JAMAICA

HEALTH & CLIMATE CHANGE

COUNTRY PROFILE 2021

Small Island Developing States Initiative

World Health Organization

United Nations Framework Convention on Climate Change

Pan American Health Organization World Health Organization PAHO

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Acknowledgements

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EXECUTIVE SUMMARY

Despite producing very little greenhouse gas emissions that cause climate change, people living in small island developing States (SIDS) are on the front line of climate change impacts. These countries face a range of acute to long-term risks, including extreme 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 that are then exacerbated by climate change. As is often the case, nations at greatest risk are often under-resourced and unprotected in the face of escalating climate and pollution threats. In recent years, the voice of the small island nation leaders has become a force in raising the alarm for urgent global action to safeguard populations everywhere, particularly those whose very existence is under threat.

Recognizing the unique and immediate threats faced by small islands, WHO has responded by introducing the WHO Special Initiative on Climate Change and Health in Small Island Developing States (SIDS). The initiative was launched in November 2017 in collaboration with the United Nations Framework Convention on Climate Change (UNFCCC) and the Fijian Presidency of the COP23 in Bonn Germany, with the vision that by 2030 all health systems in SIDS will be resilient to climate variability and climate change. It is clear though that building resilience must happen in parallel with the reduction of carbon emissions by countries around the world in order to protect the most vulnerable from climate risks and to gain the health co-benefits of mitigation policies.

The WHO Special Initiative on Climate Change and Health in SIDS aims to provide national health authorities in SIDS with the political, technical and financial support required to better understand and address the effects of climate change on health.

A global action plan has been developed by WHO which outlines four pillars of action for achieving the vision of the initiative; empowerment of health leaders to engage nationally and internationally, evidence to build the investment case, implementation to strengthen climate resilience, and resources to facilitate access to climate finance. In October 2018, Ministers of Health gathered in Grenada to develop a Caribbean Action Plan to outline the implementation of the SIDS initiative locally and to identify national and regional indicators of progress.

As part of the regional action plan, small island nations have committed to developing a WHO UNFCCC health and climate change country profile to present evidence and monitor progress on health and climate change.

This WHO UNFCCC health and climate change country profile for Jamaica provides a summary of available evidence on climate hazards, health vulnerabilities, health impacts and progress to date in the health sector's efforts to realize a climate-resilient health system.

KEY RECOMMENDATIONS

1 FINALIZE AND IMPLEMENT A HEALTH AND CLIMATE CHANGE STRATEGY/ PLAN FOR JAMAICA

Complete the development and implementation of the national health and climate change plan currently under way. Ensuring that adaptation priorities are specified, health co-benefits from mitigation and adaptation measures are considered, necessary budget requirements are allocated and regular monitoring and review of progress will support its full implementation.

2 ASSESS HEALTH VULNERABILITY, IMPACTS AND ADAPTIVE CAPACITY TO CLIMATE CHANGE

Conduct a national assessment of climate change impacts, vulnerability and adaptation for health. Ensure that results of the assessment are used for policy prioritization and the allocation of human and financial resources in the health sector.

3 STRENGTHEN INTEGRATED RISK SURVEILLANCE AND EARLY WARNING SYSTEMS

Ensure that meteorological information is used to inform early warning systems. Jamaica is expected to be affected by a range of health threats due to climate change, including thermal stress, nutrition challenges, and mental health and well-being issues, which should also be captured by risk surveillance and early warning systems.

4 ADDRESS BARRIERS TO ACCESSING INTERNATIONAL CLIMATE CHANGE FINANCE TO SUPPORT HEALTH ADAPTATION

The main barriers have been identified as a lack of connection by health actors to climate change processes and a lack of capacity to prepare country proposals or advance recommended actions.

5 BUILD CLIMATE-RESILIENT AND ENVIRONMENTALLY SUSTAINABLE HEALTH CARE FACILITIES

Measures can be taken to prevent the potentially devastating impacts of climate change on health service provision, including – conducting hazard assessments, climate-informed planning and costing, strengthening structural safety, contingency planning for essential systems (electricity, heating, cooling, ventilation, water supply, sanitation services, waste management and communications). A commitment towards low-emission, sustainable practices to improve system stability, promote a healing environment and to mitigate climate change impacts can also be taken.

WHO RESOURCES TO SUPPORT ACTION ON THESE KEY RECOMMENDATIONS:

https://www.who.int/activities/building-capacity-on-climate-change-human-health/toolkit/

BACKGROUND

Jamaica is the third largest island in the Caribbean Sea, with a total land mass of 10 991 km^2. The country is mountainous and about a third of its land area is covered by forests and around 40% is agricultural land *(1)*. However, deforestation rates are high in Jamaica *(2)*. The climate is tropical and the hurricane season runs from June to November *(1,2)*. The hurricane season includes the longer of two rainy seasons of Jamaica's climate defined as August to November *(3)*.

Jamaica is vulnerable to the impacts of climate change. In particular, it is likely to be affected by increased temperatures, changing precipitation patterns, sea level rise, and extreme weather events (especially hurricanes, flooding and drought). Both its natural resources and economic development are threatened by climate change *(4)*. This has direct and indirect effects on human health, including economic insecurity, spread of vector-borne, waterborne and foodborne diseases, water and food insecurity, and death and injury from extreme weather events.

Through its 2015 Climate Change Policy Framework, Jamaica is working to mainstream climate change activities and help build capacity across sectors to develop adaptation and mitigation strategies *(1)*. The government of Jamaica has also published its Nationally Determined Contribution (NDC). Human health is identified as a particularly important sector in Jamaica's NDC, both in terms of adaptation and impacts. Indeed, human health is one of the main sectors listed as a priority for the development of climate change strategies and action plans *(4)*. The NDC was further updated in July 2020 with more ambitious targets.

HIGHEST PRIORITY CLIMATE-SENSITIVE HEALTH RISKS FOR JAMAICA

Direct effects	
Health impacts of extreme weather events	✔
Heat-related illness	✔
Indirect effects	
Water security and safety (including waterborne diseases)	✔
Food security and safety (including malnutrition and foodborne diseases)	✔
Vector-borne diseases	✔
Air pollution	✔
Allergies	✔
Diffuse effects	
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: Adapted and updated from the PAHO *Health and Climate Country Survey 2017 (5)*.

CLIMATE HAZARDS RELEVANT FOR HEALTH

Climate hazard projections for Jamaica

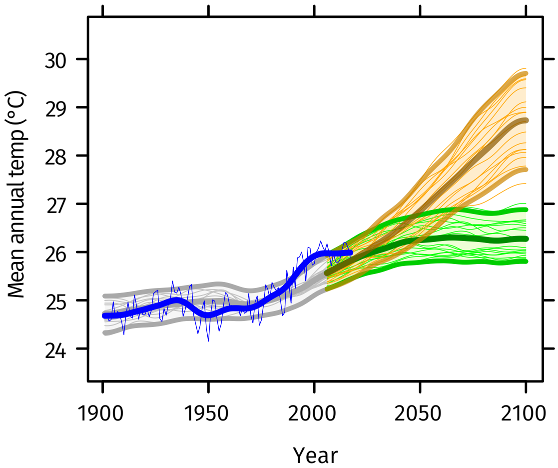
Country-specific projections are outlined up to the year 2100 for climate hazards under a 'business as usual' high emissions scenario compared to projections under a 'two-degree' scenario with rapidly decreasing global emissions (see Figures 1–5).

The climate model projections below present climate hazards under a high emissions scenario, Representative Concentration Pathway 8.5 (RCP8.5 – in orange) and a low emissions scenario (RCP2.6 – in green).[a] The text describes the projected changes averaged across about 20 global climate models (thick line). The figures[b] also show each model individually as well as the 90% model range (shaded) as a measure of uncertainty and the annual and smoothed observed record (in blue).[c] In the following text the present-day baseline refers to the 30-year average for 1981–2010 and the end-of-century refers to the 30-year average for 2071–2100.

Modelling uncertainties associated with the relatively coarse spatial scale of the models compared with that of small island States are not explicitly represented. There are also issues associated with the availability and representativeness of observed data for such locations.

Rising temperature

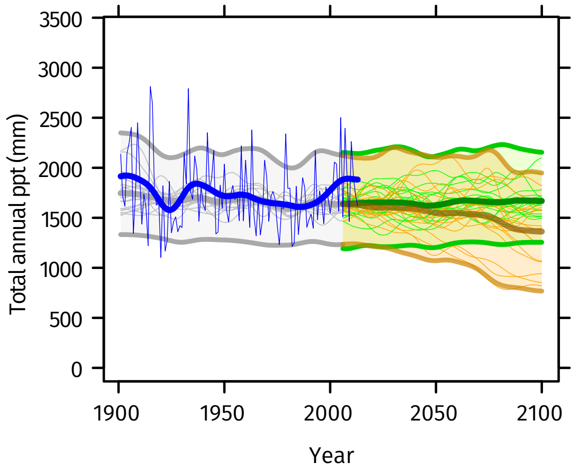
FIGURE 1: Mean annual temperature, 1900–2100



Under a high emissions scenario, the mean annual temperature is projected to rise by about 3°C on average by the end-of-century (i.e. 2071–2100 compared with 1981–2010). If emissions decrease rapidly, the temperature rise is limited to about 1°C.

Decreasing total precipitation

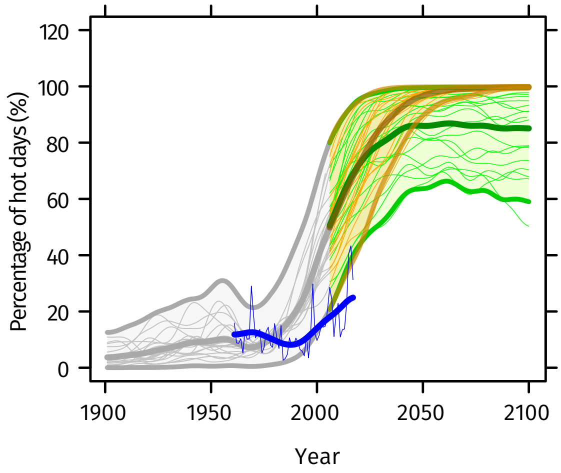
FIGURE 2: Total annual precipitation, 1900–2100



Total annual precipitation is projected to decrease by about 13% on average under a high emissions scenario, although the uncertainty range is large (-40% to +10%). If emissions decrease rapidly, there is little projected change on average: an increase of 2% with an uncertainty range of -8% to +13%.

More high temperature extremes

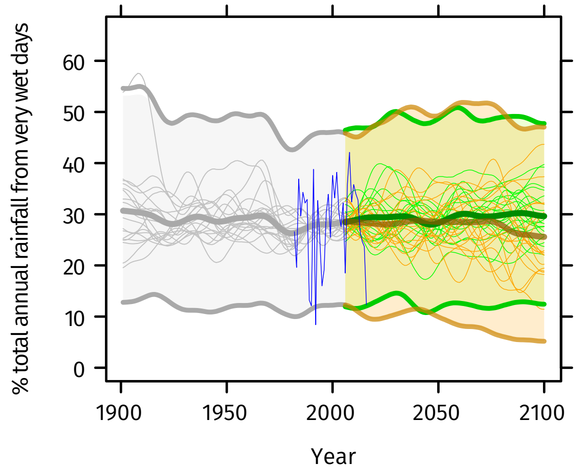
FIGURE 3: Percentage of hot days ('heat stress'), 1900–2100



The percentage of hot days[d] is projected to increase substantially from about 10% of all observed days on average in 1981–2010. Under a high emissions scenario, almost 100% of days on average are defined as 'hot' by the end-of-century. If emissions decrease rapidly, about 85% of days on average are 'hot'. Note that the models overestimate the observed increase in hot days (about 30% of days on average in 1981–2010 rather than 10%). Similar increases are seen in hot nights[d] (not shown).

Little change in extreme rainfall

FIGURE 4: Contribution to total annual rainfall from very wet days ('extreme rainfall' and 'flood risk'), 1900–2100

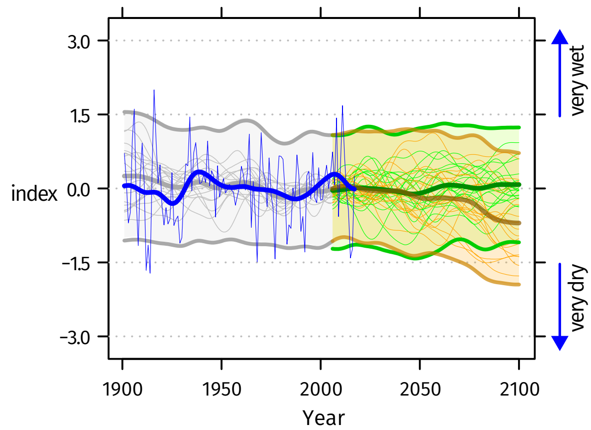


The proportion of total annual rainfall from very wet days[e] (about 30% for 1981–2010) shows little change on average by the end-of-century although the uncertainty range is somewhat larger particularly under a high emissions scenario (about 5% to almost 50%). Total annual rainfall is projected to decrease under a high emissions scenario (see Figure 2).

FIGURE 5: Standardized Precipitation Index ('drought'), 1900–2100

The Standardized Precipitation Index (SPI) is a widely used drought index which expresses rainfall deficits/excesses over timescales ranging from 1 to 36 months (here 12 months, i.e. SPI12).[f] It shows how at the same time extremely dry and extremely wet conditions, relative to the average local conditions, change in frequency and/or intensity.

SPI12 values show little projected change from an average of about -0.5, indicating little change on average in the frequency and/or intensity of wet episodes and drought events. Year-to-year variability remains large with both wet and dry episodes of varying intensity continuing to occur into the future.[f]



NOTES

[a] Model projections are from CMIP5 for RCP8.5 (high emissions) and RCP2.6 (low emissions). Model anomalies are added to the historical mean and smoothed.

[b] Observed historical record of mean temperature is from CRU-TSv3.26 and total precipitation from GPCC. Observed historical records of extremes are from JRA55 for temperature and from GPCC-FDD for precipitation.

[c] Analysis by the Climatic Research Unit, University of East Anglia, 2018.

[d] A 'hot day' ('hot night') is a day when maximum (minimum) temperature exceeds the 90th percentile threshold for that time of the year.

[e] The proportion (%) of annual rainfall totals that falls during very wet days, defined as days that are at least as wet as the historically 5% wettest of all days.

[f] SPI is unitless but can be used to categorize different severities of drought (wet): +0.5 to -0.5 near normal conditions; -0.5 to -1.0 slight drought; -1.0 to -1.5 moderate drought; -1.5 to -2.0 severe drought; below -2.0 extreme drought.

Tropical cyclones

It is anticipated that the total number of tropical cyclones may decrease towards the end of the century. However, it is likely that human-induced warming will make cyclones more intense (an increase in wind speed of 2–11% for a mid-range scenario (i.e., RCP4.5 which lies between RCP2.6 and RCP8.5 – shown on pages 4–5) or about 5% for 2°C global warming). Projections suggest that the most intense events (category 4 and 5) will become more frequent (although these projections are particularly sensitive to the spatial resolution of the models). It is also likely that average precipitation rates within 100 km of the storm centre will increase – by a maximum of about 10% per degree of warming. Such increases in rainfall rate would be exacerbated if tropical cyclone translation speeds continue to slow *(6–13)*.[a]

A synthesis of expected changes at the global scale is presented below.

POTENTIAL FUTURE CHANGES IN TROPICAL CYCLONES: A GLOBAL PERSPECTIVE *(6–13)*[a]

Decrease	Increase	Increase	Increase
Total number	Intensity	Frequency of category 4 and 5 events	Average precipitation rates near storm centre

Increase Decrease

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 rates of global mean sea level rise are almost certainly accelerating as a result of climate change. The relatively long response times to global warming mean that sea level will continue to rise for a considerable time after any reduction in emissions.

1.7 mm/year (±1.3)

Average change in Caribbean sea level over the period 1993–2010 *(14)*

with substantial spatial variability across the region

0.5–0.6m

Further rise in the Caribbean by the end of the century *(15)*[b]

with variation amongst models and emissions scenarios

Potential impacts of sea level rise include

- Coastal erosion
- Ecosystem disruption
- Higher storm surges
- Population displacement
- Water contamination and disruption
- Mental health

[a] Information and understanding about tropical cyclones (including hurricane and typhoons) from observations, theory and climate models have improved in the past few years. It is difficult to make robust projections for specific ocean basins or for changes in storm tracks. 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 CMIP5 models and include regional non-scenario components (adapted from WGI AR5 Figure 13–20). The range given is for RCP4.5 annual projected change for 2081–2100 compared to 1986–2005.

Heat stress

Climate change is expected to increase the mean annual temperature and the intensity and frequency of heat waves, resulting in a greater number of people at risk of heat-related medical conditions. Heat waves, i.e. prolonged periods of excessive heat, can pose a particular threat to human, animal and even plant health, resulting in loss of life, livelihoods, socioeconomic output, reduced labour productivity, rising demand for and cost of cooling options, as well as contribute to the deterioration of environmental determinants of health (air quality, soil, water supply).

Heat stress impacts include:

- heat rash/heat cramps
- dehydration
- heat exhaustion/heat stroke
- death.

Particularly vulnerable groups are:

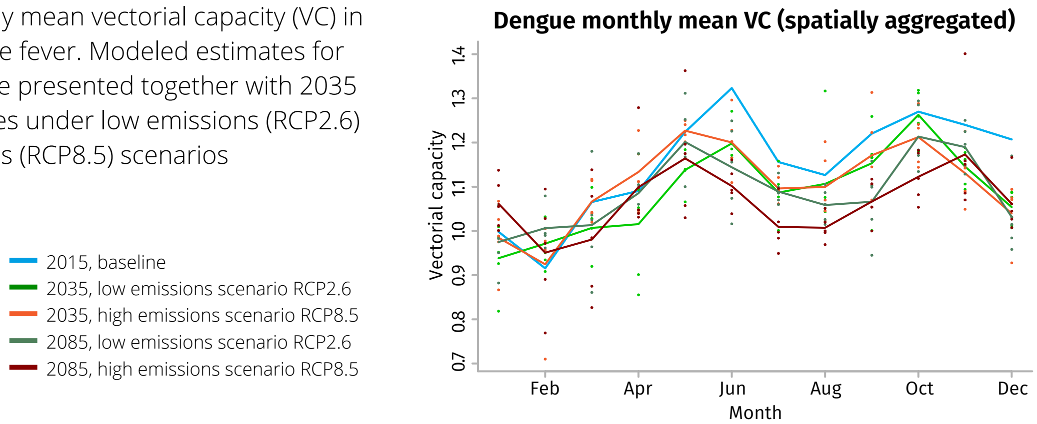
- the elderly
- children
- individuals with pre-existing conditions (e.g. diabetes)
- the socially isolated.

Infectious and vector-borne diseases

Some of the world's most virulent infections are also highly sensitive to climate: temperature, precipitation and humidity have a strong influence on the life-cycles of the vectors and the infectious agents they carry and influence the transmission of water- and foodborne diseases *(16,17)*.

Small island developing States (SIDS) are vulnerable to disease outbreaks. Climate change could affect the seasonality of such outbreaks, as well as the transmission of vector-borne diseases. The country experienced a severe dengue outbreak in 2019 that required activation of the national disaster mechanism to gain control *(18)*. Figure 6 presents modelled estimates for Jamaica of the potential risk of dengue fever transmission under high and low emission scenarios.[a] The seasonality and prevalence of dengue transmission may change with future climate change, but Jamaica is consistently highly suitable for dengue transmission under all scenarios and thus vulnerable to outbreaks *(19–22)*.[b,c]

FIGURE 6: Monthly mean vectorial capacity (VC) in Jamaica for dengue fever. Modeled estimates for 2015 (baseline) are presented together with 2035 and 2085 estimates under low emissions (RCP2.6) and high emissions (RCP8.5) scenarios



[a] A suite of mathematical models was systematically developed, then applied and interpreted by a team of researchers at Umeå University (Sweden) to assess the potential for mosquito-borne disease outbreaks (e.g. dengue, chikungunya, Zika and malaria) in terms of climate-dependent VC. The baseline year is 2015, Climatic Research Unit CRU-TSv4.01. Future projections are represented for two emissions futures (Representative Concentration Pathways: RCP2.6, RCP8.5), five climate change projections (Global Climate Models: gfdlesm2m, hadgem2-es, ipsl-cm5a-lr, miroc-esm-chem, noresm1-m). (2018) Umeå University, Sweden.

[b] Given the climate dependence of transmission cycles of many vector-borne diseases, seasonality of epidemic risk is common; however, many SIDS, due to tropical latitudes, tend to have less seasonality than more temperate areas.

[c] The actual occurrences/severity of epidemics would be quite different for each disease in each setting and could depend greatly on vector- and host-related transmission dynamics, prevention, surveillance and response capacities that are not captured in this model.

Noncommunicable diseases, food and nutrition security

Small island developing States (SIDS) face distinct challenges that render them particularly vulnerable to the impacts of climate change on food and nutrition security including: small, and widely dispersed, land masses and population; large rural populations; fragile natural environments and lack of arable land; high vulnerability to climate change, external economic shocks, and natural disasters; high dependence on food imports; dependence on a limited number of economic sectors; and 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 NCDs.

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 over-burdened health systems, and this risk is distributed unevenly, with some population groups experiencing greater vulnerability.

NONCOMMUNICABLE DISEASES IN JAMAICA

66.9
Healthy life expectancy
(2016) *(23)*

8.9%

Adult population considered **undernourished** (2015–2017, 3-year average) *(24)*

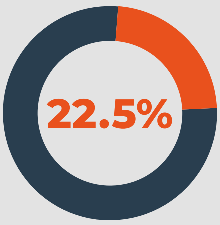
24.4%

Adult population considered **obese** (2016) *(25)*

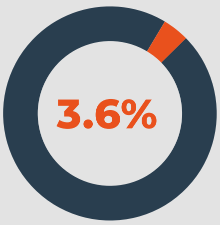
11.9%

Prevalence of **diabetes** in the total population (2014) *(26)*

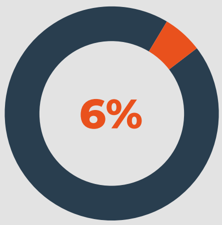
MOTHER AND CHILD HEALTH



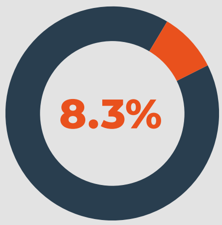
Iron deficiency anaemia in women of reproductive age (2016) *(27)*



Wasting in children under five years of age (2014) *(28)*



Stunting in children under five years of age (2014) *(28)*



Overweight in children under five years of age (2014) *(28)*

HEALTH VULNERABILITY AND ADAPTIVE CAPACITY

SDG indicators related to health and climate change

Many of the public health gains that have been made in recent decades are at risk due to the direct and indirect impacts of climate variability and climate change. Achieving Sustainable Development Goals (SDGs) across sectors can strengthen health resilience to climate change.

1. NO POVERTY

Proportion of population living below the national poverty line (2012) *(29)*

19.9%

3. GOOD HEALTH AND WELL-BEING

65

Universal Health Coverage Service Coverage Index (2017)[a] *(30)*

6.1%

Current health expenditure as percentage of gross domestic product (GDP) (2016) *(31)*

15.2

Under-five mortality rate (per 1000 live births) (2017) *(32)*

6. CLEAN WATER AND SANITATION

Proportion of total population using **at least basic drinking-water services** (2017)[b] *(33)*

91%

Proportion of total population using **at least basic sanitation services** (2017)[b] *(33)*

87%

13. CLIMATE ACTION

Total number of weather-related disasters recorded between 2000 and 2018[c] *(34)*

20

Highest total number of persons affected by a single weather-related disaster between 2000 and 2018[c] *(34)*

350 210

[a] The index is based on medium 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 'at least basic services' has been given for comparability.

[c] Data for SDG13.1 are currently not available. Alternative indicators and data sources are presented.

Health workforce

Public health and health care professionals require training and capacity building to have the knowledge and tools necessary to build climate-resilient health systems. This includes an understanding of climate risks to individuals, communities and health care facilities and approaches to protect and promote health given the current and projected impacts of climate change.

HUMAN RESOURCE CAPACITY (2018)

60%

International Health Regulations (IHR) Monitoring Framework Human Resources Core Capacity ***(35)***

No

"Does your human resource capacity as measured through the IHR adequately consider the human resource requirements to respond to climate-related events?" ***(36)***

No*

"Is there a national curriculum developed to train health personnel on the health impacts of climate change?" ***(36)***

HEALTH WORKFORCE (PER 10 000 POPULATION, 2017) ***(37)***

13.2
Medical doctors

11.4
Nurses and midwives

N/A
Environmental and occupational health and hygiene professionals

While there are no specific WHO recommendations on national health workforce densities, the 'Workload Indicators of Staffing Need' (WISN) is a human resource management tool that can be used to provide insights into staffing needs and decision-making. Additionally, the National Health Workforce Accounts (NHWA) is a system by which countries can progressively improve the availability, quality and use of health workforce data through monitoring of a set of indicators to support achievement of universal health coverage (UHC), SDGs and other health objectives. The purpose of the NHWA is to facilitate the standardization and interoperability of health workforce information. More details about these two resources can be found at: https://www.who.int/activities/improving-health-workforce-data-and-evidence.

Health care facilities

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

330
Health centres**

24
Hospitals**

148
Assessed SMART health facilities[a]

3
Facilities to be retrofitted as SMART within the PAHO/FCDO Smart Health Care Facilities Project[a]

* Introductory content included as topic or module in some courses in Masters in Public Health

** Total hospitals as recorded by the Policy and Planning Division *(38)*

[a] See SMART Hospitals Toolkit – Health care facilities are smart when they link their structural and operational safety with green interventions, at a reasonable cost-to-benefit ratio. https://www.paho.org/disasters/index.php?option=com_content&view=article&id=1742:smart-hospitals-toolkit&Itemid=1248&lang=en

HEALTH SECTOR RESPONSE: MEASURING PROGRESS

The following section measures progress in the health sector in responding to climate threats based on country reported data collected in the 2018 WHO Climate and Health Country Survey *(36)*. Key indicators are aligned with those identified in the Small Island Developing State Action Plan.

Empowerment: Progress in leadership and governance

National planning for health and climate change

Has a national health and climate change strategy or plan been developed?[a]	UNDER DEVELOPMENT
Title: N/A Year: N/A	
Content and implementation	
Are health adaptation priorities identified in the strategy/plan?	N/A
Are the health co-benefits of mitigation action considered in the strategy/plan?	N/A
Performance indicators are specified	N/A
Level of implementation of the strategy/plan	N/A
Current health budget covers the cost of implementing the strategy/plan	N/A

✔=yes, ✘=no, O=unknown, N/A=not applicable

[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 (H-NAPs).

Intersectoral collaboration to address climate change

Is there an agreement in place between the ministry of health and this sector which defines specific roles and responsibilities in relation to links between health and climate change policy?

Sector[a]	Agreement in place
Transportation	✘
Electricity generation	✘
Household energy	✘
Agriculture	✘
Social services	✘
Water, sanitation and wastewater management	✘

✔=yes, ✘=no, O=unknown, N/A=not applicable

[a] Specific roles and responsibilities between the national health authority and the sector indicated are defined in the agreement.

Evidence: Building the investment case

Vulnerability and adaptation assessments for health

Has an assessment of health vulnerability and impacts of climate change been conducted at the national level?	IN PROGRESS

Climate Investment Funds – PPCR: Improving Climate Data and Information Management Project – Component 2.3 – Preparation of a detailed Health Sector Vulnerability Assessment and a costed resilience-strengthening plan for climate proofing the nation's health facilities and operations. Preliminary findings informed Project for Adaptation Interventions currently being scoped.

Have the results of the assessment been used for policy prioritization or the allocation of human and financial resources to address the health risks of climate change?

	None	Minimal	Somewhat	Strong
Policy prioritization	N/A			
Human and financial resource allocation	N/A			

Level of influence of assessment results

Implementation: Preparedness for climate risks

Integrated risk monitoring and early warning

Climate-sensitive diseases and health outcomes	Monitoring system in place[a]	Monitoring system includes meteorological information[b]	Early warning and prevention strategies in place to reach affected population
Thermal stress (e.g. heat waves)	✗	N/A	✗
Vector-borne diseases	✓	✗	✓
Foodborne diseases	✓	✗	✓
Waterborne diseases	✓	✗	✓
Nutrition (e.g. malnutrition associated with extreme climatic events)	✓	✗	✓
Injuries (e.g. physical injuries or drowning in extreme weather events)	✓	✗	✗
Mental health and well-being	✓	✗	✗
Airborne and respiratory diseases	✓	✗	✓

✓=yes, ✗=no, O=unknown, N/A=not applicable

[a] A positive response indicates that the monitoring system is in place, it will identify changing health risks or impacts AND it will trigger early action.

[b] Meteorological information refers to either short-term weather information, seasonal climate information OR long-term climate information.

Emergency preparedness

Climate hazard	Early warning system in place	Health sector response plan in place	Health sector response plan includes meteorological information
Heat waves	✗	✗	N/A
Storms (e.g. hurricanes, monsoons, typhoons)	✓	✓	✓
Flooding	✓	✓	✓
Drought	✓	✓	✓

✓=yes, ✗=no, O=unknown, N/A=not applicable

Resources: Facilitating access to climate and health finance

International climate finance

Are international funds to support climate change and health work currently being accessed?	✓

If yes, from which sources?

- [x] Green Climate Fund (GCF)[a]
- [ ] Global Environment Facility (GEF)
- [x] Other multilateral donors[b]
- [ ] Bilateral donors
- [x] Other: *Japan-Caribbean Climate Change Partnership*
  UK DFID – Smart Health Care Facilities in the Caribbean Project

[a] Jamaica Country Programme – Scale Up of Smart Project

[b] Climate Investment Funds – PPCR: Improving Climate Data and Information Management Project – Component 2.3 – Preparation of a detailed Health Sector Vulnerability Assessment and a costed resilience-strengthening plan for climate proofing the nation's health facilities and operations

Funding challenges

Greatest challenges faced in accessing international funds			
Lack of information on the opportunities	✓	Lack of country eligibility	
Lack of connection by health actors with climate change processes	✓	Lack of capacity to prepare country proposals	✓
Lack of success in submitted applications		None (no challenges/challenges were minimal)	
Other (please specify):		Not applicable	

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Most estimates and projections provided in this document have been derived using standard categories and methods to enhance their cross-national comparability. As a result, they should not be regarded as the nationally endorsed statistics of Member States which may have been derived using alternative methodologies. Published official national statistics, if presented, are cited and included in the reference list.

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