

HAITI

HEALTH AND CLIMATE CHANGE

COUNTRY PROFILE 2025



PAHO



**World Health
Organization**



**United Nations
Framework Convention
on Climate Change**

Health and climate change: Country profile 2025 - Haiti

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EXECUTIVE SUMMARY

Caribbean small island developing states remain on the front lines of the climate crisis, facing a range of acute and long-term risks, including more frequent and severe weather events such as floods, droughts, and cyclones; increased average temperatures; and rising sea levels. Many of these countries already have a high burden of climate-sensitive diseases, which may be exacerbated by climate change. Limited resources, geographical vulnerability, and social inequalities compound these risks, leaving some of the most at-risk countries under-resourced and unprotected against escalating climate and pollution threats. In response, Caribbean leaders continue to call forcefully for urgent global action to safeguard populations everywhere, particularly those whose very existence is under threat.

Since 2019, the Caribbean Action Plan on Health and Climate Change has guided national and regional efforts to build climate-resilient health systems. A new action plan for 2026–2031 is under development to strengthen accountability and measurability, aligning with World Health Organization's Global Plan of Action on Climate Change and Health 2023–2030. This will help countries track progress toward resilient health systems that can anticipate, withstand, and adapt to climate threats, while protecting the most vulnerable.

At the 61st Directing Council of the Pan American Health Organization (PAHO) in 2024, Member

States approved the Policy for Strengthening Equity-Oriented Health Sector Action on Climate Change and Health. This policy, which is structured around five key lines of action – adaptation, mitigation, governance, surveillance, and financing – calls for integrating health priorities into nationally determined contributions, expanding climate–health surveillance systems, and mobilizing sustainable financing with a focus on health equity.

The previous round of PAHO country profiles was completed in 2021. Since then, new climate projections, health outcome data, and policy agreements (including the 2024 equity-oriented policy) have become available. To strengthen the evidence base on climate and health, PAHO is supporting countries to update or develop their Health and Climate Change Country Profiles to incorporate the latest data on climate impacts and health outcomes. These profiles provide a snapshot of how the climate is impacting public health across Caribbean nations. They also serve as dynamic tools for policymakers, health professionals, and development partners, enabling them to identify priorities, close information gaps, and accelerate targeted interventions.

This PAHO Health and Climate Change Country Profile for Haiti provides a summary of available evidence on climate hazards, health vulnerabilities, health impacts, and progress to date in health sector efforts to strengthen a climate-resilient health system.

KEY RECOMMENDATIONS

1

DEVELOP A CLIMATE CHANGE AND HEALTH STRATEGIC ACTION PLAN FOR HAITI

Haiti needs a comprehensive strategic action plan integrating climate and health considerations across all relevant sectors. This plan should outline specific goals, strategies, and actions to enhance health sector resilience. It must establish clear roles and responsibilities, preventing overlap between the Ministry of Environment and Ministry of Public Health and Population. Developing this plan requires collaboration between ministries, local communities, nongovernmental organizations, and international partners. Regular updates and monitoring mechanisms should ensure its effectiveness and alignment with national policies and international commitments.

2

STRENGTHEN COLLABORATION TO CARRY OUT RESEARCH ON HEALTH AND CLIMATE CHANGE IN HAITI

Enhancing research collaboration is paramount to comprehending and mitigating the health impacts of climate change in Haiti. This entails cultivating partnerships between Haitian institutions and international research entities. Securing sustainable funding for interdisciplinary research on climate change and health, in collaboration with international institutions and through leveraging expertise and resources, is crucial. Priority areas should encompass the effects of climate change on vector-borne diseases, heat-related illnesses, and food/water security. Concurrently, strengthening Haiti's research capacity through training programs, infrastructure development, and data-sharing initiatives is paramount, with a focus on translating findings into practical interventions and policy recommendations.

3

IMPROVE EFFICIENCY AND PERFORMANCE THROUGH CAPACITY-BUILDING

Bolstering Haiti's healthcare system's efficiency in addressing climate change necessitates robust capacity-building initiatives. Integrating climate change and health topics into medical and public health education curricula is crucial. Strengthening institutional frameworks, improving data management systems, and enhancing access to and the utilization of climate information are essential. Engaging international experts for knowledge transfer, organizing workshops and seminars, and developing e-learning platforms for continuous learning will ensure the sustainable implementation of climate-resilient health strategies.

4

IMPROVE ACCESS TO INTERNATIONAL FINANCING FOR ADAPTATION TO CLIMATE CHANGE IN THE HEALTH SECTOR

To effectively address climate change adaptation in Haiti's health sector, securing international financing is imperative. This can be achieved by strengthening international cooperation and actively engaging with global climate funds. It is essential to develop the capacity to prepare robust project proposals, navigate complex application processes, and meet diverse funding-source requirements. Furthermore, strengthening partnerships with international organizations can leverage additional resources and expertise.

5

BUILD CLIMATE-RESILIENT AND ENVIRONMENTALLY SUSTAINABLE HEALTHCARE FACILITIES

A comprehensive approach should be implemented to safeguard health infrastructure, contribute to climate mitigation efforts, and guarantee the continuous delivery of essential health services during climate-related emergencies. Existing facilities in Haiti should be retrofitted to withstand extreme weather events, incorporating climate-resilient designs in new constructions. Integrating renewable energy sources such as solar panels will provide a continuous power supply during disasters. Moreover, adequate ventilation and cooling systems should be included to address rising temperatures.

6

INCLUDE THE CLIMATE-VARIABILITY FACTOR IN INTEGRATED RISK MANAGEMENT AND EARLY WARNING SYSTEMS

The integration of climate variability into Haiti's risk management and early warning systems is essential for enhancing preparedness. Establishing and maintaining early warning systems for extreme weather events is imperative, as is ensuring timely, accurate, and accessible warnings for all population segments, particularly in vulnerable coastal departments. Enhancing weather forecasting capabilities and developing climate-informed disease surveillance systems are of the utmost urgency. Collaboration between meteorological services, health authorities, and disaster management agencies is crucial for devising comprehensive strategies tailored to Haiti's unique climate challenges.



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INTRODUCTION

Haiti, a small island developing state (SIDS), is strategically located in the heart of the Caribbean. It shares the island of Hispaniola with the Dominican Republic, with Haiti occupying the western third of the island. Haiti possesses a unique geographical feature, with a territorial sea of approximately 30 000 km², while its land area spans 27 750 km². Notably, three-quarters of the country's surface area is characterized by mountainous terrain and rugged landscapes, featuring steep slopes that often exceed 40% (1).

Haiti is situated in a region that is prone to cyclones and frequently experiences natural disasters, including increasingly severe flooding. These vulnerabilities are amplified by specific geomorphological factors, such as uneven terrain, deforestation, and inappropriate farming and land use practices, which exacerbate climate-related disasters. Among all the SIDS and countries in the Western Hemisphere, Haiti is particularly susceptible to climate change. Climatic risks, such as floods, droughts, and hurricanes, are significantly elevated and further intensified by climate change. Climate change forecasts predict sea level rise, increasing temperatures, and more frequent and severe droughts (northern provinces) and hurricanes

(southern provinces) for Haiti. With its coastline spanning 1771 kilometers and a highly dense population of almost 12 million, many of whom live along and derive livelihoods from the coast, sea level rise will have a negative impact on the availability and quality of potable water. This will have crippling effects on coastal communities, which will be displaced due to flooding and lower recharge or saltwater intrusion into groundwater sources (2).

Additionally, recurring climatic phenomena, such as El Niño and La Niña, contribute to these challenges by causing rainfall shortages, drier climates, and colder, wetter weather patterns in the Caribbean (1).

The Government of Haiti submitted its updated nationally determined contribution in 2022. The country commits to reducing emissions by 32%, of which 26% is conditional on international support, by 2030 as compared with the reference scenario. The updated nationally determined contribution places an emphasis on adaptation and also covers mitigation measures focusing on energy; waste; and agriculture, forestry, and other land use (3).

Highest priority climate-sensitive health risks

Health risk	Highest priority
Health impacts of weather-related disasters and emergencies	✓
Heat-related illness	
Waterborne diseases	✓
Food security and safety	
Vector-borne diseases	✓
Air pollution	
Allergies	
Mental/psychosocial health	
Noncommunicable diseases	✓
Mitigation actions to reduce emissions through sustainable procurement	
Mitigation measures to reduce emissions of health facilities	✓
Mitigation measures by coordinating with other sectors	✓

Source: Provided by the Ministry of Public Health and Population, 2024.

CLIMATE HAZARDS RELEVANT FOR HEALTH

Climate-related hazards are already affecting the health and well-being of populations across the Caribbean and are projected to intensify in the coming decades. Among the most significant threats

are tropical cyclones and sea level rise, both of which can have widespread and long-term consequences for public health, infrastructure, water and food systems, and mental health.

Tropical cyclones

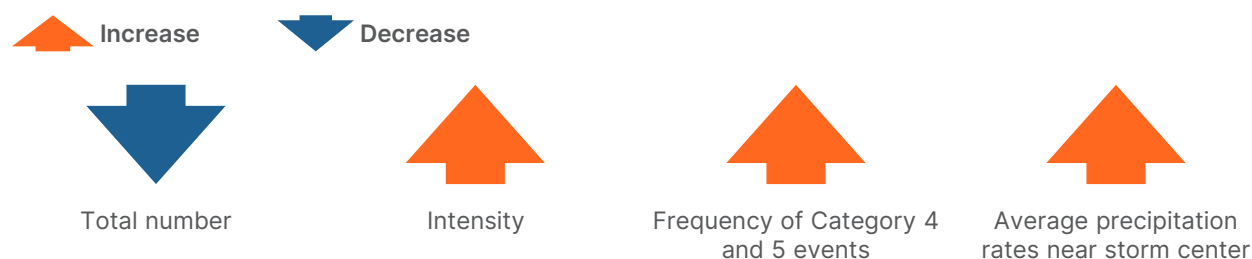
Tropical cyclones – including hurricanes and typhoons – are expected to become more intense and destructive, posing increased risks to health and safety. Although it is anticipated that the total number of tropical cyclones may decrease toward the end of the century, human-induced warming is likely to increase their intensity, with wind speeds predicted to rise by 2–11% under a mid-range scenario (Representative Concentration Pathway 4.5 [RCP4.5]) or by about 5% with 2 °C of global warming. Projections also suggest that Category 4 and 5 storms will become more frequent, although these projections are sensitive to model resolution.

Furthermore, average precipitation rates within 100 km of the cyclone center may increase by

up to 10% per degree of warming, exacerbating flood risks. These increases in rainfall would be even more severe if tropical cyclone translation speeds continued to slow, leading to prolonged storm impacts over affected areas (5–13). These changes are expected to heighten the risks of injuries, waterborne and vector-borne diseases, displacement, and damage to health infrastructure.

While our understanding of tropical cyclones has improved significantly through observational data, theoretical studies, and climate modeling, regional-scale projections remain complex. Therefore, the figure below presents a synthesis of global trends to guide preparedness and response strategies in vulnerable regions.

Potential future changes in tropical cyclones: a global perspective

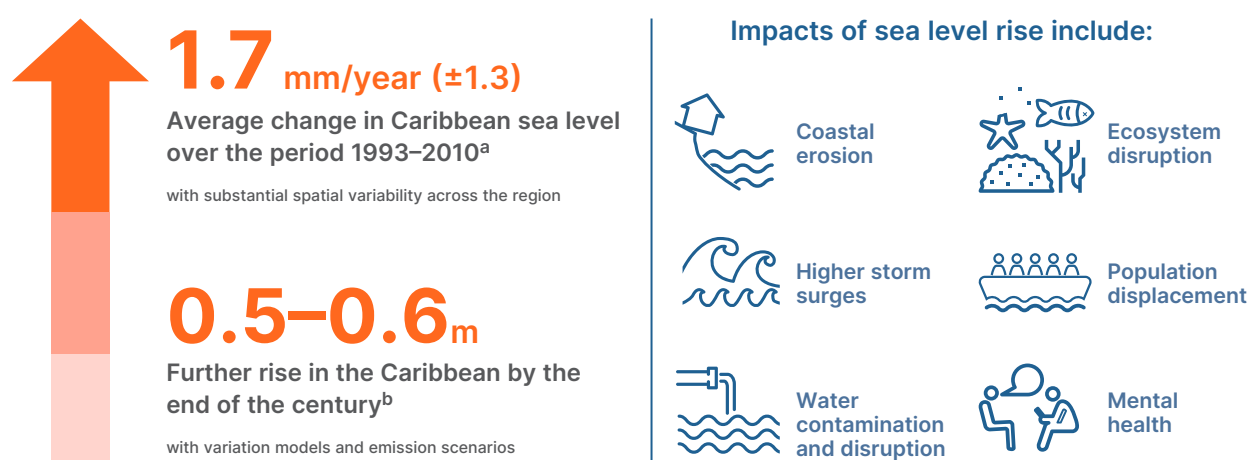


Sources: Bender MA, Knutson TR, Tuleya RE, Sirutis JJ, Vecchi GA, Garner ST, Knutson TR, Tuleya RE, Sirutis JJ, Vecchi GA, Garner ST, et al. Modeled impact of anthropogenic warming on the frequency of intense Atlantic hurricanes. *Science*. 2010;327(5971):454–458. Christensen JH, Krishna Kumar K, Aldrian E, An S-I, Cavalcanti IFA, de Castro M, et al. Climate phenomena and their relevance for future regional climate change. In: Stocker TF, Qin D, Plattner G-K, Tignor M, Allen SK, Boschung J, et al., editors. *Climate change 2013: the physical science basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge: Cambridge University Press; 2013. Knutson TR, Sirutis JJ, Zhao M, Tuleya RE, Bender M, Vecchi GA, et al. Global projections of intense tropical cyclone activity for the late twenty-first century from dynamical downscaling of CMIP5/RCP4.5 scenarios. *J Clim*. 2015;28:7203–7224. Kossin JP, Emanuel KA, Vecchi GA. The poleward migration of the location of tropical cyclone maximum intensity. *Nature*. 2014;509:349–352. Available from: <https://doi.org/10.1038/nature13278>. Kossin JP. A global slowdown of tropical-cyclone translation speed. *Nature*. 2018;558:104–108. Sobel AH, Camargo SJ, Hall TM, Lee CY, Tippett MK, Wing AA. Human influence on tropical cyclone intensity. *Science*. 2016;353:242246. Available from: <https://doi.org/10.1126/science.aaf6574>. Walsh KJE, McBride JL, Klotzbach PJ, Balachandran S, Camargo SJ, Holland G, et al. Tropical cyclones and climate change. *Wiley Interdiscip Rev Clim Change*. 2016;7:65–89. Yoshida K, Sugi M, Mizuta R, Murakami H, Ishii M. Future changes in tropical cyclone activity in high-resolution large-ensemble simulations. *Geophys Res Lett*. 2017;44:9910–9917.

HEALTH IMPACTS OF CLIMATE CHANGE

Sea level rise

Sea level rise is one of the most significant threats to low-lying areas on small islands and atolls. Research indicates that global mean sea level rise rates are almost certainly accelerating as a result of climate change. The relatively long response times to global warming mean that the sea level will continue to rise for a considerable time after any reduction in emissions.



Notes:

- a Information and understanding about tropical cyclones (including hurricane and typhoons) from observations, theory, and climate models have improved in the last few years. Despite this, robust projections for specific ocean basins or for changes in storm tracks are difficult. As such, presented here is a synthesis of the expected changes at the global scale.
- b Estimates of mean net regional sea level change were evaluated from 21 Coupled Model Intercomparison Project Phase 5 models and include regional nonscenario components. The range given is for RCP4.5 annual projected change for 2081–2100 compared with 1986–2005.

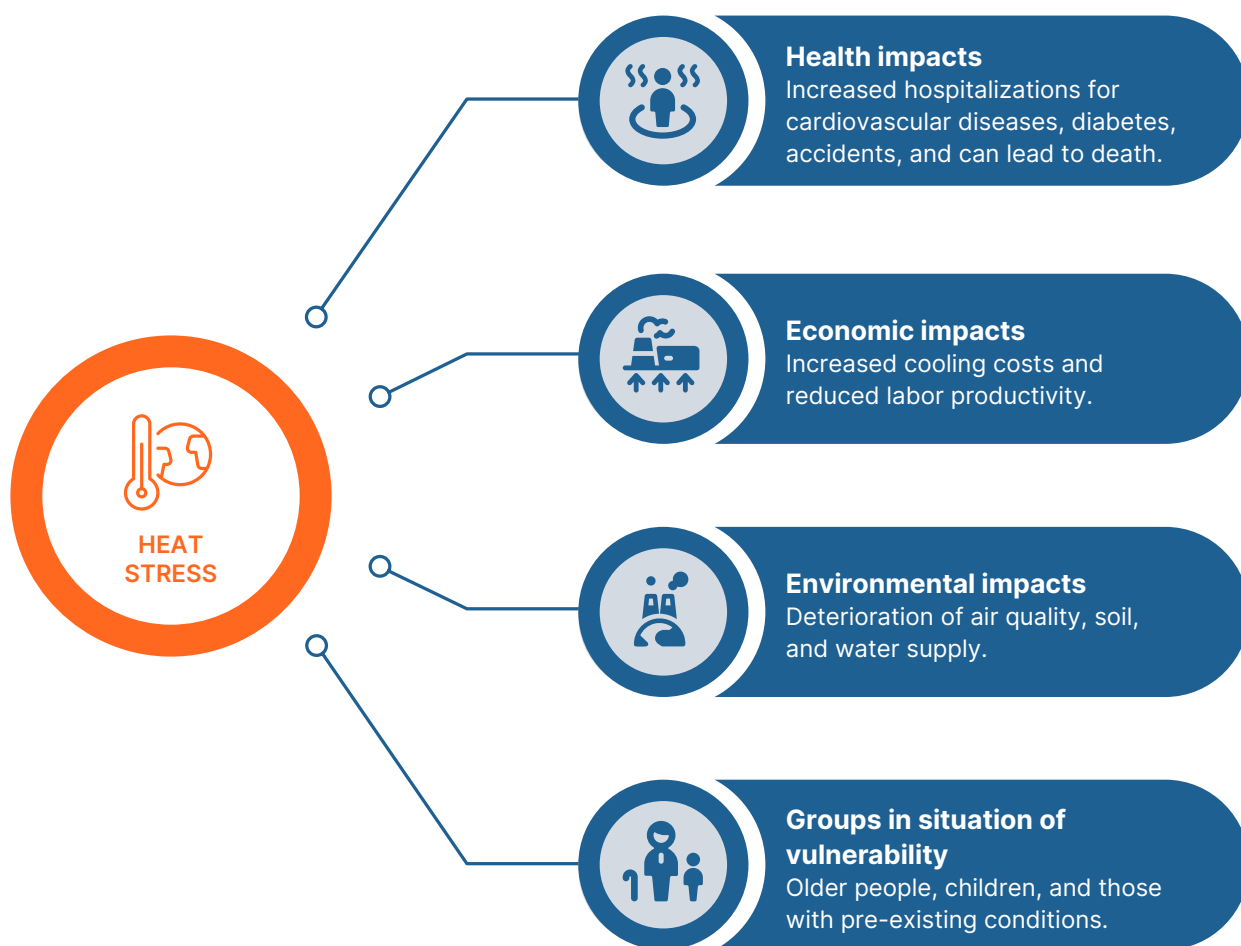
Sources: Nurse LA, McLean RF, Agard J, Briguglio L, Duvat-Magnan V, Pelesikoti N, et al. 2014: Small islands. In: Barros et al., editors. Climate Change 2014: Impacts, adaptation, and vulnerability. Part B: regional aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press; 2014. Torres R, Tsimplis MN. Sea-level trends and interannual variability in the Caribbean Sea. J Geophys Res Oceans. 118:2934–2947.

Heat stress

Climate change is expected to increase annual temperature (mean, maximum, and minimum), urban heat islands, and the intensity and frequency of heat waves, resulting in a larger number of people at risk of heat-related medical conditions. Heat waves, that is, prolonged periods of excessive heat, can pose a particular threat to human, animal, and even

plant health, resulting in loss of life, livelihoods, and socioeconomic output; reduced labor productivity; and increases in demand for and the cost of cooling options. Heat waves also contribute to the deterioration of the environmental determinants of health (e.g., air quality, soil, water supply) (Figure 1).

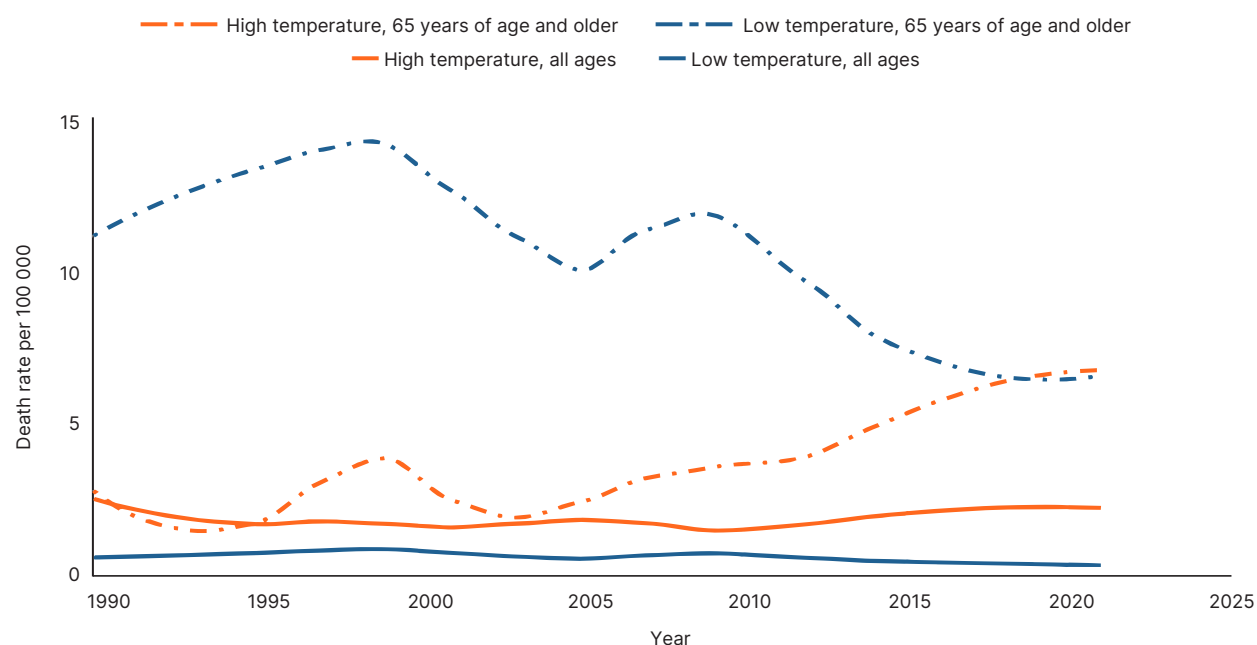
FIGURE 1: Impacts of heat stress



When observing the effects of temperatures on the burden of disease, high temperature exposure consistently presents a greater mortality risk than low temperature exposure, with death rates that are substantially higher across all demographics. The most striking pattern emerges for older persons (65 and older), with rates of deaths related to high temperatures having shown a consistent increasing trend over time since 2003; in contrast, rates of deaths related to low temperatures for the same age group have shown a decreasing trend, and,

remarkably, have been lower than the rates of deaths associated with high temperatures since 2018. However, mortality related to high temperatures for all ages combined remained relatively stable throughout the period, at 2–3 deaths per 100 000, while low temperature-related death rates for both age groups (65 and more, and all ages) were consistently low, with fewer than 1.5 deaths per 100 000. The data show that older populations are disproportionately more vulnerable to heat-related mortality (Figure 2).

FIGURE 2: Smoothed death rates attributed to high and low temperatures by age group, Haiti, 1990–2021



Source: Figure elaborated using data from: Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease 2021. Seattle: IHME, 2024.

In 2021, heat-related mortality in Haiti revealed contrasting gender patterns across age groups, with the direction of gender disparity reversing between young and old populations. For children aged under 5 years, death rates were approximately 28% higher among boys than among girls, suggesting that young boys may be more vulnerable to heat-related health impacts. However, this pattern completely reversed for older persons, where death rates were about 26% higher among women aged 65 years and older than among their male counterparts.

This age-dependent gender reversal in heat vulnerability highlights the complex interplay between the biological, social, and behavioral factors that influence thermal stress mortality across different life stages in Haiti. Furthermore, heat-related mortality was extraordinarily high among adults aged 65 and older, with rates over 10 times higher than those for children. This pattern suggests that, while heat poses a modest risk to young children, regardless of sex, older women represent the most vulnerable demographic group for heat-related mortality in Haiti.

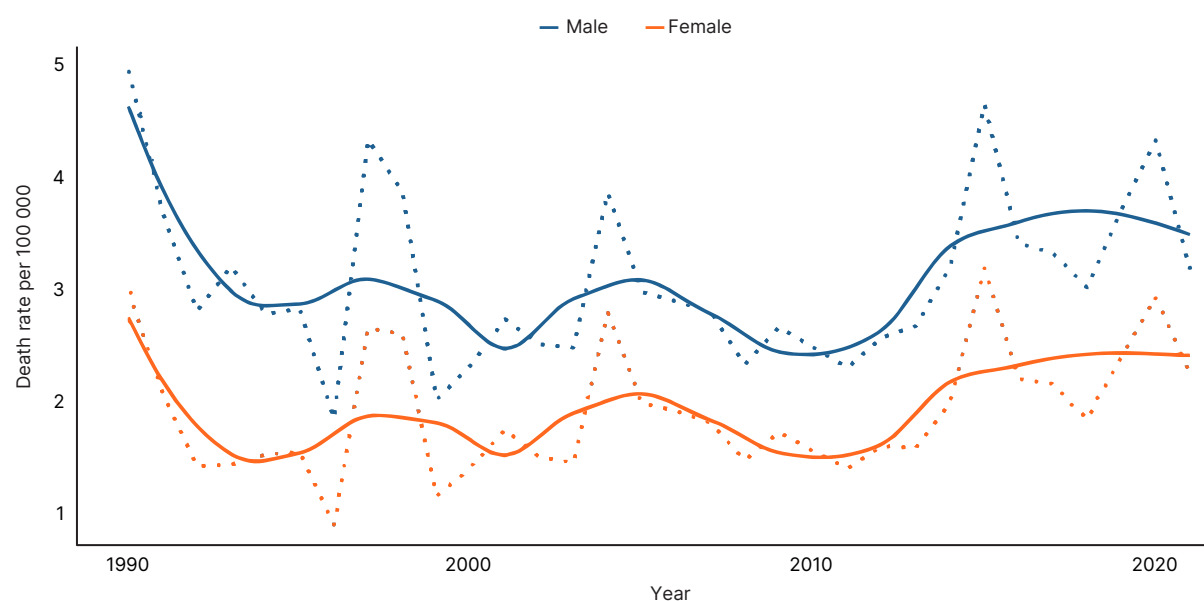
Figure 3, which shows heat-related mortality trends in Haiti disaggregated by sex from 1990 to 2021, reveals a clearer picture of the evolving impact of extreme heat on public health. To avoid misinterpretation, data for 2010 – which showed an unusually high mortality value – were excluded from the analysis. It is important to note that Haiti experienced a devastating earthquake in January 2010, which may have compromised the quality and consistency of mortality data reporting, and indirectly affected health systems and surveillance capacities.

The results show that, contrary to expectations associated with climate change, heat-attributable mortality has declined for both sexes. Between 1990 and 2021, among males the reduction was 28.7%, while among females it was 5.4%. Although

death rates were consistently higher among men than among women throughout the period, the relative decline was more substantial for men. This reduction may be linked to a lack of systematic monitoring, changes in exposure patterns, and/or shifts in risk factors, rather than an actual decrease in heat-related health impacts.

These findings highlight the need to strengthen heat-related health surveillance systems and emergency response mechanisms, and to ensure disaggregated data collection to better identify populations in a situation of vulnerability. Careful interpretation of time series data is essential for designing effective, evidence-informed interventions that protect public health in the context of a warming climate.

FIGURE 3: Heat-attributable mortality rate by sex in Haiti, 1990–2021 (excluding 2010)



Note: Trends show consistently higher rates in males and a gradual decline for both sexes over time. The year 2010 was removed due to potential data inconsistencies associated with the earthquake that year.

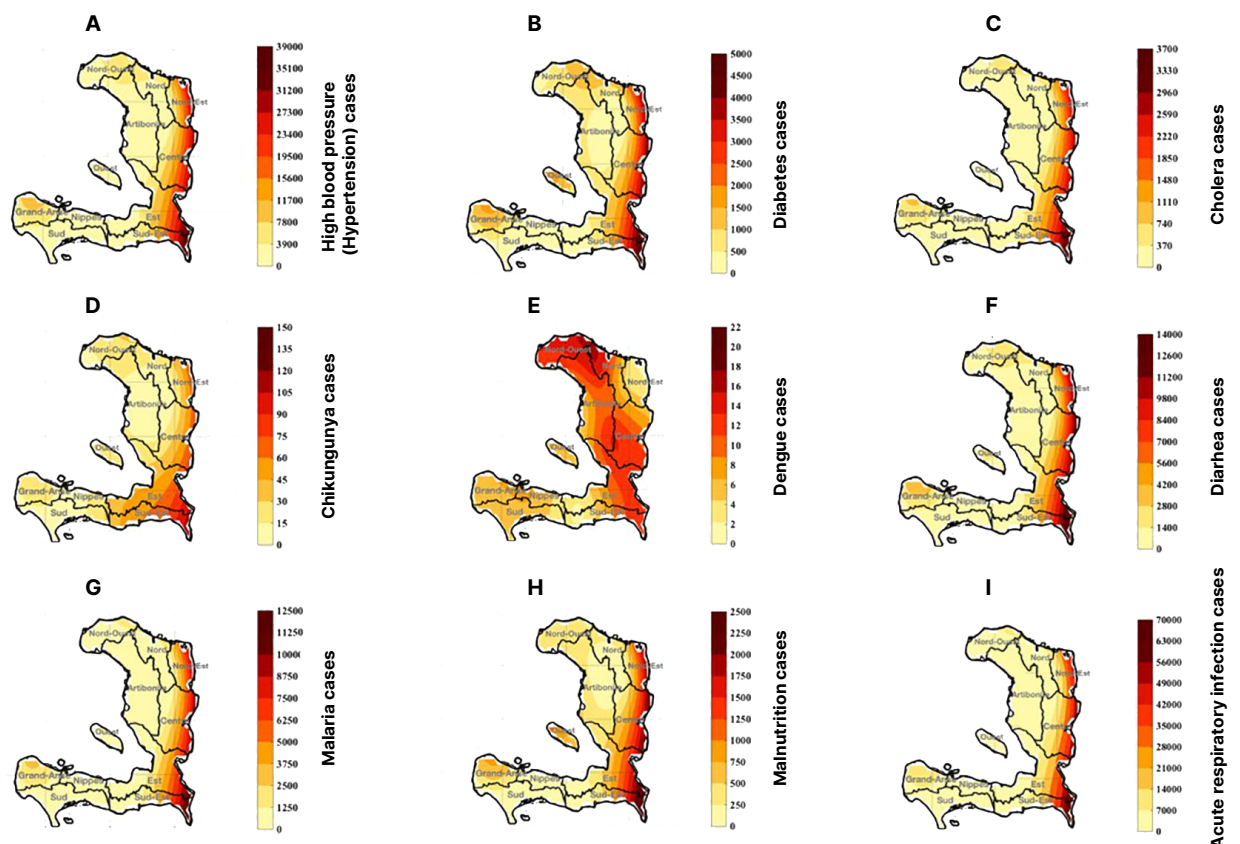
Source: Figure elaborated using data from: Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease 2021. Seattle: IHME, 2024.

Infectious and vector-borne diseases

Vector-borne diseases, particularly malaria and dengue, have emerged as pressing concerns in Haiti. An intricate relationship exists between these diseases and Haiti's climatic patterns (Figure 4). For instance, malaria exhibits a pronounced presence in the western region, reaching its peak during the latter part of the year. Paradoxically, the very climate changes that pose a threat to Haiti may lead to a reduction in malaria prevalence in certain areas, as rising temperatures could

adversely affect mosquito survival. Waterborne diseases also cast a significant shadow over Haiti's public health landscape. Cholera, typhoid, and various diarrheal diseases pose substantial threats, with their prevalence closely linked to rainfall patterns and temperature fluctuations. Future climate scenarios may potentially alter the transmission dynamics of these diseases, necessitating the development of more resilient water and sanitation infrastructure (5).

FIGURE 4: Spatial-temporal distribution of climate-sensitive diseases in Haiti between 2011 and 2021: (A) high blood pressure, (B) diabetes, (C) cholera, (D) chikungunya, (E) dengue, (F) diarrhea, (G) malaria, (H) malnutrition, and (I) acute respiratory infections

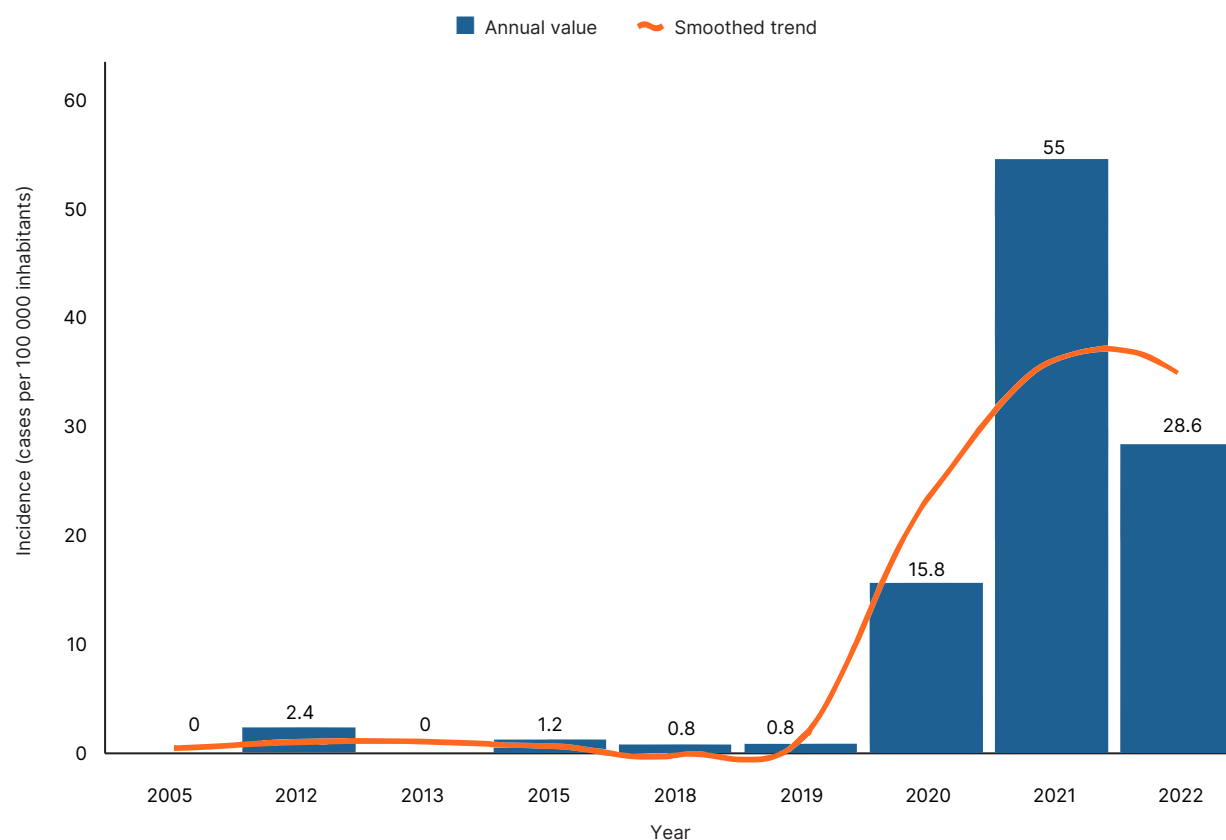


Source: Diouf I, Sy I, Diakhate M. Assessing climate change impacts on public health in Haiti: a comprehensive study of disease distribution, modeling, and adaptation strategies. *Front Trop Dis.* 2024;4:1287499. Available from: <https://doi.org/10.3389/fitd.2023.1287499>.

During the 2005–2019 period, dengue incidence was very low. However, a dramatic epidemiological shift can be observed, starting in 2020, with an exponential increase that peaks in 2021, at 55.02 cases per 100 000 inhabitants, representing an increase of more than 6000% compared with the previous year. Although 2022 shows a reduction to

28.6 cases per 100 000 inhabitants, levels remain 35 times higher than the pre-2020 historical average. It is essential to strengthen epidemiological and entomological surveillance and investigate the determinants of the 2020–2021 outbreak to prevent future epidemics of a similar magnitude (Figure 5).

FIGURE 5: Dengue incidence by year, Haiti, 2005–2022

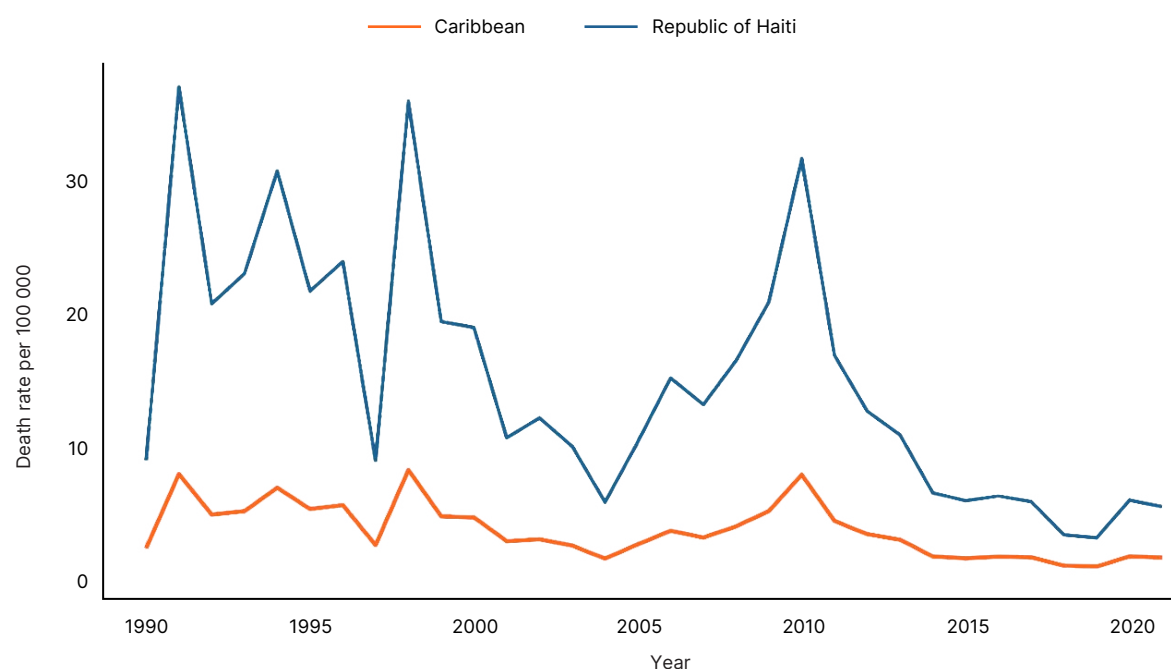


Source: Pan American Health Organization. PLISA: dengue incidence by year, Haiti. Washington, D.C.: PAHO; 2025 [cited 21 October 2025]. Available from: <https://www.paho.org/en/arbo-portal/dengue-data-and-analysis/dengue-analysis-country>.

Haiti's malaria death rate shows extreme volatility, with dramatic spikes between 1990 and 2021 reaching over 30 deaths per 100 000, namely in 1991, 1994, 1999, and 2010, while the Caribbean region maintained a relatively stable death rate, generally staying below 10 deaths per 100 000 throughout the entire period. The most notable spike for Haiti occurred around 2010 and was most likely related to the devastating earthquake that struck the country (Figure 6). In 2021, malaria death rates revealed significant age and gender disparities: death rates among children under 5 years of age were relatively

modest, with minimal gender differences (5.26 deaths per 100 000 for girls versus 4.36 for boys). However, death rates among adults aged 70 years or older were substantially higher, with death rates among older men being nearly twice as high as those among older women (17.5 deaths per 100 000 for men versus 8.98 for women). Overall, malaria death rates among older persons were three or four times higher than those among young children, with older men representing the highest-risk demographic group for malaria deaths in Haiti.

FIGURE 6: Malaria death rates, Haiti and the Caribbean, 1990–2021



Source: Figure elaborated using data from: Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease 2021. Seattle: IHME, 2024.

Noncommunicable diseases and food and nutrition security

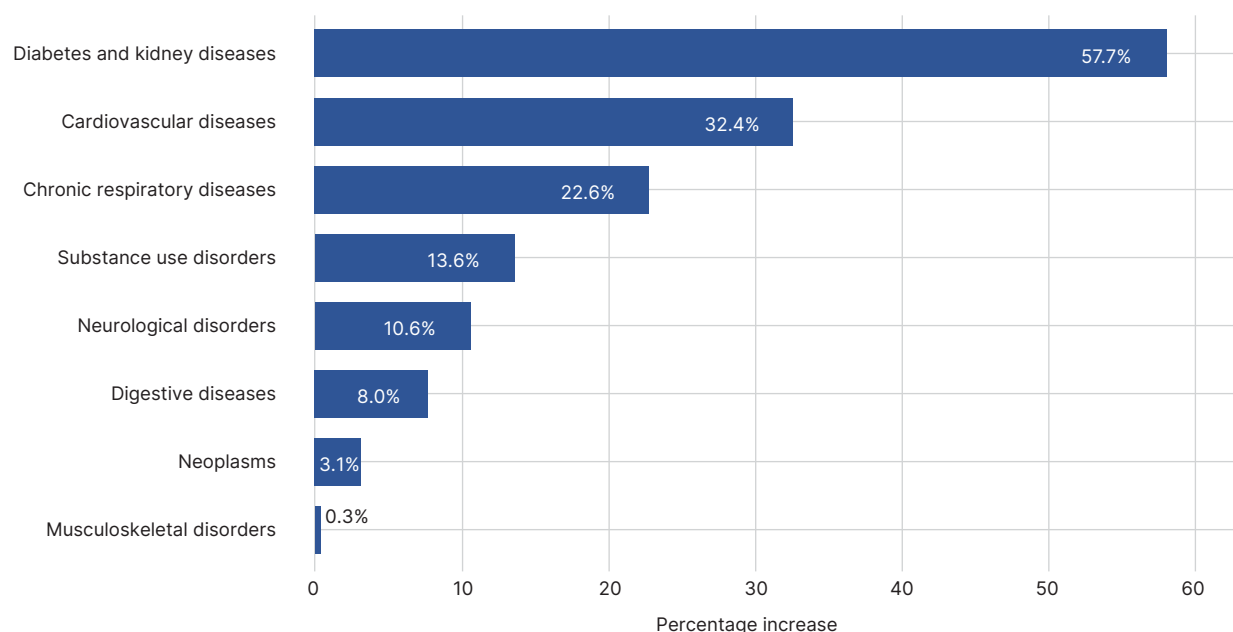
SIDS face distinct challenges that render them particularly vulnerable to the impacts of climate change on food and nutrition security, including having small, and widely dispersed, land masses and populations; having large rural populations; having fragile natural environments and a lack of arable land; being highly vulnerable to climate change, external economic shocks, and natural disasters; being highly dependent on food imports; being dependent on a limited number of economic sectors; and their distance from global markets. The majority of SIDS also face a “triple burden” of malnutrition, whereby undernutrition, micronutrient deficiencies, and overweight and obesity exist simultaneously within a population, alongside increasing rates of diet-related noncommunicable diseases (NCDs).

Figure 7 illustrates the percentage increase in death rates by cause in Haiti between 2010 and 2021. The data reveal a rise in the death rates associated with several NCDs, highlighting

growing public health challenges for the country. Diabetes and kidney diseases show the highest increase, at 57.7%, possibly reflecting changes in diet, limited access to preventive care, and a rise in risk factors such as obesity and physical inactivity. Cardiovascular diseases follow, with a 32.4% increase, which may be associated with uncontrolled hypertension, tobacco use, and other lifestyle-related factors. The rates of deaths associated with chronic respiratory diseases (22.6% increase) and substance use disorders (13.6% increase) also exhibit growth.

These findings point to a rising burden of NCDs in Haiti, likely driven by structural barriers to healthcare access, environmental and social determinants, and shifts in population health behaviors. While improvements in health data reporting may partially explain these trends, the consistent upward pattern across multiple causes warrants immediate policy attention.

FIGURE 7: Percentage increase in death rates by cause in Haiti between 2010 and 2021



Source: Figure elaborated using data from: Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease 2021. Seattle: IHME, 2024.

Climate change is likely to exacerbate the triple burden of malnutrition, and the metabolic and lifestyle risk factors for diet-related NCDs. It is expected to reduce short- and long-term food and nutrition security both directly, through its effects on agriculture and fisheries, and indirectly, by contributing to underlying risk factors such as water insecurity, dependency on imported foods, urbanization and migration, and health service disruption. These impacts represent a significant health risk for SIDS, with their particular susceptibility to climate change impacts and already overburdened health systems, and this risk is distributed unevenly, with some population groups being more vulnerable than others.

Malnutrition poses a persistent challenge in Haiti, and climate change will introduce new dimensions to this issue. Shifting rainfall patterns and rising temperatures may impact food security, indirectly exacerbating malnutrition. An integrated approach to climate adaptation is necessary, bridging health and agricultural concerns. NCDs such as hypertension and diabetes are consistent health concerns. These conditions may be affected by the indirect effects of climate change through various pathways, including altered food security and increased heat stress (5).

NONCOMMUNICABLE DISEASES IN HAITI

53.9 years

Healthy life expectancy at birth (2021)¹

10.2%

Adult population considered obese (2022)²

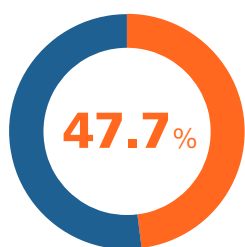
50.4 %

Adult population that is considered undernourished (2019–2023, 3-year average)³

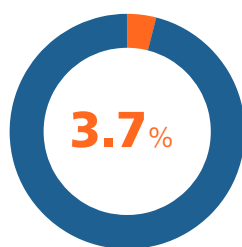
8.9%

Prevalence of diabetes in the adult population (2021)⁴

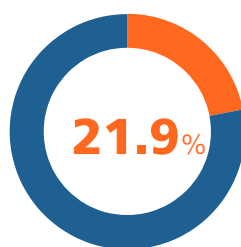
MOTHER AND CHILD HEALTH



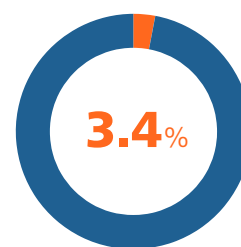
Iron deficiency anemia in women of reproductive age (2019)⁵



Wasting in children under 5 years (2017)⁶



Stunting in children under 5 years (2017)⁶



Overweight rate in children under 5 years (2017)⁶

1 World Health Organization. Healthy life expectancy (HALE) at birth. Geneva: WHO; 2021 [cited 6 August 2024]. Available from: <https://data.who.int/countries/332>.

2 World Health Organization. Prevalence of obesity among adults, BMI ≥30, crude estimates by country. Geneva: WHO; 2022 [cited 6 August 2024]. Available from: [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-obesity-among-adults-bmi-30-\(age-standardized-estimate\)-\(-\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-obesity-among-adults-bmi-30-(age-standardized-estimate)-(-)).

3 Food and Agriculture Organization of the United Nations. FAO Data Explorer: prevalence of undernourishment. Rome: FAO; 2023 [cited 6 August 2024]. Available from: [https://dataexplorer.fao.org/vis?fs\[0\]=Domain%2C1%7CSDG%20Indicators%23SDG_T%23%7CGoal](https://dataexplorer.fao.org/vis?fs[0]=Domain%2C1%7CSDG%20Indicators%23SDG_T%23%7CGoal).

4 World Health Organization. Global report on diabetes. Geneva: WHO; 2021. Available from: https://apps.who.int/iris/bitstream/handle/10665/204871/9789241565257_eng.pdf?sequence=1.

5 World Health Organization. Prevalence of anaemia in women. Geneva: WHO; 2021 [cited 6 August 2024]. Available from: [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-anaemia-in-women-of-reproductive-age-\(-\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-anaemia-in-women-of-reproductive-age-(-)).

6 United Nations Children's Fund, World Health Organization, World Bank Group. Joint child malnutrition estimates, levels and trends. Geneva: WHO; 2023 [cited 6 August 2024]. Available from: <https://www.who.int/publications/i/item/9789240073791>.

HEALTH VULNERABILITY AND ADAPTIVE CAPACITY TO CLIMATE CHANGE

Sustainable Development Goal indicators related to health and climate change

Many of the public health gains we have made in recent decades are at risk due to the direct and indirect impacts of climate variability and climate change. Sustainable development across sectors can strengthen health resilience to climate change.

1. NO POVERTY



58.5%

Share of population living in poverty by the national poverty line¹

6. CLEAN WATER AND SANITATION



^b Proportion of total population using at least basic drinking water services⁵

67%

^b Proportion of total population using at least basic sanitation services⁶

37%

3. GOOD HEALTH AND WELL-BEING



3.48%

Current health expenditure as percentage of gross domestic product³

54%

^a Universal health coverage service coverage index²

56.5

Under-5 mortality rate (per 1000 live births)⁴

13. STRENGTHEN RESILIENCE AND ADAPTIVE CAPACITY TO CLIMATE CHANGE AND NATURAL DISASTERS



82

^c Total number of weather-related disasters recorded between 2000 and 2024⁷

3.6 MILLION

^c Largest total number of persons affected by a single weather-related disaster between 2000 and 2018⁷

^a The index is based on high data availability. Values greater than or equal to 80 are presented as ≥80 as the index does not provide fine resolution at high values; 80 should not be considered a target.

^b Data for safely managed drinking water and sanitation services are not consistently available for all SIDS at this time; therefore, data on “at least basic services” have been reported for comparability.

^c Data for Sustainable Development Goal 13.1 are currently not available. Alternative indicators and data sources are presented.

¹ World Bank Group. Poverty headcount ratio at national poverty lines (% of population). Washington, D.C.: World Bank; 2012 [cited 6 August 2024]. Available from: <https://data.worldbank.org/indicator/SI.POV.NAHC>.

² World Health Organization. UHC service coverage index (SDG 3.8.1). Geneva: WHO; 2021 [cited 2024 Aug 7]. Available from: <https://www.who.int/data/gho/data/indicators/indicator-details/GHO/uhc-index-of-service-coverage>.

³ World Health Organization. Current health expenditure (CHE) as percentage of gross domestic product (GDP) (%). Geneva: WHO; 2021 [cited 7 August 2024]. Available from: [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/current-health-expenditure-\(che\)-as-percentage-of-gross-domestic-product-\(gdp\)-\(-\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/current-health-expenditure-(che)-as-percentage-of-gross-domestic-product-(gdp)-(-)).

⁴ United Nations Children's Fund. Haiti – key demographics indicators. New York: UNICEF; 2022 [cited 7 August 2024]. Available from: <https://data.unicef.org/country/hti/>.

⁵ World Health Organization. WASH basic drinking-water services, population using at least (%). Geneva: WHO; 2022 [cited 7 August 2024]. Available from: [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/population-using-at-least-basic-drinking-water-services-\(-\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/population-using-at-least-basic-drinking-water-services-(-)).

⁶ World Health Organization. WASH basic sanitation services, population using at least (%). Geneva: WHO; 2022 [cited 7 August 2024]. Available from: [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/population-using-at-least-basic-sanitation-services-\(-\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/population-using-at-least-basic-sanitation-services-(-)).

⁷ Public EM-DAT. The international disasters database. Brussels: CRED/UCLouvain; 2024. Available from: <https://public.emdat.be/data>.

Health workforce

Public health and healthcare professionals require training and capacity-building opportunities, to ensure that they have the knowledge and tools necessary to build climate-resilient health systems. For example, they must have an understanding of climate risks to individuals, communities, and healthcare facilities, and of the approaches that can be taken to protect and promote health given the current and projected impacts of climate change.



2.37

Medical doctors

4

Nurses and
midwives

Not available

Environmental and
occupational health and
hygiene professionals

Source: World Health Organization. UHC service coverage index. Geneva: WHO; 2024 [cited 6 August 2024]. Available from: <https://data.who.int/indicators/i/3805B1E/9A706FD>.

Healthcare facilities

Climate change poses a serious threat to the functioning of healthcare facilities. Extreme weather events increase the demand for emergency health services but can also damage healthcare facility infrastructure and disrupt service provision. Increased risks of climate-sensitive diseases will also require greater capacity from often already strained health services. In SIDS, healthcare facilities are often in low-lying areas subject to flooding and storm surges, making them particularly vulnerable.



1007

Health centers across
the country^a

6.4

Hospital beds^a

^a Total density per 10 000 population (2022).

MEASURING PROGRESS IN THE HEALTH SECTOR

The following section looks at progress in the health sector in responding to climate threats based on country-reported data collected in the 2023 PAHO Climate and Health Country Survey (16). Key indicators are aligned with those identified in the Caribbean Action Plan on Health and Climate Change.

Empowerment: progress in leadership and governance

✓ = YES ✗ = NO ○ = UNKNOWN N/A = NOT APPLICABLE

National planning for health and climate change

Has a national health and climate change strategy or plan been developed?^a



^a In this context, a "national strategy or plan" is a broad term that includes national health and climate strategies, as well as the health component of national adaptation plans.

Intersectoral collaboration to address climate change

Has the country established a multi-institutional structure to work on climate change (e.g., national interministerial committee, national coordination mechanism)?



Does a ministry of health representative participate in this multi-institutional structure on climate change?



Intersectoral collaboration to address climate change

✓ = YES ✗ = NO ○ = UNKNOWN N/A = NOT APPLICABLE

Is there an agreement in place between the ministry of health and this sector that defines specific roles and responsibilities in relation to links between health and climate change policy?	
Sector	Agreement in place
Agriculture	✗
Education	✗
Energy	✗
Environment	✗
National meteorological and hydrological services	✗
Social services	✗
Transportation	✗
Urban development and housing	✗
Water, sanitation, and hygiene	✗

Evidence: building the investment case

✓ = YES ✗ = NO ○ = UNKNOWN N/A = NOT APPLICABLE

Vulnerability and adaptation assessments for health	
Has an assessment of health vulnerability and impacts of climate change been conducted at a national level?	✓

Haiti completed a vulnerability and adaptation assessment of the country's health system in 2023 with the support of PAHO. The resulting report, titled *Evaluation of the vulnerability and adaptation of the health system and communities to climate change in Haiti*, is currently being reviewed by the Ministry of Public Health and Population and awaits validation.

Implementation: preparedness for climate risks

✓ = YES ✗ = NO ○ = UNKNOWN N/A = NOT APPLICABLE

Integrated risk monitoring and early warning				
Climate-sensitive diseases and health outcomes	Health surveillance system exists?	Health surveillance system includes meteorological information?	Climate-informed early warning system in place?	Health sector response plan in place?
Airborne and respiratory illness	✓	✗	✗	✗
Heat-related illness	✗	✗	✗	✗
Injury and mortality from extreme weather events	✓	✗	✗	✗
Malnutrition and foodborne diseases	✓	✗	✗	✗
Mental and psychosocial health	✗	✗	✗	✗
NCDs	✓	✗	✗	✗
Vector-borne diseases	✓	✗	✗	✗
Waterborne diseases and other water-related health outcomes	○	✗	✗	✗
Zoonoses	✓	✗	✗	✗
Impacts on healthcare facilities	✓	✗	✗	✗

Health co-benefits of climate action

HAS THE COUNTRY USED ANY TOOLS TO ASSESS THE HEALTH CO-BENEFITS OF CLIMATE CHANGE ACTION?

No health co-benefits assessments have been conducted.

The health co-benefits of climate change mitigation refer to the potential human health benefits that may be gained from implementing policies that cut greenhouse gas emissions and/or short-lived climate pollutant emissions and promote low-carbon, sustainable societies. For example, efforts to reduce greenhouse gas emissions in the transport sector can reduce air pollution and lead to higher levels of physical activity such as cycling or walking, which consequently lowers the risks of respiratory diseases, cardiovascular diseases, diabetes, and obesity. Conversely, some climate mitigation policies may cause harm to human health or may not maximize potential health gains.

Resources: facilitating access to climate and health finance

International climate finance

✓ = YES ✗ = NO ○ = UNKNOWN N/A = NOT APPLICABLE

Are international funds currently being accessed to support climate change and health work?	✓
If yes, from which sources?	
Green Climate Fund	✓
Global Environment Facility	✗
Other multilateral donors	✗
Bilateral donor	✗
Other	✗

Funding challenges

✓ = YES ✗ = NO ○ = UNKNOWN N/A = NOT APPLICABLE

Greatest challenges faced in accessing international funds	
Lack of information on the opportunities	✓
Lack of connection by health actors to climate change processes	✓
Lack of success in submitted applications	✗
Lack of country eligibility	✗
Lack of capacity to prepare country proposals	✗
None (no challenges or challenges were minimal)	✗

References

1. Haiti Ministry of Environment. Haiti's updated NDC. Port-au-Prince: Haiti Ministry of Environment; 2022. Available from: <https://unfccc.int/sites/default/files/NDC/2022-06/CDN%20Revised%20Haiti%202022.pdf>.
2. United States Agency for International Development. High-priority country plan, Haiti 2022. Washington, D.C.: USAID; 2022. Available from: <https://www.globalwaters.org/wherework/latinamericacaribbean/haiti>.
3. NDC Partnership. Country action, Haiti 2024. Washington, D.C.: NDC Partnership; 2024. Available from: <https://ndcpartnership.org/country/hti>.
4. World Health Organization. WHO health and climate change survey report. Geneva: WHO; 2021. Available from: <https://www.who.int/publications/i/item/9789240038509>.
5. Bender MS, et al. Modeled impact of anthropogenic warming on the frequency of intense Atlantic hurricanes. *Science*. 2010;327(5971):454–458.
6. Christensen JH, Krishna Kumar K, Aldrian E, An S-I, Cavalcanti IFA, de Castro M, et al. Climate phenomena and their relevance for future regional climate change. In: Stocker TF, Qin D, Plattner G-K, Tignor M, Allen SK, Boschung J, et al., editors. *Climate change 2013: the physical science basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge: Cambridge University Press; 2013.
7. Knutson TR, Sirutis JJ, Zhao M, Tuleya RE, Bender M, Vecchi GA, et al. Global projections of intense tropical cyclone activity for the late twenty-first century from dynamical downscaling of CMIP5/RCP4.5 scenarios. *J Clim*. 2015;28:7203–7224.
8. Kossin JP, Emanuel KA, Vecchi GA. The poleward migration of the location of tropical cyclone maximum intensity. *Nat*. 2014;509:349–352. Available from: <https://doi.org/10.1038/nature13278>.
9. Kossin JP. A global slowdown of tropical-cyclone translation speed. *Nat*. 2018;558:104–108.
10. Sobel AH, Camargo SJ, Hall TM, Lee CY, Tippett MK, Wing AA. Human influence on tropical cyclone intensity. *Sci*. 2016;353:242–246. Available from: <https://doi.org/10.1126/science.aaf6574>.
11. Walsh KJE, McBride JL, Klotzbach PJ, et al. Tropical cyclones and climate change. *WIREs Clim Change*. 2016;7:65–89.
12. Yoshida K, Sugi M, Mizuta R, Murakami H, Ishii M. Future changes in tropical cyclone activity in high-resolution large-ensemble simulations. *Geophys Res Lett*. 2017;44:9910–9917.
13. Torres R, Tsimplis MN. Sea-level trends and interannual variability in the Caribbean Sea. *J Geophys Res Oceans*. 2013;118:2934–2947.
14. Nurse LA, McLean RF, Agard J, Briguglio L, Duvat-Magnan V, Pelesikoti N, et al., editors. Small islands. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge: Cambridge University Press; 2014. p. 1613–1654.
15. Diouf I, Sy I, Diakhate M. Assessing climate change impacts on public health in Haiti: a comprehensive study of disease distribution, modeling, and adaptation strategies. *Front Trop Dis*. 2024;4:1287499. Available from: <https://doi.org/10.3389/fitd.2023.1287499>.
16. Pan American Health Organization. PAHO Climate Change and Health Survey 2023. Washington, D.C.: PAHO; 2023.

Haiti's Health and Climate Change Country Profile 2025 highlights the country's growing efforts to understand and address the impacts of climate change on public health. The profile brings together the latest data and analysis to provide a clear picture of how changing climate patterns are influencing health outcomes and shaping national priorities.

It showcases the steps that Haiti has taken to assess climate risks, monitor health vulnerabilities, and begin building more resilient health systems. From tackling climate-sensitive diseases to exploring adaptation and early warning strategies, the profile emphasizes both progress made and key areas for action. It also reflects on findings from recent national surveys and assessments, identifying where support is needed to strengthen health infrastructure, improve training, and integrate climate considerations into public health planning.

This profile is part of a broader Pan American Health Organization initiative to promote evidence-based decision-making, support low-carbon development, and enhance regional cooperation. For Haiti, it aims to serve as a practical tool for policymakers, health professionals, and development partners, enabling them to prioritize interventions, reduce health risks, and promote well-being in the face of climate change.



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