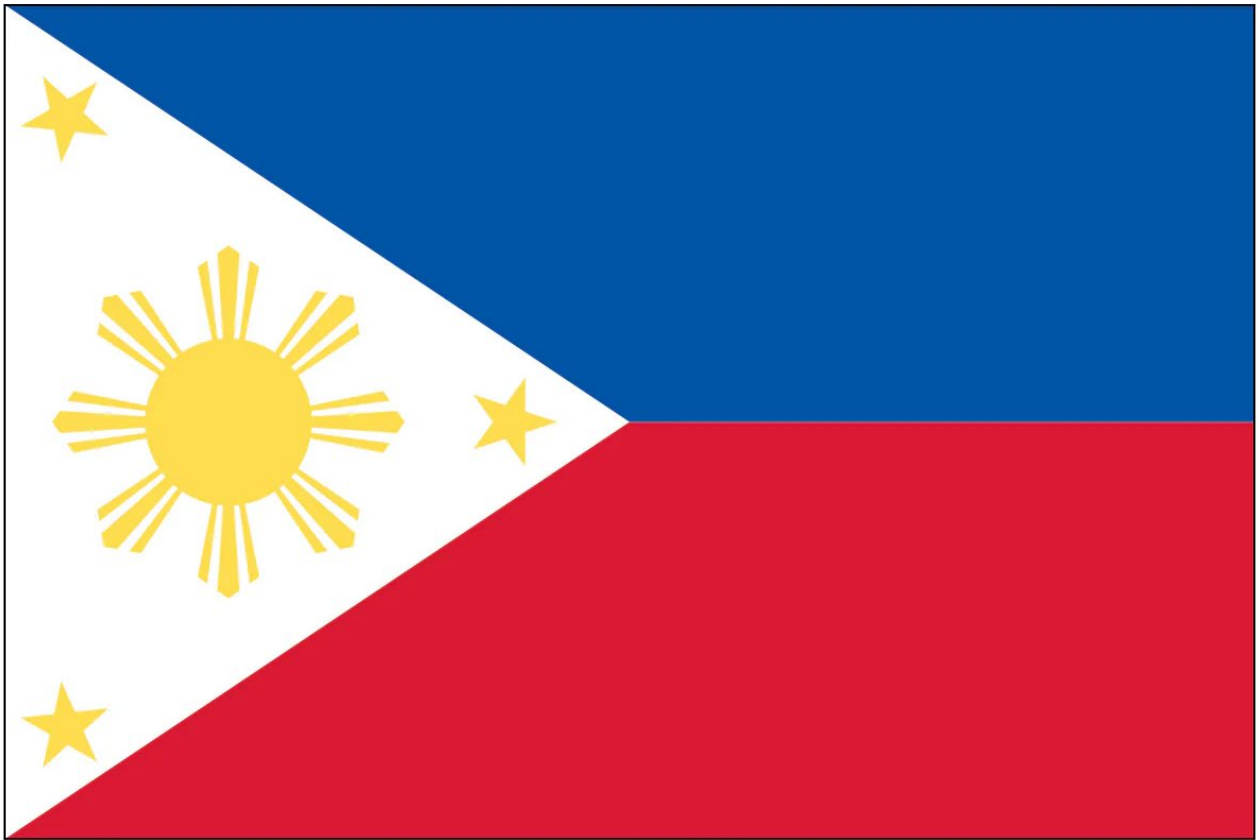




The Philippines

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August 2024

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General Country Profile

Geography and Population

The Philippines is a 300,000 square kilometer archipelago that consists of over 7,000 islands between the Philippine Sea and South China Sea.¹ Three island groups compose the Philippines, and are Luzon, Visayas, and Mindanao, each with varying amounts of mountains, plains, forests, and volcanoes.¹ The Philippines is organized into 17 regions, which are further subdivided into 82 provinces.¹ Local governments are also divided into cities—the largest of which is Quezon City, with a population of 2,960,048, followed by Manila, with a population of 1,846,513 (Table 1).¹



Figure 1. Map of the Philippines¹

The country has a tropical climate with two major seasons: the rainy season from June to November and the dry season from December to May, with the dry season being further categorized into cool-dry (December-February) and hot-dry (March to May).¹ The average annual

temperature is 26.6C (79.7F), with the coolest month being January and the warmest month being May.¹ Annually, rainfall averages 97cm to 406cm, with a relative humidity ranging from 71 percent to 85 percent.¹ Although some regions within the Philippines experience the two seasons as described above, there are three other types of climates, termed type II, III, and IV, in which there are variations of dry and wet months.¹ Overall, the climate of the Philippines is well suited for agriculture, but also makes the country susceptible to typhoons, which can have potentially devastating impact on lives and infrastructure.¹

There are approximately 113 million people in the Philippines, making this the 13th most populous country, with population growing 2.2% annually.¹ The age distribution of the Philippines is shown in figure 1—the most populous age group is 25-54 years old, with the next most populous being 0-14.¹ Around 47% of the population lives in rural areas (Figure 1).² The Philippines is a lower-middle income country, with a gross domestic product per capita of \$3,500 USD.³ Education is required up to the secondary level, leading to a literacy rate of 98%.⁴ The life expectancy of the Philippines is 71 years, placing it below the average global life expectancy of 73.4 years.²

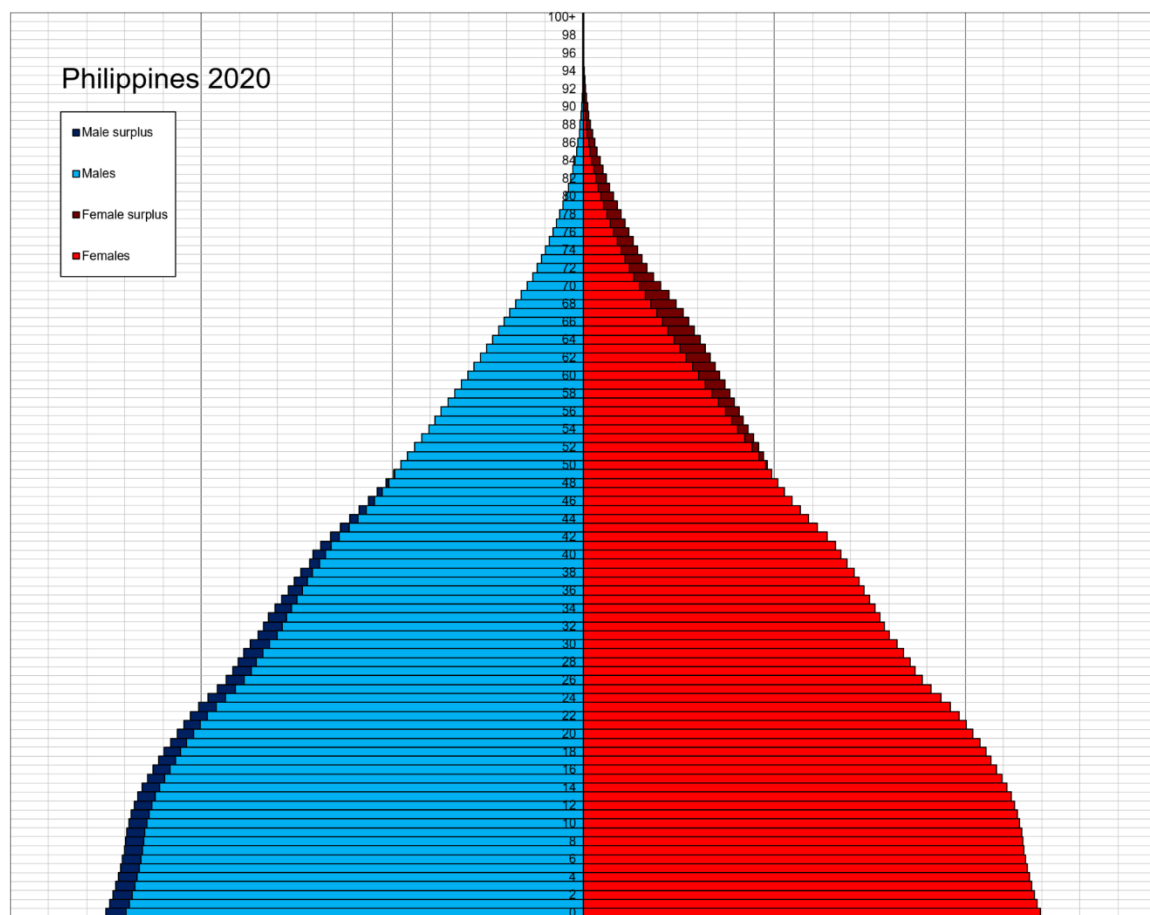


Figure 2. Philippines population pyramid 2020¹

Highly Urbanized City	Total Population
<i>National Capital Region</i>	
City of Manila	1,846,513
City of Mandaluyong	425,758
City of Marikina	456,059
City of Pasig	803,159
Quezon City	2,960,048
City of San Juan	126,347
City of Caloocan	1,661,584
City of Malabon	380,522
City of Navotas	247,543
City of Valenzuela	714,978
City of Las Piñas	606,293
City of Makati	629,616
City of Muntinlupa	543,446
City of Paranaque	689,992
Pasay City	440,656
City of Taguig	886,722
<i>Outside the National Capital Region</i>	
City of Baguio	366,358
City of Angeles	462,928
City of Dlongapo	260,317
City of Lucena	278,924
City of Puerto Princesa	307,079
City of Iloilo	457,626
City of Bacolod	600,783
City of Cebu	964,169
City of Lapu-Lapu (Opon)	497,604
City of Mandaue	364,116
City of Tacloban	251,881
City of Zamboanga	977,234
City of Iligan	363,115
City of Cagayan de Oro	728,402
City of Davao	1,776,949
City of General Santos (Dadiangas)	697,315
City of Butuan	372,910

Table 1. Total population of the highly urbanized cities in 2020 ²

History and Politics

In the 16th century, the Spanish began their initial missions, led by Philip II to conquer the Philippines.⁵ The Spanish began to successfully conquer areas of the Philippines, resulting in many Spanish families settling in cities such as Manila early into the colonization.⁵ This colonial period went on quite some time, until the formation of the Katipunan, which had the primary goal of seceding from the Spanish.⁵ While unsuccessful, this initial effort convinced many to favor secession, and in 1898, amidst the Spanish-American War, the Philippine Declaration of Independence was issued, declaring independence from Spain.⁵ After the United States won the war and gained control over the Philippines, the Philippine-American War began in 1899 and ended in 1902, with the Philippines being recognized as an independent country.⁵ There is a

strong sense of national pride that is thought to have emerged from struggles to gain independence.⁵

Historically, colonialism and other external influences on the Philippines has had lasting impacts on cultural beliefs, including religion.⁶ The majority—approximately 79%—of Filipinos are Roman Catholic, with the next most popular religion being Protestant Christianity at 8.2%, followed by Islam at 5.6%.⁶ Religion plays a significant role in aspects such as health, where the belief of *Kaloob ng Diyos*, or God's will, is commonly held and results in those trying to do everything they can for their health, but then surrender to a higher power when necessary.⁷ Outside of religion, the cuisine of the Filipinos is influenced with ingredients indigenous to China or India.⁸ Western influence has also exerted effects in the country through proliferation of fast-food chains.⁸

English is commonly spoken throughout the Philippines and is the co-official language with Filipino, a standardized version of Tagalog.⁹ While considered dialects by some, there are technically multiple languages spoken across the country including Tagalog, Ilocano, Cebuano, and Hiligaynon.¹⁰ Both English and Filipino are spoken in most places, although in certain regions where education is less attainable, English is less common.^{9,10} Spanish and Japanese are also common languages that people across the nation speak, although these are not as common as English or Filipino.¹⁰

Government and Legal System

The Philippines has a representative democracy and presidential republic form of government largely based on the U.S. system.¹¹ The legal system is a mix of civil, common, Islamic, and customary law.¹¹ The Executive Branch includes the President as Chief of State and head of government.¹² A simple majority vote is held for the President and Vice President to serve a 6-year term. The Cabinet is appointed by the President with consent from the 25 members of Congress.¹² The Legislative Branch is a bicameral Congress consisting of the Senate and House of Representatives.¹² The Judicial Branch recognizes the Supreme Court to be the highest court with presidentially appointed justices, as well as subordinate courts.¹³

The World Bank publishes 6 indicators for over 200 economies annually to help assess broad trends of governance over time, essential for improvement, development, and the comparison between other regions.¹⁴ Each indicator uses a percentile rank to compare each country with all other countries in the world, with 0 being the lowest rank and 100 being the highest. Here, the most current rankings given to the Philippines are compared to the United States to represent a different level of economic development, as well as China, one of its peer nations.¹⁴ The current indicators of the Philippines are also compared to the rankings given 5 years prior in 2017.¹⁴

The first indicator is voice and accountability, measuring the capability of citizens to elect their government officials and their freedom of expression, association and media.¹⁴ The Philippines scored a 43.96 in 2022, decreasing slightly from a 48.77 in 2017.¹⁴ China scored lower than the

Philippines in 2022 and ranked at a 6.28, while the United States scored a 72.95 in the same year.¹⁴

The second indicator is political stability and the absence of violence and terrorism.¹⁴ The Philippines scored a 20.28 in 2022, increasing from an 11.43 in 2017.¹⁴ China scored a 28.30 and the United States scored a 45.28, both in 2022.¹⁴

The next indicator is government effectiveness measuring the quality of public and civil services and the independence from political pressures.¹⁴ It also captures the government's commitment to policies and the quality of policy creation and implementation.¹⁴ The Philippines scored a 56.13 in 2022, compared to the 52.38 scored in 2017. In 2022, China scored a 68.40 while the United States scored a 86.79.¹⁴

The regulatory quality indicator shows how well the government promotes private sector development through sound policies and regulations.¹⁴ The Philippines scored a 53.77 in 2022 and a 59.52 in 2017.¹⁴ China scored a 36.79 in 2022, and the United States scored a 91.04 in the same year.¹⁴

The fifth indicator is rule of law.¹⁴ This captures how agents follow the rules of society. Specifically, these rules are the quality of contract enforcement, property rights, the police, the courts, and the likelihood of crime and violence. The Philippines scored a 33.49 in 2022 and a 32.38 in 2017.¹⁴ In 2022, China scored a 52.83 and the United States scored a 88.68.¹⁴

The final indicator is control of corruption to show the degree to which public power is used for private gain, including both petty and grand forms of corruption.¹⁴ It also shows the capture of the state by the elite and private interests. The Philippines scored a 33.49 in 2022, decreasing slightly from the 38.57 given in 2022.^{14,15} China scored a 55.19 and the United States scored a 82.55, both in 2022.¹⁴

Economy and Employment

The Philippines is classified as a low-middle income country by economy.¹⁶ Agriculture is among the largest industries in the Philippines, with about 27.2% of the population working within this sector as of 2017 (Figure 3).¹⁶ Manufacturing has experienced significant growth, with an average of 0.8% annual growth between the years 2001 and 2013.¹⁷ Current estimates suggest that this industrial sector has boosted the annual GDP 25%.¹⁸ Another industry that employs a significant number of the population and contributes substantially to the economy is tourism.¹⁸ There were an estimated 6.2 million tourists who visited the Philippines in 2017.¹⁸ Money and efforts focused to advertisement are thought to draw in many people from all over the country, especially South Korea.¹⁹

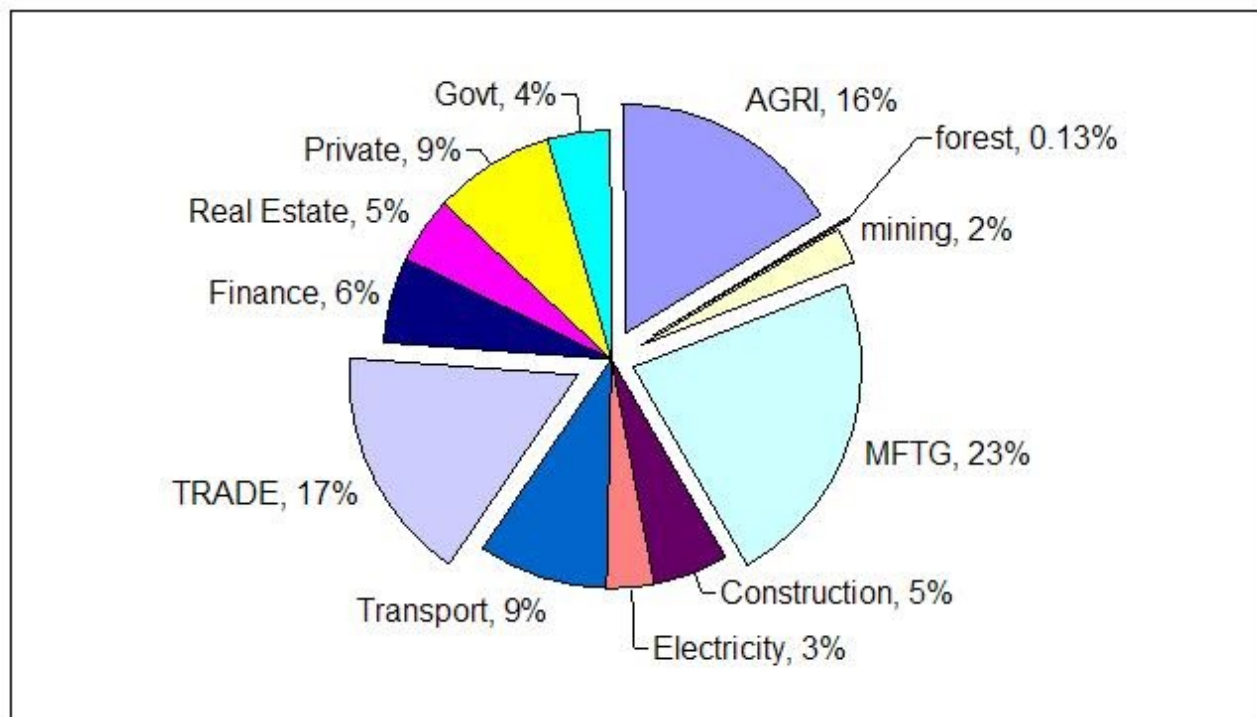


Figure 3. Graph depicting the approximate contributions of each sector to the Philippines economy.¹⁶

The Philippines also receives monetary and other aid from foreign nations.²⁰ The United States Agency for International Development (USAID) has so far invested 900 billion pesos (\$15.6 billion USD) since 1971 to help support the development of the Philippines.²¹ The goal of this aid is to help foster sustainable economic growth, democratic systems responsible management of natural resources, and uphold quality healthcare and educational systems.²¹ There are also organizations such as Amnesty USA and Humanity & Inclusion that raise funds for disaster response, as well as organizations such as ChildFund that financially support children's health and development in the country.²²

The economy of the Philippines was estimated to be 26.55 trillion pesos (\$471.5 billion USD), placing it at the 32nd largest GDP.²³ While agriculture does contribute significantly to the GDP, trends have shown the economy shifting from a reliance on agriculture to services and manufacturing.²³ Agriculture provides 8.9% to the GDP.²³ Additionally, other sectors such as automotive, electronics, mining and extraction, renewable energy, shipbuilding, and tourism contribute substantially to the GDP.²³

Physical and Technological Infrastructure

Telecommunication

According to a 2024 publication by the International Trade Administration, the most popular sub sectors of electronics are phones, computers, laptops, and tablets.²⁴ Approximately 44 million Filipinos own a smartphone, with the country ranking 89th out of 143 countries in mobile internet speed and 49th out of 181 in fixed broadband speed.²⁴ Areas closer to Metro Manila often have higher and more reliable cellular and web-based connections.²⁴

Electricity

As of recent estimates, around 94% of the Philippine population has access to electricity.¹¹ However, rural areas still face significant challenges, with many households remaining unserved.¹¹ Efforts are ongoing to achieve total electrification, targeting millions of additional households in the coming years.¹¹ The Philippines' energy mix includes coal (48%), natural gas (22%), and renewable sources such as hydroelectric, geothermal, and solar power.¹¹ The government is pushing for a larger share of renewables, aiming for 35% by 2030 and 50% by 2040.¹¹

The reliability of electricity in the Philippines varies significantly. Urban areas, especially in Luzon, generally have more stable power supplies compared to rural regions and smaller islands.¹¹ However, the country experiences frequent power outages due to natural disasters, aging infrastructure, and high demand.¹¹ The government and private sector are working on projects to add significant capacity and improve grid stability.

Transportation

Transportation infrastructure includes a mix of road networks, railways, airports, and seaports.²⁵ Roads are extensive in urban areas, though often congested.²⁵ Railway on the other hand is limited to a few urban commuter lines and long-distance routes.²⁵ Air transportation is used and there are numerous airports, with Ninoy Aquino International Airport being the primary gateway.²⁵ Sea travel is vital for an archipelago, with numerous ports facilitating inter-island travel. Major cities like Metro Manila have extensive road networks and public transport systems, including buses, jeepneys, and a limited number of trains.²⁵ However, many rural areas have limited access to reliable transportation.¹¹ Like electricity, the reliability of transportation varies between urban and rural areas.¹¹

In rural and urban areas, personal vehicles, like motorcycles and small cars are the primary source of transportation.²⁵ Urban areas often suffer from severe traffic congestion, while rural areas may have underdeveloped road networks.²⁵ Public transport systems in major cities face challenges of overcrowding and frequent delays.²⁵ In an effort to combat major traffic congestion in cities like Manila, the government began limiting days of travel for personal vehicles.²⁵ Based on license plate numbers, a car can only be on the road certain times and days of the week.²⁵ While this is

not an ideal solution by any means, it highlights the intense need for traffic management and moderation.

Water and Sanitation

Urban areas generally have better access to clean water and proper sanitation facilities compared to rural areas.²⁶ Water supply in urban areas is relatively reliable, but many rural areas still lack consistent access to clean water. About 52% of the population lacks access to safe water and 37% lack access to a safe toilet.²⁶ Sanitation facilities also vary, with many rural areas lacking proper systems, leading to public health challenges.²⁶ The water itself is provided through a mix of government and private utilities in urban areas, with rural areas often relying on local sources.²⁶ As for sanitation, urban areas generally have sewage systems and treatment plants, while many rural areas rely on septic systems or lack proper facilities altogether.²⁶

National Health Care Profile

National Health Care Profile

According to the Philippine Statistics Authority and Department of Health's latest analysis, the mortality rate of the general population was 6 per 1,000 in 2020.²⁷ This represents a 1.1% decrease in crude mortality rate from the previous year.²⁷ There is a death sex ratio of 1.34, meaning that there are 134 male deaths per 100 female deaths.²⁷

A staggering 68.2% of deaths (418,786) in 2020 were attributed to the top ten causes of death, with ischemic heart disease being the number one cause.²⁷ Cerebrovascular disease and malignant neoplasms contributed to 10.5% and 10.2% of annual deaths, respectively.²⁷ During this index year, COVID-19 was the ninth leading cause of death.²⁷ Other diseases that contributed significantly to mortality included diabetes mellitus, pneumonia, hypertensive disease, respiratory tuberculosis, and diseases of the genitourinary system; however, it is important to note that certain conditions, such as diseases of the genitourinary system or respiratory tuberculosis, were leading causes of death in one sex but not the other.²⁷ Half of deaths from each of the ten leading causes were medically attended by either a physician or nurse.²⁷ Preliminary 2023 data from the Philippine Statistics Authority is shown in Figure 4.²⁸

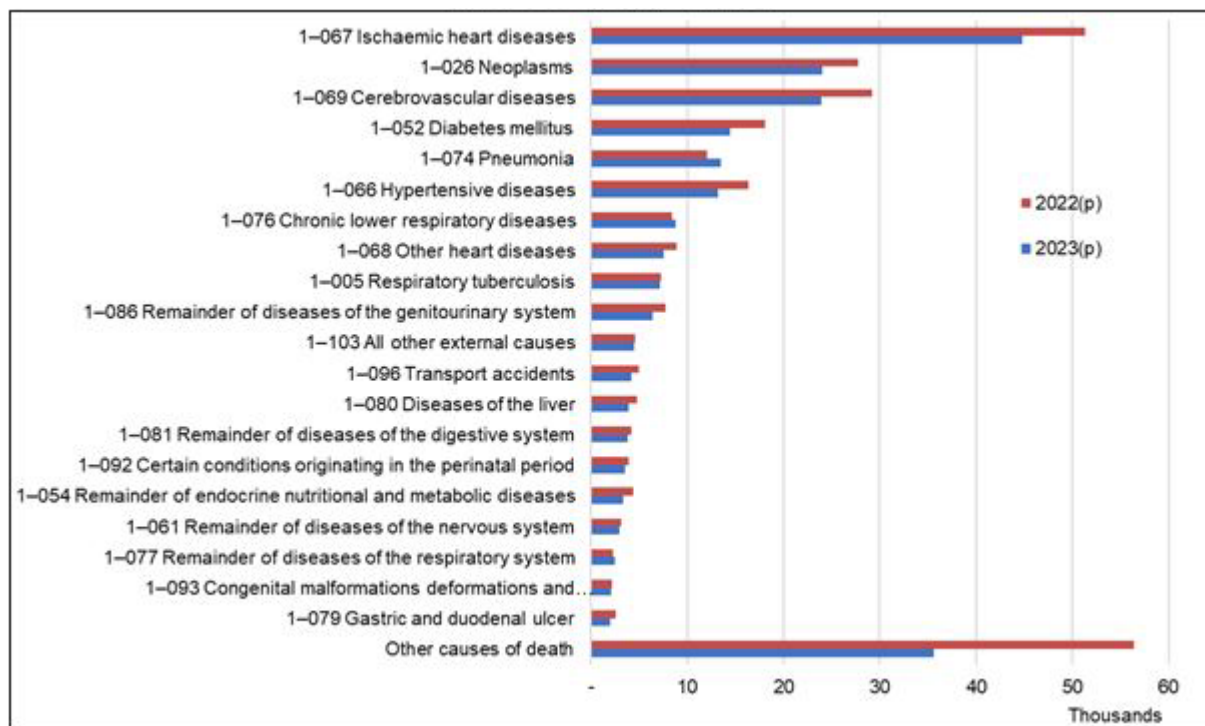


Figure 4. All causes of mortality (top 20) in the Philippines Jan 2022 to May 2023

Maternal mortality rate in 2020 was measured as 1.3 deaths per 1,000 live births, a 44.4% increase from the previous year.²⁷ The leading cause of maternal mortality was pre-eclampsia (14.2% of maternal deaths).²⁷ Infant mortality in the same year was 13 deaths per 1,000 live births, a 15.4% decrease from the previous year.²⁷ The leading causes of infant mortality in order were bacterial sepsis, respiratory distress, and other various perinatal conditions.²⁷

Public health efforts include “Health is Life”, a collection of public health education initiatives led by the Philippines Department of Health that encourage physical activity, personal hygiene, vaccinations, avoidance of smoking and alcohol consumption, safe sex, and social connectedness.²⁹ The Health is Life aims to achieve three major goals by 2030: achieve nationwide health literacy, improve the availability of a health-enabling environment, and implement public policies that support and protect health.²⁹

Examples of events and efforts this initiative organizes include educational events for sexual health, infectious diseases such as rabies, smoking avoidance and cessation, and cancer awareness.²⁹ Vaccination events are common to provide free or reduced cost access to vaccines. Agencies attached to these initiatives include PhilHealth, National Nutrition Council, Philippine National AIDS Council, and Philippine Institute of Traditional and Alternative Health Care.²⁹

National Health Care Structure/Policy

The most recent 2022 data suggests about 5.5% of the GDP accounted for healthcare expenditure. The healthcare spending of the country has been increasing for at least the past eight years and in 2022, the per capita cost is over 10,000 pesos (\$548 USD).³⁰ In 2024, an estimated 23 billion pesos (\$391 million USD) will be allocated to healthcare spending.³⁰ Departments that contribute to the organization and operation of healthcare in the Philippines include the Philippines Department of Health, Department of Budget and Management, as well as local government officials and offices.³⁰

Throughout the Philippines, there are a total of 1,351 hospitals, 25,815 first-aid, basic health stations (termed Barangay health stations), and 1,689 drug testing laboratories.³⁰ Health stations are limited in the care they provide due to a lack of resources. There are many private healthcare services that have access to more specialists and equipment, but cost significantly more.³⁰ The patient referral system typically begins at the level of Barangay health stations, where patients may then be referred to the secondary care level (district and provincial hospitals) or tertiary care centers (regional hospitals and medical centers).³⁰ If a patient does need higher level care than that offered by Barangay health stations, a referral letter is prepared and given to the higher-level facility.

It is also important to note the significant disparity in healthcare service distribution between urban and rural regions.³⁰ Urban centers provide more access to comprehensive facilities and specialized care, whereas rural areas are primarily serviced by Barangay health stations and do not have access to specialist services.³¹ Private sector healthcare is prevalent in urban areas and helps provide shorter wait times and access to healthcare, as long as one is able to pay.³¹ Therefore, out-of-pocket costs, even with insurance, can be high and exists as a barrier of access to the general population.

There are approximately 0.9 hospital beds per 1,000 people, which had been stable over the past three years.³⁰ As for the healthcare team, there are 0.6 physicians per 1,000 people and 5.2 nurses and midwives per 1,000 people.³⁰ Detailed estimates on other members of the healthcare team, including pharmacists and lab technicians are unavailable; however, it is clear that there is a growing demand for all healthcare providers in the Philippines.³⁰

National Health Care Coverage

The health system emphasizes both preventative and therapeutic health coverage.³⁰ Preventative coverage includes vaccinations, screening programs, and programs that impact physical fitness, stress reduction, and dietary counseling.³⁰ Therapeutic coverage encompasses inpatient care, outpatient services, and well-developed management plans for conditions such as acute ischemic stroke and other emergencies, as well as prevalent serious conditions like cancer.³⁰

In regard to payment, there are both public and private insurance options. PhilHealth is the primary public insurer.³² PhilHealth offers comprehensive coverage for inpatient and outpatient treatments.³² Health maintenance organizations (HMOs) are common and include Maxicare, Intellicare, and Medicard.³⁰ There are also traditional health insurance plans that offer

reimbursement, although these plans may provide less than ideal coverage for critical illness. For those who cannot afford comprehensive coverage, microinsurance options through providers like MicroInsure, offer a low-cost plan for basic health coverage.³⁰

Although an estimated 98% of the population in the Philippines is insured, primarily through PhilHealth, out-of-pocket costs are still restrictively high.³⁰ For example, targeted therapy for breast cancer may cost an individual 1.4 million pesos (\$23,800 USD) annually.³⁰ With an average annual salary of 537,000 pesos (\$9,528 USD), healthcare expenses represent a major burden to individuals and their families.³⁰

Although it is the case that healthcare is expensive for the general population in the Philippines, efforts are being made to improve access and funding for public systems.³³ Sin tax revenues, which arise from excise taxes on alcohol and tobacco, contribute significantly to public health funding.³³ Additionally, the government offers certain subsidies to reduce healthcare costs, which in combination with international aid, helps to improve healthcare affordability.³³ Subsidies are typically allocated to cover premiums for senior citizens and other vulnerable populations.³³ Still, the significant burden of healthcare cost is not uplifted for most people, highlighting a major area for improvement.³³

National Radiology Profile

Radiology Workforce and Training and Professional Representation

Radiology personnel are primarily concentrated in urban areas such as Manila, Cebu, and Davao, where they are employed within tertiary hospitals.³⁴ There are approximately 2,000 radiologists, 10,000 radiologic technologists, 200 radiation oncologists, and less than 300 radiation therapists, medical physicists, radiation safety officers, and radiology educators.³⁴ The main professional society for the field of radiology is the Philippine College of Radiology, which aims to provide leadership, set educational standards, and advocate for the profession.³⁴

Educational requirements within the field of radiology are similar to that of the United States. Radiologists are medical doctors with a 4-year residency in diagnostic radiology and may then choose to pursue a 1-2 year fellowship. Educators in the field of radiology may have a doctor of philosophy or medical doctorate. Medical physicists require master's or doctoral degrees in medical physics. Radiation therapists, imaging device engineers, radiology nurses, and techs typically require a bachelor's degree in their respective fields.³⁴

Equipment Inventory, Distribution, and Rules and Regulations

There is limited availability of information related to the inventory of imaging equipment in the Philippines. However, there is a wide-range of imaging modalities available. Ultrasound is accessible in many healthcare facilities, including some Barangay health stations.³⁴ X-ray, computed tomography (CT), positron emission tomography (PET), and magnetic resonance imaging (MRI) are typically available in regional hospitals and medical centers, with MRI being the least available imaging modality due to cost.³⁴

Even within hospitals, MRIs are typically privately owned.³⁵ For example, in the University of the East, Ramon Magsaysay Memorial Medical Center, there is a single, privately owned MRI machine. Ultrasound is the most common type of imaging modality used, followed by x-ray, CT, and MRI.^{34,35}

Local manufacturing for medical imaging equipment is minimal, with most imaging equipment being sourced from global manufacturers like Fujifilm Healthcare.³⁶ Regular servicing and maintenance is conducted by IDS Medical Systems.³⁷ The Food and Drug Administration Philippines is the primary regulatory body that ensures the safety of medical imaging devices.³⁸ The Department of Health assists in the regulation and safety of medical imaging services.³⁸

Conclusion

The Philippines is a culturally diverse country that has been making strides in various areas of public health in the past decade. Despite these advances, there remain substantial challenges in healthcare access, particularly in rural areas, and in the affordability of healthcare services. The healthcare infrastructure, while improving, still faces disparities between urban and rural regions, and the cost of healthcare continues to be a major burden for many Filipinos.

Opportunities exist for organizations to contribute to the enhancement of the healthcare system in the Philippines. Radiology outreach initiatives like RAD-AID International have the potential to significantly improve diagnostic capabilities and healthcare outcomes. There is also a need for increased investment in healthcare infrastructure, training for healthcare providers, and public health education.

Organizations interested in supporting healthcare development in the Philippines can get involved through partnerships with local health institutions, providing financial support for healthcare projects, and contributing to educational programs aimed at improving healthcare literacy and access. The next steps involve identifying specific areas of need, where efforts, such as the provision of advanced medical equipment and training can be focused. Outreach efforts may help bridge the gap in healthcare access and ensure that all Filipinos have the opportunity to lead healthy lives

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