BUILDING HUMAN CAPITAL
LESSONS FROM COUNTRY EXPERIENCES

PHILIPPINES
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BUILDING HUMAN CAPITAL
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The Trajectory of Human Capital Development in the Philippines

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Abstract

Human capital is the Philippines’ most important resource. Two examples of its benefit to the country: Remittances from skilled and semi-skilled workers who work abroad amount to about 10 percent of its GDP, and it is one of the top destinations for foreign enterprises seeking educated workers for outsourcing their business processes. However, the Philippines has been losing its human capital edge over the past decades, with critical gaps in access to social services and in the quality of those services. In 2018, its rating on the Human Capital Index, a composite measure based on survival rates, the quantity and quality of schooling, and health status, was 0.55, putting it just ahead of Indonesia but well below Malaysia, Thailand, and Vietnam.

Within the past decade, the Philippines adopted an ambitious national social agenda that, if implemented well, funded adequately, and monitored assiduously, could put it back on a more robust human development path. All efforts should be made, however, to safeguard this promising agenda from the implementation problems that evidence suggests have subverted the country’s past performance—weak governance, selfish political interests, and widespread corruption. Sound policies won’t lead to progress unless they are implemented well across the agencies and levels of government.

The current social agenda includes landmark policies in education, health, population and social protection that represent major shifts in the country’s approach to human capital development. Among them are an expansion of the secondary education cycle that finally puts the structure of the education system on par with that of countries worldwide; a conditional cash transfer program for poor households that is already reaching intended beneficiaries; a social health insurance program for all citizens, not only for those employed; and a population program that could alleviate the burdens associated with being the fastest growing population in the region. The success of this agenda rests on the willingness of agencies and levels of government to coordinate and cooperate with one another to implement programs, and on the support of the private sector and communities. When actions and programs are more coordinated, integrated and participatory, it can take longer to make decisions, but this approach can enrich the content of programs, give stakeholders a greater sense of ownership, and increase accountability. Transversal policies and programs—those that cut across sectoral concerns and lines of authority—require strategic leadership at high levels of government as well as competent managers who are able to implement and finance this social agenda through successive political administrations.
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Building Human Capital
1. Introduction

Governments around the world vary in their ability to develop the human capital of their workforce and foster its productivity. Some governments are consistently among the world’s top performers on standardized tests of learning achievement and in delivering quality healthcare, while others struggle to provide even the most basic services.

The Human Capital Index is a cross-country metric measuring the human capital that a child born today can expect to attain by her 18th birthday, given the risks of poor health and poor education prevailing in her country. The HCI brings together measures of different dimensions of human capital: health (child survival, stunting, and adult survival rates) and quantity and quality of schooling (expected years of school and international test scores). Using estimates of the economic returns to education and health, the components are combined into an index that captures the expected productivity of a child born today as a future worker, relative to a benchmark of complete education and full health. The index reveals that a child in one country might grow up to be only 29 percent as productive as she could be. That same child, in another country with stronger systems for health and education outcomes, could reach 88 percent of her potential productivity.

There is growing global evidence that outcomes have improved in many countries. Yet less evidence is available on the policies, programs and processes that these countries have used to achieve their results. Having information on how these countries have invested in their people and on what has and has not been effective would be useful for other governments as they strive to improve their own outcomes.

The goal of this case study is to assess the human capital development trajectory of the Philippines. It examines the factors that drove that trajectory and draws lessons from this experience. The study explores not only how improvements were achieved but also what else could be done in the future to sustain and amplify the government’s investments in its people.

Analytical Framework

This case study uses a whole-of-government lens to look at issues of human capital investment and accumulation. This approach is based on three inter-related principles:

- **Continuity** – sustaining effort across political cycles
- **Coordination** – ensuring that sectoral programs and agencies work together
- **Evidence** – expanding and using the evidence base to improve and update human capital strategies.

These basic elements not only cut across politics, institutions, and silos of knowledge but often characterize the investments being made by the best performing countries throughout
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a person’s life. Some of these countries have achieved complete economic and social transformations in just a few decades. While the study focuses on cross-sectoral efforts, it also examines the key sectoral initiatives that laid the necessary foundations on which other sectors have been able to build.

Country context

Human capital is the Philippines’ most valuable asset. Two examples demonstrate how its relatively educated labor force has sustained economic and civic life and sparked some economic growth, even in troubled times. Over the period from 1977 to 2017, the Philippines was a clear outlier in terms of the amount of remittances that it received from outmigrants, many of them temporary workers abroad, compared with the amount received by its neighbor countries. Its remittance inflows in 2018 dwarfed those of Indonesia, which has a population more than twice the size of the Philippines. Even during the global financial crisis of 2009, the value of remittances from overseas Filipino workers exceeded the country’s total commercial service exports, the equivalent of about 10 percent of its GDP. Its business process outsourcing industry (BPO), which was virtually unheard of two decades ago, also grew in scope and significance, accounting for 7.3 percent of GDP and employing 1.2 million full-time workers in 2015. This growth was fueled, in large part, by the country’s large annual number of tertiary education graduates, around one-fifth of them with some training in ICT, mathematics, and engineering-related fields and an ability to speak English.

All has not been well, however. The trajectory of several human capital indicators in the Philippines over the recent decades has been modest. More than half a century ago, the Philippines led other countries of a similar income level with respect to basic education and health indicators, but by 2017 it lagged behind its neighbor countries. The World Bank’s Human Capital Index, a composite indicator based on survival rates, the quantity and quality of schooling, and health measures (with values between 0 and 1), is estimated at 0.55 for the Philippines, putting it just ahead of Indonesia (0.53) but well below Thailand (0.60), Malaysia (0.62), Vietnam (0.67), and South Korea (0.84) (Figure 1).

1. Pernia (2008)
2. See Annex Figure 2.1 on the growth trend of remittances. In fact, counting just remittances may underestimate the net benefits from the migration of relatively educated workers. Other benefits may include additional skills and technical or business networks acquired by migrants abroad (Beine et al., 2008). In addition, migration prospects can raise the expected returns to education and thus induce more human capital formation in the source country, between 1.5 and 1.8 percent more in the Philippines according to Beine et al. (2008) and about 3.5 percent higher secondary education enrollment according to Theoharides (2018). Focusing on the outmigration of nurses from the Philippines, Abarcar and Theoharides (2017) concluded that the resulting increase in nursing enrollment and graduation exceeded the increase in nurse migration. We return to this topic later in the case study.
4. Amante (2010), Ross (2016), and Price et al. (2016)
5. The Human Capital Index (HCI) measures the “amount of human capital that a child born today can expect to attain by age 18, given the risks of poor health and poor education that prevail in the country where she lives. It is designed to highlight how improvements in current health and education outcomes shape the productivity of the next generation of workers, assuming that children born today experience over the next 18 years the educational opportunities and health risks that children in this age range currently face.” ([https://www.worldbank.org/en/publication/human-capital]) See also Krasa (2016) for a full discussion of the methodology used to estimate the HCI.
The Philippines has pursued modern, widely accepted social policies well before the international movement towards universal access to basic social services. Yet, for reasons that we examine in this case study, the country’s good beginnings and seemingly sound policies have failed to sustain a robust development path for the country. Long periods of weak governance, political instability, and corrupt practices have slowed human capital development, especially in poor areas of the country and among poor households.\textsuperscript{6} There is, however, grounds for optimism about future progress. Several landmark reforms adopted in the past decade and a half address critical gaps in service delivery pertaining to inequalities in access and quality. Disaggregated data on human development indicators for the country’s 17 regions and wealth quintiles show that some of those inequalities have narrowed significantly.

\textbf{Figure 1: The HCI Score of the Philippines and Its Neighbors, 2018}

\begin{center}
\includegraphics[width=\textwidth]{HCI_score.png}
\end{center}

\textit{Data source: World Bank, 2018}

This case study is organized as follows. Section 2 presents a policy framework that argues for increased and sustained alignment, coordination, and partnerships across sectors and actors in order to take advantage of the economies of scope that are inherent in investing in people’s well-being and capacities. Successive Philippine governments have invested in human capital using mostly sector-specific legislation and institutions, but more recent policies have promoted a transversal approach, that is, a whole-of-government, whole-of-life and whole-of-society approach to ensure the delivery of basic social services.

In Section 3 we analyze data from relevant Philippine agencies, the World Bank’s Human Capital Index, the websites of relevant UN agencies, nationally representative household surveys, and publications to study the trends and patterns in human capital development in the Philippines. The evidence presented demonstrates where progress has been achieved and where obstacles to improvement need to be addressed. The key weaknesses (and challenges) are lagging human capital indicators in a few regions and for the poorest income group; erosion of the quality of basic services; and still-rapid population growth. The section also describes the policies that the government has enacted to promote or protect each aspect of

\textsuperscript{6} This case study does not aim to identify the historical roots of these problems. Eminent historians and economic and political experts in the country have done that in spades. Among the factors to which they have pointed are the dynastic, feudal politics and resulting wide social and economic inequalities in the Philippines, in part legacies of 400 years of colonial hegemony (e.g., Andrade, 2001; Dressel, 2011).
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human capital, revealing the landscape and trajectory of social policies over several decades. The Philippine government has taken important steps in the past decade and a half to redress weaknesses in its human capital development. In particular, it has adopted social programs that represent radical shifts in policy, among them, an expansion of the secondary education cycle, a conditional cash transfer program for poor households, a social health insurance program, and a promising population program. In addition, the government has been pushing for agencies to cooperate and coordinate with one another to implement human capital programs, while encouraging the private sector and communities to partner with the public sector. Sound policies won’t lead to progress, however, unless they are implemented well across the agencies and levels of government.

Section 4 draws out the elements of specific policies that use whole-of-government, whole-of-life, and whole-of-society approaches, and, where evidence is available, discusses how these have succeeded or failed. Section 5 summarizes the issues in human capital development that will require further attention.

2. A Policy Framework for Human Capital Development

For more than a half-century, the Philippine government established, promoted, and funded a wide range of policies aimed at building its people’s skills, health and nutritional status, security and well-being. Those policies established new national and local institutions to manage programs aimed at overcoming sectoral challenges and developing human capital. At least in theory, the policies were grounded in modern, widely accepted principles of social inclusion and equality, accountability and efficiency, the quality delivery of services, and coordination between government agencies. They were formulated over decades and several political administrations, and well ahead of today’s global mandates about universal access to basic services, human rights, and equality.

First, the policies address the need to provide education, health, social protection, water, and other services to all citizens. Second, they recognize the critical role of the government to provide and fund these needs, particularly to disadvantaged groups, and to protect vulnerable groups such as disabled people, young children, and senior citizens. Third, they emphasize the government’s responsibility to set standards and regulate the quality of the services provided. Fourth, they recognize the role not only of the national government but also of local governments in human capital development. Fifth, they explicitly encourage the business sector and civil society to contribute to the delivery of the services and, in several cases, set aside public funds to encourage this participation.

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7 Table 4 presents the list and timeline of the policies discussed in Section 4. Annex Table 1.1 presents a more detailed list by sector.
These principles were codified in documents from different government administrations. Legislative acts were followed by presidential decrees and executive orders, amended or strengthened by subsequent legislation, presumably in response to changing conditions and pressure from interested domestic groups and occasionally from international organizations like the UN. The policies helped to improve some human capital indicators, such as average schooling levels and child survival rates—but not nearly enough. The Philippines has failed to match more recent progress made by its neighbor countries in Asia.

What has gone wrong or what has been missing in the country’s approach? To be effective, policies that are, in principle, technically sound cannot be effective without competent implementation, accountability at different levels of government, adequate fiscal resources, and ability to resist political interests. In a country like the Philippines, implementation capacity is likely to be a binding primary constraint—stretched to the limit because of the demands of a large, rapidly growing population in a far-flung archipelago. A central hypothesis of this case study is that what can be termed a transversal approach could be the right approach to human capital development—the use of policies (and programs) that cut across sectoral concerns and lines of authority, not only at the national or central level of government but also (and especially) at the points of implementation and delivery. A transversal approach builds on the inherent interactions among the dimensions of human capital, taking advantage of economies of scope. It can enrich the content of programs and target the critical investment points in a person’s life cycle.

This case study considers three aspects of a transversal approach:

- **A whole-of-government** approach uses integrated, multi-sectoral programs to deliver human capital interventions. For example, schools may be the best way to deliver immunizations to young children, and well-baby visits to health clinics may be the best time to educate mothers about good nutrition and health practices. A whole-of-government approach involves coordination and cooperation not only between sectors but also between national and subnational governments, which is particularly critical in decentralized governments. A critical role of the national government is to ensure that adequate, timely, and reliable information is easily accessible to local governments, providers, and civil society, and that local programs are sufficiently resourced.

- **A whole-of-life** approach is built on the recognition that human capital development starts at birth (and even before birth) and continues throughout life, that early gains secure a lifetime of progress, and that sustaining human capital over the lifecycle (through lifelong learning, health insurance, and support for the elderly) yields long-term dividends. This approach is built also on the premise that improvements in one aspect of life spill over into other aspects. For example, well-nourished students attend

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8 World Bank (2019b)
school more regularly and learn better than their poorly-nourished peers; clean air programs and sanitation infrastructure help individuals to live a healthy life. Capuno et al. (2009) found that subscription to the national health insurance program has a significantly positive and independent effect also on school attendance, a finding that is consistent with the hypothesis that health, schooling, and other household choices are jointly determined within the household.

- A whole-of-society approach takes advantage of the important contributions that communities and the enterprise sector can make to human capital development. A systematic review of evaluations undertaken in many countries examined the impact of community participation on service delivery and found that communities, if empowered and informed, do improve the design, management and delivery of programs, hold providers accountable, and promote social inclusion. The approach implies that failing to engage different stakeholder groups dilute the success of development programs.

Past Philippine human development policies have mostly been specific to sectors, but even as far back as the 1970s, a few called explicitly for integrated programs, coordination between agencies in multiple sectors, and collaboration between the national and local governments. There is now an apparent shift towards more such policies. However, a shift in policy must be accompanied by real changes in practice. We noted at the outset that transversal policies require greater alignment, coordination, and partnerships across sectors and actors. These can become very difficult when individual sectors (and their respective leaders) jealously guard their territory. Ensuring the effective implementation of transversal policies and programs will depend not only on having a coordinating central ministry but also on other agencies being ready to work on a shared policy agenda. Decisions may take longer to reach and it may take longer to take actions as a result. The availability of adequate financing across agencies, across levels of government, and across successive political administrations is key, and so is the decision about who controls the program budget. The 1991 Local Government Code devolved many functions from the national government to subnational governments, but multi-sectoral service delivery programs have been difficult to implement and resource well at the local levels where they count most.

Before we discuss whether specific past policies can be regarded as examples of a whole-of-government, whole-of-life, or whole-of-society approach, in the next section we review the historical trajectory of human capital development in the Philippines.

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9 Waddington et al. (2019)
3. Trends and Patterns: Strong Beginnings, Modest and Unequal Progress

**Human Capital Index**

The Human Capital Index (HCI) is based on five indicators: (i) the probability of children surviving to age five; (ii) a child’s expected years of schooling; (iii) harmonized student test scores to measure the quality of learning; (iv) the adult survival rate (or the fraction of 15-year-olds who will live until 60), and (v) the proportion of children who are not stunted.\(^\text{10}\) The average global HCI is 0.56, that is, 56 percent of all children born today will grow up to be, at best, half as productive as they could be if they had a complete education and were completely healthy (Figure 1). The HCI Index value for the Philippines is 0.55. It reflects an under-5 survival probability rate of 97 out of 100 children, with 67 percent of those children not being stunted. It also reflects a survival rate to 60 years old of 80 percent by the time these children reach 15. They can expect to have 12.8 years of schooling by 18 and to have an average test score of 409 on a scale in which 625 means advanced attainment and 300 represents minimum attainment; this translates into 8.4 learning-adjusted years of schooling.

In 2018 the Philippines performed just above the global median with respect to expected years of schooling completed, but the poor performance of its students on standardized international tests (below the global median) yields a much lower learning-adjusted years of schooling (Figure 2).\(^\text{11}\) The country’s position with respect to health is worse, with both its under-5 and adult survival measures being below the global median and its rank on stunting being just below the bottom quartile (World Bank, 2019c). Having established the position as of 2018, we look at historical data on indicators similar to those used in the HCI to assess how the Philippines came to have these low rankings on the HCI’s schooling and health indicators.

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\(^{11}\) At the time of this writing, the HCI for the Philippines did not yet reflect the results of the 2018 PISA.
Figure 2: Components of the Philippine Human Capital Index, 2018

Long-Run Trends in Human Capital Indicators

Schooling and learning. The importance that the Philippine governments of the 1970s accorded to mass education jumpstarted an expansion in enrollment at both the primary level (six grades) and the secondary level (four years). Since then, the gross enrollment rate at the primary level has been consistently well over 100 percent, and the primary completion rate has exceeded the average for low-middle income countries and has been comparable to the average for countries in the region and for upper-middle-income countries. In 1970, the gross enrollment rate in secondary education was higher than that of other countries in the region, including South Korea; that rate increased over time, nearing 90 percent by 2017. The net enrollment rate has also been rising, reaching over 60 percent in 2015, which was higher than the average for lower-middle-income countries but lower than the average for East Asian countries and for upper-middle-income countries. This growing number of high

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In contrast, the trend in the net enrollment rate (for which comparable data across countries are less readily available) has been closer to 90 percent. This discrepancy between gross and net enrollment rates (the ratio of number of students enrolled to the total number of children who are of the official age range, as compared to the ratio of students enrolled who are of the official age range to the total number of children in that age range) is due partly to late school entry and partly to grade repetition. The persistence of this discrepancy well into the current period indicates that not much progress has been made in addressing the underlying causes.
school graduates increased the pressure on the capacity of tertiary education institutions. The gross enrollment rate at the tertiary level had been significantly higher than the average in both lower-middle-income and upper-middle-income countries until it flattened out at 30 percent from about 2000. In the meantime, gross tertiary enrollment rates in other countries have been rising.

The expansion in enrollment at all education levels quadrupled the average completed years of schooling in the country between 1950 and 2010, according to the estimates by Barro and Lee (2013) (Figure 8). For the first 40 years, only South Korea had a higher average education attainment level. In 2010, the estimated years of completed schooling by Philippine youths aged 15–19 was almost nine years, but this was eclipsed by the faster progress achieved by China, Malaysia, and Thailand. With the 2013 major education reform that has added two years to the number of years required for high school graduation, the number of schooling years completed by the current generation of high school students will likely increase.

Although the Philippines has raised its average education level, the quality of that education has deteriorated over recent decades. The HCI harmonized test data which compare 157 countries show that, on average, Philippine students performed worse than what would be expected given the country’s average number of years of schooling. Decomposing the average score by proficiency levels, in 2015 fewer than one-half of Philippine students reached the minimum proficiency level in international tests and just 3 percent reached the advanced proficiency level. These percentages are lower than those of Thailand and Indonesia.

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14 Di Gropello (2010) and Maligalig et al. (2010). This claim has been made also by several experts, such as the Philippine Business for Education (PBEd): “We have not done so well in some aspects of education ensuring, in particular, that learning happens in the classroom and that graduates are job ready. . . . More Filipinos are getting educated as the government continues to invest in education, but such progress has not translated into actual learning in the classroom and the labor market,” (Montemayor, 2018). PBEd is an advocacy group which conducts an annual assessment of the Philippine educational system to ensure it provides quality learning for the national and global economy. It is also a motivation given for the 2013 Enhanced Basic Education Act.
15 Altinok et al. (2018) describe their database of Harmonized Learning Outcomes (HLOs) as comparing student scores on international tests such as PISA and TIMSS with regional tests globally and over time. By making the regional assessments comparable to international assessments, they are able to expand the number of countries that have comparable, harmonized learning measures. They use alternative anchoring methodologies to link the assessments. The Philippines participated in TIMSS, the longest-running international student assessment, in 1999 and 2003 with average scores of 345 and 378, respectively. In 2003, it ranked 42nd out of 46 participating countries. The Philippines took part in the Advanced TIMSS 2008, scoring an average of 355, but with the participation of students only from science high schools and the elite private institutions. These are all scaled scores and can be compared against each other.
Figure 3: Enrollment Rates and Expected Years of Schooling, 1950–2010

Completion rate in primary education (%)

Gross enrollment rate in secondary education (%)

Gross enrollment rate in tertiary education (%)

Years of completed schooling, 15–19 years old
The latest round of PISA corroborates this low performance.\textsuperscript{16} Fifteen-year-old Philippine students scored lower than students in nearly all of the participating countries and economies—an average of 340, 353 and 357 points in reading, mathematics, and science, respectively. These scores mean that in reading 81 percent of students achieved lower than a minimum level of proficiency (below Level 2), that is, about four-fifths of students could not “identify the main idea in a text of moderate length, find information based on explicit, though sometimes complex criteria, and reflect on the purpose and form of texts when explicitly directed to do so” (Besa, 2019). In mathematics, a similarly high percentage of students performed below the minimum level of proficiency; these students could not “interpret and recognize, without direct instructions, how a (simple) situation can be represented mathematically (e.g. comparing the total distance across two alternative routes, or converting prices into a different currency)” (OECD, 2019). In science, 78 percent scored below the minimum level of competency; they could not “recognize the correct explanation for familiar scientific phenomena and can use such knowledge to identify, in simple cases, whether a conclusion is valid based on the data provided” (OECD, 2019).

Figure 4 shows the Philippine scores relative to those of countries with similar per-capita GDP and with neighbor countries. Interestingly, there is a large difference between the average scores of students enrolled in private schools and those in public schools, attesting to a significant quality difference between public and private schools.

\textsuperscript{16}In 2018, the Philippines participated with 79 countries and economies in the latest round of PISA. In this assessment, 7,233 students in 187 schools completed the assessment, representing 1,400,584 (or 68 percent) of the 15-year-old students (OECD, 2019). More than 15 hours of test items for reading, mathematics, science and global competence were covered, with different students taking different combinations of test items. Test items were a mixture of multiple-choice questions and questions requiring students to construct their own responses. Students also answered a background questionnaire, which sought information about the students themselves, their attitudes, dispositions and beliefs, their homes, and their school and learning experiences. School principals completed a questionnaire that covered school management and organization, and the learning environment. The Philippines also participated in TIMSS in 2019 but the results are not yet available as of this writing.
Source of data: 2018 PISA (OECD, 2019)
Notes: Analysis by staff of the Philippine Institute for Development Studies
Survival and health. In 1950–1955 when nearly all of East Asia was just recovering from World War II, UN estimates of life expectancy at birth put the Philippines first among its neighboring countries. By 2010–2015, the country had slipped to last in the group (Figure 5). The time trend in healthy life expectancy (estimates of life expectancy adjusted for disease and disability) elaborates further this startling turnaround. Adjusting for illness and injury reduces life expectancy estimates in the Philippines by 8 to 10 years: The healthy life expectancy at birth is 59.4 years for males (slightly lower than Indonesia’s 60.4) and 64.2 for females (just above Indonesia’s 63.0) (Figure 6).\(^7\)

\textbf{Figure 5: Life Expectancy at Birth (Years), 1950–2015}

\footnote{Unfortunately, these numbers are available only from 2000 when the Philippines had already started slipping in the ranking.}
The under-5 mortality rate is an important component of life expectancy estimates. In the Philippines, this dropped from 137 per 1,000 live births in 1950–55 to 28 per 1,000 live births in 2015–20 (Figure 7). This progress is significant—but it is modest compared with the progress made by its neighbor countries. China’s under-5 mortality rate was 205 per 1,000 live births in 1950–55 which decreased to 10 per 1,000 live births by 2015–20. Indonesia began the period with an under-5 mortality rate of 276 and ended it with 25 per 1,000 live births. Thus, as of 2015–20, the Philippines had the highest under-5 mortality rate of the seven countries in the region, and certainly higher than the MDG target of 19.7 infant deaths per 1,000 live births.
The most common causes of death for under-5 children are birth-related conditions such as prematurity, asphyxia, and birth trauma, followed by diarrheal diseases and injuries. These birth-related problems have declined, a result perhaps of more antenatal care and a higher percentage of births attended by health personnel. Among under-5 children, the number of deaths per 1,000 live births from diarrheal diseases and communicable diseases halved between 2000 and 2017, but deaths per 1,000 live births from birth-related problems did not fall by as much.\textsuperscript{18} A 1976 presidential decree called for compulsory basic immunization for children and infants under eight years of age, immunization against tuberculosis, diphtheria, tetanus, pertussis, poliomyelitis, measles, rubella, and other diseases,\textsuperscript{19} but this goal has not been realized, at least for children under age two. About three-quarters of children aged 12–23 months old were fully immunized in urban and wealthier households in 2017, but only two-thirds of rural children and 58 percent of children in the poorest households received the eight basic vaccinations.

Across all ages, the 10 leading causes of deaths for both men and women in the Philippines are a mix of communicable and noncommunicable diseases (NCDs), according to the Institute for Health Metrics and Evaluation (IHME).\textsuperscript{20} Two communicable causes (lower respiratory infections and tuberculosis) are on the IHME lists for 2007 and 2017, but

\textsuperscript{18} Department of Health (2018).
\textsuperscript{19} Presidential Decree 996 "Compulsory Basic Immunization for Children."
\textsuperscript{20} The IHME is an independent population health research center based at the University of Washington. It produces comparable measurements of the world's health problems and evaluates the strategies used to address them.
noncommunicable diseases (NCDs) dominate the lists for both years (Figure 8).\textsuperscript{21} Heart disease, strokes, and lower respiratory infections are the top three causes of death, and their prevalence rates have increased over time. These three causes of deaths are also the leading causes of deaths in lower-middle-income countries as a whole, but communicable diseases figure less prominently in the Philippines’ top 10 than they do in lower-middle-income countries, on average, and more so than in upper-middle-income countries. What is quite striking is the growth in the prevalence rates of the three NCDs that are related to diet and exercise—chronic kidney disease, diabetes, and hypertension.\textsuperscript{22}

\textbf{Figure 8: Leading Causes of Death and Percentage Change, All Ages, 2007 and 2017}

![Diagram of leading causes of death and percentage change](image)

\textit{Notes:} COPD = Chronic obstructive pulmonary disease

\textit{Source:} IHME, [http://www.healthdata.org/philippines](http://www.healthdata.org/philippines)

The leading causes of death are the same as the leading causes of illness. Rates of deaths from respiratory diseases, including pneumonia, bronchitis, and respiratory tuberculosis, increased significantly in the decade between 2005 and 2015 (Table 1). Together these diseases caused twice as much illness as all other diseases on the list of leading causes. Poor air quality, congested living conditions, and undernutrition are generally to blame for these infections. The mortality rate attributed to poor home and ambient air quality is higher in the Philippines than in comparator countries—185 per 100,000 population in 2016 compared with an average of 114 in East Asia and the Pacific, excluding rich countries, and with 166 in lower-middle-income countries (World Bank, 2019).

\textsuperscript{21}A dissenting view about the relative importance of communicable diseases and NCDs is given by E.I. Cabral (Cabral, 2016), a former Secretary of the Department of Health and the Department of Social Welfare and Development. “Communicable diseases remain a serious concern in the Philippines. While the country’s disease burden shifts away from communicable to non-communicable diseases (NCDs), it is important to improve upon the gains made in controlling infectious diseases such as measles and not to ignore the threat of emerging communicable diseases such as Ebola, MERS-CoV, bird flu, and Zika infection. NCDs mainly affect the elderly and adults.”

\textsuperscript{22}The Philippines faces a double burden of malnutrition—the co-existence of serious levels of nutritional deprivation and an emerging problem of obesity—which derives in large measure from its high-income inequality (Balisacan, 2007; Dressel, 2011; and McDoorn et al., 2018). The lowest-income households are most likely to suffer from undernutrition, but households with higher incomes are beginning to face problems associated with over-nutrition.
Philippines

Table 1: Leading Causes of Morbidity by Gender, 2005 and 2015

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2015</th>
<th>Percentage change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>Respiratory diseases*</td>
<td>1666.5</td>
<td>1664.1</td>
<td>1610.3</td>
</tr>
<tr>
<td>Hypertension</td>
<td>448.8</td>
<td>390.3</td>
<td>505.5</td>
</tr>
<tr>
<td>Diarrheal diseases**</td>
<td>707.6</td>
<td>691</td>
<td>658.3</td>
</tr>
<tr>
<td>Influenza</td>
<td>476.5</td>
<td>447.1</td>
<td>484.8</td>
</tr>
<tr>
<td>Urinary tract infection</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Source of data: Philippine Health Statistics, Department of Health. Notes: *Including acute infection, pneumonia, bronchitis, respiratory TB. **Acute diarrheal diseases. For urinary tract infection, there were no data in 2005, but the percentage changes for total, males, and females from 2010 were 292 percent, 15.6 percent, and 33.3 percent in just five years. NA-Not available.

Stunting: In 2015, one-third of Philippine children under 5 were stunted, compared with one-fourth of children in Vietnam in the same year and less than one-tenth in China in 2018 (Figure 9). These prevalence rates are lower than the corresponding rates in 1990, but in 2016 the Joint Malnutrition Estimates of UNICEF, WHO, and the World Bank identified the Philippines as having the worst nutritional status among its neighbor countries. According to the Philippine Plan of Action for Nutrition (PPAN), the four main nutritional disorders among children are protein-energy malnutrition and deficiencies in iron, Vitamin A, and iodine. Infants are the most vulnerable to iron deficiency anemia, the most prevalent micronutrient deficiency problem in the country. Vitamin A deficiency is related to major health problems among children aged 6 months to 5 years old. Iodine deficiency is most prevalent among children aged 6–12 years.
Weaknesses (and Challenges)

In the 1970s, the government took actions to tackle the main challenges to providing nutrition services, considered to be limited availability of national nutrition data, manpower, tools, and infrastructure.\textsuperscript{23} Presidential Decree 491 in 1974 established the National Nutrition Council (NNC) as the policymaking and coordinating body on nutrition. The decree mandated that nutrition programs be implemented in an integrated fashion. Today the main challenges are to improve health programs at the local level and to construct an evidence base to help refine the strategies of supplementation, fortification, breastfeeding, and food security.\textsuperscript{24} Through public and private entities, the NNC has fielded national nutrition surveys and provided dedicated nutrition workers in each village.

\textit{Notes} Stunting is defined as the percentage of children aged 0 to 59 months who are below minus two standard deviations from the median height-for-age in the WHO Child Growth Standards. 1990 data available for China and the Philippines, but not for Indonesia and Vietnam. Missing bars denote missing data for the series. No data for the years 1991, 1996, 1997 for all countries.


\textsuperscript{23} Solon (2006).

The second is the low quality of human capital services which may be due to inadequate resources allocated to those services and/or the failure of agencies to implement the quality standards and rules specified by law. The third is rapid population growth which continues to weigh heavily on government and families in providing and financing social services for each young generation. These weaknesses are reflected in the regional HCI scores (World Bank, 2019c) (Figure 10). Those disaggregated scores indicate that Region II (Cagayan Valley) has the highest average HCI score, while Bangsamoro Autonomous Region of Muslim Mindanao (BARMM) has the lowest score. Children in BARMM, Eastern Visayas, and SOCCSKSARGEN will reach less than half of their potential future earnings when they reach adulthood, and children from the wealthiest quintile of households will accumulate 40 percent more human capital than those in the poorest quintile. The human capital indicators in the poorest regions and income groups are about as low as in much poorer countries, while the indicators in the richest regions and income groups are as high as in much richer countries.

**Figure 10: Philippines HCI by Region and Wealth Quintile, 2017**

*Source: World Bank (2019c, p. 49)*

**Inequalities among Wealth Groups and Regions**

*Inequalities among wealth groups.* Focusing on the HCI components, Table 2 shows differences in human capital among wealth quintiles, though some large gaps narrowed dramatically.

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25 The Philippines Demographic and Health Survey 2017 is the seventh in the series of Demographic and Health Survey (DHS) in the country. The series was launched in 1993 and fielded every five years. The 2017 Philippines DHS covered 25,074 women ages 15–49 from 27,496 randomly selected households. The Annual Poverty Indicator Survey (APIS) is conducted by the Philippine National Statistical Office. Neither database provides data on all HCI indicators.

26 Comparing UN data for 2017 (UN-ICGE, 2018) with the most recent Philippine 2017 DHS data (DHS, 2017), the probability of survival to age 5 in the poorest quintile in the Philippines (0.58) and in several of its regions (BARMM, 0.45; Western Visayas, 0.55; SOCCSKSARGEN, 0.52) is about equal to the probability of survival to age 5 in low-income countries (e.g., Kenya, 0.54; Senegal, 0.55; Madagascar, Namibia, 0.56; Tanzania, 0.46; Yemen, 0.45). On the other hand, the probability of survival to age 5 in the richest quintile in the Philippines (0.89) and in its National Capital Region (0.89) is about the same as in several upper-middle income countries (e.g., Turkey, 0.88; Thailand, 0.90; Mauritius, 0.87).
between 1993 and 2017, indicating that public programs had been effectively pro-poor. The mortality rate for children under 5 dropped more in the richest quintile (Q5) than in the poorest quintile (Q1) (-67 percent as compared with -55 percent), but these changes were enough to reduce wealth inequality (measured as the Q5/Q1 ratio) by a third. The use of antenatal care in the poorest quintile increased by 24 percent, and the percentage of births delivered in a health facility among the same households rose by more than 700 percent, bringing these indicators much closer to parity by 2017. Nonetheless, the percentage of households using antenatal care was still 13 percent higher in the richest quintile than in the poorest quintile, and the percentage of births delivered in a health facility was 66 percent higher.

<table>
<thead>
<tr>
<th></th>
<th>1993</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under-5 mortality rate (%)</td>
<td>94  75  55  37  33</td>
<td>0.35  42  29  31  12  11  0.26</td>
</tr>
<tr>
<td>Antenatal care by a skilled provider (%)</td>
<td>69,283,690.0 93.4 97.7</td>
<td>1.41 86,494.9 95.8 97.4 97.5 1.13</td>
</tr>
<tr>
<td>Birth delivered in health facility (%)</td>
<td>6.9 14 30.4 47.7 70.9</td>
<td>10.28 58.4 74.5 84.4 91.4 96.9 1.66</td>
</tr>
<tr>
<td>Children 12-24 months received all basic vaccinations (%)</td>
<td>61.0 71.7 79.9 74.7 75.8</td>
<td>1.24 57.5 71.3 72.8 80.7 75.0 1.30</td>
</tr>
<tr>
<td>Median years of schooling**</td>
<td>3.5 5.1 5.8 7.3 9.3</td>
<td>2.66 4.8 6.9 8.9 10.3 12.0 2.50</td>
</tr>
<tr>
<td>Highest schooling completed (%)</td>
<td>18.0 21.5 19.5 15.6 10</td>
<td>0.56 15.4 14.9 12.1 9.4 6.3 0.41</td>
</tr>
<tr>
<td>Only some primary</td>
<td>15.0 26.3 4.2 35.8 30.7</td>
<td>2.05 28.7 40.3 44.1 40.6 26.6 0.93</td>
</tr>
<tr>
<td>Some high school</td>
<td>1.6 5.1 11.6 20.8 38.8</td>
<td>24.25 3.5 10.8 18.7 31.4 33.4 15.26</td>
</tr>
<tr>
<td>Total fertility rate, women aged 15-49</td>
<td>6.5 5.4 4.1 3.3 2.2</td>
<td>0.34 4.3 3.2 2.6 2.1 1.7 0.40</td>
</tr>
<tr>
<td>Married women currently using any modern method of contraception (%)</td>
<td>15.7 22.6 25.7 29.7 31.4</td>
<td>2.00 43.8 46.2 41.1 36.9 33.4 0.76</td>
</tr>
<tr>
<td>Improved source of drinking water (%)</td>
<td>6.8 26.7 46.7 65.6 84.5</td>
<td>12.4 13.7 45.8 74 89.3 97.1 7.09</td>
</tr>
<tr>
<td>No toilet facility*** (%)</td>
<td>48.4 11.5 2.4 0.2 0</td>
<td>0.0 19.5 2.6 0.6 0.0 0.0 0.0</td>
</tr>
</tbody>
</table>

Source of data: Philippines Demographic & Health Surveys, 1993 and 2017
Notes: Q1= Richest quintile ... Q5=Poorest quintile *Probability of dying before the fifth birthday in the ten years preceding the survey, per 1,000 live births. **No data on expected years of schooling disaggregated by wealth quintiles. ***Earlier data are for 2008, not for 1993; data not available for 1993.

There were also significant improvements in the schooling indicators of those in the poorest quintile. Between 1993 and 2017, the percentage in the poorest quintile who had at least some secondary schooling increased by 91 percent, more than halving the inequality ratio between the richest and the poorest quintiles (from 205 percent to 93 percent). The share of the population in the poorest quintile with some tertiary education doubled during this period, but this share remains a miniscule 3.5 percent, compared with 53.4 percent in the richest

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28 World Bank (2019c).
Philippines

quintile. The 2018 PISA results also indicate large gaps in academic performance due to income. The students in the richest quartile significantly outperformed the students in the poorest quartile. Socioeconomic status explains 13 percent of the variance in mathematics scores and 14 percent in science scores (Besa, 2019).

Inequalities among regions. The country’s geographical dispersion presents policymakers with many difficult challenges to deliver social services efficiently and equitably. The country is divided into 17 regions, each consisting of three to six provinces, spread across some 7,000 islands. Language diversity, in addition to distances, hinders service delivery by limiting the possibility of deploying teachers or health personnel from relatively overstuffed areas to underserved areas. Although Filipino and English are the official languages, there are more than 100 living languages in the country, and more than one language may be spoken in any given region. To illustrate, the 2018 PISA data reveal that 94 percent of the 15-year-old test-takers speak a language other than the test language (i.e. English) at home most of the time. This percentage was the second highest among PISA-participating countries (Besa, 2019).

Geographic disparities have narrowed in the 17 regions. Figure 11 presents changes in the regional values of two HCI component indicators, plus 2015 numbers for stunting. The indicators improved over the period 1998 to 2017, but the improvements were not equal across the regions. The under-5 mortality rate decreased in 16 regions, the Western Visayas region was an exception. The net enrollment rates in the primary and secondary education levels increased between 2003 and 2017, accounting for the increase in the median number of years of schooling of the population aged 15–49. Unsurprisingly the National Capital Region (NCR) is number one, while BARMM has only 64 percent of the NCR’s amount of schooling. We do not have time-series data on under-5 stunting, but in 2015 the regional inequality in this indicator is still staggeringly wide. The gap between BARMM which has the highest prevalence rate and Region III which has the lowest rate is 20 percentage points. Figure 12 presents several service delivery indicators disaggregated by region that explain the narrowing regional gaps in the HCI measures but also identify where specific services are lagging behind in some regions.

29 The 1987 Constitution designates Filipino as the national language and English as a second official language, but there are hundreds of dialects which are variations on 120 different languages. According to self-reported data from 2006, 65 percent of Filipinos claim that they understand spoken English, 65 percent could read it, 48 percent could write it, and 32 could speak it (Social Weather Stations, 2006).

30 Disparities between urban and rural areas have also narrowed since 1993. The urban-rural gap in the under-5 mortality rate decreased to 28 percent by 2017, from 31 percent in 1993. This trend has surely been helped by the greater availability and use of health services in rural areas. Urban-rural parity has been reached in the proportion of women who received antenatal care, and the ratio of the percentage of births delivered in a health facility in urban areas to that in rural areas declined from 3.16 to 1.17. In schooling, the narrowing of gaps is most evident in the shares of the populations with any tertiary education. In 1993, 22.7 percent of urban residents and 8.9 percent of rural residents had attended tertiary education, giving an urban-rural ratio of 2.6; by 2017, this ratio had decreased to 1.8. Nonetheless, disparities in enrollment exist. For example, more out-of-school children live in rural areas than in urban areas. In rural areas, one-half of school-age children in the poorest quintile are out of school, whereas in urban areas only one-fifth of the poorest school-age children are out of school.
Building Human Capital

Figure 11: Philippines HCI Indicators by Region, 1998 and 2017

Notes: Region I: Ilocos Region; II: Cagayan Valley; III: Central Luzon; IV: CALABARZON (Southern Tagalog); V: Bicol Region; VI: Western Visayas; VII: Central Visayas; VIII: Eastern Visayas; IX: Zamboanga Peninsula; X: Northern Mindanao; XI: Davao Peninsula; XII: SOCCSKSARGEN; XIII: CARAGA; XIV: National Capital Region (NCR); XV: Cordillera Administrative Region (CAR); XVI: BARM (Bangsamoro Autonomous Region); XVII: MIMAROPA (Southwestern Tagalog Region). See Annex Table 2.1 for provinces in each region.
**Figure 12: Selected Service Delivery Indicators by Region**

Sources of data: Department of Education (DepEd); Annual Poverty Indicator Survey (APIS), 2017; Philippine Demographic & Health Surveys, 1998 and 2017

Notes: Region I: Lloco Region; II: Cagayan Valley; III: Central Luzon; IV: CALABARZON (Southern Tagalog); V: Bicol Region; VI: Western Visayas; VII: Central Visayas; VIII: Eastern Visayas; IX: Zamboanga Peninsula; X: Northern Mindanao; XI: Davao Peninsula; XII: SOCCSKSARGEN; XIII: CARAGA; XIV: National Capital Region (NCR); XV: Cordillera Administrative Region (CAR); XVI: BARMM (Bangsamoro Autonomous Region); XVII: MIMAROPA (Southwestern Tagalog Region). See Annex Table 2.1 for provinces in each region.
Overall, the region that stands out with the worst human capital indicators is BARMM (Region XVI). The ongoing decades-old armed conflict in that region has been a strong contributing factor. According to a World Bank study of BARMM, community leaders and service providers complained about the poor condition of infrastructure, the absence of basic supplies (such as textbooks in schools and drugs in health clinics), a lack of funds for any kind of teacher professional development, and frequent disruption of classes and health services due to the armed conflict.\(^{31}\)

**Low Quality of Services**

When public services are of poor and unreliable quality, they do not produce the desired outcomes. They disappoint users, making them less likely to trust public sector providers and pushing some to choose alternative providers or to not use services at all. In education, two-thirds of out-of-school youths come from the two poorest income quintiles, households who don’t usually have viable alternatives. In health, enrollment in the Philippine Health Insurance Corporation (PhilHealth), a mandatory program that was created to provide at least a minimum package of health insurance benefits, is lower in poorer regions of the country.

**Teachers.** Addressing issues related to the shortage and low quality of teachers is particularly important for lower-income students who are less likely to get support in homes that do not have learning materials or caretakers who have more schooling than they do. In one-third of the schools more heavily attended by lower-income students, principals were more likely to cite shortage of teaching staff as a barrier to adequate instruction, compared with one-tenth of schools more heavily attended by higher-income students (Besa, 2019). The average pupil-teacher ratio in primary schools in the Philippines is similar to the average in lower-middle-income countries (about 35 since 1990), but is higher than the average ratio in neighbor countries (about 25 and falling).\(^{32}\) While pupil-teacher ratio has been debunked as a reliable measure of school quality, it nonetheless suggests the level of stress faced by teachers (and students) within the classroom.\(^{33}\) On average, the pupil-teacher ratio in primary schools is most favorable in the NCR (24:1) and least favorable in BARMM (39:1), which in part reflects how much more difficult it is to attract and retain teachers in poorer and more remote parts of the country.\(^{34}\)

A contributing factor to the country’s struggle to staff schools adequately is its large school-age population. The government is responding by expanding the number of teachers. In the 2018–2019 school year, for example, the Department of Budget and Management (DBM) created new teaching positions for K-12 grades that increased the number of public school teachers.

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\(^{31}\) World Bank (2003).

\(^{32}\) See Annex Figure 2.3.

\(^{33}\) Maliglig et al. (2010) found that the average provincial pupil-teacher ratio had a statistically significant negative coefficient in a regression of the National Achievement Test (NAT) scores of primary-level students in math, English, and science. Inadequate school infrastructure and a lack of investment in learning materials are real constraints to enrollment. Bacolod and Tobias (2006) concluded that minimal basic facilities and particularly the provision of electricity matter more than class size and teacher training programs in explaining a substantial portion of the variation in performance across schools.

\(^{34}\) See Annex Figure 2.2. These regional averages mask further inequalities across provinces, municipalities and barangays within each region.
teachers by 8.6 percent. However, attracting high-quality candidates to these teaching posts is difficult unless government resources for teacher compensation, school supplies and infrastructure also increase. The average expenditure per student in the Philippines is the lowest among neighbor countries (World Bank and Australia Aid, 2016) and among participating countries in the latest PISA (Besa, 2019).

On teacher quality, the problem is not about low required teacher qualifications as about the quality of teacher training institutions, the recruitment and induction processes for new teachers, and teacher supervision and management. The required teacher qualifications in the Philippines are on par with those in other middle-income countries. To teach in primary and preprimary schools, a teacher must have a bachelor’s degree in elementary education. To teach in secondary schools, a teacher must have one of three sets of qualifications: a bachelor’s degree in education with a major and a minor in a chosen subject; an equivalent degree, also with a major and a minor; or a bachelor’s degree in arts and/or sciences with at least 18 education units. These requirements, however, do not guarantee teaching quality. Indeed, the 2018 PISA results indicate that a large majority of teachers are professional teachers with a license from the Professional Regulatory Commission (PRC)—72 percent of teachers in advantaged schools and 95 percent of teachers in disadvantaged schools (Besa, 2019). The proportion of teachers with at least a master’s degree is similar in advantaged and disadvantaged schools. Because the law may have resulted primarily in credentialism rather than in real improvement in teacher quality, the DepEd, the Commission on Higher Education, and the Civil Service Commission supported the development of the National Competency-Based Teacher Standards (NCBTS) as part of the Basic Education Sector Reform for 2006–2010 and as a common framework and primary basis for teacher development by the PRC. This strengthens earlier legislation; the Philippine Teachers Professionalization Act (RA 7836) of 1994 was meant to ensure the proper supervision and regulation of teachers’ licensure examination and the “professionalization of the practice of the teaching profession.”

Being able to attract or reassign competent and motivated teachers to disadvantaged areas and difficult schools and to retain them there is a challenge in most countries. In the Philippines, the Magna Carta for public school teachers (RA 4670) protects teachers’ rights, but it also makes it difficult for DepEd to redeploy teachers to areas in need. Unless the government is able to make difficult assignments sufficiently attractive to teachers, this law limits what it can do to reduce inequalities in the distribution of teachers and quality basic education. The National Program Support for Basic Education Project funded by a loan from

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36 The Magna Carta stipulates that “[e]xcept for cause and as herein otherwise provided, no teacher shall be transferred without his consent from one station to another. Where the exigencies of the service require the transfer of a teacher from one station to another, such transfer may be affected by the school superintendent who shall previously notify the teacher concerned of the transfer and the reason or reasons therefore. If the teacher believes there is no justification for the transfer, he may appeal his case...Pending his appeal and the decision thereon, his transfer shall be held in abeyance.”
the World Bank addressed this constraint by funding incentives, such as a hardship allowance, to persuade teachers to move to underserved areas.37

**Health Personnel.** The Philippines has been a major global source of health professionals in line with the government’s explicit policy to send nurses abroad, and the sizable remittances from these outmigrants have greatly benefited their families, communities, and the economy as a whole. However, these benefits must be balanced against the costs of the outmigration to the health system. Despite the increase in nursing and medical graduates in the country, the number of nurses and midwives per 10,000 population has declined since 2000, and the number of medical doctors per 10,000 population has been stagnant. In contrast, the number of health professionals per 10,000 population has increased in neighbor countries.38 The appeal of foreign employment to health professionals has not weakened over time.39 The promise of higher pay remains a strong pull factor, and high unemployment rates and poor condition of health facilities in the Philippines are strong push factors.40 Even the country’s physicians are retraining to become nurses in order to improve their chances of finding foreign employment.41 According to some studies, this focus on foreign employment has commercialized health education, compromised its quality, and stripped the country of skilled learning facilitators.42

To ensure that the Philippine health system benefits adequately from its production of health professionals, systemic weaknesses must be addressed. Improving health facilities would raise the morale of health professionals and enhance the appeal of staying in the country. Because of years of neglect, many government health facilities are in a state of disrepair and are inadequately equipped. Over the past decade, steps have been taken to remedy this problem: more than 75 billion pesos (about US$1.3B) have been allocated to building, upgrading, and equipping health stations in barangays (small village-like administrative zones), rural health units, district and provincial hospitals, and regional medical centers.43 However, understaffing remains an issue. Less than one-fifth of the active medical practitioners in the country are employed in the public facilities that take care of nearly 70

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38 See Annex Figure 2.4 on the trend in the supply of health professionals in the Philippines and neighbor countries during the period 2000 to 2015.
39 Perrin et al. (2007). Developed countries facing nursing shortages have used increasingly aggressive foreign nurse recruitment, primarily from developing nations, to fill the vacant positions and meet growing health care demands (Brush and Sochalski, 2007).
40 Agbola and Acupan (2010) and Castro-Palaganas et al. (2017). The conclusion drawn by Castro-Palaganas et al. (2017) from a qualitative survey of interviews of 37 stakeholder groups and household surveys covering 420 health professionals was: “The massive expansion in education and training designed specifically for outmigration creates a domestic supply of health workers who cannot be absorbed by a system that is underfunded. This results in a paradox of underservice, especially in rural and remote areas, at the same time as underemployment and outmigration. Policy responses to this paradox have not yet been appropriately aligned to capture the multilayered and complex nature of these intersecting phenomena.”
41 Lorenzo et al. (2007).
42 Brush and Sochalski (2007) and Masselink and Lee (2010). Using data collected primarily from nursing school administrators and policymakers, Masselink and Lee (2010) conclude that nursing schools have controlled the licensure and recruitment processes by establishing commercial relationships with licensure exam review centers and recruitment agencies and that these activities support the outmigration of nursing professionals, indirectly contributing to the declining quality of nursing education, the misuse of scarce resources, corruption in the nursing sector, and the exacerbation of existing health workforce imbalances.
43 Cabral (2016).
percent of the population. Each year only 1,000 new positions are available for every 10,000 nursing graduates. This supply problem is compounded by the fact that the majority of public health workers are deployed in urban areas and few serve in rural and depressed communities.44

In 1995, the government established the Philippine Health Insurance Corporation (PhilHealth), a national health insurance system to give all citizens access to basic health services regardless of their employment status. Enrollment rates in PhilHealth have not yet met expectations; they are quite low and highly unequal across the regions of the country. As Figure 12 shows, the highest enrollment rate is in the Cordillera Administrative Region (CAR) in the north (43 percent) and the lowest is in BARMM in the south (13 percent).45 Implementation gaps seem to be the underlying reason for the low enrollment rates in PhilHealth, including significant delays in accrediting health providers and in reimbursing providers for their services.46 Slow and cumbersome procedures and, in some cases, nonresponse to requests for accreditation have dissuaded providers from participating in the program, thus limiting its potential coverage. In addition, because of fraud, the number of nonpaying beneficiaries in some areas exceeds the estimated number of eligible nonpaying members, and there is no standard procedure to determine who is and who is not eligible for the certificate of indigency, nor is there a way to validate those claims. The government launched targeted programs in the mid-1990s and early 2000’s to elicit higher enrollment among poor households and among informal-sector workers and self-employed professionals and their families.47 These initiatives include a facility for paying premium through mobile phones which started in 2009, as well as a series of nationwide, municipal-level registration and advocacy fairs held on selected Saturdays in 2011. The overall impact of these information initiatives deserves to be evaluated properly.

High Population Growth
Population growth deserves some discussion here because of its impact on the ability of the government to expand public services of sufficient quality. The Philippine population has quadrupled since 1960 to 103 million people, making it the 12th most populous country in the world. National policy experts have long argued that the strong association between family size, poverty incidence, and vulnerability to poverty calls for a population program being part of poverty alleviation and development efforts.48 High fertility rates stress the ability of the government to provide sufficiently equipped and well-staffed classrooms and health

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44 Department of Health (2015).
45 These enrollment numbers, obtained through the household survey Annual Poverty Indicator Survey, are significantly lower than the enrollment numbers reported by PhilHealth: 83 percent in 2004, 86 percent in 2010, and 92 percent in 2016 (Querri et al., 2018). This over-reporting of coverage by PhilHealth was also noted by a study in 2009 (Puyat, 2009): “In terms of health insurance, only 33.83 percent of respondents were PhilHealth dependents. This is a very low percentage given that PhilHealth boasted of 76 percent coverage.” PhilHealth has sole responsibility for collecting premiums, accrediting service providers, establishing benefit packages, processing claims, and reimbursing health care service providers for their services.
46 For example, Puyat (2009), Manasan (2011), and Querri et al. (2018).
47 Capuno et al. (2014).
facilities. High fertility rates also increase the burden on families of caring for their children and investing in their health and schooling.\footnote{In addition, the number and spacing of births affects a woman’s risk of dying from pregnancy-related causes, her health, and the health of her newborn. The higher the number and the closer the spacing of births per woman, the higher the likelihood of what is called “maternal depletion syndrome,” which constitutes the physical stresses on a woman of dealing with successive pregnancies and lactations (Winkvist et al., 1992).}

Over the past decades, the Philippine government struggled to establish an appropriate population program for a country that is largely Catholic.\footnote{In 1971, the Philippine Population Act (RA 6365) aimed to “organize and implement programs that will promote a broad understanding of the adverse effects on family life and national welfare of unlimited population growth,” “provide family planning services as a part of over-all health care” and “make available all acceptable methods of contraception, except abortion, to all Filipino citizens desirous of spacing, limiting, or preventing pregnancies.” It created the Commission on Population (POPCOM) in 1969 and launched a population program in 1970 through Executive Order 233. The most recent population legislation, the 2012 Responsible Parenthood and Reproductive Health Act (RA 10354) (or the Reproductive Health Law or RH Law), is really a reiteration of the 1971 law. It guarantees universal access to methods of contraception, fertility control, sexual education, and maternal care and recognizes the rights of individuals and couples to “decide freely and responsibly whether or not to have children; the number, spacing and timing of their children, to make other decisions concerning reproduction, free of discrimination, coercion and violence; to have the information and means to do so, and to attain the highest standard of sexual health and reproductive health,” except for the rights to abortion and access to abortifacients.} The passage of the Responsible Parenthood and Reproductive Health Act (RA 10354) in 2012 was highly divisive.\footnote{David et al. (2012)} It took more than 13 years for the legislation to pass and another two years before the Supreme Court declared the law to be constitutional. The Catholic Church hierarchy has exerted a major influence in policy debates and advocacy campaigns against family planning and reproductive health initiatives. Between 1994 and 1998, for example, as a result of the Church leaders’ objections, Congress did not allocate any funds to purchase contraceptives, leaving women dependent on the contraceptive supplies financed by contributions from donor agencies, mainly from USAID and UNFPA. In contrast to the Church’s position, the public has been generally supportive of reducing population growth and increasing the use of modern artificial contraception;\footnote{Lee et al. (2009).} whether this legislation will be implemented remains to be seen.

Regardless of which factors have brought change, the total fertility rate (TFR) in the Philippines has declined from a national average of 4.1 in 1993 to 2.7 in 2017. The TFR in the poorest quintile fell from 6.5 in 1993 to 4.3 in 2017, but this is still high and comparable to the TFR in the Demographic Republic of Congo, Madagascar, and Zimbabwe. It is much lower in the richest quintile, declining from 2.2 in 1993 to 1.7 in 2017, a level that is closer to the average TFR in neighboring countries in Asia. The TFR varies widely by region, however. For example, it is more than twice as high in the Eastern Visayas and Bicol regions (more than five births per woman) than in Metro Manila (2.5 births per woman). These regional differences should inform the implementation of the population policy as well as the distribution of the government’s provision of social services.

**Conclusion**

In this section, we reviewed the historical evidence on human capital development in the Philippines and identified three important challenges that require more than a traditional sectoral approach to overcome. First, inequalities across regions and wealth quintiles have
narrowed over the past two decades, but there are persistent disparities that will require more targeted interventions in the less well-endowed regions and households. Unless these inequalities decrease, the improvements in aggregate indicators will be modest.53 Second, deficiencies in the quality of public services diminish the potential benefits from investments in human capital. Central mandates about quality standards and equity have not ensured good and equal quality at the points of delivery. Third, until population growth slows, again especially in lower-income areas, the need for even the most basic services will continue to outstrip supply.

Related to all three aforementioned challenges is the issue of adequate resourcing of the human development agenda. This question is essential to the overall challenge of implementing those programs. Focusing here on just the education and health spending by government as a proportion of GDP, Figure I8 shows that the Philippines lies below the simple regression lines that relate per-capita GDP level and government spending. Compared with other countries with a similar level of per-capita GDP, the Philippines is spending less for both its health and education programs. On average (and regardless of human development indicators), a country that has the same per-capita GDP level as the Philippines should be spending 6.5 percent of its GDP on health programs and 4.5 percent on education programs, instead of 4.4 and 3.5 percent, respectively, as it currently does. This is, of course, a simplistic interpretation since the country’s human development challenges and goals may demand investments and interventions that require greater spending than these.

53 Income inequality in the Philippines is one of the highest in Asia; this is part of the story behind these inequalities. The Gini coefficient of the Philippines fell from 0.50 in 2000 to 0.47 in 2012 and to 0.44 in 2015 (https://data.worldbank.org/indicator/SI.POV.GINI?locations=PH).
Figure 13: GDP per Capita and Education and Health Government Spending, 2017

Source: World Development Indicators
4. From Single-Sector to Transversal Approaches

We now turn to the set of policies that the Philippine government has pursued over the past decades to develop human capital. Our review starts with the single-sector policies that characterized most of the country’s human capital development policies prior to the 1990s. After the Republic was established in 1946, policymakers enacted laws that launched institutions to undertake functions related to human capital, set standards that govern the certification and recruitment of service professionals, and specified lines of authority and responsibility for the delivery of services. Those policies have been amended and enhanced over successive political administrations. Legislation set the stage for reaching national goals, but as discussed in the previous section, implementation and outcomes have fallen short in key respects.

Our policy review also reveals that, in the last 40 years, successive governments have begun to adopt policies that involved more than one sector, promoted integrated approaches, and encouraged greater participation by stakeholders in service delivery. In the case of education, policies that explicitly recognized and encouraged the contributions of the private sector were adopted as early as the 1980s. In health, the devolution reform in 1991 was a watershed for increasing the decision-making power of subnational governments. In general, these policies were motivated by a recognition of the limited ability of the national government to reach and finance all of the public services promised by the 1987 Constitution. In both education and health, policies were also designed to meet the specific needs of people at different stages of the lifecycle. Finally, some policies drew from a broader understanding that progress in human capital would depend on investments in other sectors. For example, policies that supported clean air, safe water, and accessible sanitation services were explicitly driven by concerns about health and nutrition.

Table 3 presents the list and timeline of key policies that shaped Philippine human capital development from around Independence. For a brief description of those policies, see Annex Table 1.1.
### Table 3: List and Timeline of Policies Related to Human Capital Development

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<td>1954</td>
<td>Omnibus Tax Bill</td>
<td>Reorganization Act of NNC</td>
<td>National Health Insurance Act</td>
<td>Cash-for-Work Program</td>
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<td>1957</td>
<td>Amending the Revised Population Act of 1971</td>
<td>Free Public Secondary Education Act</td>
<td>Fair and Equitable Allocation of the DECS Budget for Capital Outlay</td>
<td>Expanding the Pre-School Coverage to Include Children Enrolled in Day Care Centers</td>
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<td>Act Strengthening Health and Dental Services in Rural Areas</td>
<td>Woman and Child Labor Law</td>
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<td>Book Publishing Industry Development Act</td>
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<td>Law on Reporting of Communicable Diseases</td>
<td>Nutrition Center of the Philippines (NCP)</td>
<td>Traditional and Alternative Medicine Act (TAMA) of 1997</td>
<td>Philippine Disaster Risk Reduction Management (DRRM) Act</td>
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<td>Effect Immediate Life Insurance Coverage of Commissioned Members and to Increase Additional Life Insurance Coverage</td>
<td>Labor Code of the Philippines</td>
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<td>Sustainable Livelihood Program</td>
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<td>Philippine Medical Act</td>
<td>Penalty for Improper Disposal of Garbage and Other Forms of Uncleanliness</td>
<td>Barangay Level Total Protection of Children Act</td>
<td>Government Service Insurance Act</td>
<td>Sin Tax Reform Law</td>
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<td>Code of Sanitation</td>
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<td>Traditional and Alternative Medicine Act (TAMA) of 1997</td>
<td>Responsible Parenthood and Reproductive Health Act</td>
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<td>Magna Carta for Public School Teachers</td>
<td>Compulsory basic immunization for children</td>
<td>Local Government Code Act</td>
<td>Adopt-A-School Act</td>
<td>Enhanced Basic Education Act</td>
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<td>Water Code</td>
<td>Act Creating the Literacy Coordination Council</td>
<td>Government Assistance to Students and Teachers in Private Education Act (GASTPE) Act</td>
<td>National Health Insurance Act of 2013</td>
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<td>Act Amending Further Commonwealth Act 186</td>
<td>Revising the Medical Care Act of 1969</td>
<td>Magna Carta of Public Health Workers</td>
<td>Philippine Clean Air Act</td>
<td>Mandatory Reporting of Notifiable Diseases and Health-Related Events Act of 2016</td>
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<td>Medical Care Act</td>
<td>Amending, Expanding, Increasing and Integrating Social Security and Insurance Benefits of Government Employees and Facilitating the Payment Thereof</td>
<td>Higher Education Act of 1994</td>
<td>Food Fortification Act</td>
<td>Universal Access to Quality Tertiary Education Act</td>
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<td>Amendment to Social Security Law</td>
<td>Revising the Medical Care Act of 1969</td>
<td>Magna Carta of Public Health Workers</td>
<td>Comprehensive Dangerous Drugs Act</td>
<td>Act Strengthening Compliance with Occupational Safety and Health Standards and Providing Penalties for Violations</td>
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<td>Philippine Nursing Act</td>
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<td>Tobacco Regulation Act</td>
<td>Strengthening Occupational Safety and Health Standards Act</td>
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<td>Kalahi-CIDSS (Kapit-Blaig Laban sa Kahirapan, or Comprehensive and Integrated Delivery of Social Services)</td>
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<td>Strengthening Occupational Safety and Health Standards Act</td>
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<td>Alternative Working Arrangement</td>
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<td>Expanded Maternity Leave Act</td>
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<td>First-time Jobseekers Assistance Act</td>
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**Key**

- Education
- Health
- Nutrition
- Employment
- Social Protection
- Population
- Water
Single-Sector Policies

Schooling: The Philippines has had a long history of investments in formal education. By the time the government committed itself to the Millennium Development Goal of ensuring that all children have access to free and compulsory primary education of good quality, it had already enacted many laws related to basic education. The 1982 Basic Education Act specified the objectives of formal education and nonformal education, and the Constitution of 1987 enshrined the government’s obligation with respect to universal education: “the State shall protect and promote the right of all citizens to quality education at all levels and shall take appropriate steps to make such education accessible to all.” In 1989, the Government Assistance to Students and Teachers in Private Education Act (GASTPE or RA 6728) stipulated that the government’s responsibility to provide basic education should have priority over providing higher education, and in 1994, the Teachers Professionalization Act (RA 7836) mandated the proper supervision and regulation of the licensure examination and the professionalization of the teaching profession. In 2013, a landmark law, the Enhanced Basic Education Act (RA 10533) changed the structure of the basic education cycle to a K-12 system, thus finally bringing the Philippine education system in line with international standards. From then onwards, the system has consisted of at least one year of kindergarten education, six years of elementary education, and six years of secondary education that consist of four years of junior high school and two years of senior high school education. Previously, secondary education had consisted only of four years of schooling. The implementation of this major reform was difficult at first, initially souring many on the system change, but the new structure is in place and graduates of the additional senior high school level have now entered tertiary education.

The government also passed several laws and programs that attempted to reduce education inequalities, especially at the post-primary levels. The 1988 Free Secondary Education Act (RA 6655) stipulated that the government would provide free public secondary education in line with the 1987 Constitution. In addition, the GASTPE Act (RA 8543) mentioned above created a special fund, the Students’ Loan Fund, to “finance educational loans to cover matriculation and other school fees and educational expenses for book subsistence, and board and lodging” of students enrolled in private higher education institutions (HEIs).

Going further than previous laws, the 2017 Universal Access to Quality Tertiary Education Act (RA 10931) introduced free tuition and exemption from other fees in all state universities.

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54 The Educational Decree of 1863 issued under Spanish colonial rule established a free public education system accessible to all Filipinos. It stipulated that each town would have at least one primary school for boys and one for girls under the supervision of the municipal government, and it also provided for a normal school to train male and female teachers (Andrade, 2001). By 1898, enrollment in schools of all levels exceeded 200,000 students (Andrade, 2001). Whether or not the Spanish fulfilled their objective (and there is some debate about that), in 1901, the US colonial government installed a centralized public school system. More than 1,000 teachers from the U.S., the so-called Thomasites, arrived to start barangay (village) schools. The Philippine Normal School (now the Philippine Normal University) was also established to train local teachers. In 1902, Act No. 372 authorized the opening of provincial high schools to accommodate the growing numbers of primary school graduates, although high school education did not really begin until 1910. In 1908, Act No. 1570 initiated the opening of the University of the Philippines, the country’s national university.

55 This K-12 reform is meant to decongest the primary and secondary education curricula in order to allow more time for learning important skills and competencies.
and colleges, local universities, colleges, and state-run vocational-technical institutions. It also created a new student loan program with a repayment scheme to be implemented through the country’s Social Security System (SSS) for private sector employees or through the Government Service Insurance System (GSIS) for public sector employees. This student loan program is similar in design to those in other countries (such as Australia). Its success will depend on how well the program is administered and on how much employment grows in the formal sector as students who receive such loans are expected to start repaying their loan upon obtaining a job with a salary equal to a compulsory repayment threshold. Non-state or private HEIs have been the principal providers of tertiary education, but this legislation makes private HEIs significantly less attractive to students than public HEIs and may ultimately reduce (sectarian and non-sectarian) private sector provision. Thus, by increasing competition for places in public HEIs, the law may inadvertently reduce total enrollment. The 1987 Constitution is clear that the government’s priority should be the provision of good quality basic education rather than higher education, so the future impact of this law on the quality and equity of basic education should be carefully studied. A critical policy question is whether the government can afford this new program while also meeting the needs of a vast, generally low-quality basic education system.

Health. Over the decades, the government has expanded the availability of health services, established surveillance mechanisms for diseases, and provided health insurance to an increasing proportion of the population. In particular, it expanded services in rural areas—in the 1950s, by establishing rural health units, providing every province with a Provincial Health Officer (through the 1954 Rural Health Unit Act or RA 1082), and widening the set of services available (the 1957 Strengthening Health and Dental Services in Rural Areas Act or RA 1891). The Law on the Reporting of Communicable Diseases passed in 1963 (RA 3573) updated the 1929 law with a new list of “notifiable diseases” to be reported by individuals and health personnel to national and local health officials as part of the surveillance program. This was updated further by the Mandatory Reporting of Notifiable Diseases and Health-Related Events Act of 2016.

As with education, the government’s first policies on health services were about setting standards and regulations and creating agencies to monitor and implement those standards. For example, the Medical Care Act of 1965 (RA 6111), which amended the Philippine Medical Act of 1959, created the Board of Medical Education under the Department of Education and the Board of Medical Examiners under the Commissioner of Civil Service in order to regulate the practice of medicine. The Magna Carta of Public Health Workers passed in 1992 protected the rights of health workers in government service, their living and working conditions, and their terms of employment, and encouraged “those with proper qualifications and excellent abilities to join and remain in government service.”

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56 At both the senior high school and tertiary levels, 46 percent and 54 percent of total enrollment are in non-profit and for-profit private institutions, respectively. In 2017, 3.6 million students were enrolled in a total of 2,394 HEIs, more than half of these being privately owned and operated and the rest being in the public sector (CHED, 2017). These HEIs together produced more than a half a million graduates in 2017 in a variety of fields.
Traditional and Alternative Medicine Act (TAMA) of 1997 was an attempt by the government to recognize as well as regulate the existing traditional and alternative health care delivery system with respect to “standards and codes of ethical practice as well as in the manufacture, quality control, and marketing of related materials, natural and organic products.” The 2002 Philippine Nursing Act (RA 9753) created a Professional Regulatory Board of Nursing to supervise and regulate the nursing profession; conduct the licensure examination for nurses; issue, suspend, or revoke certificates of registration for the practice of nursing; and ensure the quality of nursing education.

Whether people have to pay and how much they will pay to use health care services are key questions related to whether and how low-income households can access those services. The Philippine government enacted several laws to address these questions. The Medical Care Act (RA 6131) of 1965 provided for a comprehensive and coordinated (government and private) medical care program with two health insurance schemes: one that covered private and public wage and salaried employees who were insured under the social security system (SSS) and the government service insurance system (GSIS), and another scheme that would cover everyone else eventually. In 1978, Presidential Decree 1519 expanded this health insurance coverage to all government employees regardless of their status of employment. In 1995, the National Health Insurance Act (RA 7875) created the Philippine Health Insurance Corporation (PhilHealth), a fundamental shift in policy from the idea of contributions leading to entitlement to the idea of citizenship leading to entitlement. An analysis of data from the Demographic and Health Surveys conducted before and after the 2003 scale up of the PhilHealth program that controlled for demographic and socioeconomic characteristics found that the program was associated with a higher probability of pregnant women having at least four prenatal visits at a maternal health provider and having a check-up as early as the first trimester of pregnancy. However, as mentioned earlier, overall enrollment in the program has been disappointingly low, most users of the program are from wealthier households, and the primary claimants may be the providers used by wealthier households. These are the concerns about the program’s benefit incidence.

We next review selected examples of whole-of-government, whole-of-life, and whole-of-society policies. If adopted and implemented at all levels of government, sustained over time and political administrations, and resourced adequately, these types of policies can put the Philippines on a more effective and more equitable path of human capital development.

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57 Kozhimannil et al. (2009)
58 A "progressive universal health care might include both a publicly financed, well disseminated health insurance package which covers essential health-care interventions for all, and a second benefit package, funded through a range of financing mechanisms (e.g., private insurance, copayments), with only poor people exempted from all payments. The former package directly benefits the poor, since they are disproportionately affected by health problems" (Cabral, 2016).
Whole-of-Government Approach

A whole-of-government (WoG) approach uses integrated, multi-sectoral programs to deliver human capital interventions.\textsuperscript{59}

Nutrition as an Integrated Program

In contrast with the education and health policies, the Philippine nutrition program was conceived as multisectoral. In 1974, the government created the Nutrition Center of the Philippines, a private, nonprofit organization that would engage in research and program development on nutrition; Presidential Decree 491 established the National Nutrition Council (NNC) as its highest policymaking and coordinating body. These government acts mandated that the program would be implemented in an integrated fashion by all agencies concerned with nutrition. The 1987 Executive Order affirmed this fundamental approach by reiterating the need for an intersectoral national policymaking and coordinating body on nutrition. It also broadened the membership of the NNC to include the Departments of Budget and Management (DBM), Labor and Employment (DOLE), Trade and Industry (DTI), and the National Economic and Development Authority (NEDA). The Department of Social Welfare and Development (DSWD) was to chair the NNC Governing Board.

This multisectoral approach was expanded further by the 1995 Salt Iodization Nationwide Law (Asin Law, RA 8172) which mandated that the NNC work with the Salt Iodization Advisory Board (SIAB), a policymaking and coordinating body for the national salt iodization program.\textsuperscript{60} The Philippine Plan of Action for Nutrition (PPAN) for 2017–2022 consists of 12 programs and 45 projects to be implemented by member agencies of the NNC in cooperation with local government units. The plan also creates a voluntary network of community-based nutrition workers called Barangay Nutrition Scholars (BNS) who will be trained and supervised to provide nutrition assessments and counselling in communities across the country. By mid-2017, more than 46,000 BNS had been deployed.\textsuperscript{61}

Targeted Cash Transfer Program

The Pantawid Pamilya Pilipino Program (4Ps) is a targeted conditional cash transfer (CCT) program that was established in 2007 under the Arroyo administration, expanded in 2010 under the Aquino administration, and further expanded in 2016 under the Duterte government. It is a major departure from previous approaches to investments in schooling and

\textsuperscript{59} Continuity, coordination and evidence are basic elements of such an approach.

\textsuperscript{60} Salt iodization is an effective and affordable type of food fortification to reduce iodine deficiency disorders in low to middle-income countries.

\textsuperscript{61} Reeve et al. (2018). The BNS Program is a human resource development strategy of the PPAN; it involves the recruitment, training, deployment and supervision of volunteer workers. Ideally, the training is to consist of ten days of didactic training and a 20-day practicum, but resource constraints have reduced this to an orientation and on-the-job training, or a 5-day didactic training (DOH, 2019).
health and to social protection and assistance in the Philippines.\textsuperscript{62} The program gives cash to beneficiary households subject to their compliance with specific conditions. The beneficiary households are required to undertake certain activities aimed at improving children’s health and education, such as taking them to health centers regularly, sending them to school, and going to prenatal check-ups in the case of pregnant women.\textsuperscript{63} By targeting chronically poor households with children aged 0–14 years, the program integrates human capital development with poverty reduction.

The DSWD is charged with leading the implementation of 4Ps, but it is also charged with formally involving other agencies, particularly the Department of Health (DOH), the Department of Education (DepEd), the Department of the Interior and Local Government (DILG), and the Land Bank of the Philippines (LBP). The participation of these other agencies is meant to ensure the availability of health and education services as well as support services in the areas targeted by the program. The DSWD created the Pantawid Pamilya National Project Management Office (NPMO) to handle the day-to-day operations of the program with assistance from Regional Project Management Offices (RPMO) and related offices in cities or municipalities. The program also actively involves local service providers such as school principals and midwives in the program’s implementation; they are tasked with verifying that households are fully compliant with the conditionalities.

The establishment of the 4Ps led to the adoption in 2008 of a unified database, the National Household Targeting System for Poverty Reduction (NHTS-PR), also called Listahanan, as the official mechanism for identifying the recipients of social protection programs nationwide. This targeting system uses a proxy means test (PMT) based on a household’s economic status as determined by its composition, socioeconomic characteristics, assets, housing conditions and tenure status, education, access to basic services, and regional variables. The database is used also to identify the beneficiaries of other government programs, such as PhilHealth. In this, the program has contributed a unique tool for coordinating and integrating social and poverty programs, thus potentially increasing their efficiency and impact.

Although conditional cash transfer programs have become popular in the developing world and have been adopted by countries such as Mexico and Brazil as a poverty alleviation and social protection program, the introduction of the 4Ps was controversial in the Philippines. It was criticized as a “dole out” program that would promote “a culture of mendicancy and

\textsuperscript{62} Social protection was first offered to government employees before it was offered to private sector employees and self-employed workers. In 1936, before the republic was established, the Commonwealth Act 186 created the Government Service Insurance System (GSIS) to insure government employees against the occurrence of certain contingencies in exchange for monthly premium contributions. This was amended in 1997 by the Revised Government Service Insurance Act (RA 8293) to expand the coverage and increase the benefits of contributing members. In 1954, the Social Security Law (RA 1161) established a “sound and viable tax-exempt social security service” for private sector employees, and in 1979, this law was amended in order to require those who were self-employed to become members. In 1994, the Portability Act (RA 7699) integrated the government and private sector insurance systems, thus allowing members to keep their coverage and credits for benefits when they switch between public and private employment.

\textsuperscript{63} The cash grants are small, ranging from ₱500 (US$11) to ₱1,400 (US$32) per household per month, depending on the number of eligible children.
Building Human Capital

dependence, while others worried that the grants would be wasted on vices (perhaps alcohol, cigarettes, and even drugs) instead of human capital formation.\textsuperscript{64} Some feared that it would discourage work. However, rigorous program evaluations do not support these concerns: The program has neither reduced the work effort of beneficiaries nor encouraged expenditures on vice goods (Orbeta and Paqueo, 2016).\textsuperscript{65} Further, evaluations have shown that the program has significantly reduced severe stunting in children aged 6–36 months and improved parenting practices (Kandpal et al., 2016).

\textit{Water, Infrastructure and Environment Programs as Health Investments}

Studies have shown that improvements in water and sanitation services can positively affect health and nutrition status (Cuesta, 2007). Households’ access to reliable water supplies and sanitation, especially community-based piped water and flush toilets, reduces malnutrition in poor households more than any other kind of public infrastructure. A presidential decree in 1975 empowered the DOH to implement National Drinking Water Standards and also stipulated that success would depend on “the collaborative efforts of various government agencies and is designed to guide waterworks officials, operators of water supply systems; both government and private entities, health and sanitation authorities and the general public.” Two decades later, the Clean Water Act (RA 9275) formulated what it termed a “holistic” and “integrated national program of water quality management” that recognized that “water quality management issues cannot be separated from concerns about water sources and ecological protection, water supply, public health and quality of life.” It called for “cooperation and self-regulation among citizens and industries through the application of incentives and market-based instruments” and promoted “the role of private industrial enterprises in shaping its regulatory profile within the acceptable boundaries of public health and environment.”

The percentage of households that rely on an unimproved source of drinking water decreased from 18 percent in 1993 to 5 percent by 2017, but when the numbers are disaggregated, it is clear that this overall progress belies difficult challenges.\textsuperscript{66} For one, a 20-percentage point gap exists between households in the poorest quintile and those in the middle quintile. There also has been a notable shift toward the use of bottled drinking water, especially among the wealthier and urban households, implying perhaps a loss of trust in the quality of the drinking water supplied by public services. In 2003 less than one-fifth of households in the richest quintile reported using bottled water as their main source of drinking water; by 2017 this proportion had risen to more than four-fifths.

\textsuperscript{64}Banerjee et al. (2017)
\textsuperscript{65}Also, Crost et al. (2016) re-analyzed the data from seven randomized controlled trials of government-run cash transfer programs in six developing countries throughout the world and find no systematic evidence that cash transfer programs discourage work.
\textsuperscript{66}Access in rural areas has increased since 2000 but not by as much as in China, Vietnam, and Indonesia. As with other indicators, the crux of the problem is the gap between urban and rural households and the even larger gap between poor and nonpoor households.
Legislators have passed a series of other laws pertaining to public health that involves several other government agencies—the 1999 Clean Air Act (RA 8749), the 2003 Tobacco Regulation Act (RA 9211), and the 2012 Sin Tax Reform Act (RA 10851). The inter-agency tobacco committee charged with issuing the Implementing Rules and Regulations for the Tobacco Regulation Act includes at least three other agencies. Smoking in public vehicles would be the responsibility of the Department of Transportation and Communications; smoking in all areas of government premises, buildings, and grounds would be under the purview of the Civil Service Commission; and the packaging and advertisement of tobacco products would be regulated by the Food and Drug Administration. The Sin Tax Reform Act contains strong disincentives to use tobacco and alcohol: it imposes higher excise taxes on these purchases and allocates the bulk of the resulting tax revenues to finance the Universal Health Care Law.

**Devolution to Local Governments**

The three suites of policies above use a whole-of-government approach that is about lateral as well as vertical coordination and integration of governance, delivery, and financing. Cooperation between levels of governments is very important because in 1991 the responsibility for delivering social services (with the exception of education) was devolved to approximately 1,490 local government units and municipalities across 81 provinces. The Local Government Code envisioned that local governments would receive increased funds from a variety of sources, including a larger share of the internal revenue allotment (IRA) from the national budget. The IRA is divided among provinces (which receive 23 percent of these funds), cities (23 percent), municipalities (34 percent), and barangays (20 percent) on the basis of population, land area, and the principle of equitable sharing. With respect to health, the policy was intended to enhance accountability, ensure that health financing reflects health needs, build community capacity, eliminate wasteful spending, and promote equity in access to services (World Bank, 1994).

Critics of decentralization were quick to point out its weaknesses, particularly increased vulnerability to corruption at the local level. Azfar and Gurgur (2008) analyzed corruption in health services in 80 Philippine municipalities and concluded that bribery, theft of funds or supplies, and ghost workers (workers who are paid but do not or rarely work at their jobs) together resulted in lower immunization rates, delayed vaccination of newborns, and lower use of public health clinics. Olarte and Chua (2005) reported that kickbacks averaged 10 to 70 percent of the price of medicines purchased by local governments and concluded that decentralization had merely resulted in the “decentralization of corruption.” One antidote to widespread fraud in the distribution of textbooks was found to be the involvement of communities and the non-governmental sector as accountability checks; below we discuss this example of a whole-of-society approach.

**Whole-of-Life Approach**

The whole-of-life (WoL) approach is built on the recognition that investments in early childhood have the greatest chance of making a positive impact on a person’s future. This is
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supported by findings from neuroscience, medical science, and social science research. Studies have found that antenatal and neonatal care enhances brain development and lays the foundation for later intellectual development and academic success. From early gestation to the first six months of life is the most critical stage for a child’s development. Inadequate nutrition during this period can have much more severe effects on a child’s overall development than subsequent episodes of malnutrition. Analyses of a long series of panel data from the Philippines found that mothers who had lower energy intake and poor nutritional status had offspring with low birth weights, and that infants born small were more likely to be stunted through adolescence and were also at greater risk of cardiovascular disease later in life (Borja, 2013). Stunting caused delays in school entry and poor school readiness, controlling for socioeconomic and demographic characteristics of parents. Other research has also found that, controlling for age, sex, and socioeconomic status, the prevalence of stunting, thinness, and wasting is negatively associated with susceptibility to parasitic infections.

The Early Childhood Care and Development (ECCD) Act of 2000 is the current national policy framework for early childhood development in the Philippines; it represents a significant policy step toward integrating and harmonizing multi-sectoral ECCD initiatives. The Act set out a blueprint for a national ECCD system that would be: (i) comprehensive and holistic in addressing the development of the whole child (physical, social, emotional, mental, and spiritual); (ii) integrative in promoting the delivery of complementary health, nutrition, early childhood education, social protection, and other social services to children aged 0–6 years and their families; (iii) sustainable in that the system is collectively owned and supported by local governments, communities, and families; and (iv) multisectoral in encouraging inter-agency collaboration at the national and local levels among various stakeholders. The 2000 ECCD law mandated shared responsibilities among national, provincial, city/municipal, and barangay levels of government for the delivery of integrated services (Manuel and Gregorio, 2011). There were additional efforts to target children with special needs: Executive Order 658 in 2008 (Expanding the Pre-School Coverage to Include Children Enrolled in Day Care Centers) established a system of identification, prevention, referral, and intervention for development disorders and disabilities in early childhood.

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67 Alderman (2011) and Garcia et al. (2016). Also, Shonkoff et al. (2012) observed that, “Advances in fields of inquiry as diverse as neuroscience, molecular biology, genomics, developmental psychology, epidemiology, sociology, and economics are catalyzing an important paradigm shift in our understanding of health and disease across the lifespan. This converging, multidisciplinary science of human development has profound implications for our ability to enhance the life prospects of children and to strengthen the social and economic fabric of society. Drawing on these multiple streams of investigation, ... illustrates how early experiences and environmental influences can leave a lasting signature on the genetic predispositions that affect emerging brain architecture and long-term health.”

68 Glewwe et al. (2001) found a positive relationship between early child nutrition and schooling achievement that persisted even after they controlled for socioeconomic factors. These results from a panel household survey in the Philippines support a causal link between nutrition and academic success, indicating that an untargeted nutrition intervention can achieve an average improvement in height-for-age of 0.6 of a standard deviation.

69 Papiernik et al. (2014).

70 Concern for young children also led to the passage of a series of laws. For example, as early as 1974, the Child and Youth Welfare Code codified the rights and duties of children and the duties and responsibilities of parents, the community, and various stakeholders in promoting the welfare of children and youths (aged between 0 and 21 years old).
Prior to the ECCD Act of 2000, in 1990 the government approved the Barangay Level Total Protection of Children Act (RA 6972) in which it committed to funding the creation, maintenance, and operation of day care centers in every barangay. These centers were given responsibility for monitoring birth registration, completing immunization series, monitoring the children’s growth, and nutrition, and providing supplementary nutritional food. The DSWD was the line agency that would supervise the day care centers, but the program enlisted a network of barangay members to provide mental stimulation and wholesome recreation for children. A systematic review of the research on similar programs for children under 5 in developing countries found that they yield substantial benefits for child development.\footnote{In this study (Leroy et al., 2012), three of the interventions (Colombia, Bolivia, and Guatemala) used a community-based approach in which women from the community provided daycare in their homes. The programs in Argentina and Uruguay used an institutional approach by providing preschool education.}

At the other end of the lifecycle, the 1992 Senior Citizen Act (RA 7432) provided citizens over 60 years old a generous discount of 20 percent on various services, free medical and dental care in public facilities, and an income tax exemption for those whose incomes fall below the poverty level. \footnote{These benefits were increased by the Expanded Senior Citizens Act of 2010 (RA 9994). It anticipates the need to address issues related to elderly care by allowing people to claim elderly relatives as dependents for tax purposes and by granting tax benefits to those who provide housing for the elderly.} The Philippine population is relatively young, but urbanization, outmigration, and longer lives are changing household structures that have underpinned the traditional modes of caring for the elderly.

Lastly, other policies are designed to ensure that human capital investments are made and protected throughout the lifecycle. In health, for example, the 1995 National Health Insurance Act (RA 7875) which created PhilHealth also introduced an identification tool that would verify the identity of beneficiaries and ensure that they remain covered throughout their lives. The legislation distinguishes between members of the formal group (that is, everyone employed by the government or a private enterprise, plus business owners, migrant workers, and self-employed individuals) who are obliged to pay a premium\footnote{In 2017, individually paying members (IPMs) earning a maximum average monthly income of P35,000 pay P200 monthly or P2,400 per year, while those earning above P35,000 pay P300 monthly or P3,600 per year. Premium contributions may be paid monthly, quarterly, semi-annually or annually (https://www.philhealth.gov.ph/members).} and members of the non-formal (non-paying) group whose health insurance is covered in full by the government. However, as discussed above, implementation weaknesses have limited the participation of providers and account, at least in part, for the low enrollment rates in PhilHealth.

The 1974 Labor Code (RA 442) was intended to protect workers. It prescribed the rules for hiring and firing private employees; the conditions of work including maximum work hours and overtime; employee benefits such as holiday pay, thirteenth-month pay, and retirement pay; and the guidelines in the organization and membership in labor unions as well as in
collective bargaining. The 1999 Public Employment Service Office Act (RA 8759) reiterated the government’s policy to “promote full employment and the equality of employment opportunities for all,” and created community-based offices (or PESOs) to implement their programs. The regional offices of DOLE were given the principal responsibility for coordination and technical supervision, but implementation falls largely on local government units with the involvement of NGOs and state colleges and universities. The 1987 Philippine Constitution meanwhile explicitly protects also the right of employers to reasonable returns on their investments, and to select, transfer, and reduce or lay off workers depending on the needs of its business.

**Whole-of-Society Approach**

A *whole-of-society* (WoS) approach involves stakeholders such as civil society groups, businesses, and communities in holding government and private providers accountable for the quality of the human capital services that they provide.

The 1987 Constitution provides the framework for this approach. It identifies civil society organizations (CSOs) and non-governmental organizations (NGOs) as “partners of government” in helping to provide education and health services, and it grants national and local governments the right to establish joint ventures with these organizations. Several laws also encourage the private sector and local communities to contribute to aspects of human capital development, including expanding the reach and efficiency of service delivery programs and increasing accountability for service delivery. In this subsection, we discuss the policies and programs that exemplify private sector involvement and community participation in the delivery of social services.

**Public-Private Partnerships in Education**

As mentioned earlier, the 1989 Government Assistance to Students and Teachers in Private Education Act (GASTPE or RA 6728) recognized that a combination of public and private educational institutions would be needed to deliver adequate education services. This legislation was followed by laws creating schemes that would provide some support to students and teachers (including tuition subsidies and teacher training) in private institutions. The 2011 Medium-Term Development Plan reiterated the Constitution’s call for partnerships between the government and the private sector, acknowledging the need for private resources for education finance and for “alternative delivery methods” (National Economic and Development Authority, 2014).

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74 The Labor Code was amended in 2017 (RA 11058) to strengthen compliance with occupational safety and health standards in the workplace, affirming the government’s view of “labor as a primary social and economic force,” and of a safe and healthy workforce as “an integral part of nation building.”

75 Other labor laws have been passed to protect further the health and well-being of workers—an expanded maternity act, work-from-home law, shortened or compressed work week—but these involve mainly oversight and enforcement by DOLE.

76 For example, Section 4, Article XIV of the Constitution states that “the State recognizes the complementary roles of public and private institutions in the educational system and shall exercise reasonable supervision and regulation of all educational institutions.”

42
The Education Service Contracting (ESC) program was launched in 1989 under the GASTPE Act. It is one of the largest basic education public-private partnerships in the world (Patirnos et al., 2009). Its main goal is to expand secondary school access, particularly for low-income students, through two kinds of service contracts: first, DepED to contract with selected private schools to deliver services to students who would otherwise have enrolled in public schools, and, second, to contract with a private agency (specifically, the Fund for Assistance to Private Education or FAPE) to carry out the day-to-day administration of the program. The government would provide a per-student payment to each institution, but in nearly all cases, this sum is less than the total cost of tuition so students have to pay the rest out of pocket. This partnership supplements the government’s ability to meet the education demand of a rapidly growing school-age population at perhaps a lower cost to it than a significant expansion of the public school system. This arrangement is more cost-effective if there is underused capacity in private schools (in terms of trained teachers, administrators, and facilities) or if private schools are more efficient than public schools in delivering instruction for a given level of resources.

The government has involved the private sector in basic education in other ways besides direct provision. The 1998 Adopt-a-School Act (RA 8525) gave tax incentives to local corporations, businesses, NGOs, and private individuals in exchange for providing infrastructure, funding, and other resources such as desks and textbooks to public schools. Through this program, DepEd raised the equivalent of 3.5 percent of total government spending on education in 2008 (DepEd, 2010).

Community Participation in Service Delivery

One of the ways that community participation improves service delivery is by increasing quality through greater accountability and transparency. The health and education sectors are often regarded as prone to corruption because of their large budgets, huge workforce, and complex administrative layers. The Commission on Audit (COA), the Philippines’s financial oversight body, has estimated that up to one-fifth of the annual national budget is lost to corruption. Two examples illustrate how involving communities and civil society organizations can promote transparency, curb corruption, and improve services.

Check My School (CMS) is a community monitoring project introduced in 2011 that has tracked the provision of services in public schools through a combination of on-the-ground community monitoring with the use of information and communication technology (ICT). Capacity-building and training activities provide participating community members with the knowledge and leadership skills needed to conduct the monitoring and validation. Another education example pertains to the distribution of textbooks. At the beginning of

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77 Jimenez et al. (2011) estimate that the government has been able to enroll a student in a private school at a cost that is only 58 percent of the unit cost of attending a public high school.
78 Australia AID and World Bank (2015).
80 The CMS was initiated and designed by the Affiliated Network for Social Accountability in East Asia and the Pacific (ANSA-EAP) and was jointly supported by the World Bank and the Open Society Institute (Shikabatur, 2014).
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every school year, at least one-fifth of textbook deliveries fails to reach the schools for which they are intended, while in other cases textbooks reach schools too late for the start of the school year (Aceron, 2011). Deliveries are not recorded properly, and there is no feedback mechanism to keep track of whether schools are receiving the right kind, number, and quality of textbooks. These findings prompted the DepEd and a consortium of civil society organizations led by Government Watch (G-Watch) to set up a textbook count program. By mobilizing civil society organizations and local communities, and using mass media to ensure that information is shared widely and in a timely manner, this initiative compelled both government and private service providers to be more transparent in their transactions with one another and to be accountable for better outcomes. Such whole-of-society approaches can help ensure the success of what are, in principle, sound policies and programs to promote human capital development.

5. Summary and Future Challenges

Half a century ago, the Philippines led its neighbor countries in several dimensions of human capital, accounting for the ability of its educated labor force to find gainful employment abroad and in new business opportunities at home, such as BPOs. Yet progress has slowed, and the Philippines now trails its neighbor countries which have overtaken it in both human capital and economic development (World Bank, 2019c). Our review of Philippine policies revealed that the country has had laws related to human capital that reflect modern and widely accepted principles similar to those espoused in more successful countries: They recognize that investments in human capital for all citizens are critical for people’s well-being and for the country’s economic prospects and political future. They recognize the responsibility of government to make those investments, particularly for disadvantaged and vulnerable groups. They define the government’s role in providing and funding basic services, setting standards, and regulating the quality of services. They designate and authorize the agencies that would bear the central responsibility for coordination and supervision and identify those other agencies that would share in that responsibility. They support the essential role of local governments in providing or supervising those services, and at least in the case of the health sector, have devolved greater authority to local governments. Admitting the limitations of government, they urge individuals, private enterprise and communities to contribute to the delivery and financing of those services. With varying clarity, those laws establish funding mechanisms or set aside public funds to support this broader participation.

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81 Chua (1999) found that pay-offs to government officials took 20 to 65 percent of the budget allotted for textbooks, which is normally administered by the Department of Education’s regional directors. Textbook production was privatized by RA 8047 in 1995 which abolished the government monopoly on textbooks and mandated the Department of Education to procure them from private sector companies.

82 Chua (1999) and Coronel (2000). In the Textbook Count Project, researchers, reformists in government, and CSOs monitored each link in the supply chain, from contracting to the quality of production and to the distribution process (from districts to the schools), while the mass media broadcast the results of the monitoring (Fox et al., 2010).
It is difficult to argue with policies that are based on these principles of efficiency, equality, quality standards, good governance, adequate financing, and responsible management. So why have these policies not produced the intended results for human capital development in the Philippines? Why has progress slowed significantly? Why do wide inequalities persist among wealth groups and geographic regions in the country’s human capital indicators? Studies and discussions with local experts identify a number of reasons that together point to weak implementation of policies: poor, incomplete or too-complex implementation design; inadequate financing that result in understaffed facilities, underpaid providers, and inadequate infrastructure; and low administrative or technical capacity, especially at the local points of service delivery. Attracting good quality staff to work in underserved areas and maintaining adequate facilities there are key challenges in a far-flung archipelago like the Philippines. Adequate incentives are needed to attract and retain well-trained, motivated education and health professionals. While foreign employment through outmigration has brought many benefits, including substantial remittances, the best professionals that the country can produce are needed to staff schools and universities, health clinics and hospitals. This means addressing the issues related to their career paths, compensation, and working conditions. Despite recent budget increases for education, the government continues to spend less per student as a share of GDP than neighbor countries, with wealthier regions receiving more resources; and in health, weak employment prospects, low salaries, and poorly-equipped health facilities discourage a large number of health professionals from staying in the country.

There are good reasons for optimism, however, as our review discussed. In the past decade and a half, several landmark policies have been adopted to address some of the sources of slow human capital development. In education, the secondary education cycle was expanded to six years, finally putting the country on par with the large majority of countries worldwide; and while the dismal 2018 PISA results for the country were hugely disappointing, the change in curriculum would give students more classroom time for learning. Associated with this reform, the National Program Support for Basic Education Project funds incentives to persuade teachers to move to hard-to-staff schools and underserved areas, providing a hardship allowance and covering transfer costs, and ultimately aims to reform the assignment structure of teaching positions. In health, PhilHealth now covers not only employed persons but all citizens, a significant public commitment to the care and protection of human capital, and it deserves the best administrative and technical talent to lead and implement it. The establishment of the 4Ps is a dramatic change in the country’s poverty reduction and social protection strategy. It clusters social welfare reforms into an integrated national program that is precisely the essence of a whole-of-government policy approach. To ensure the support of subsequent governments for 4Ps, it should be consistently rules-based and efficient. Lastly, the establishment of a sensible population program that would

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82 Despite its stated goal of providing “equitable funding to local communities, DepEd does not prioritize spending for poorer regions in its allocations” (Jimenez et al., 2011). Empirical analysis shows that wealthier regions receive more resources for basic education.

84 Kraft et al. (2013) and Capuno et al. (2012).
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help poor families, especially women, exercise their reproductive rights is ultimately the most basic way for all of society to contribute to human capital development.

Good ideas, sound policies, but weak and corrupt implementation, is how experts summarize what has gone wrong with Philippine human capital development. The message is that the aforementioned policies will succeed if sufficient attention is given to the fidelity of their implementation and if the level of resources for implementation is commensurate with avowed goals. If the programs are weakly enforced and widely corrupt, then they become vulnerable to selfish political moves to subvert, underfund, and eventually replace or eliminate them. 85 One of the hallmarks of successful education and health systems worldwide is a robust information system that monitors programs, tracks investments, measures and analyzes performance, and provides feedback to policymakers and other stakeholders. The laws that established the PPAN, PhilHealth, the ECCD Act, and 4Ps each called for building and using a database on beneficiaries. Linking the various databases into a comprehensive one such as 4Ps’s database and facilitating data access and use can reduce inefficiencies and leakages in those programs. There is, of course, no guarantee that more information leads to better decisions and greater accountability, but evidence can be a powerful tool for putting the Philippines back on a faster trajectory of human capital development.

85 Capuno et al. (2012) discuss an example of how the objectives of local politicians (specifically, the desire to be reelected) can negatively affect the programs that they support in the health sector.
References


Philippines


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synthesis, 3ie Systematic Review 43, International Initiative for Impact Evaluation (3ie), London.


## Annex 1

### Annex Table 1.1: List of Selected Legislation and Executive Acts Pertaining to Human Capital Development

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
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<tr>
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<td>RA 4670</td>
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<td>RA 6014</td>
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<td>Barangay Level Total Protection of Children Act</td>
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<td>RA 7160</td>
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<td>RA 7165</td>
<td>Act Creating the Literacy Coordination Council</td>
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<td>RA 7722</td>
<td>Higher Education Act of 1994</td>
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<td>RA 7796</td>
<td>Technical Education and Skills Development Act</td>
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<td>RA 7880</td>
<td>Fair and Equitable Allocation of the DECS Budget for Capital Outlay</td>
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<td>RA 8047</td>
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<td>Adopt-A-School Act</td>
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<td>RA 9155</td>
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<td>2017</td>
<td>RA 10931</td>
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<td>1957</td>
<td>RA 1891</td>
<td>Act Strengthening Health and Dental Services in Rural Areas</td>
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<td>1963</td>
<td>RA 3573</td>
<td>Law on Reporting of Communicable Diseases</td>
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<td>RA 4224</td>
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<td>1997</td>
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<td>RA 4968</td>
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<td>RA 7699</td>
<td>Portability Law</td>
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<tr>
<td>1993</td>
<td></td>
<td>Self-Employment Assistance - Kaunlaran (SEA-K)</td>
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<tr>
<td>1997</td>
<td>RA 8291</td>
<td>Government Service Insurance Act</td>
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<tr>
<td>2003</td>
<td></td>
<td>Kalahi-CIDSS (Kapit-Bisig Laban sa Kahirapan, or Comprehensive and Integrated Delivery of Social Services)</td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td>Pantawid Pamilyang Pilipino Program (4Ps); expanded in 2016</td>
</tr>
<tr>
<td>2008</td>
<td>EO 867</td>
<td>Creation of Listahanan program for targeting</td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td>Cash-for-Work Program</td>
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<tr>
<td>2010</td>
<td>RA 9994</td>
<td>Expanded Senior Citizens Act of 2010</td>
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<tr>
<td>2010</td>
<td>RA 10121</td>
<td>Philippine Disaster Risk Reduction Management (DRRM) Act</td>
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### Philippines

<table>
<thead>
<tr>
<th>Year</th>
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<tr>
<td>2011</td>
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<td>Sustainable Livelihood Program</td>
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**E. Population**

<table>
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<th>Year</th>
<th>Number</th>
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<tr>
<td>1969</td>
<td>EO 283</td>
<td>Creating Commission of Population (POPCOM)</td>
</tr>
<tr>
<td>1971</td>
<td>RA 6365</td>
<td>Population Act of 1971</td>
</tr>
<tr>
<td>1972</td>
<td>PD 69</td>
<td>Omnibus Tax Bill</td>
</tr>
<tr>
<td>1972</td>
<td>PD 79</td>
<td>Revised Population Act</td>
</tr>
<tr>
<td>1973</td>
<td>PD 166</td>
<td>Amending the Revised Population Act of 1971</td>
</tr>
<tr>
<td>1973</td>
<td>PD 148</td>
<td>Woman and Child Labor Law</td>
</tr>
<tr>
<td>1976</td>
<td>PD 965</td>
<td>Requiring applicants for Marriage License to receive instruction on family planning and responsible parenthood</td>
</tr>
<tr>
<td>2012</td>
<td>RA 10354</td>
<td>Responsible Parenthood and Reproductive Health Act</td>
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**F. Water & Sanitation**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>1975</td>
<td>PD 825</td>
<td>Penalty for Improper Disposal of Garbage and Other Forms of Uncleanliness</td>
</tr>
<tr>
<td>1975</td>
<td>PD 856</td>
<td>Code of Sanitation</td>
</tr>
<tr>
<td>1976</td>
<td>PD 1067</td>
<td>Water Code</td>
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<tr>
<td>2004</td>
<td>RA 9275</td>
<td>Philippine Clean Water Act of 2004</td>
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**G. Employment**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>1974</td>
<td>RA 442</td>
<td>Labor Code of the Philippines</td>
</tr>
<tr>
<td>2000</td>
<td>RA 8759</td>
<td>Public Employment Service Office Act of 1999</td>
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<tr>
<td>2017</td>
<td>RA 11058</td>
<td>Act Strengthening Compliance with Occupational Safety and Health Standards and Providing Penalties for Violations</td>
</tr>
<tr>
<td>2019</td>
<td>SB 1571</td>
<td>Alternative Working Arrangement</td>
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<tr>
<td>2019</td>
<td>RA 11165</td>
<td>Telecommuting Act,</td>
</tr>
<tr>
<td>2019</td>
<td>RA 11210</td>
<td>Expanded Maternity Leave Act</td>
</tr>
<tr>
<td>2019</td>
<td>RA 11261</td>
<td>First-time Jobseekers Assistance Act</td>
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</table>

*Sources of data: Laws, Executive Orders and Presidential Decrees extracted from https://www.officialgazette.gov.ph/, the official journal of the Republic of the Philippines (2019).*
Annex 2

Annex Figure 2.1: Migrant Remittance Inflows (US$ million), 1977–2017

Annex Figure 2.2: School Enrollment by Age Group and Region, 2017
Annex Figure 2.3: Average Pupil-Teacher Ratios in Primary Education in the Philippines and Comparator Countries, 1990–2016

Annex Figure 2.4: Supply of Health Professionals in the Philippines and Comparator Countries, 2000–2015
Annex Figure 2.5: Population with at least Basic Drinking Water in the Philippines and Comparator Countries, 2000–2015

Source of data: World Development Indicators

Annex Figure 2.6: Population with at least Basic Sanitation Services in the Philippines and Comparator Countries, 2000–2015
### Annex Table 2.1: Regions and Provinces of the Philippines

<table>
<thead>
<tr>
<th>Region code</th>
<th>Region name</th>
<th>Provinces in region</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Ilocos Region</td>
<td>Ilocos Norte, Ilocos Sur, La Union, Pangasinan</td>
</tr>
<tr>
<td>II</td>
<td>Cagayan Valley</td>
<td>Batanes, Cagayan, Isabela, Nueva Vizcaya, Quirino</td>
</tr>
<tr>
<td>III</td>
<td>Central Luzon</td>
<td>Aurora, Bataan, Bulacan, Nueva Ecija, Pampanga, Tarlac, Zambales</td>
</tr>
<tr>
<td>IV</td>
<td>Southern Tagalog (Calabarzon)</td>
<td>Cavite, Laguna, Batangas, Rizal, and Quezon, and one highly urbanized city, Lucena</td>
</tr>
<tr>
<td>V</td>
<td>Bicol Region</td>
<td>Albay, Camarines Norte, Camarines Sur, Sorsogon, Catanduanes, Masbate</td>
</tr>
<tr>
<td>VI</td>
<td>Western Visayas</td>
<td>Aklan, Antique, Capiz, Guimaras, Iloilo, Negros Occidental</td>
</tr>
<tr>
<td>VII</td>
<td>Central Visayas</td>
<td>Cebu, Bohol, Negros Oriental, Siquijor</td>
</tr>
<tr>
<td>VIII</td>
<td>Eastern Visayas</td>
<td>Biliran, Leyte, Northern Samar, Samar, Eastern Samar, Southern Leyte</td>
</tr>
<tr>
<td>IX</td>
<td>Zamboanga Peninsula</td>
<td>Zamboanga del Norte, Zamboanga Sibugay and Zamboanga del Sur</td>
</tr>
<tr>
<td>X</td>
<td>Northern Mindanao</td>
<td>Camiguin, Misamis Oriental, Lanao del Norte, Bukidnon, Misamis Occidental</td>
</tr>
<tr>
<td>XI</td>
<td>Davao Region</td>
<td>Compostela Valley, Davao del Norte, Davao del Sur, Davao Oriental, Davao Occidental</td>
</tr>
<tr>
<td>XII</td>
<td>SOCCSKSARGEN</td>
<td>South Cotabato, Cotabato, Sultan Kudarat, Sarangani and General Santos</td>
</tr>
<tr>
<td>XIII</td>
<td>CARAGA</td>
<td>Agusan del Norte, Agusan del Sur, Surigao del Norte, Surigao del Sur and Dinagat Islands</td>
</tr>
<tr>
<td>XIV</td>
<td>National Capital Region</td>
<td>Abra, Apayao, Benguet, Ifugao, Kalinga, Mountain Province</td>
</tr>
<tr>
<td>XV</td>
<td>Cordillera Administrative Region (CAR)</td>
<td>Basilan, Lanao del Sur, Maguindanao, Sulu, Tawi-Tawi, Cotabato City</td>
</tr>
<tr>
<td>XVI</td>
<td>Bangsamoro Autonomous Region in Muslim Mindanao (BARMM)</td>
<td>Basilan, Lanao del Sur, Maguindanao, Sulu, Tawi-Tawi, Cotabato City</td>
</tr>
<tr>
<td>XVII</td>
<td>Southwestern Tagalog Region (MIMAROPA)</td>
<td>Mindoro (Occidental and Oriental), Marinduque, Romblon, Palawan</td>
</tr>
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### Annex Table 2.2: Distribution of Population Aged 6 and Over by Highest Education Level Attended, Rural-Urban Residence, and Wealth Quintile (%), 1993 and 2017

<table>
<thead>
<tr>
<th>Type of household</th>
<th>Attended primary education</th>
<th>Attended secondary education</th>
<th>Attended higher education</th>
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<tbody>
<tr>
<td></td>
<td>1993</td>
<td>2017</td>
<td>% change</td>
</tr>
<tr>
<td>Total</td>
<td>47.0</td>
<td>35.5</td>
<td>-24.5</td>
</tr>
<tr>
<td>Urban</td>
<td>38.6</td>
<td>28.1</td>
<td>-27.2</td>
</tr>
<tr>
<td>Rural</td>
<td>56.1</td>
<td>41.6</td>
<td>-25.8</td>
</tr>
<tr>
<td>Poorest 5th</td>
<td>65.0</td>
<td>57.8</td>
<td>-11.1</td>
</tr>
<tr>
<td>Second 5th</td>
<td>59.6</td>
<td>44.0</td>
<td>-26.2</td>
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<tr>
<td>Middle 5th</td>
<td>47.7</td>
<td>33.8</td>
<td>-29.1</td>
</tr>
<tr>
<td>Fourth 5th</td>
<td>38.3</td>
<td>25.5</td>
<td>-33.4</td>
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<tr>
<td>Richest 5th</td>
<td>26.9</td>
<td>17.9</td>
<td>-33.5</td>
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</table>

*Source of data:* Demographic and Health Surveys, 1993, 2003, and 2017

### Annex Table 2.3: Government education spending, as % of GDP

<table>
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<tr>
<th></th>
<th></th>
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<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>National govt</td>
<td>1.95</td>
<td>1.96</td>
<td>2.12</td>
<td>2.04</td>
<td>2.16</td>
<td>2.13</td>
<td>2.25</td>
<td>2.28</td>
<td>2.55</td>
<td>2.28</td>
<td>2.36</td>
<td>2.98</td>
<td>2.89</td>
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<tr>
<td>General govt*</td>
<td>17.27</td>
<td>17.39</td>
<td>18.12</td>
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</tr>
<tr>
<td>Tertiary education</td>
<td>0.32</td>
<td>0.33</td>
<td>0.31</td>
<td>0.3</td>
<td>0.32</td>
<td>0.32</td>
<td>0.31</td>
<td>0.3</td>
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<td>0.35</td>
<td>0.41</td>
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<tr>
<td>TVET</td>
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<td>0.04</td>
<td>0.05</td>
<td>0.05</td>
<td>0.1</td>
<td>0.03</td>
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<td>0.03</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
<td>0.05</td>
</tr>
<tr>
<td>Total**</td>
<td>2.36</td>
<td>2.37</td>
<td>2.52</td>
<td>2.44</td>
<td>2.63</td>
<td>2.53</td>
<td>2.64</td>
<td>2.67</td>
<td>2.98</td>
<td>2.73</td>
<td>2.88</td>
<td>3.51</td>
<td>3.54</td>
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</table>

*Notes:* *Average general government expenditure (current, capital, and transfers) per student in the given level of education, expressed as a percentage of GDP per capita. Data available only for selected years. **Total only for national government expenditures.

*Source of data:* World Development Indicators (World Bank, 2019)