; SSS = Social Security System

Source: Authors' analysis of the PNHA data from PSA (2019)

PhilHealth spending for PHC services remains negligible. In 2012, PhilHealth, the country's national purchaser, introduced the Primary Care Benefit (PCB) package, which covers pre-identified primary prevention, diagnostics, and drugs medicines in accredited RHUs. However, the package is offered only to sponsored members (i.e., poor households whose premiums are paid by the national government). In 2017, PhilHealth expanded the PCB by covering formal sector members. Benefits under this package include pre-identified

health screening and consultations, diagnostics, and medicines for selected infectious diseases and NCDs at different stages (age groups). Payment mechanism was capitation with a fixed copayment. While there was an effort to expand the breadth of PHC benefits, the total number of claims remained very low, with less than 0.05 percent of total claims value (see Table 4).

Table 4. Number and value of PHC claims in PhilHealth

Year	No. of claims in primary care clinics	Value of claims in primary care clinics	Share of claims in primary care clinics to total claims
2016	107	164,000	0.00%
2017	939	2,722,000	0.01%
2018	1,483	7,286,000	0.01%
2019	570	2,630,700	0.01%

PHC = primary health care; PhilHealth = Philippine Health Insurance Corporation
Source: PhilHealth (2019)

Multiple and overlapping sources of health financing have contributed to the fragmented health service delivery in the country. The role of the DOH should be primarily in policy development and stewardship. However, service delivery remains an important function of the national government by providing direct subsidy to RHUs in the form of capital outlay, human resources, and commodities (e.g., NCD drugs, vaccines, and family planning commodities) on top of local government and PhilHealth spending. If the majority of health spending on PHC is mostly private OOP, and public spending is low and other types (e.g., national government, local governments, and PhilHealth) are not consolidated, the position of PhilHealth to negotiate HPCN integration or any efficiency-enhancing policies weakens.

Human resources

The scarcity of healthcare staff in PHC facilities remains pervasive. A typical RHU needs at least one medical doctor, a nurse, and a midwife. On average, there should be one doctor, two nurses, and six midwives per RHU. However, 10 percent of RHUs (N=2,400) in the Philippines reported not having a doctor, while a significant share do not have a nurse or a midwife (Tables 5 and 6).

Table 5. Share of RHUs without health workers, 2019

Region	Doctors	Nurses	Midwives	Laboratory technicians	Radiology technicians	Pharmacists	Dentists
CAR	9%	2%	4%	38%	98%	94%	50%
MIMAROPA	20%	5%	7%	54%	94%	96%	42%
NCR	1%	10%	13%	62%	97%	99%	10%
Region I (Ilocos)	2%	57%	14%	36%	99%	94%	30%
Region II (Cagayan Valley)	7%	10%	10%	14%	99%	86%	43%
Region III (Central Luzon)	8%	7%	10%	23%	97%	96%	34%
Region IV-A (CALABARZON)	14%	29%	16%	44%	93%	89%	32%

Table 5. (continuation)

Region	Doctors	Nurses	Midwives	Laboratory technicians	Radiology technicians	Pharmacists	Dentists
Region IX (Zamboanga Peninsula)	13%	19%	38%	40%	99%	91%	55%
Region V (Bicol)	10%	19%	13%	17%	99%	95%	37%
Region VI (Western Visayas)	3%	7%	15%	19%	95%	95%	36%
Region VII (Central Visayas)	8%	12%	16%	42%	99%	91%	62%
Region VIII (Eastern Visayas)	13%	5%	14%	29%	99%	93%	45%
Region X (Northern Mindanao)	18%	9%	11%	33%	99%	91%	53%
Region XI (Davao)	5%	19%	0%	14%	98%	84%	25%
Region XII (SOCCSKSARGEN)	5%	21%	36%	19%	100%	70%	41%
Region XIII (Caraga)	15%	16%	3%	29%	100%	95%	58%
Philippines	**10%**	**15%**	**12%**	**32%**	**98%**	**92%**	**42%**

RHUs = rural health units; CAR = Cordillera Administrative Region; MIMAROPA = Occidental Mindoro, Oriental Mindoro, Marinduque, Romblon, and Palawan; NCR = National Capital Region; CALABARZON = Cavite, Laguna, Batangas, Rizal, and Quezon; SOCCSKSARGEN = South Cotabato, Cotabato, Sultan Kudarat, and Sarangani

Source: Authors' calculation based on the 2019 Service Capability Survey for Primary Care Facilities (DOH 2019)

Table 6. Average number of health workers in RHUs, 2019

Region	Doctors	Nurses	Midwives	Laboratory technicians	Radiology technicians	Pharmacists	Dentists
CAR	1.2	2.4	3.6	0.8	0.0	0.1	0.5
MIMAROPA	1.1	2.6	7.1	0.5	0.1	0.1	0.6
NCR	1.2	1.4	2.3	0.5	0.0	0.0	0.9
Region I (Ilocos)	1.3	3.3	6.7	0.8	0.0	0.1	0.8
Region II (Cagayan Valley)	1.2	2.5	7.9	1.1	0.0	0.2	0.6
Region III (Central Luzon)	1.1	1.9	3.9	0.8	0.0	0.0	0.7
Region IV-A (CALABARZON)	1.2	2.2	4.8	0.7	0.1	0.1	0.8
Region IX (Zamboanga Peninsula)	0.9	3.8	5.3	0.8	0.0	0.1	0.5
Region V (Bicol)	1.3	3.6	7.4	0.9	0.0	0.1	0.7
Region VI (Western Visayas)	1.2	2.3	6.4	1.0	0.1	0.1	0.7
Region VII (Central Visayas)	1.2	2.4	4.6	0.7	0.0	0.1	0.4

Table 6. (continuation)

Region	Doctors	Nurses	Midwives	Laboratory technicians	Radiology technicians	Pharmacists	Dentists
Region VIII (Eastern Visayas)	1.0	3.3	4.2	0.8	0.0	0.1	0.6
Region X (Northern Mindanao)	1.0	2.3	5.9	0.8	0.0	0.1	0.5
Region XI (Davao)	1.2	2.2	8.1	1.0	0.0	0.2	0.8
Region XII (SOCCSKSARGEN)	1.2	2.4	3.6	0.8	0.0	0.1	0.5
Region XIII (Caraga)	1.1	2.6	7.1	0.5	0.1	0.1	0.6
Philippines	1.2	1.4	2.3	0.5	0.0	0.0	0.9

RHUs = rural health units; CAR = Cordillera Administrative Region; MIMAROPA = Occidental Mindoro, Oriental Mindoro, Marinduque, Romblon, and Palawan; NCR = National Capital Region; CALABARZON = Cavite, Laguna, Batangas, Rizal, and Quezon; SOCCSKSARGEN = South Cotabato, Cotabato, Sultan Kudarat, and Sarangani

Note: Shaded in gray are the necessary cadre of professionals that a PCF should have.

Source: Authors' calculation based on the 2019 Service Capability Survey for Primary Care Facilities (DOH 2019)

Health workers in public PCFs carry gigantic tasks. For example, they need to implement the NCD program on top of at least 10 other DOH programs (DOH 2020; USAID 2020). Physicians and nurses also serve as administrators who organize the program implementation, budget, and data.

The current supply of primary care physicians in the country is not enough to meet the future needs of the population (DOH 2020). Based on the *Philippine Health Facility Development Plan 2020–2040*, more than 60,000 PHC physicians are needed to meet the PHC demand. The projected need is based on the service delivery model, as envisioned in the UHC Act.

However, the projected need for PHC physicians is equivalent to the current number of generalists and specialists in the country. Universal PHC, therefore, cannot be achieved if human production capacity remains the same and until bold reforms, such as task shifting, are pursued.

There is also limited training on NCD interventions in some PHC cadres in LGUs (DOH 2020). The NCD training offered by the national government is often limited and does not cover all staff. It is directed to doctors and nurses who share what they learn with midwives and community health workers. Among the common requests are regular refreshers on NCDs and training for more staff and cadres. Otherwise, PHC workers will find it difficult to implement new programs with only a few trained health workers or when trained personnel leave.

ICT

ICT should be used to enhance business processes and service delivery. It is useful in improving both backend and frontend health services. Backend services include the use of ICT, such as in medical record-keeping, an integral part of NCD management and healthcare integration between facilities and providers, especially during referrals. ICT can also be used at the frontend, in facilitating interaction between patients and physicians through telemedicine. This can improve the continuity of care and the monitoring and evaluation of patient progress, which are both critical in NCD management.

Despite the promising benefits of improved ICT, the adoption of e-Health (healthcare services provided electronically) solutions remains limited in the country. Most RHUs have NCD registries, but the majority of BHS use only paper, while RHUs have both paper and electronic medical records (EMRs). Access to computers and internet connectivity, however, remains a challenge in maintaining EMRs. Richer LGUs have better internet connections and resources to provide BHS with computers. Table 7 shows the share of RHUs with EMRs.

Table 7. Share of RHUs with EMRs, 2019

Region	Share
NCR	27.5%
CAR	32.9%
I - Ilocos Region	31.3%
II - Cagayan Valley	31.4%
III - Central Luzon	53.8%
IVA - CALABARZON	9.0%
IVB - MIMAROPA	28.2%
V - Bicol Region	37.4%
VI - Western Visayas	31.4%
VII - Central Visayas	6.0%
VIII - Eastern Visayas	45.4%
IX - Zamboanga Peninsula	57.1%
X - Northern Mindanao	47.9%
XI - Davao Region	26.3%
XII - SOCCSKSARGEN	29.1%
XIII - Caraga	58.9%
BARMM	no data
Philippines	35.8%

RHUs = rural health units; EMRs = electronic medical records; NCR = National Capital Region; CAR = Cordillera Administrative Region; CALABARZON = Cavite, Laguna, Batangas, Rizal, and Quezon; MIMAROPA = Occidental Mindoro, Oriental Mindoro, Marinduque, Romblon, and Palawan; SOCCSKSARGEN = South Cotabato, Cotabato, Sultan Kudarat, and Sarangani; BARMM = Bangsamoro Autonomous Region in Muslim Mindanao

Source: Authors' calculation based on the Service Capability Survey for Primary Care Facilities (DOH 2019)

Current monitoring and evaluation activities for NCD services are weak. For instance, RHUs primarily rely on counts of cases and deaths and often do not have patient management targets (e.g., percentage of patients with controlled blood pressure) or indicators to measure the effectiveness of NCD interventions. It is difficult to collect data for indicators that require blood chemistry (e.g., percentage of patients with controlled blood sugar) or medication adherence because patients cannot afford to have them regularly.

CONCLUSION AND RECOMMENDATION

The fast-changing pattern of diseases in the country—from infectious diseases to NCDs—is a signal to pursue reforms in the Philippine health system. A critical strategy to combat NCDs is the availability of robust PHC (WHO 2011a, 2018). In this study, the readiness of the Philippine healthcare system was examined in the context of (1) governance, (2) financing, (3) service delivery, (4) human resources, and (5) ICT. Issues in the availability, quality, and equity of services that hamper the healthcare system's readiness to provide comprehensive and continuous NCD care were identified. Under health service delivery and human resources, scarcity and geographic maldistribution of PCFs and health workers are major challenges.

The large inequalities in health facilities and human resources also suggest the variable capacity of local governments to implement NCD interventions in PHC settings. The national government has tried to address this in the past decade by providing grants to augment the capital infrastructure requirement (i.e., Health Facility Enhancement Program [HFEP]) and health human resources (e.g., Doctors to the Barrios program) of local governments. However, these grants do not fully address the supply constraints of LGUs in providing PHC services in communities. For example, Lavado et al. (2012) suggest that the HFEP was not allocated based on the capacity of LGUs, which makes the program inequitable. Under health financing, low public spending for PHC and hospital-centric health financing are also a challenge. Relative to other ASEAN (Association of Southeast Asian Nations) countries, the Philippines spends only about USD 6 per person for PHC. In contrast, selected ASEAN countries spend 8 percent of total health spending on PHC (about USD 20 or more per person) (DOH 2020). PhilHealth recently introduced a PHC benefit package that includes essential NCD services. However, the breadth (population coverage) and depth (i.e., expansion of current primary care package) of health insurance are offered to a limited population and health facilities (e.g., only in public facilities). Lastly, the devolved healthcare services delivery in local governments discourages integration and coordination among different levels of health facilities.

To address the growing threat of NCDs, a system-wide and comprehensive health system reform is needed. The overarching policy recommendation is to facilitate the implementation of the UHC Act (RA 11223), which already encompasses all required reforms under each domain. The UHC Act aims to expand the breadth and depth of PhilHealth. Another tenet of the UHC Act is to facilitate integration and referral systems through the creation of province- or city-wide HCPNs. Municipalities within provinces must coordinate to form an HPCN. Public and private health facilities should be integrated into the network that provides coordinated healthcare services. Healthcare integration and ownership across all levels entail the coordination of both clinical and nonclinical functions (e.g., interoperability of EMRs) of health facilities within the HPCN. This includes the expansion of breath and depth of the current PCB package. The UHC Act also reinforces sustained capital investments to reduce the huge gap in the health infrastructure of PCFs and health human resources, as envisioned in the *Philippine Health Facility Development Plan 2020–2040* and the *National Health Human Resource Masterplan 2020–2040*.

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