



# Haiti 23 April 2024

#### Type of emergency



Conflict



**Epidemics** (Cholera, COVID-19, and others/)



Water, Sanitation and Hygiene (WASH)

#### Main health threats

- Violence
- Access to Healthcare facilities
- Access to medicines, vaccines, and medical supplies
- Cholera and AWD
- Vaccination coverage
- WASH
- HIV and TB
- Food insecurity and malnutrition
- NCDs and cancer
- Diphtheria
- COVID-19
- Influenza
- Rabies

## Internal PAHO/WHO **Grading under Emergency Response** Framework (ERF)

Humanitarian Haiti Crisis - Grade 3

Haiti Cholera Outbreak -Grade 3

# **1. Situation Summary**

Since the beginning of 2023, the humanitarian crisis in Haiti has escalated significantly. This deterioration of the humanitarian situation is primarily attributed to the heightened insecurity stemming from the expansion of gangcontrolled territories in areas surrounding the capital, particularly during the second quarter of 2023 (1). As a result, the already limited "green" zones have shrunk further, and regions facing substantial access constraints have expanded. This situation has further escalated in 2024 where gang violence is causing wide-spread insecurity brining state institutions and basic services including the health system to near collapse (2). Particularly, the humanitarian situation has deteriorated since late February where strikes and armed violence broke out across several neighbourhoods of the capital Port-au-Prince, mainly in Bon Repos, Leogane, Tabarre, and Delmas neighbourhoods (3). As of early April, Port-au-Prince remains under a month-long siege making the provision of assistance to those in need extremely difficult due to security challenges (4).

Furthermore, reports indicate a distressing surge in cases of gender-based violence (GBV) throughout the country, with significant number of cases occurring in Ouest, Artibonite, Centre, and Nord-Est departments, according to GBV Sub-Cluster actors (5).

The ongoing conflict and the subsequent rise in kidnappings affect the entire population. However, the Ouest and Artibonite departments bear the brunt of this crisis, with the latter accounting for a staggering 48% of all kidnappings in the nation. Kidnappings in this region often target public transportation, resulting in the simultaneous abduction of multiple individuals for ransom (6).

Despite the many challenges, PAHO and its partners continue to support the Ministry of Public Health and Population (MSPP) to face the ongoing crisis affecting the health sector.

### 2. Situation in Numbers – 1 January – 29 February 2024 (2)

Deaths



Injured



Kidnapped



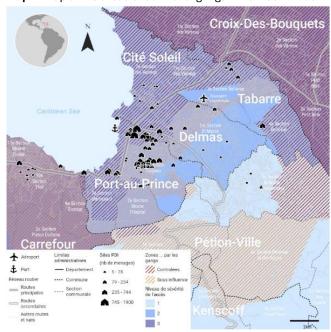
### 3. Violence

Haiti's complex crisis has been exacerbated by the rapid deterioration of the geopolitical and socio-economic context, which has resulted in widespread violence and increased humanitarian needs (7).

The Metropolitan Area of Port-au-Prince has been one of the most affected areas by gang violence, with almost half of the gangs in the country (100 to 150 of 300 gangs) located in this region (1). The security situation in this area has continued to deteriorate, with civil unrest, kidnappings, sexual violence, restriction of movement, destruction of property, shootings, and armed clashes between rival gangs and Haitian National Police. Some neighborhoods that are clashing points for gangs, such as Cite Soleil, Tabarre and Carrefour-Feuilles, have been particularly affected (Map 1) (7, 8, 9).

Gang controlled areas trapped in violence have experienced severe deprivation of basic necessities such as drinking water, food, first aid and education (7). According to a UN Security Council briefing by the Head of the United Nations Integrated Office in Haiti, 80% of Port-Au-Prince is controlled by some 300 gangs whose violence is expanding into the Artibonite region (10). As of December 2023, this has resulted in the internal displacement of approximately 313,900 people (2). In March 2024, over 53,000 people were displaced from the city of Port-au-Prince due to worsening security situations, of which 68% were already living in internally displaced persons (IDP) sites. As of 30 March 2024, there are 88,743 internally displaced persons in the Metropolitan Area of Port-au-Prince, across 86 active IDP sites. Among them 36,734 people are sheltered in 24 sites monitored by the Health Directorate of Ouest Department supported by PAHO/WHO. From 15 March to 22 March, three new IDP sites were established, one reopened, and two sites were closed (11). When looking at the larger Port-Au-Prince Metropolitan Area (PAPMA), nearly 33,333 people fled the area with more than 62% heading towards Sud, Grand'Anse, Sud-Est, and Nippes departments. As of 6 March 2024, the county-wide number of internally displaced persons in Haiti stood at 362,000 *(3, 12)*. Additionally, despite the deteriorating security situation, nearly 13,000 Haitian migrants in neighbouring countries were forcibly

Map 1: Map of the areas of control of gangs in Port-au-Prince



**Source:** United Nations Office for the Coordination of Humanitarian Affairs. Overview of Access Constraints in the Metropolitan Area of Port-au-Prince, 25 March 2024. New York: OCHA; 2024. Available in French from: https://www.unocha.org/publications/report/haiti/apercudes-contraintes-dacces-dans-la-zone-metropolitaine-deport-au-prince-25-mars-2024

returned to Haiti in March, which is a 46% increase in forced returns compared to February. On the other hand, legal emigration out of Haiti via humanitarian visas and programs is made extremely difficult by the complicated process of obtaining a passport which can take from months to a year (4). Commercial flights to Haiti would not be starting soon, but deportation flights from the United States to Haiti have been resumed amid the ongoing violence (13).

Women, children, persons with disabilities and other vulnerable groups have been disproportionately affected by the ongoing violence. They have limited access to health and water, sanitation, and hygiene (WASH) services, with women often giving birth without medical assistance in makeshift displacement sites, and children under age 15 comprising many of the cholera cases reported (1, 7). Children have also been targets of recruitment by gangs, exposing them to gang activities where they are used as lookouts or for spying, to facilitate kidnappings and robberies. Such children gang members who expressed desires to leave the gang have been prevented from the same by either retaliation from the gang or from their home communities, reducing any chances of rehabilitation (2).

A new wave of gang violence since August 2023 has killed and kidnapped hundreds of people, displaced many women and children and worsened the humanitarian, political and human rights crisis in the country. Gender-based violence has reached alarming levels, with rape used in some areas as a weapon of war to terrorize and control populations. A report by the Office of the United Nations High Commissioner for Human Rights (OHCHR) and the United Nations Integrated Office in Haiti (BINUH), documented how gangs have used rape and other forms of sexual violence in their quest for power and to sow fear in communities (1, 7, 14). A study conducted by Global Initiative Against Transnational Organized Crime and UN WOMEN in Cite Soleil, an impoverished, high-density commune of Port-au-Prince found that 80% of women and girls who participated in the study had experienced one or more forms of GBV by one or more perpetrators (15). 43% of GBV survivors reported experiencing one or more forms of sexual violence, including from partners and family members, strangers, gang members, and abductors (16). In 2024, ruthless forms of sexual violence including gang rape are being perpetrated while GBV protection and response services are functioning at limited capacity or completely closing (18). From January to February 2024 alone, 250 cases of GBV were reported in Ouest, Centre, and Nord-Est departments by GBV Sub-Cluster actors. These violations are most often committed by members of armed gangs (68%) in the survivor's home (48%). Nearly 68% of the reported GBV cases are IDPs (17).

However, quantifying the extent of GBV or sexual violence in Haiti is almost impossible and the reported numbers are likely to be underestimations. Faced with being stigmatized by the police, society, impunity, and fear of revenge from the perpetrators are factors forcing survivors to remain silent. Lack of standardized system(s) to document GBV cases, and many GBV cases left ignored or unreported make available data incomplete or unreliable. Access to GBV services in communities controlled by armed gangs remains a challenge. While facilities are becoming inaccessible, the ability of partners to access affected communities and to provide basic services has been negatively impacted. Some organizations (local and international) are either closing, reducing their operations, or experiencing disrupted access (19, 20).

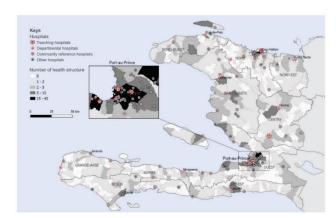
Attacks on police stations in Port-au-Prince have disrupted emergency responses, endangered lives, and shaken public trust, necessitating a unified effort to restore peace and stability through strengthening defences, enhancing intelligence-gathering, and apprehending perpetrators (18).

Moreover, the impact of gang violence on the healthcare system in Haiti has been profound, leaving medical personnel vulnerable, which has also led to the isolation or closure of healthcare facilities, worsening healthcare access as a result (19, 20).

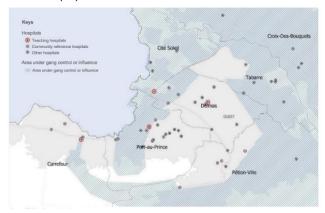
### 4. Local health system disruptions

The population of Haiti already had limited access to healthcare given the lack of adequate resources and infrastructures, and the situation has worsened due to the rise in violence linked to gang activities. As of April 2023, the Haitian Ministry of Public Health and Population, Ministère de la Santé Publique et de la Population, (MSPP) reported that 21% of communal sections did not have any healthcare facilities (Map 2), and nearly half (48%) of the fifty or so hospitals in the Port-au-Prince Metropolitan Area (PAPMA) are in areas under gang control or influence (Map 3), which put both medical staff and patients at great risk (19). In 2024, the latest alarming upsurge in gang violence has put health facilities under more violent and near-constant attack, stripping them of their equipment, medicine and even ambulances. Attacks by armed groups were reported on at least ten pharmacies in the State University Hospital in March 2024, limiting access to medical supplies. The National Ambulance Center was forced to temporarily close for three days due to gang violence. Services resumed on 25 March 2024, with ambulances stationed in La Paix Hospital as backup (11). Most health facilities in Port-au-Prince are forced to cease operating while those that remain open give limited service. The largest public health facility in the capital, the State University Hospital, has closed along with 12 of the 15 health facilities supported by UNFPA (21). Moreover, disruption of medical aid delivery has increased significantly. The closure of the international airport and loss of access to port facilities since March 2024 as a result of gangs occupying the premises has resulted in the disruption of aid delivery including medical supplies (9).

Map 2: Health Structure by communal section



Map 3: PAPMA Hospitals and areas under gang control (19)



**Source:** Office for the Coordination of Humanitarian Affairs – Relief Web. Haiti: Humanitarian note - Series - New paradigm Issue 2: The impact of violence on access to health care. 23 April 2023. New York: OCHA; 2023 [cited 23 April 2024]. Available from: <a href="https://reliefweb.int/report/haiti/haiti-humanitarian-note-series-new-paradigm-issue-2-impact-violence-access-health-care-23-april-2023">https://reliefweb.int/report/haiti/haiti-humanitarian-note-series-new-paradigm-issue-2-impact-violence-access-health-care-23-april-2023</a>

Incidents targeting patients, medical staff, and health facilities have increased. According to the MSPP, **39 cases of kidnapping of doctors were reported** in the first semester of 2023, **including staff from the MSPP** (20). In particular, the kidnapping of the son of the Haitian Group for the Study of Kaposi Sarcoma and Opportunistic Infections (GHESKIO) co-founder Dr. Jean William Pape triggered protests as GHESKIO health centres, which serve nearly 20,000 patients, come under threat of closure (22).

A survey conducted in March 2023 among the care staff by the GHESKIO health centres confirmed concerns generated by insecurity. Before 2021, only 27% of their staff reported insecurity as their main concern, but it has now become the number one problem for 83% of them (19).

With a national ratio of 6.4 health professionals (doctors, nurses, and midwives) per 10,000 population, very far from the threshold of 44.5 per 10,000 required to achieve the Sustainable Development Goals, it can be argued that this number is underestimated considering the important brain drain affecting the health sector (19). By the end of 2023, nearly 40% of medical staff were estimated to have left Haiti due to insecurity (2).

The health facilities, both public and private, that are operational are struggling to remain open due to the departure of qualified staff and the rising of operational costs linked to the increase in the prices of fuel and other essential supplies (11, 23). As of 1 April 2024, multiple hospitals remain closed. Health centres in Delmas 18 and Saint Martin 1 were looted by armed groups on 26 and 27 March 2024, respectively. Bernard Mevs hospital remains closed for security reasons. The State University Hospital (HUEH), Haiti's largest hospital remains closed despite initial plans by the MSPP to reopen it on 1 April 2024. As of 1 April 2024, the hospital premises have been occupied by gangs. The La Paix University Hospital (HUP) remains operational with PAHO/WHO support, including provision of medicines and medical supplies, fuel, and logistical support. However, the closure of the HUEH is leading to significant strain in its operations (11). The lack of access to healthcare, combined with the increasing violence, is aggravating the humanitarian crisis in Haiti, putting the most vulnerable members of the population at greater risk.

Nombre de salles d'opération fonctionnelles

Nombre de salles d'opération non fonctionnelles

Höptaux entièrement fermés

Salles d'opération dédiées aux femmes enceintes

13 institutions de santé attaquées ou pillées dans la zone métropolitaine depuis le 1er janvier 2024

15 institutions de santé attaquées ou pillées dans la zone métropolitaine depuis le 1er janvier 2024

16 institutions de santé attaquées ou pillées dans la zone métropolitaine depuis le 1er janvier 2024

17 institutions de santé attaquées ou pillées dans la zone métropolitaine depuis le 1er janvier 2024

18 institutions de santé attaquées ou pillées dans la zone métropolitaine depuis le 1er janvier 2024

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Map 4: Distribution of affected hospitals in Port-au-Prince, Haiti, as of 1 April 2024.

**Source:** Pan American Health Organization / World Health Organization, Haiti Country Office, 1 April 2024. Situation Report – 4. Humanitarian Situation in Haiti. Port-au-Prince: PAHO/WHO; 2024. Available from: <a href="https://www.paho.org/en/documents/paho-situation-report-n4-haiti-humanitarian-situation-april-1-2024">https://www.paho.org/en/documents/paho-situation-report-n4-haiti-humanitarian-situation-april-1-2024</a>

# 5. Health Status and Threats

Public Health Risk	Geographical Scope	Likelihood	Public health consequences	Risk	Rationale
Cholera	Countrywide	Highly likely	Major		Since the resurgence of cholera in Haiti on 2 October 2022 to 6 April 2024, the Haitian MSPP, reported 82,620 suspected cases in all 10 departments of the country, including 4,836 confirmed cases, 80,173 hospitalized suspected cases, and 1,266 registered deaths. To date, the case fatality rate among suspected cases is 1.53% (24). In addition, WHO classified the global resurgence of cholera as a grade 3 emergency (25).
Vaccination	Countrywide	Highly likely	Major		Haiti's routine vaccination coverage against vaccine- preventable diseases from January to December 2022 remains below the 95% threshold for all antigens. Haiti remains at very high risk of an outbreak in the event of an importation of wild poliovirus 1 (WPV1) or circulating vaccine-derived poliovirus (cVDPV) (55). Vaccination coverage rates with the measles- containing vaccine remain subpar, leaving the country at high- risk for an outbreak of this disease.
Food insecurity and malnutrition	Country wide	Highly likely	Major		Almost half of the population in Haiti is experiencing severe food insecurity (1). The most recent update has indicated a deterioration in the situation with approximately 4.97 million people experiencing acute food insecurity, an increase of about 532,000 since August 2023. About 17% (1.64 million) of the population were classified as IPC Phase 4 (Emergency) and 33% (3.32 million) as IPC Phase 3 (Crisis) (41).
WASH	Countrywide	Almost certain	Moderate		In terms of water and sanitation infrastructure, Haiti is the most underserved country in the Americas (28). The situation became even more critical after the 2010 earthquake destroyed much of the existing infrastructure. In 2022, 67% of the total population has access to basic water supply service, but there is no evidence that it is of good quality. 61% do not have access to improved latrines (29). Access to safe water remains a challenge and a major cause of the spread of cholera.
HIV/TB	Country wide	Likely	Moderate		In 2022, it was estimated that 140,000 (130,000 – 160,000) adults and children were living with HIV. Children represent approximately 17% of all infections (36). Haiti has one of the highest incidences of tuberculosis in the Region, the transmission of which continues to be facilitated by housing conditions and overcrowding. In 2022, the overall mortality rate due to tuberculosis (adjusted for age and per 100,000 population) was 9.2 (35).
NCDs and cancer	Country wide	Likely	Moderate		The most prevalent conditions are cardiovascular diseases, diabetes, and chronic respiratory diseases (44, 62). In the region of the Americas, Haiti is the country with the highest age-standardized death rate by non-communicable diseases, as well as the highest disability-adjusted life years (DALYs) and years of life lost (YLLs) due to premature mortality caused by this type of diseases (62).
Diphtheria	Country wide	Likely	Minor		The diphtheria outbreak, which began in 2014 due to low vaccination coverage in recent decades, is still ongoing. A total of 1,733 suspected cases, including 461 confirmed and 170 deaths (20% CFR among confirmed cases) have been reported between 2014 – 2023 (47).
COVID-19	Country wide	Likely	Minor		Transmission continues in Haiti with daily trends difficult to interpret due to sporadic reporting. As of 16 December 2023, a total of 34,667 cases of COVID-19 have been officially reported in Haiti since the beginning of the epidemic in March 2020. This amounts to 698 new cases for the year 2023. No new COVID-19-related death was reported during this period (48).
Influenza	Country wide	Not likely	Low		Influenza activity in Haiti continues to decrease and is lower than levels compared to the same period in previous years (50).

**Red:** could result in high levels of excess mortality or morbidity in the upcoming month.

Orange: could result in considerable levels of excess mortality or morbidity.

Yellow: could make a minor contribution to excess mortality or morbidity

 $\textbf{Green:} \ will \ probably \ not \ result \ in \ any \ excess \ mortality \ or \ morbidity/relatively \ normal \ satiation \ in \ the \ upcoming \ month.$ 

The current conditions in Haiti must be considered when analyzing the epidemiological situation of each health issue and threat using the available official data. **Epidemiological surveillance is hindered due to the complex humanitarian and security crisis**, resulting in difficult access to health services and laboratories. Moreover, most of the population in the country is in a highly vulnerable situation related to the limited conditions of generalized access to drinking water, sanitation, and hygiene (WASH).

### **5.1. Cholera** (24)

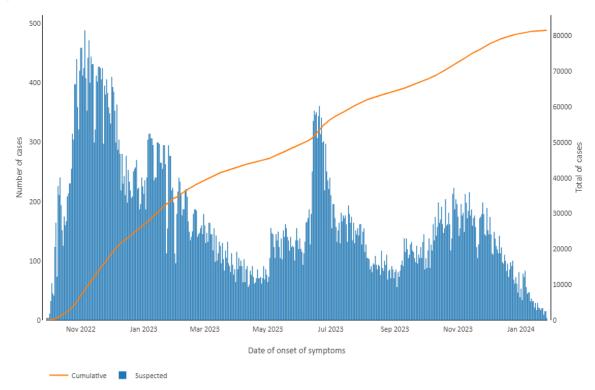
Between October 2010 and February 2019, over 820,000 cases of cholera, including nearly 10,000 deaths, were reported in Haiti. After more than three years with no reported cases of cholera, on 2 October 2022 the national authorities reported two confirmed cases of *Vibrio cholerae* O1 in the greater Port-au-Prince area. The reporting of cholera outbreaks in multiple countries across the world has led the WHO to classify the global resurgence of cholera as a grade 3 emergency (25). As of 12 April 2024, the Haiti MSPP reported a total of 82,885 suspected cases (**Figure 1**) in all 10 departments of the country, including 4,836 confirmed cases, 80,436 hospitalizations and 1,270 registered deaths.

The Ouest Department continues to report the highest number of cases, with 34.5% of all suspected cases recorded. The municipalities of Port-au-Prince, Cité Soleil, and Carrefour account for 51.6% (n=14,771) of all suspected cases reported in the Ouest Department.

**Testing:** Of a total of 14,980 samples analyzed by the National Public Health Laboratory (LNSP per its acronym in French), 4,836 were confirmed by culture (32.25% positivity rate).

**Severity:** To date, the case fatality rate (CFR) among suspected cases is 1.53% (fatality rate in hospitalized cases is 1.15%).

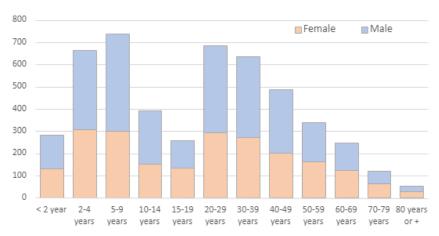
**Figure 1:** Daily distribution of suspected cases of cholera between 29 September 2022 to 30 January 2024, Haiti



**Source :** Adapted from Ministère de la Santé Publique et de la Population, Haiti SITREP du choléra du 1er septembre 2022 au 11 avril 2024, Haiti. Port-au-Prince: MSPP; 2024. Available in French from: <a href="https://www.mspp.gouv.ht/wp-content/uploads/Sitrep-Cholera-12-avril-2024.pdf">https://www.mspp.gouv.ht/wp-content/uploads/Sitrep-Cholera-12-avril-2024.pdf</a>

Of the total number of confirmed cases, 56% are males and 48% correspond to persons aged 19 years or younger. The most affected age group is 5 to 9 years (15%), followed by 20 to 29 years (14%), and 2 to 4 years (14%) (**Figure 2**).

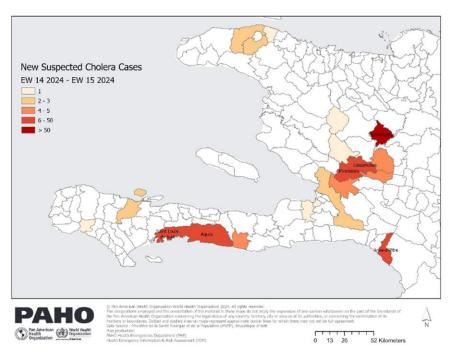
**Figure 2.** Distribution of confirmed cholera cases by age group and sex between 29 September 2022 and 11 April 2024, Haiti.



**Source:** Adapted from Ministère de la Santé Publique et de la Population, Haiti SITREP du choléra du 1<sup>er</sup> septembre 2022 au 11 avril 2024, Haiti. Port-au-Prince: MSPP; 2024. Available in French from: <a href="https://www.mspp.gouv.ht/wp-content/uploads/Sitrep-Cholera-12-avril-2024.pdf">https://www.mspp.gouv.ht/wp-content/uploads/Sitrep-Cholera-12-avril-2024.pdf</a>

There has been a significant decrease in the number of suspected and confirmed cholera cases in 2024 (**Figure 1**). The decrease could be attributed to the deterioration in the health system, with the decrease in the number of functioning hospitals, shortage of health personnel, and interruptions to the supply chain.

Map 5: New suspected cholera cases reported in epidemiological week (EW) 14 and EW 15 of 2024, Haiti



**Source:** Adapted from Ministère de la Santé Publique et de la Population, Haiti. SITREP du choléra du 1er septembre 2022 au 11 avril 2024, Haiti. Port-au-Prince: MSPP: 2024. Available in French from: <a href="https://www.mspp.gouv.ht/wp-content/uploads/Sitrep-Cholera-12-avril-2024.pdf">https://www.mspp.gouv.ht/wp-content/uploads/Sitrep-Cholera-12-avril-2024.pdf</a>

**Vaccination**: In support of the national efforts, an immediate response was put in place in coordination with partners to slow down transmission in the context of a fragile security situation. With the support of the Global Task Force on Cholera Control and International Coordination Group, Haiti received Oral Cholera Vaccine (OCV) doses in two tranches. For the first phase, 1,170,800 doses were used in the Centre department, the Ouest department, and prisons (Carrefour prison, Port au Prince prison, and Mirebalais prison). For the second phase, 1,034,751 people received a vaccine dose; 15 communes were targeted in four Health Directorates (Ouest, Artibonite, Centre, and Nord-Ouest). Additionally, 4,253 prisoners were vaccinated in nine penitentiary centers, as well as 10,150 IDPs in camps in the metropolitan area of the Ouest department (26).

# **5.2.** Vaccination coverage (27)

Haiti's routine vaccination coverage against vaccine-preventable diseases during January – December 2022 remains below the 95% threshold recommended by PAHO for all antigens (**Figure 3**). For example, the first dose of measles, mumps, and rubella (MMR, SRP per its French acronym) vaccination coverage was reported at 73% by December 2022 – with no improvements from 2021 (73%) and marking a sharp decline from 2020 (83%). Vaccination coverage rates for the third dose of oral polio vaccine (Polio3) was 62% in December 2022 – again with no improvements compared to 2021. Finally, only 73% of the eligible children received all three doses of the diphtheria-tetanus-pertussis vaccine (DTP3) in 2022.

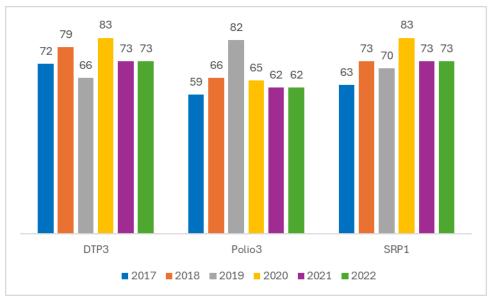


Figure 3: Vaccination coverage (%) for vaccine-preventable diseases. Haiti. 2017-2022

**Source:** Pan American Health Organization / World Health Organization Haiti Country Office. 27 April 2023 email report. Port-au-Prince; 2023. Unpublished.

### 5.3. Water, Sanitation and Hygiene (WASH)

In terms of water and sanitation infrastructure, Haiti is the most underserved country in the Americas (28). The situation became even more critical after the 2010 earthquake destroyed much of the existing infrastructure.

As of 2021, 67.4% of Haiti's total population has at least basic water service, that is, they have access to and availability of the service, however, there is no evidence that the water is of good quality. Only 18.9% of the population has access to water through the public network, which means that a good percentage of the population carries water from other types of improved sources other than the public network. In rural Haiti, only 42.8% have access to at least basic services, a percentage that is significantly higher in urban areas, registering

a percentage of 84.6%, as is recorded at the national level, there is no evidence of water quality by area of residence.

On the other hand, Haiti is one of the countries with the least access to sanitation services in the region, 37.48% of its population has basic sanitation services, and 31.46% of the population in rural areas practices open defectation. It should be noted that only 0.6% have access to sewage, the rest of the population uses improved latrines and septic tanks.

Regarding the hygiene service, 22.6% of the population has access to basic hygiene service, that is, they have a handwashing facility in the home with soap and water, however, 68.8% have a limited hygiene service, that is, they have a handwashing facility without soap or water.

Finally, Haiti does not have information on the effective treatment of wastewater, fecal sludge, and menstrual hygiene, as well as information on WASH in health facilities and schools, an important aspect of effective interventions (29).

Solid waste management remains problematic in Haiti. Waste is managed in some municipalities individually, in a heterogeneous and uncontrolled manner. In urban areas not covered by the National Solid Waste Management Service (SNGRS per its acronym in French) and the municipalities, the garbage collection service is largely provided by informal collectors offering a low-cost service or by organized neighborhoods, in some cases supported by international cooperation. About three-quarters of the municipal waste is formally collected in Port-au-Prince and almost all waste is sent to illegal dumps (rivers, drainage channels) and even near the sea, which generates contamination with plastic and biological waste in surface and subway water sources and the ocean. The increase in garbage is associated with vector-borne diseases and accidents caused by poisoning animals (30).

The persisting practice of open burning of urban solid waste contributes to environmental pollution (air, soil, surface, and groundwater) with PM 2.5, dioxins, furans, microplastics, polyaromatic hydrocarbons, and other toxins (31).

In the absence of a response, affected populations will experience major life-threatening consequences through the onset and/or aggravation of diseases related to lack of water, sanitation, and hygiene, including cholera. This will lead to increased morbidity and mortality.

### 5.4. Sexual and reproductive health

The total fertility rate (TFR) and percentage of unmet need for family planning reported by United Nations Population Fund (UNFPA) for Haiti in 2022 was 2.7 births per woman and 23% respectively. The estimated adolescent birth rate among women aged 15 to 19 was 55 births per 1,000 girls (2005-2019) (32).

Demographic and Health Survey (DHS) results indicate that injectables are the most used modern contraceptive method (21%); next comes the male condom (4%) and 3% of women use implants. Long-Acting reversible and permanent contraceptive methods are rarely used. Adolescent girls and young people have limited access to contraceptive methods (33).

The three leading causes of mortality among adolescents and young people are linked to pregnancy, external causes including trauma and HIV-AIDS (MSPP/OMS, 1997-1998). With 350 maternal deaths per 100,000 live births, Haiti is one of the countries with the highest maternal mortality ratio in the Region (32).

The leading medical causes of maternal deaths for the period 2016-2017 are hypertension during pregnancy (pre-eclampsia and eclampsia) 21%; serious hemorrhages which account for a total of 21% (postpartum hemorrhages 12%, prepartum 5%, intrapartum 4%); combined indirect causes also account for 21%, infections 20%, unsafe abortions and embolisms each weigh 9%. These deaths, equivalent in 2017 to 1,122 maternal deaths and 7,932 neonatal deaths, are largely preventable (33).

The absence of qualified personnel, exaggerated by the massive migration of health professionals in recent years to developed countries, the non-availability of equipment or medicines, the non-accessibility of health care facilities due to insecurity and the lack of community health structures are all causes of this high mortality rate. Thus, in Haiti, 60% of births take place at home and barely 42% of women give birth under medical assistance (33).

### 5.5. Tuberculosis

Haiti has one of the highest tuberculosis incidence rates in the region in 2022. Disease transmission continues to be facilitated by housing conditions, overcrowding, and the worsening humanitarian crisis. The fury of armed gangs did not spare health institutions. Several were attacked then looted and their staff physically attacked. This led to the abrupt closure of a large number of health institutions and the reduction in the number of tuberculosis treatment centers in the commune of Port-au-Prince. Hospital centers that accommodate serious cases of TB are also part of this number. Health services based on primary health care, with a supply of essential drugs available to the population and active sensitization of the communities, will play a central role in the fight against tuberculosis (34).

In 2022, an estimated 18,000 cases of tuberculosis (TB), including 2,600 among people living with HIV (PLHIV) and 860 cases of multidrug-resistant/rifampicin-resistant (MDR/RR) tuberculosis were reported. The national incidence rate was estimated at 154 cases per 100,000 population, with the mortality rates for HIV-positive and negative cases being 9.4 and 8.2 per 100,000 respectively. 11,416 new and relapse cases were reported, representing 63% of therapeutic coverage; 57% of cases were diagnosed using rapid molecular tests recommended by WHO. The percentage of HIV-positive people (newly registered in care) who start Anti-Retroviral (ARV) treatment under Tuberculosis Preventive Therapy (TPT) was 79%, and the percentage of household contacts with bacteriologically confirmed tuberculosis who receive this treatment was only 5.7% (5.6 – 5.8) (35). The overall mortality rate due to tuberculosis (adjusted for age and per 100,000 population) was 9.2 (7.9 for females and 10.5 for males) (35).

### 5.6. HIV and AIDS

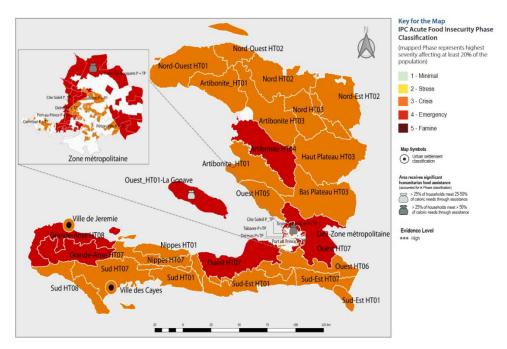
The estimated number of adults and children living with HIV in 2022 is 140,000 (130,000 – 160,000). New infections, 6,600, have fallen by more than 20% over the past 5 years. Children represent approximately 17% of all infections or 1,100 new cases. According to estimates from the PNLS with technical support from UNAIDS from Spectrum 2023, HIV prevalence in Haiti for this year is estimated at 1.7% among adults aged 15 to 49, higher among women (2.1%) than among men (1.3%). The situation by age group from 15 to 24 shows that young girls are relatively more affected (0.9%) than young boys (0.4%) (36).

At the end of 2022, 132,291 patients had access to antiretroviral treatment (ART), representing 88% of ART coverage. 93% receive WHO-recommended treatment based on TLD (dolutegravir/lamivudine/tenofovir). In 2022-2023, the number of people newly enrolled on PrEP 13,420 (37). In 2022, an estimated 1,600 PLHIV [1,300 to 2,100] died from AIDS-related causes, or on average around 4 cases each day. With this result, the mortality rate stands at 14 per thousand PLHIV (between 11 and 18 cases per thousand). This rate varies significantly by gender, with a higher level among men (36,38).

The MSPP 2022 Statistical Report indicates that the percentage of first prenatal visits was 65.9%. However, only 29.5% of first prenatal visits took place between 0-3 months, 38.5% between 4-6 months and 19.7% between 7-9 months. 61.33% of pregnant women seen knew their HIV serological status and 62.36% of HIV+ pregnant women received antiretroviral therapy in 2022 to reduce the risk of vertical transmission of HIV (39). At the end of 2022, the rate of mother-to-child transmission was estimated at 18%, quite far from the objective of eliminating vertical transmission of HIV which is less than 5%. Among 205,892 pregnancies reported in 2022, 2.5% had a positive result for syphilis. It is estimated that at least 30 percent of Haitian women between the ages of 15 and 30 years old have been victims of sexual abuse or violence (38). An estimate of over 50,000 people in the Ouest Department are on anti-retroviral therapy and are at risk of disruption of services (40).

### 5.7. Food Insecurity

Haiti is facing some of the highest levels of food insecurity worldwide, with almost half of the population experiencing severe food insecurity (1). The most recent update of the Integrated Food Security Phase Classification (IPC) has indicated a deterioration in the situation with approximately 4.97 million people experiencing acute food insecurity, an increase of about 532,000 since August 2023. About 17% (1.64 million) of the population were classified as IPC Phase 4 (Emergency) and 33% (3.32 million) as IPC Phase 3 (Crisis). Increased gang violence, rising prices, low agricultural production as a result of reduced rainfall, and a lack of previously planned humanitarian aid have been identified as the reasons for the deteriorating situation. Between August and December 2023, 5% of the total population benefitted from humanitarian food assistance (41).



Map 6: Projection update: acute food insecurity situation. March – June 2024, Haiti

**Source:** The Integrated Food Security Phase Clasification. Haiti: IPC Acute Food Insecurity Snapshot. 22 March 2024. Rome: IPC; 2024. Available from: <a href="https://www.ipcinfo.org/fileadmin/user\_upload/ipcinfo/docs/IPC Haiti Acute Food Insecurity\_Projection\_Update\_Mar\_Jun2024\_Snapshot\_English.pdf">https://www.ipcinfo.org/fileadmin/user\_upload/ipcinfo/docs/IPC Haiti Acute Food Insecurity\_Projection\_Update\_Mar\_Jun2024\_Snapshot\_English.pdf</a>

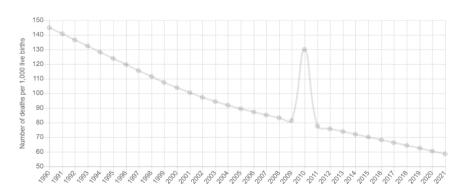
Food consumption in Haiti increased slightly in January 2024, after which it continued to decline. The reasons for the increase have been attributed to the end-of-year festivities when households receive more money and food from abroad, and the relative decrease in food inflation rates from 35% in August 2023 to 28% in December 2023. The percentage of households using emergency or crisis coping strategies has fallen from 67% in September 2023 to 62% in January 2024, and more than two-thirds of households report a drop in income in January 2024 (42).

#### 5.8. Malnutrition and Child Health

Poor nutritional status among children is another reflection of the severity of food insecurity. According to the Standardized Monitoring and Assessment of Relief and Transitions (SMART) survey 2023, there is an upward trend in the prevalence of Global Acute Malnutrition (GAM) in children under 5 years between 2020 and 2023. In 2020, Haiti was identified as the sole priority country in this region, under the Global Action Plan (GAP) on Wasting, a collaborative effort spearheaded by WHO, in partnership with FAO, UNHCR, UNICEF and WFP, aimed at implementing priority action for the prevention and treatment of child wasting. However, the prevalence of acute malnutrition in this age group has increased since 2020 reaching 7% overall, and 9% in conflict-affected areas. The Ouest Department, the district most severely impacted by conflict, has two points higher than the national average. The national prevalence of stunting (or chronic malnutrition) has remained stagnant around 23% (43). Exclusive breastfeeding rates increased from 23% to 40% between 2000 and 2017, the last year for which data is available (44).

A deterioration in nutritional situation as well as food insecurity has been observed in some health facilities opened near areas particularly affected by armed violence. The number of malnourished children under five admitted and treated has increased fourfold, from 403 in 2020 to 1,546 in 2022. The trend continued in the first month of 2023. The limited access to food in quantity and quality, to drinking water, and disastrous hygiene conditions largely explain this deterioration in the neighborhoods plagued by insecurity (20).

Figure 4: Trends in under five-year-olds mortality rate in Haiti



**Source:** -United Nations Children's Fund. UNICEF Data: Monitoring the situation of children and women. New York: UNICEF; [unknown date] [cited 23 April 2024]. Available from: <a href="https://data.unicef.org/country/hti/">https://data.unicef.org/country/hti/</a>

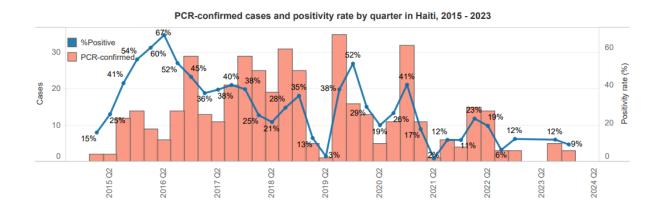
According to the United Nations Children's Fund (UNICEF), 9.7 % of children in Haiti have not received any vaccination and 58% are not fully vaccinated. Of those who are not fully vaccinated, 42% live mostly in impoverished metropolitan areas, where there is a lack of access to essential services for children, and the most impacted by violence. This drop in child immunization has resulted in rising numbers of diphtheria cases and a higher risk of a measles outbreak. These unvaccinated children are also more vulnerable to suffering and dying from malnutrition (45).

The trends in under-five mortality rate (number of deaths per 1,000 live births) had been decreasing since the 1990s in Haiti except in 2010 when there was spike up to 207 deaths per 1000 live births – most likely due to the earthquake that year. While the rate decreased to 58.6 deaths per 1,000 live births as of 2021 – data is not yet available for 2022 and 2023 (**Figure 4**) (46).

### **5.9. Diphtheria** (47)

The diphtheria outbreak which began in 2014 due to low vaccination coverage in recent decades, is ongoing. A total of 1,733 suspected cases, including 461 confirmed and 170 deaths (20% CFR among confirmed cases) have been reported between 2014 and 2023 (1 August 2023) (**Figure 5**).

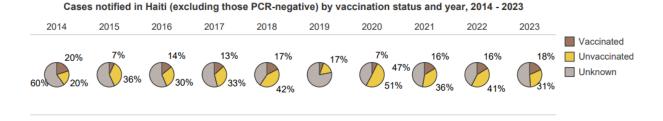
**Figure 5:** Diphtheria cases (Polymerase chain reaction (PCR) confirmed) and positivity rate (%) by quarter. Haiti. 2015-2023



**Source:** Pan American Health Organization / World Health Organization Haiti Country Office. Diphtheria Situation Report. 17 April 2023 internal memo. Port-au-Prince; 2023. Unpublished.

Majority of the diphtheria cases notified in Haiti between 2014 – 2023 were either not vaccinated or had unknown vaccination status. (**Figure 6**).

Figure 6: Cases notified in Haiti (excluding those PCR-negative) by vaccination status and year, 2014 – 2023.



**Source:** Pan American Health Organization / World Health Organization Haiti Country Office. Diphtheria Situation Report. 17 April 2023 internal memo. Port-au-Prince; 2023. Unpublished.

In 2023, Polymerase chain reaction (PCR) confirmed diphtheria cases have been reported in all ten departments of Haiti. During the same year, there were six deaths reported (eight confirmed by CR/Epi link, 50 under investigation, zero with no viable sample, 86 PCR-negative). The case fatality rate of confirmed cases is 20%.

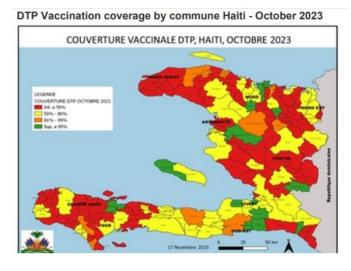
Overall, the DPT coverage in Haiti was 36% in 2022 – but has increased considerably to 75% in 2023. (Figure 7).

Figure 7: DPT vaccination coverage by department. Haiti. 2022 – 2023 (June)

			and the second s		THE PARTY OF THE P
Departments	Pop (0-11 months)	Pop (12-23 months)	Penta 1 coverage (%)	Penta 3 coverage (%)	DTP coverage (%)
Artibonite	43,200	42,621	77	66	73
Centre	18,661	18,411	104	85	45
Grand-Anse	11,711	11,554	84	79	60
Nippes	8,565	8,451	77	78	57
Nord	26,687	26,329	74	77	78
Nord-Est	9,852	9,720	117	116	50
Nord-Ouest	18,225	17,981	80	78	69
Ouest	100,770	99,420	90	84	89
Sud	19,380	19,120	75	71	56
Sud-Est	15,819	15,607	82	75	86
NATIONAL	272,870	269,215	85	79	75
		Vaccination co	verage - Haiti 2022		
Departments	Pop (0-11 months)	Pop (12-23 months)	Penta 1 coverage (%)	Penta 3 coverage (%)	DTP coverage (%
Artibonite	42,675	42,103	71	62	14
Centre	18,434	18,187	90	67	11
Grand-Anse	11,568	11,413	90	84	9
Nippes	8,461	8,348	81	77	18
Nord	26,362	26,009	88	85	40
Nord-Est	9,732	9,602	118	112	51
Nord-Ouest	18,004	17,763	83	73	49
Ouest	99,546	98.212	82	69	49
Sud	19,144	18,888	79	69	35
Sud-Est	15.627	15.418	75	72	40
			83	72	3

**Source:** Pan American Health Organization / World Health Organization Haiti Country Office. Diphtheria Situation Report. 17 April 2023 internal memo. Port-au-Prince; 2023. Unpublished.

Map 7: Vaccination coverage by antigen and by department for January-October 2023



**Source:** Pan American Health Organization / World Health Organization Haiti Country Office. Diphtheria Situation Report. 17 April 2023 internal memo. Port-au-Prince; 2023. Unpublished.

### **5.10. COVID-19** (48)

As of 16 December 2023, a total of 34,667 cases of COVID-19 have been officially reported in Haiti since the beginning of the epidemic in March 2020. This amounts to 698 new cases for the year 2023. No new COVID-19-related death was reported during this period. The Ouest continues to be the geographical department with the most reported cases with 298 new cases, representing nearly 42% of the cases. The positivity rate is estimated at 14.8%, varying from 11.3% to 20.6 % among the geographical department. **Figure 8** shows the Haitian MSPP epidemiological curve of the COVID-19 cases in the country. The disease appears to spread in successive waves, but the number of cases has been diminishing over the past years.

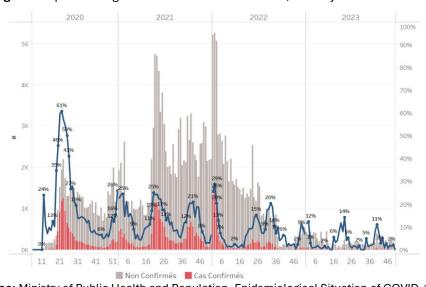


Figure 8. Epidemiological curve of COVID-19 cases, January 2020 - December 2023, Haiti.

**Source:** Ministry of Public Health and Population. Epidemiological Situation of COVID-19 as of EW 50 2023, Haiti. Port-au-Prince: MSPP; 2023 [cited 29 March 2024]. Available in French from: <a href="https://mspp.gouv.ht/site/downloads/Sitrep%20COVID-19\_SE-50%20de%202023.pdf">https://mspp.gouv.ht/site/downloads/Sitrep%20COVID-19\_SE-50%20de%202023.pdf</a>

Disease severity appears to decrease in 2023. The overall case-fatality rate (CFR) for the epidemic is also stable at around 2.5%. Case fatality rate varies significantly by geographic department; Nippes has the highest rate at 5.58% whereas the lowest rate is in Nord-Est Department at 1.16% (**Figure 9**).

whereas the lowest rate is in Nord-Est Department at 1.16% (**Figure 9**).

Figure 9: Number of cases, death, positivity rate and case fatality rate by department, EW 50 2023, Haiti.

Département de provenance	Cas cumulés	Cas cumulés 7 derniers jours	Décès cumulés	Décès Cumulés 7 derniers jours	Taux de positivité	Taux de létalité
Ouest	21,743	0	407	0	15.2%	1.87%
Centre	2,002	3	106	0	13.5%	5.29%
Artibonite	1,875	2	83	0	11.3%	4.43%
Nord	1,745	0	88	0	13.0%	5.04%
Sud	1,574	0	58	0	21.1%	3.68%
Sud-Est	1,437	0	25	0	16.1%	1.74%
Grand Anse	1,426	0	20	0	13.0%	1.40%
Nord-Est	1,132	0	13	0	11.3%	1.15%
Nord-Ouest	1,087	0	28	0	15.6%	2.58%
Nippes	646	0	32	0	13.0%	4.95%
Grand Total	34,667	5	860	0	14.6%	2.48%

**Source:** Ministry of Public Health and Population. Epidemiological Situation of COVID-19 as of EW 50 2023, Haiti. Portau-Prince: MSPP; 2023 [cited 29 March 2024]. Available in French from: <a href="https://mspp.gouv.ht/site/downloads/Sitrep%20COVID-19\_SE-50%20de%202023.pdf">https://mspp.gouv.ht/site/downloads/Sitrep%20COVID-19\_SE-50%20de%202023.pdf</a>

Given the low number of cases and deaths in 2023, the overall demographic distribution has not changed compared to 2022. Indeed, the age ranges with most cases are the adult populations 20-29, 30-39, and 40-49 years whereas the deaths are mostly prevalent in the elderly population above 60 years old.

**Vaccination**: A total of 294,528 persons have been fully vaccinated against COVID-19 as of 7 April 2023: 116,445 with Moderna, 156,685 with Janssen and 21,398 with Pfizer. The vaccination coverage rate now stands at 4% of the population. Haiti is the only country in the region where the COVID-19 vaccine is not routinely offered to persons younger than 18 years (49).

# **5.11.** Influenza and other respiratory virus (50)

From EW 1 to EW 23, 4188 specimens received from 2751 sentinel sites were analyzed in the laboratory for influenza viruses and other viruses of respiratory origin. There were 155 positive results, including 120 for the Influenza A(H1N1) pdm09 virus from sentinel sites and 35 for other virus subgroups. **Figure 10** shows the distribution of virus types by epidemiological week (EW).

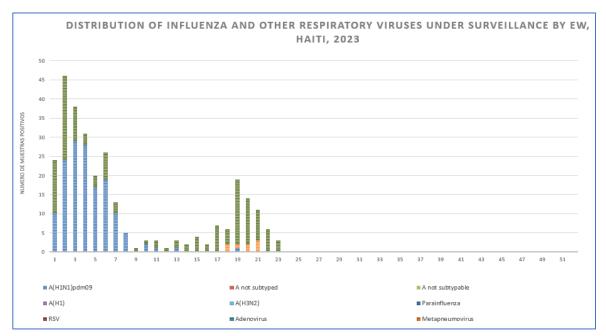
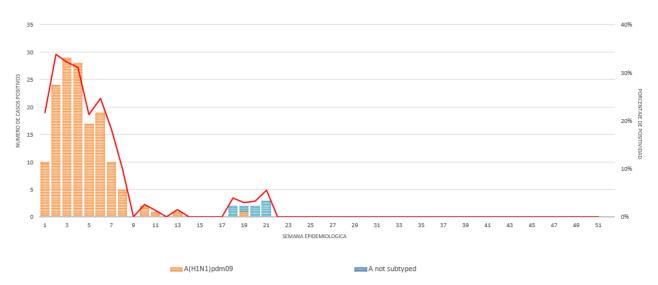


Figure 10: Distribution of influenza virus and other respiratory viruses under surveillance by EW, 2023, Haiti

**Source:** Ministère de la Santé Publique et de la Population, National Laboratory of Public Health. Influenza and Other Respiratory Viruses update. Port-au-Prince: LNSP/MSPP; 2023. Unpublished.

Most of the positive cases were reported during the first eight epidemiological weeks, as shown in Figure 11.

Figure 11: Distribution of influenza viruses (types and subtypes) by EW, Haiti, 2023

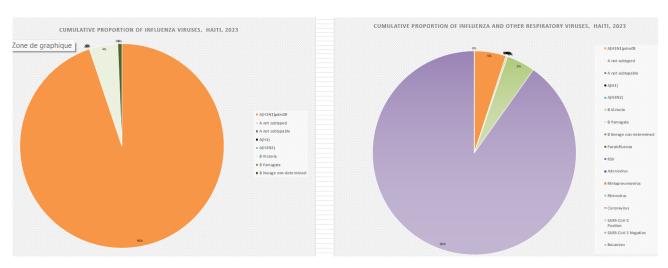


**Source:** Ministère de la Santé Publique et de la Population, National Laboratory of Public Health. Influenza and Other Respiratory Viruses update. Port-au-Prince: LNSP/MSPP; 2023. Unpublished.

In terms of geographical distribution, the majority of cases are concentrated in the Ouest Department.

Compared with other influenza viruses, A(H1N1) pdm09 represents around 95% of influenza viruses and 90% of viruses of respiratory origin, as shown in **Figure 12**.

**Figure 12**: Cumulative proportion of influenza viruses and cumulative proportion of influenza and other respiratory viruses, Haiti, 2023



**Source:** Ministère de la Santé Publique et de la Population, National Laboratory of Public Health. Influenza and Other Respiratory Viruses update. Port-au-Prince: LNSP/MSPP; 2023. Unpublished.

#### **5.12. Rabies**

Haiti is one of the countries with the highest burden of canine and human rabies cases in the Region of the Americas. In 2023, two cases of human rabies transmitted by dogs have been reported, raising concerns about the current situation. Although more than one million dogs have been vaccinated in recent years (2019, 2020, and 2021), coverage rates have not reached the 80% necessary to effectively control the disease in dogs. Additionally, there is a limited availability of human rabies vaccines in the country, making it difficult to administer post-exposure prophylaxis in case of bites from rabid or suspected animals. It is imperative to promote public awareness of the prevention and proper management of bites from suspected animals, including dogs, cats, and mongooses (51, 52, 53, 55).

# 5.13. Acute Flaccid Paralysis (AFP) Surveillance

In 2023, Haiti reported ten acute flaccid paralysis (AFP) cases out of the 40 expected across the year. All ten cases were investigated. The departments of Nord, Nord Ouest, Sud, and Ouest (where the capital Port-au-Prince is located) reported zero AFP cases in 2023. In 2022, only 17 AFP cases had been reported in the national territory, while in 2021 the number was 11. The AFP rate for Haiti has remained well below the threshold of 1 AFP case per 100,000 children younger than 15 years since at least 2018 (**Figure 13**). While no confirmed polio cases have been detected in Haiti in 2023 (28), the risk assessment performed by the Regional Certification Commission (RCC) has identified that Haiti is at a very-high risk of polio outbreak after an importation of wild poliovirus type 1 (WPV1) or circulating vaccine-derived poliovirus (cVDPV) (55). This assessment was based on taking into consideration the weak performance of the AFP surveillance system, the low poliovirus type 3 vaccination coverage, in addition to other health determinants.

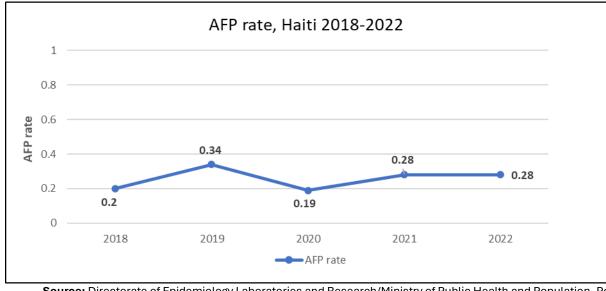


Figure 13: AFP rate by year, Haiti 2018-2022

**Source:** Directorate of Epidemiology Laboratories and Research/Ministry of Public Health and Population. Port-au-Prince: DELR/MSPP; 2023. Unpublished.

In 2019, the PAHO/WHO Country Office in Haiti provided information regarding a case of Sabin Type Poliovirus type III identified in a one-year-old male from Nord Ouest, Haiti with AFP. A stool sample was taken on 25 July 2019 and received at the Caribbean Public Health Agency (CARPHA) Laboratory on 1 November 2019 and reported on 8 November 2019. The samples tested PCT positive for SL3. After analyses and discussions around the case and based on the main clinical, biological, immunological, and epidemiological arguments and according to the classification scheme recommended by WHO, the following was retained: Final Decision: Poliomyelitis Ruled out Diagnosis Retained: Vaccine-associated Paralytic Polio (VAPP) at a Contact.

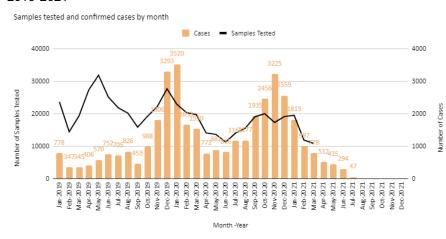
### 5.14. Leptospirosis

Leptospirosis is endemic in Haiti, and infection in humans may occur indirectly when the bacteria come into contact with skin (especially if damaged) or mucous membranes. The incidence of leptospirosis is highest during the rainy season; because of recurring natural disasters like tropical storms and flooding, Haiti appears to be at greater risk for this disease than other places in the Caribbean (where it is endemic). Many cases have been reported since the 2010 earthquake (56). During the years 2018 to 2022, an average of 284 cases per year were reported, with 2019 being the year with the most cases registered (512 cases) (57).

#### 5.15. Malaria

Malaria is endemic to Haiti. The highest transmission rates are reported to occur after the rainy seasons from March through May and October through November. After a significant reduction in malaria cases in 2018, there has been an increase in the number of cases and in the number of samples tested up to early 2019 (**Figure 14**). Since then, while the number of samples tested declined, particularly since the January 2020, the number of cases in the remaining months of 2020 were mostly higher than those in 2019 for the same period. In 2021, both the number of tested samples and cases of malaria took a deep decline by about 18,000 compared with 2020 – most of which is a likely result of disruption in surveillance from the COVID-19 pandemic. All the autochthonous cases reported by Haiti were due to *Plasmodium falciparum* (58, 59).

Figure 14: Malaria samples tested and confirmed cases by month. Haiti. 2019-2021



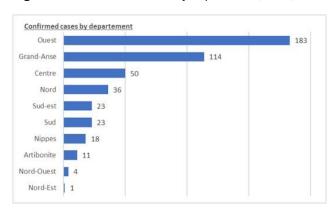
**Source:** Pan American Health Organization / World Health Organization. Malaria in the Americas: Preliminary report. 27 April 2023 internal communication. Portau-Prince; 2021. Unpublished.

In 2020, the departments of Grand'Anse and Sud reported the highest number of malaria cases with 12,010 and 4,751 cases reported for the whole year respectively. Nippes department reported a total of 626 cases in 2020, the fifth highest cumulative cases out of 10 departments. In 2021. Grand'Anse and departments still reported the highest number of cases in the first three months - 1,739 cases and 984 cases respectively. Nippes department reported a total of 97 cases for the same period (58).

### **5.16. Dengue** (60)

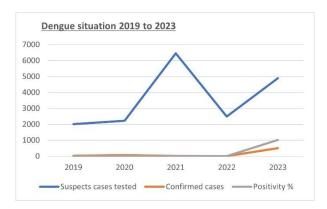
As it is throughout the Caribbean, dengue is endemic to Haiti. There has been an increase in the number of confirmed cases of dengue fever in 2023 compared with the previous 5 years. From the 1st to the 35th epidemiological week, 503 cases were confirmed out of a total of 4,893 specimens analyzed, representing a positivity rate of around 10.25%. **Figures 15 and 16** show the situation by department and the comparison from 2018 to 2023.

Figure 15: Confirmed cases by department, Haiti, 2023



**Source:** Directorate of Epidemiology Laboratories and Research/Ministry of Public Health and Population. Dengue update. Port-au-Prince: DELR/MSPP; 2023. Unpublished.

Figure 16: Dengue situation, Haiti, 2019 to 2023.



**Source:** Directorate of Epidemiology Laboratories and Research/Ministry of Public Health and Population. Dengue update. Port-au-Prince: DELR/MSPP; 2023. Unpublished.

The following recommendations have been made to the MSPP in response to the current outbreak:

- Raising awareness among healthcare providers of the dengue situation and the importance of including it in the differential diagnosis of fever cases.
- Provide refresher training to staff involved in surveillance on the detection of Dengue virus disease as well as the detection of warning signs for severe disease to prevent deaths from dengue.
- Provide laboratories with the necessary supplies and equipment for detecting the virus.
- Implement control measures, in particular vector control measures.
- Actively involve all stakeholders in activities to strengthen dengue surveillance in Haiti.

# 5.17. Anthrax (Bacillus anthracis) (61)

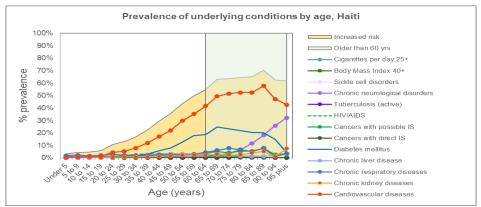
Anthrax a severe zoonotic disease primarily affecting cattle, poses a significant public health risk in Haiti. In 2022, 192 cases were reported nationwide, with 67 in Grand'Anse. Humans can contract the disease through direct contact with infected animals or by consuming contaminated meat. Symptoms in humans may include skin lesions, respiratory distress, and gastrointestinal issues. To minimize the risk of infection, it is crucial to practice good hygiene when handling animals, ensure proper disposal of carcasses, and avoid consuming meat from animals that have died from unknown causes. Vaccination of livestock is a preventive measure against the spread of anthrax.

# 5.18. Non-communicable diseases (NCDs)

Although Haiti has not yet conducted a national population-based survey of non-communicable diseases, data from prevalence studies conducted over the past two decades and annual statistical data from the MSPP indicate that the country faces a growing epidemic of non-communicable diseases.

For example, in 2006 a study conducted in the metropolitan area of Port au Prince revealed that age-adjusted the prevalence of diabetes was 4.8% in men and 8.9% in women. In the same study, the prevalence hypertension was higher with a rate of 48.7% in 46.5% in and women. Ten years later in 2015 and 2016, another study combining urban and rural populations estimated the prevalence rate of hypertension at 15.6% with a significant difference between men

Figure 17: Prevalence of underlying conditions by age, Haiti, 2017



**Source:** Pan American Health Organization / World Health Organization. COVID-19 and comorbidities in the Americas: Hands-on tool to estimate the population at increased and high risk of severe COVID-19 due to underlying health conditions for the Americas. 10 February 2021. Washington, D.C.: PAHO/WHO; 2021 [cited 23 April 2024]. Available from: <a href="https://iris.paho.org/handle/10665.2/53254">https://iris.paho.org/handle/10665.2/53254</a>

(11.9%) and women (20.2%). The prevalence of diabetes was slightly higher with a rate of 19.7% in total but also with a significant difference between men (18.6%) and women (20.8%). Data from the EMMUS-IV 2016-2017 confirmed an upward trend for hypertension with a prevalence of 49% in women and 37.9% in men, while the rate of diabetes seems to be more moderate with 14.1%. of women and 8.2% of men with this disease in the general population. In terms of mortality, the report of the Institute for Health Measurement and Evaluation (IHME) indicates that ischemic heart disease and stroke were the leading causes of death in Haiti in 2017. A WHO study based on cardiovascular event risk prediction tools corroborates this finding. Indeed, in 2016 it was estimated that in Haiti 9.2% of the population had > 20% risk of developing a cardiovascular event over a period of 10 years while 2.9% had > 40% risk for the same period (44, 62).

A study being conducted by GHESKIO noted that cardiovascular disease (CVD) is now the leading cause of death in Haiti, having surpassed HIV over the past decade. Over 32% of all deaths in Haiti are due to CVD. These preliminary results demonstrate high rates of hypertension and cases of cardiovascular diseases like heart failure and myocardial infarction. The team hypothesizes that these results may be explained by social and environmental determinants like stress, social isolation, depression, food insecurity and lead exposure (63).

Cancer is also a significant health issue, with lung, breast, and gastric cancers being the most common types. In 2020, there were 7.1 lung cancer cases per 100,000 population, 28.9 breast cancer cases per 100,000 population, and 13.5 cases of gastric cancer cases per 100,000 population (64).

According to analysis from a PAHO/WHO risk assessment tool for COVID-19 and comorbidities in the Americas, almost 1 in 5 (18% or 2 million persons) are at increased risk of severe COVID-19 due to underlying health conditions. Approximately 450,000 (4%) persons have 2 or more underlying conditions and 3% (366,935) of the population is at high risk of severe COVID-19 due to underlying health conditions. The most prevalent conditions are cardiovascular diseases, diabetes, and chronic respiratory diseases (**Figure 17**) (65).

In the region of the Americas, Haiti is the country with the highest age-standardized death rate by non-communicable diseases, as well as the highest disability-adjusted life years (DALYs) and Years of life lost (YLLs) due to premature mortality caused by this type of diseases (66).

#### 5.19. Mental health

In the region of the Americas, disability-adjusted years (DALYs) due to depressive mental disorders increased from 16.9 million years in 2000 to 20.6 million years in 2019 (67). Even though Haiti is not among the 7 countries in the region with the highest DALYs during that period, and there is no available information on the impact of the current violence suffered by the country, past crises, the COVID-19 pandemic, food insecurity and the past earthquake could be potential factors for an increase in the prevalence of mental conditions. The agestandardized suicide death rate in 2019 in Haiti was 11.2 per 100,000 opulation, this is the 5th highest rate in the Region (68). According to a 2018 study, which analyzed data collected 4 years after the 2010 earthquake, the earthquake revealed how significant the burden of mental health disorders was already in Haiti, with high levels of depression, anxiety and stress developing during decades of unemployment, violence, and political instability (69). Therefore, it is very likely that there will be a long-term increase in the number and severity of mental health problems in the coming months.

WHO estimates indicate that Haiti has a high suicide rate (11.2 per 100,000 population) ranking the 5th highest in the Region. While there are many factors that contribute to suicide, poor mental health, limited access to and availability of mental health services, and high stigma are the leading factors in Haiti. Statistics from the Haitian Psychological Association and the Telephone Bleu show an increase in calls for psychological support, reaching a monthly average of 420 and 80 respectively since June 2023. They also noted that the number of people calling with suicidal thoughts has also increased (68).

Haiti has limited personnel working in mental health, with a total of 14 general practitioners, 27 psychiatrists, 36 nurses, 194 psychologists, 82 social workers, 1 occupational therapist, and 1 neurologist in the country. Haiti has two functioning psychiatric hospitals (70).

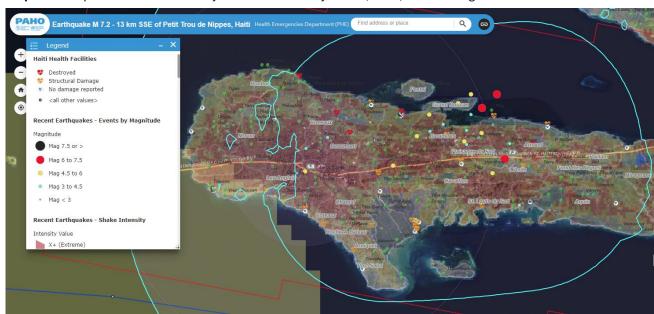
The cholera outbreak (causing a significant number of illnesses and deaths) added to the situation of insecurity and social instability and has affected the normal functioning of the community. In these cases, a psychosocial disturbance is frequently generated which can exceed the coping capacity of the affected population. The effects on mental health are generally more pronounced in populations that live in precarious conditions, have few resources, and have limited access to social and health services (71).

The rise in the occurrence of GBV is also a contributing factor to the mental health issues faced by members of the community. A study in 2022 depicts a strong association between sexual violence, mental health problems, and substance abuse. Victims of sexual violence were 2.32 times more likely to meet -traumatic stress disorder (PTSD) criteria, 2.02 times more likely to have depression and psychological distress, and 1.57 times more likely to abuse substances. The risks were found to be higher in adolescent boys and young men, possibly due to the taboo nature of the sexual violence experienced by men in the community (72).

### 6. Natural Hazards

#### 6.1. Earthquakes

On 14 August 2021, an earthquake with a magnitude of 7.2 hit the southwestern region of Haiti and exposed more than 2 million people to intensities between 6 – 9 degrees on the Modified Mercalli Scale (MMI) (73). The epicentre was 8 km N of Petit Trou de Nippes in the department of Nippes which is one of the three most affected departments – the other two are Sud and Grand'Anse (Map 8). Preliminary information indicated that approximately 2,000 people from these departments have been confirmed dead, more 12,000 are injured, and at least 36 health facilities are destroyed (n=4) or damaged (n=32). Rapid assessments revealed that more 500,000 people – 40% of the total population in the affected departments – need emergency humanitarian assistance. Approximately 137,000 houses were either destroyed (n=60,000) or damaged (n=76,000) (73, 74). The arrival of tropical storm Grace right after the earthquake had a moderate impact on Haiti, triggering flooding and landslides in Jacmel, Les Cayes and Marigot, which created additional safety risks for damaged homes and those left homeless by the quake.



Map 8: Earthquake-affected areas by health care facility status, Haiti, as of 18 August 2021

**Source:** Pan American Health Organization. Near real-time natural hazards in the Americas. Washington, D.C.: PAHO; 2022 [cited 23 April 2024]. Available from: https://arcg.is/1qzPOT

### 6.2. Hurricanes

The hurricane season in the Atlantic Ocean usually lasts from early June to late November, threatening Caribbean Islands including Haiti each year. National Oceanic and Atmospheric Administration (NOAA) forecasts indicate an above-normal hurricane season this year given the current ocean and atmospheric conditions. Historically, hurricanes that enter Haiti's sphere of influence or make landfall often impact the departments of Sud-Est, Sud, and Nord-Ouest (75).

The most recent severe hurricanes to make landfall in or near Haiti were Fiona, which reached a wind speed of up to 194 km/h on 20 September 2022 at 5:00 pm local time near Saint-Louis du Nord and was 107 kilometers in diameter at the time, and Franklin, which eye was about 73 kilometers from Anse-à-Pitres (Sud-Est) on 23 August 2023 at 5:00 am local time reaching a wind speed of 78 km/h (76).

# 7. Humanitarian Health Response (3/4Ws)

# 7.1. Health Response Coordination

For the health sector, the National Unit for the Management of Health Emergencies (UNGUS) of the MSPP, is in charge of coordinating the health response to disasters and emergencies, and to coordinate all preparedness activities as well. In Haiti, the director of UNGUS also represents the MSPP in DGPC led response coordinating mechanisms and participates in intersectoral meetings led by OCHA as the health sector lead (being PAHO/WHO the co-lead).

On the other hand, the Integrated Office of the Deputy Special Representative, Resident Coordinator and Humanitarian Coordinator is the operational structure that supports the coordination between the United Nations Country Team and BINUH, as well as the support to the Ministry of Planning and External Cooperation for the response to emergencies.

The UNCT, under the leadership of the Resident Coordinator, has the mission of coordinating the work of the UN Country Team and promoting the division of tasks according to the mandates of each agency. The Office of the Resident Coordinator is the main support structure for the activities of the Resident Coordinator and the Country Team, in order to strengthen the joint activities of the United Nations System in Haiti.

Additionally, UN Agencies jointly with national and international humanitarian partners participate in weekly and ad hoc intersectoral meetings led by OCHA in which 9 sectors work together to coordinate the response to emergencies (Shelter and Essential Household Items, WASH, Education, Logistics, Nutrition, Health, Food security, Protection, and Gender Based Violence). However, in April 2023, given the declining situation in the country, it was decided to scale-up the humanitarian response in Haiti and some of the clusters will be activated, notably the health cluster.

#### 7.2. Health Response Actors

Although there are 11 health partners reporting to the Health Cluster, several of these actors are either small national NGOs seeking funds for their activities or actors that are not actually doing health interventions. Despite this challenge, the Health Cluster continues its efforts to better coordinate the health sector and map all actors intervening in health in the country, both for preparedness and response activities (77).

Health Cluster Lead: MSPP lead / PAHO/WHO co-lead

WASH: DINEPA lead / UNICEF co-lead

Coordination: MPCE / OCHA

# 8. PAHO/WHO Response

**PAHO / WHO** is working in close coordination with local and national health authorities (MSPP, National EOC of MSPP, Departmental health Directorates), other UN agencies, and health partners to:

- Distribute medical supplies to health facilities and other partners to treat patients wounded due to gang violence in the Ouest Department.
- Distribute medical supplies to health facilities around the country to ensure the continuation of essential and emergency health services, including in areas controlled by gangs like the Artibonite Department.
- Support the National Blood Safety Program with supplies and reagents to ensure availability of blood products in the current context of violence.
- Support the response to cholera through all the pillars and throughout the country (see cholera sitrep).
- Provide fuel to health facilities, the National Ambulance Center and other MSPP units to enable the continuation of activities.
- Support waste management activities for health facilities, in addition to hygiene promotion and sensitization activities and distribution of water purification tablets in IDP sites.
- Support the operations of the national Health EOC and the health cluster. An information manager and a health cluster coordinator are already based in Haiti to support the health cluster coordination. Three health clusters have been held jointly with the MSPP, and a Health Cluster Bulletin, a monthly sitrep have been elaborated and other information products, including a Health Cluster Dashboard are updated regularly and shared with stakeholders.
- Support the implementation of active surveillance and mobile clinics in the camps receiving displaced populations.
- Provision of medical supplies and fuel for health facilities receiving people transferred from IDP sites.
- Support the functioning of Nutritional Stabilization Units, strengthen the care and management of common causes of childhood illnesses and promote breastfeeding as a Lifesaving intervention.
- Strengthening the Integration of Mental Health into Primary health Care: using the in the framework of Mental Health Gap Action Programme (mhGAP), developing capacities of community health workers is delivering psychological first aid, strengthening the mental health hotlines, and developing national awareness and communication campaigns.
- Strengthening the medical care of victims and survivors of GBV, strengthening women's organizations
  that provide support to victims and survivors, and providing mental health services and developing
  national awareness and communication campaigns.
- Support continuity of routine immunization services in all departments through provision of vaccines, supportive supervision and trainings of health providers.

# 9. Gaps and Challenges

### **Security & Access**

- Humanitarian access has been deteriorating due to the escalating insecurity since the beginning of 2021, both for people in need and for humanitarian organizations (77).
- Despite successful negotiations in opening 'human corridors' through gang-held areas during the most recent earthquake and to enable food and NFI distributions to address the more recent gang crisis, access continues to be increasingly difficult as main roads continue to be blocked and some areas continue to be inaccessible except for very few actors.
- The population continues to retaliate against the gangs to protect their areas and lynchings of alleged gang members have occurred. However, during one of these episodes, gang members captured members of this movement and they were killed.

### Health (including COVID-19), Protection, WASH

- Persistent gaps in the emergency health response stem from constraints in capacity for:
  - Medical personnel, including general practitioners and specialists, a situation that has aggravated in the past months due to the addition of Haiti to the US Parole Program which allows Haitians to be subsidized by relatives in the US and work legally for up to two years, causing a massive brain-drain.
  - Logistics support delivering supplies due to road blockages and the fuel crisis that has increased the cost of distributions exponentially.
  - The insecurity on land routes, and the closure of the border with the Dominican Republic, make managing the logistics chain a challenge. It increases operating costs and makes it difficult to regularly provide hospital, public, private, and civil society facilities. This generates a risk not only for patients with acute pathologies but also for chronic patients and preventive actions such as vaccinations, laboratory surveillance, and handling of blood samples, among others.

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