



# Haiti

Munachiso Amanda Ngene  
Shirice Lesane  
Hadeel Assi  
Ajay Naik

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## Haiti Country Report



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# General Country Profile

## **A. Geography and population**

The Republic of Haiti, a country located in the Caribbean Sea, comprises the western 1/3<sup>rd</sup> of the island of Hispaniola.<sup>1</sup> The country has a total land area of 27,560 square kilometers (10,641 square miles) and a coastline of 1,771 kilometers (1,100 miles).<sup>1,2</sup> It shares the island of Hispaniola with its eastern neighbor, the Dominican Republic.<sup>3</sup> The Atlantic Ocean lies to the North and the Caribbean Sea to the south and west.<sup>3</sup> The capital city, chief port, and most populous city is Port-au-Prince which has a population of approximately 3.06 million.<sup>4</sup> Haiti is the most populous country in the Caribbean with a population of 11.4 million people.<sup>1</sup> The country contains several major mountain ranges: Cordillera Septentrional in the north, Massif du Nord, the Matheux Mountains, Trou d'Eau Mountains, and Massif de la Selle.<sup>3</sup> The island's longest river is the Artibonite River which is approximately 280 kilometers long (about 173.98 mi) and follows a southwestward course from western Dominican Republic.<sup>3</sup>

### Climate and Season Cycles

Haiti has a humid, tropical climate with winter temperatures between 19-28 degrees Celsius and summer temperatures between 23-33 degrees Celsius.<sup>5</sup> Average temperature in Haiti varies inversely with elevation.<sup>6</sup> Annual precipitation also varies with terrain with mountainous regions averaging 1,200mm (about 3.94 ft) and lowlands experiencing a minimum of 550 mm (about 1.8 ft).<sup>5</sup> There are areas in Haiti with rainy seasons from April to June and from August to October, other areas have rainy seasons from May to November.<sup>3</sup>

**Table I: Overview of Haiti<sup>3,10</sup>**

<b>Capital</b>	Port-au-Prince
<b>Largest City</b>	Port-au-Prince
<b>Population World Rank</b>	83
<b>Percent of Total Population in Rural Areas</b>	41%
<b>Total Area</b>	27,560 square kilometers (10,641 square miles)
<b>Gross National Income Per Capita</b>	3,310
<b>Life Expectancy at Birth (years) M/F</b>	60/66
<b>Infant Mortality Rate (per 1000 live births)</b>	45
<b>Total Expenditure on Health Per Capita</b>	44.18
<b>Total Expenditure on Health (% of GDP)</b>	3.22

## B. History and Politics

### Pre-colonial

The island of Hispaniola was first inhabited in 5000 BC by indigenous people, including a dominant group, the Arawak.<sup>3</sup> The Taino, an Arawak group, and the Ciboney called the island Quisqueya and developed an economy based on fishing, trade, and cassava farming.<sup>3</sup> Christopher Columbus came across Quisqueya on December 6, 1492 and named it “La Isla Española”, later adapted to “Hispaniola”.<sup>3</sup> Between 100,000 and several million Taino and Ciboney lived on Quisqueya before its discovery by Christopher Columbus.<sup>3</sup> The Taino and Ciboney were enslaved by the Spanish and forced to mine for gold.<sup>3</sup> The majority of the Taino and Ciboney population succumbed to European diseases and slavery and the population was reduced to about 30,000 by 1514.<sup>3</sup> By the beginning of the 1600s, they were almost nonexistent.<sup>3</sup> Thousands of indigenous people who were brought in from other Caribbean islands as slaves also died or were killed.<sup>3</sup> The Spanish mainly occupied the eastern part of the island where they introduced cattle, pigs, and horses to the island.<sup>3</sup> Many Spaniards left the island once the gold mines were depleted.<sup>3</sup> In the mid-1500s, French pirates arrived at the western end of Quisqueya (now Hispaniola) predominantly on modern-day Tortue Island.<sup>3</sup> Eventually, British pirates also set up a base there and both groups began to develop permanent settlements and plantations.<sup>3</sup> Mass importation of enslaved African people began.<sup>3</sup>

### Colonial

In 1697, France gained the western 1/3<sup>rd</sup> of Hispaniola from Spain via the Treaty of Rijswijk and named it Saint-Domingue.<sup>3</sup> By the end of the 18<sup>th</sup> century, Saint-Domingue contained nearly two-thirds of France’s foreign investments.<sup>3</sup> As a result of an overpopulation of slaves and the development of plantation agriculture, the ecology of Saint-Domingue changed as streams dried up and soil productivity declined.<sup>3</sup> The estimated population in 1789 was 556,000, including 500,000 enslaved Africans, 32,000 Europeans, and 24,000 free people of mixed African and European descent (referred to as *affranchise* by the French).<sup>3</sup> People of mixed race grew increasingly frustrated with the European settlers’ racial discrimination towards them.<sup>3</sup> In 1790, Vincent Ogé, a mixed-race man, led an uprising in late 1790, but was captured and executed by colonialists.<sup>3</sup> In effort to prevent future incidents, in May 1791, the French agreed to grant citizenship to wealthy mixed-race people, but lack of compliance by European settlers in Haiti led to a conflict.<sup>3</sup> A slave revolt followed in August 1791 and, in response, citizenship was granted to all mixed race people by the French in April 1792 and the country of Saint-Domingue became divided.<sup>3</sup> In 1793, slavery was abolished by the French via Léger Félicité Sonthonax.<sup>3</sup> Due to the threat of restoration of slavery by Napoleon Bonaparte, Toussaint Louverture and Jean-Jacques Dessalines led a slave revolt that helped gain Haiti’s independence from France in 1804.<sup>3</sup> Haiti became the first independent nation in Latin America and the Caribbean and the first to be founded by former enslaved people.<sup>3</sup>

## **Post-colonial**

In 1825, France demanded payment of 150 million francs from Haiti in exchange for recognizing Haiti's sovereignty.<sup>7</sup> This was later reduced to 90 million francs in 1838.<sup>7</sup> Under threat of invasion, Haiti agreed, and the debt continued to contribute to its economic struggles and poverty.<sup>7</sup> The country's population is predominantly of African descent, with a small percentage of mixed-race and European descent.<sup>3</sup>

## **Language, Dialects, and Religions**

The official languages are Haitian Creole (also known as Kweyol or Kreyol) and French, with Creole being widely spoken among the population.<sup>3</sup> However, French remains the preferred written language in Haitian schools.<sup>3</sup> The majority of Haitians adhere to Roman Catholicism, although Protestantism and Vodou (also known as Voodoo or Vodun) also have significant followings.<sup>3</sup>

## **C. Government and Legal System**

Haiti has a multiparty, semi-presidential system consisting of a president, prime minister, and bicameral parliament.<sup>3</sup> The president is elected by popular vote and, if reelected, may serve up to two nonconsecutive five-year terms.<sup>3</sup> The prime minister is appointed by the president directly from parliament and serves as the head of government.<sup>3</sup> Haiti's bicameral parliament consists of a Senate, where members are elected to serve six-year terms, and a Chamber of Deputies, where elected members serve four-year terms.<sup>3</sup> Political parties were banned under François Duvalier's presidency, but have begun to emerge since 1960.<sup>3</sup> Currently, the dominant parties in parliament are the Haitian Tet Kale Party and Vérité, but there are a large number of smaller political parties represented as well.<sup>8</sup> Universal suffrage was instituted in 1950, but the country continues to face challenges with corruption and ballot tampering leading to further political instability.<sup>3</sup>

## **D. Economy and Employment**

Haiti is a low-income country and the poorest country in the Western hemisphere.<sup>3</sup> As of 2022, the country's GDP was \$20.25 billion and GDP per capita was \$1,745.9.<sup>9</sup> The country's major industries include agriculture, manufacturing, and services (e.g. tourism, government, finance and trade). Agriculture is the dominant industry and employs approximately two-thirds of the population.<sup>1,3</sup> The main cash crops are arabica coffee and sugarcane.<sup>3</sup> Despite this, much of the food from Haiti is imported from the United States and Dominican Republic—further driving down sales prices of domestic foods.<sup>3</sup> Therefore, the agricultural industry accounts for approximately one-fourth of the GDP.<sup>3</sup> Haiti also faces deforestation, soil erosion and drought which threatens the availability of cultivatable land.<sup>3</sup> Many Haitians earn a living through street vending and odd jobs.<sup>3</sup> Haitians abroad contribute largely to the economy through remittances.<sup>3</sup> In the early 21<sup>st</sup> century, the value of remittances exceeded the amount of funds contributed through foreign aid or foreign investment.<sup>3</sup>

## E. Physical and Technological Infrastructure Section

Comisión Nacional de Telecomunicaciones, known as CONATEL, is responsible for developing national information and technology projects while regulating the overall telecommunications industry.<sup>18</sup> Haiti faces a critical need for the maintenance of effective communication services to navigate the numerous natural disasters it encounters.<sup>11</sup> The country's telecommunications sector relies heavily on international support to repair and replace systems damaged in recent upheavals.<sup>11</sup> Hurricane Matthew in 2016 left the fixed-line infrastructure virtually non-existent.<sup>11</sup> Aid and additional investments primarily target mobile solutions, as over half of the population can afford mobile handsets or monthly subscriptions, with mobile broadband subscriptions estimated at 28% in 2022.<sup>11</sup> International assistance, including a recent \$120 million release from the World Bank, continues to pour in to aid the recovery of Haiti's telecommunications sector, following the significant 7.2 earthquake in August 2021, which was preceded by a \$60 million grant.<sup>11</sup>

According to data released by CONATEL in 2019, there were a total of 398 legally authorized sound broadcasting stations in the country.<sup>11</sup> This includes approximately 60 community radio stations and seven AM band radio stations.<sup>11</sup> The FM band in Haiti was reported to be oversaturated by 158 percent.<sup>11</sup> The majority of radio stations broadcast between 17 to 19 hours per day.<sup>11</sup> Haiti also has 105 television stations in operation, with 36 located in Port-au-Prince, 41 in other provinces, and over 40 radio-television stations.<sup>11</sup> It is noteworthy that many broadcasting stations operate irregularly, and some deviate from established technical standards, leading to harmful interference with existing telecommunications systems.<sup>11</sup> Additionally, the VOA Creole Service is broadcast daily on 30 affiliate stations.<sup>11</sup> There were 64 mobile subscriptions per 100 inhabitants in 2021.<sup>11</sup> Landlines accounted for less than 1 per 100 in 2021.<sup>11</sup> An estimated 39% of the population has internet access.<sup>11</sup>

Electricity supply is managed by government-owned Electricité d'Haiti (EDH).<sup>12</sup> As of 2020, Haiti had a population of 7 million without access to electricity.<sup>11</sup> In 2021, the overall electrification rate for the entire population was 47.1%.<sup>11</sup> In urban areas, 81.8% of the population had access to electricity, while in rural areas, only 3% had electrification as of 2020.<sup>11</sup> The Ministry of Public Works estimates that the coverage could be higher as many consumers siphon connections from the grid.<sup>14</sup> In urban areas, the total electrification rate is 72 percent but only 15 percent in rural areas. Due to EDH's inability to provide energy for only 5 to 13 hours per day, many rely on diesel generators for backup energy due to frequent blackouts.<sup>13</sup>

In Haiti, the electricity generation mix is primarily dominated by fossil fuels, constituting 85.8% of the total installed capacity as of 2020 estimates.<sup>11</sup> Other sources, such as nuclear and wind, contribute negligible percentages to the overall installed capacity.<sup>11</sup> Solar energy accounts for a minimal 0.3%, while hydroelectricity plays a more significant role, representing 13.9% of the total installed capacity in the same year.<sup>11</sup>

Haiti's transportation infrastructure encompasses various modes, including air, roads, buses, taxis, boats, and motorbike taxis (known as motos).<sup>15</sup> The primary gateway in and out of the country is the Toussaint Louverture International Airport.<sup>15</sup> However, the road network faces challenges, with inadequate maintenance leading to impassable conditions on many streets.<sup>15</sup> Over half of the 6000 kilometers (about 3728.23 mi) of available highways remain unpaved, exceeding an estimated 3000 kilometers (about 1864.11 mi).<sup>15</sup> Streets suffer from potholes, rubble, and debris, and lack marked lanes and traffic signs, making navigation difficult.<sup>15</sup> Only 26% of Haitians regularly use motorized vehicles, while the remaining 74% either walk or refrain from travel altogether.<sup>16</sup>

Public transportation predominantly relies on "tap-taps," which follow regular routes within urban areas and between towns in rural areas.<sup>15</sup> Some islands, such as Île de la Tortue, Grosse Caye, and Île de la Gonâve, can only be accessed by boats.<sup>15</sup> In terms of air transport, Haiti's national system features a single registered air carrier as of 2020.<sup>11</sup> The country boasts 17 airports and one heliport in 2024[1]. The merchant marine comprises four vessels in 2023, including three general cargo ships and one of another type, with a comparative ranking at 170.<sup>11</sup> Major seaports, including Cap-Haitien, Gonaives, Jacmel, and Port-au-Prince, contribute significantly to Haiti's maritime infrastructure.<sup>11</sup>

Twenty-six percent of the Haitian population do not have access to an improved water source, 56 percent do not treat their water, 20 percent do not have access to improved sanitation facilities, and 25 percent practice open defecation.<sup>7</sup> These issues are even more problematic in rural areas where 40 percent of the population do not have access to an improved water source and 36 percent practice open defecation (IHE and ICF 2017).<sup>7</sup>

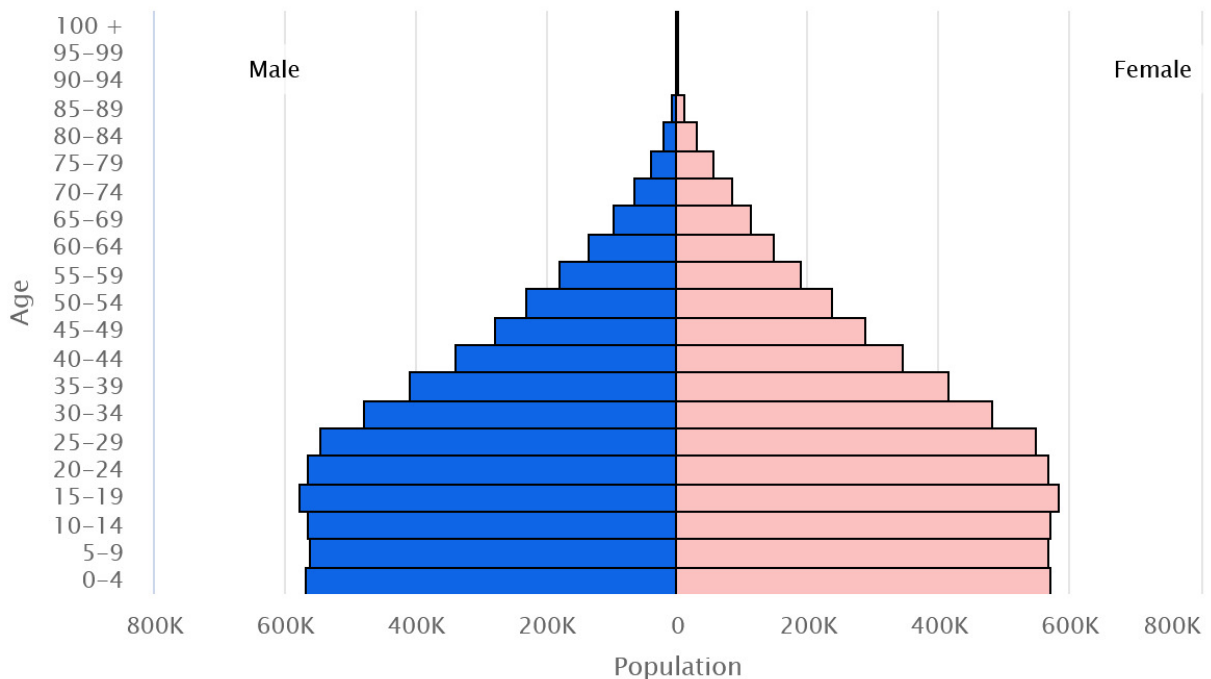


# National Health Care Sector

## A. National Health Care Profile

Haiti has the youngest age profile in the Caribbean.<sup>19</sup> The median person is 24.7 years old with 65.76% of the population ranging between 15 and 64 years old.<sup>20</sup> In Haiti, approximately 59% of the populace resides below the poverty threshold, facing limited access to essential services.<sup>19</sup> The World Health Organization (WHO) approximates that only 43% of the Haitian population receives the appropriate immunizations.<sup>19</sup> Measles vaccination coverage was 76.0% in 2022.<sup>19</sup> As of 2019, the adjusted rate of potentially preventable premature mortality in Haiti stood at 606.5 deaths per 100,000 population.<sup>19</sup> Male life expectancy at birth is 60 years, while for females, it is 66 years, with a birth rate of 23% per 1000 people.<sup>21</sup> The contraceptive prevalence rate from 2016-2017 data was at 34.3%.<sup>20</sup> The nation grapples with public health challenges such as road injuries, exposure to natural disasters like earthquakes and hurricanes, and the prevalence of HIV/AIDS.<sup>22</sup>

### 2023 Population Pyramid<sup>20</sup>



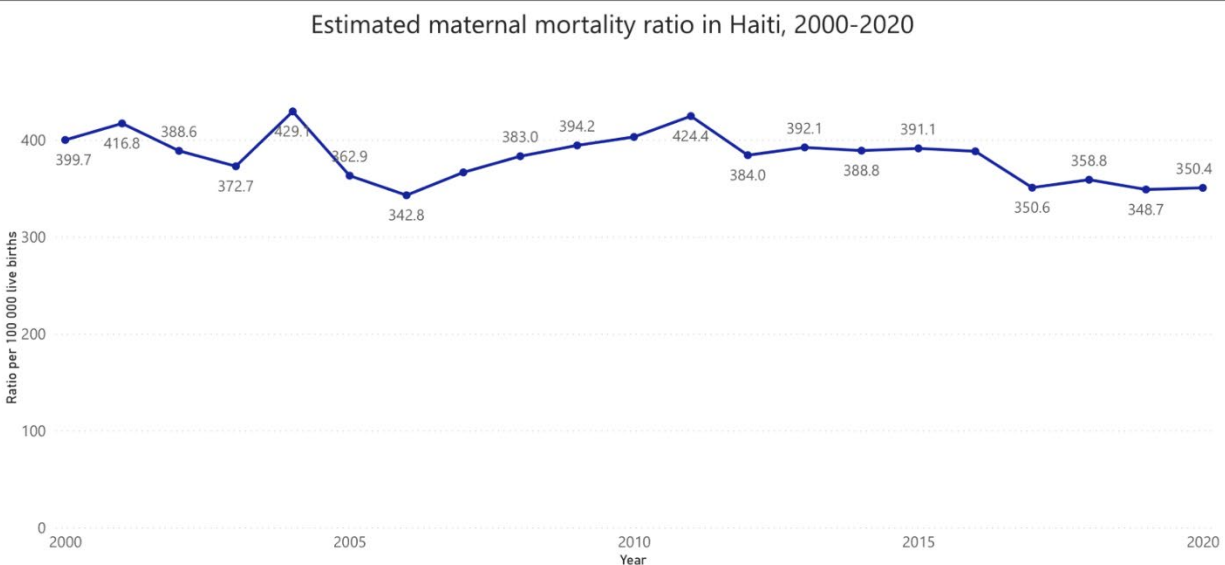
U.S. Census Bureau, International Database

In 2020, the estimated maternal mortality ratio stood at 350.4 deaths per 100,000 live births in Haiti.<sup>19</sup> Hypertension, including eclampsia, contributed to 26% of maternal deaths, while postpartum hemorrhage accounted for 23%, and unsafe abortion for 10%.<sup>25</sup> Challenges persist in accessing voluntary family planning, reproductive health, prenatal, neonatal, and

maternity care in Haiti.<sup>24</sup> The country faces high rates of maternal and infant mortality in the Western Hemisphere, exacerbated by the resurgence of cholera in 2022.<sup>24</sup>

According to World Health Organization (WHO) data from 2016, only 39% of births in Haiti occurred in healthcare facilities.<sup>24</sup> In rural areas, inadequate infrastructure, such as poor road conditions, hampers timely prenatal and antenatal care.<sup>24</sup> Approximately 70% of Haitian mothers deliver at home without a skilled birth attendant or access to emergency obstetric care, rising to 90% among the poorest women, particularly in rural regions.<sup>23</sup> Traditional birth attendants, known as matwons, play a crucial role, but often lack the necessary equipment and training to identify high-risk pregnancies and manage childbirth complications.<sup>23</sup> Haiti faces a severe shortage of skilled healthcare professionals, including birth attendants and midwives, recognized by the UN as one of the nine countries with the most critical "midwifery workforce shortage".<sup>23</sup> The WHO recommends a minimum of 23 health workers (midwives, doctors, nurses) per 1,000 people, while Haiti's actual density is approximately 0.5 per 1,000 people, further exacerbating healthcare challenges.<sup>23</sup>

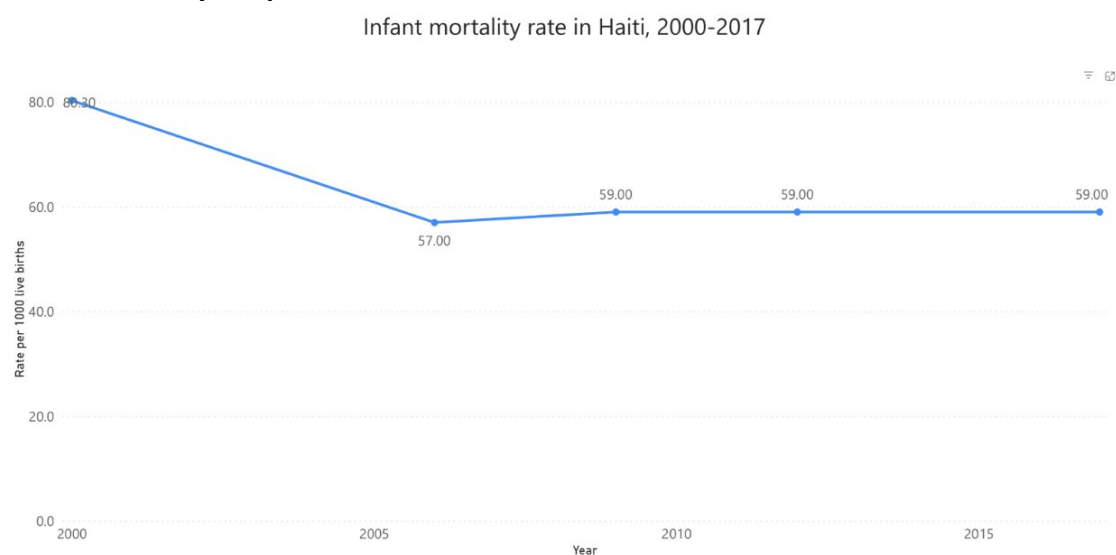
### Maternal Mortality Graph<sup>19</sup>



Source: Evidence and Intelligence for Action in Health. Core Indicators Portal, 2023. WDC: PAHO/WHO, 2023. Available at: <https://opendata.paho.org/en/core-indicators> Data Source: Trends in maternal mortality 2000 to 2020 Available at: <https://data.unicef.org/topic/maternal-health/maternal-mortality/>

From 2000 to 2017, Haiti observed a reduction in infant mortality from 80.3 to 59 deaths per 1000 live births, marking a 26.5% decline.<sup>26</sup> The most recent under-five mortality rate stands at 58.6 deaths per 1,000 live births, while the life expectancy at birth reached 64.8 years in 2023.<sup>26</sup> The infant mortality rate is currently 45 per 1,000 live births, and the neonatal mortality rate is 24 deaths per 1000 live births.<sup>26</sup> Leading causes of death among infants and adolescents include diarrheal diseases (5.1%), tuberculosis (2.8%), and lower respiratory infections (8.6%), such as pneumonia and influenza.<sup>26</sup>

## Infant Mortality Graph<sup>19</sup>



Source: Evidence and Intelligence for Action in Health. Core Indicators Portal, 2023. WDC. PAHO/WHO, 2023. Available at: <https://opendata.paho.org/en/core-indicators>; Data Source: L'Unité d'Évaluation et de Programmation: Enquête Mortalité, Morbidité et Utilisation des Services, 2016-2017. Haiti: Ministère de la Santé Publique et de la Population, 2021. Disponible en: <https://www.unicef.org/haiti/rapports/emmus-vi-rapport-de-synth%C3%A8se-2018>

In Haiti, 67 percent of children have access to basic drinking water services, defined by UNICEF as water from an improved source within a 30-minute round trip.<sup>26</sup> On the contrary, 23 percent use unimproved drinking water sources, such as unprotected dug wells or springs.<sup>26</sup> Exclusive breastfeeding for the first five months is practiced by 40 percent of children, while 37 percent of adolescents use basic sanitation services, and 29 percent utilize limited sanitation, which involves sharing facilities among households.<sup>26</sup>

Disparities in stunting levels are linked to maternal education and wealth, with 15 percent of children whose mothers have secondary education experiencing stunting, compared to 32 percent for those with uneducated mothers.<sup>22</sup> In terms of wealth, 9 percent of children in the highest quintile face stunting, contrasting with 34 percent in the lowest quintile.<sup>22</sup> Stunting prevalence peaks between 18–35 months, reaching around 30 percent, and rural areas exhibit higher rates (24 percent) compared to urban areas (18 percent).<sup>22</sup>

Concerning communicable diseases, Haiti grapples with a high incidence of tuberculosis, fueled by suboptimal housing conditions and overcrowding.<sup>19</sup> Major food and waterborne diseases include bacterial and protozoal diarrhea, hepatitis A, and typhoid fever.<sup>20</sup> The cholera outbreak since the 2010 earthquake has resulted in 820,555 suspected cases and 9,792 deaths as of February 2021.<sup>19</sup> Despite declining cases, cholera remains a persistent health threat.<sup>19</sup>

Rural communities face challenges in healthcare accessibility, emphasizing the need to enhance health literacy and community engagement.<sup>19</sup> Strengthening the regulatory and governance framework is crucial. In 2019, cardiovascular disease, cancers, and diabetes accounted for a quarter of all healthy life lost, while neonatal disorders, respiratory infections, diarrheal disease, and HIV/AIDS contributed to another quarter, underscoring the health challenges in Haiti.<sup>27</sup> Cardiovascular disease accounted for 24% of deaths in 2014.<sup>28</sup> The use of tobacco for 2020 was an estimated 7.7% with males reporting 12.2% and females reporting 3.1% use.<sup>20</sup> Alcohol consumption per capita was 2.85 liters of pure alcohol in 2019.<sup>20</sup>

## **B. National Health Care Structure**

Within Haiti, the MSPP recognizes 165 health centers with beds, 375 health centers without beds, 4 university hospitals, 10 departmental hospitals (one per regional district of Haiti), 47 community referral hospitals, and 73 other clinics.<sup>29</sup> The overall highest concentration of these facilities is located in and around the greater Port-Au-Prince area, with significantly fewer facilities further from urban areas.<sup>29</sup> Distance, poor infrastructure, and a lack of affordable transport contribute heavily to lack of access to healthcare services within Haiti.<sup>30</sup>

The WHO/GHO database's most recent reports from 2013 show that there were 0.24 hospitals per 100,000 individuals and 0.29 health centers per 100,000 individuals.<sup>31</sup> Specialty care is even further limited, with only 0.04 specialized hospitals per 100,000 individuals.<sup>31</sup> Additionally, the report indicates 0.7 hospital beds per 1000 individuals.<sup>31</sup>

While the number of total healthcare facilities within Haiti is considered to be high per capita when compared to other low-income nations, the actual delivery of care and services may be limited due to a shortage of qualified healthcare personnel resulting from rising insecurity, poor working conditions, and low salaries.<sup>32,33</sup> Additional World Bank indicator data per 2018 reports 0.237 physicians per 1000 individuals and 0.4 nurses and midwives per 1000 individuals.<sup>34</sup> This is well below the WHO minimum recommendation of 2.3 physicians, nurses, and midwives per 1000 population to achieve adequate primary health care coverage.<sup>31</sup>

Additionally, the number of pharmacies is low relative to the population size with only 0.3 pharmacists per 10,000 individuals.<sup>32,33</sup> Dispensation of necessary medications is inadequate and as a result, unlicensed street vendors have become commonplace in places such as Port-au-Prince which provide affordable, but unregulated, alternatives for Haitians to obtain their medications.<sup>36</sup>

### **Patient Referral System**

Haiti has historically lacked a strong referral and counter-referral system. The government of Haiti developed a national manual on the potential process in 2008, but unfortunately, the process itself was never implemented.<sup>35</sup> Instead, different healthcare facilities developed their own systems.<sup>35</sup> However, this resulted in a disjointed and informal implementation that placed the burden on patients to manage and communicate their own referrals.<sup>35</sup>

This was deemed inadequate, and a need for a more rigorous process was identified.<sup>35</sup> As published in a 2018 report by USAID, the MSPP collaborated with USAID's Maternal and Child Survival Program (MCSP) to support and develop Haiti's healthcare system, including this referral process.<sup>35</sup> Through the project, the MSPP piloted three Model Referral Networks (MRNs) based on region, which acted as a referral and counter referral system.<sup>35</sup>

Since the completion of the MCSP project, others have continued to take on the challenge of bolstering this process.<sup>35</sup> For example, Zanmi Lasante, the largest non-government healthcare provider in Haiti, has been working in collaboration with the MSPP on projects such as the Integrating Community Health Partnership.<sup>35</sup> However, the ability to evaluate the effectiveness of such projects was disrupted due to national insecurities as well as the COVID-19 pandemic, and significant advancements still need to be made.<sup>35</sup>

### **Bodies/Organizations Providing Healthcare and Their Percent Coverage**

Under the government of Haiti, the Ministry of Public Health and Population (MSPP) is responsible for national public health policy.<sup>37</sup> Additionally, the MSPP coordinates extensively with external aid from international and non-government organizations.<sup>37</sup> The MSPP also oversees several technical and administrative directorates (e.g. nursing, ambulance, immunizations, etc.), as well as the ten subdivisions for Haiti's departments (i.e. regional districts).<sup>37</sup> While the government manages approximately 42% of all healthcare facilities, 14% are considered private but not-for-profit, 23% are private and for-profit, and 21% are ultimately mixed.<sup>38</sup>

### **Quality and Affordability of Care**

There is a relatively high density of healthcare facilities in urban areas. However, even in such areas, utilization of health services remains low.<sup>38</sup> Per 2020 data, the current health expenditure (CHE) of Haiti is 3.3% of its GDP.<sup>33</sup> Per capita, this comes out to be \$44.18 USD, or \$100.56 PPP (purchasing power parity, international dollars).<sup>33</sup> The domestic government health expenditure accounts for 12.57% of the CHE, external health expenditure accounts for 30.56%, private health expenditure accounts for 56.85%, and out-of-pocket expenditure accounts for 46.9%.<sup>33</sup>

WHO/GHO 2013 and 2017 reports indicate that 13.58% to 29.27% of the population were pushed further below the poverty line due to out-of-pocket healthcare expenditures.<sup>33</sup> Therefore, lack of affordability serves as another obstacle to accessing healthcare services.<sup>39</sup> Further, delivery of health care services is inefficient.<sup>38</sup> Technical efficiency in the context of healthcare refers to the ability to convert the allocated resources (including money, medications, personnel, etc.) into the intended healthcare services.<sup>38</sup> Haiti holds one of the lower technical efficiency scores of low-income countries across all their various health facilities.<sup>38,39</sup>

### **Payment System – Insurance and Coverage**

While private health expenditure accounts for 56.85%, this does not directly represent domestic private insurance.<sup>33</sup> Per the WHO definition, private health expenditure represents domestic private sources which “include funds from households, corporations, and non-profit organizations [and these] expenditures can be either prepaid to voluntary health insurance or paid directly to healthcare providers”.<sup>33</sup> Of note, the domestic private insurance represents a very small proportion of the private health expenditures.<sup>39</sup> Instead the healthcare system within Haiti remains highly dependent on out-of-pocket expenses and external aid.<sup>40</sup> While external support remains critical, such aid can be overly focused on specific diseases and limited to certain programs.<sup>40</sup> However, the government of Haiti, through the MSPP and with the assistance of programs such as USAID, launched a 10-year Master Plan for Health (2021-2031), providing a structured framework to further develop Haiti's healthcare system.<sup>32,40</sup> The plan includes specific strategies towards universal health coverage via expansion of primary care services, emergency services, and maternal/child health, though many challenges must be overcome to reach this goal.<sup>19,32,40</sup>

## **C. Structure and Policy, Health service coverage, and Expenditure**

### **Structure and Policy**

Haiti operates under a decentralized health system with the Ministry of Public Health and Population (MSPP) overseeing health policies and regulations.<sup>19</sup> The country's health system faces challenges such as limited resources, infrastructure deficiencies, and geographical disparities.<sup>19</sup> Payments for health services are made primarily out-of-pocket.<sup>19</sup> Additionally, compared to people in urban areas, people in rural areas experience a disparate lack of accessibility to health care.<sup>19</sup> Further, the Haitian Health care system is focused primarily on disease management rather than disease prevention.<sup>19</sup> According to PAHO, The Government of Haiti, through the Ministry of Public Health and Population, developed a National Health Policy in 2012 to guide health care for the next 25 years.<sup>19</sup> The plan focuses on making the health care system accessible to all the people in Haiti.<sup>19</sup>

### **Health Service Coverage**

93% of health facilities charge user fees, which is considered burdens Haitians who are living in poverty.<sup>30</sup> People who visit private clinics or get hospitalized find themselves drowning in debt.<sup>30</sup> 63% of households in the lowest wealth quintile do not seek health care consultation because they cannot afford it.<sup>30</sup> Lack of transportation also impacts healthcare accessibility.<sup>30</sup> The public spending on health per capita a year is \$13, which is below the average for low-income countries.<sup>30</sup> To add perspective, \$1.90 per day is the average income for more than half of the population in Haiti and more than 30% are unemployed.<sup>30</sup> With 93% of workers in the informal sector, it is difficult to establish national and public health insurance systems.<sup>30</sup> The health Haitian Health System is divided into a public and a private sector.<sup>41</sup> The public sector is made up of the Ministry of Health and Population (MSPP) and a social security institution called Ofatma.<sup>41</sup> MSPP provides health care services to the non-salaried population and takes care of stewardship functions.<sup>41</sup> Ofatma provides health care services to the salaried populations.<sup>41</sup> On the other hand, the private sector consists of private insurance agencies and providers.<sup>41</sup>

### **Healthcare Expenditure**

The Haitian healthcare system relies mostly on humanitarian aid that are received from other countries.<sup>30</sup> The demand on these aids increased after the earthquake that Haiti witnessed in 2010.<sup>30</sup> Even though foreign funding is a very important part, it is mostly poorly coordinated or out of budget.<sup>30</sup> In 2016, health expenditure was 5.4% of the gross Domestic product.<sup>41</sup> Expenditure per capita in health was \$38.<sup>41</sup> Household out-of-pocket health expenditure increased by 45% between 2010-2020.<sup>41</sup> In 2010 the total household spending on health care was 182 million U.S. dollars and increased to 261 million U.S. dollars.<sup>41</sup> The health care system in Haiti is not only underfunded but also understaffed. There were a total number of 2606 physicians in Haiti in 2018, while the combined number of nurses and midwives was 4424 for a population of over 11 million.<sup>42</sup>

# National Radiology Profile

## **A. Radiology Workforce, Training and Professional Representation**

In 2016, it was noted that there were 19 radiologists in Haiti.<sup>43</sup> Since then, the American College of Radiology (ACR) Foundation, RAD-AID, Partners in Health, Radiological Society of North America (RSNA), Columbia University and other organizations established the radiology residency at Hôpital de l'Université d'Etat d'Haiti in Port au Prince in 2012.<sup>43</sup> The residents can visit in New York for observerships through the Association Médicale Haitienne à l'étranger (Haitian Medical Association Abroad) and some lectures are delivered virtually from Columbia University.<sup>43</sup> A free, four-year radiology technologist program was established in 2021 with a class of 20 students.<sup>43</sup> The school, which is affiliated with State University of Haiti, was briefly closed due to political unrest, but accepted its first class of students in 2022.<sup>44</sup>

## **B. Equipment Inventory, Distribution, Rules, and Regulations**

Data about the availability of radiology equipment in Haiti is currently limited. According to WHO, in 2013, there were 0.29 CT scan units per million population and in 2014, there were 19.47 mammography units per million females aged from 50 to 69 years old.<sup>45</sup>

## **Conclusion**

Despite moderate progress in certain aspects of their healthcare system such as maternal and infant health, Haiti remains a country in desperate need. Ongoing instability, due to recurrent natural disasters and political upheavals, threatens current efforts and previously made advancements. With inadequately maintained infrastructure and a poverty-stricken economy, external aid currently remains a fundamental pillar in supporting the people of Haiti. However, progress to support the nation's internal structures must also continue to be made alongside capacity-building efforts.

The MSPP has laid out plans via their 10-year Master Plan for Health (2021-2031), but the fulfillment of these goals may be in jeopardy due to current instability. The nation has a significant shortage of qualified healthcare personnel and is unlikely to quickly fill in necessary vacancies until stability can be achieved. Haiti has a critical need for proper radiology services further necessitated by increased breast cancer mortality and high incidences of tuberculosis and HIV/AIDS within the country.<sup>19,46</sup>As such, external support may play a key role in bolstering Haiti's currently inadequate radiology infrastructure, which suffers from a massive shortage of functional equipment and experienced staff. Further data collection and evaluation of the country's specific imaging needs and the number of trained radiology personnel must be obtained as well to maintain proper resource allocation and efficiency. Overall, the establishment of efficient and equitable radiology services within Haiti represents one of the many simultaneous challenges the country may need assistance in overcoming.



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