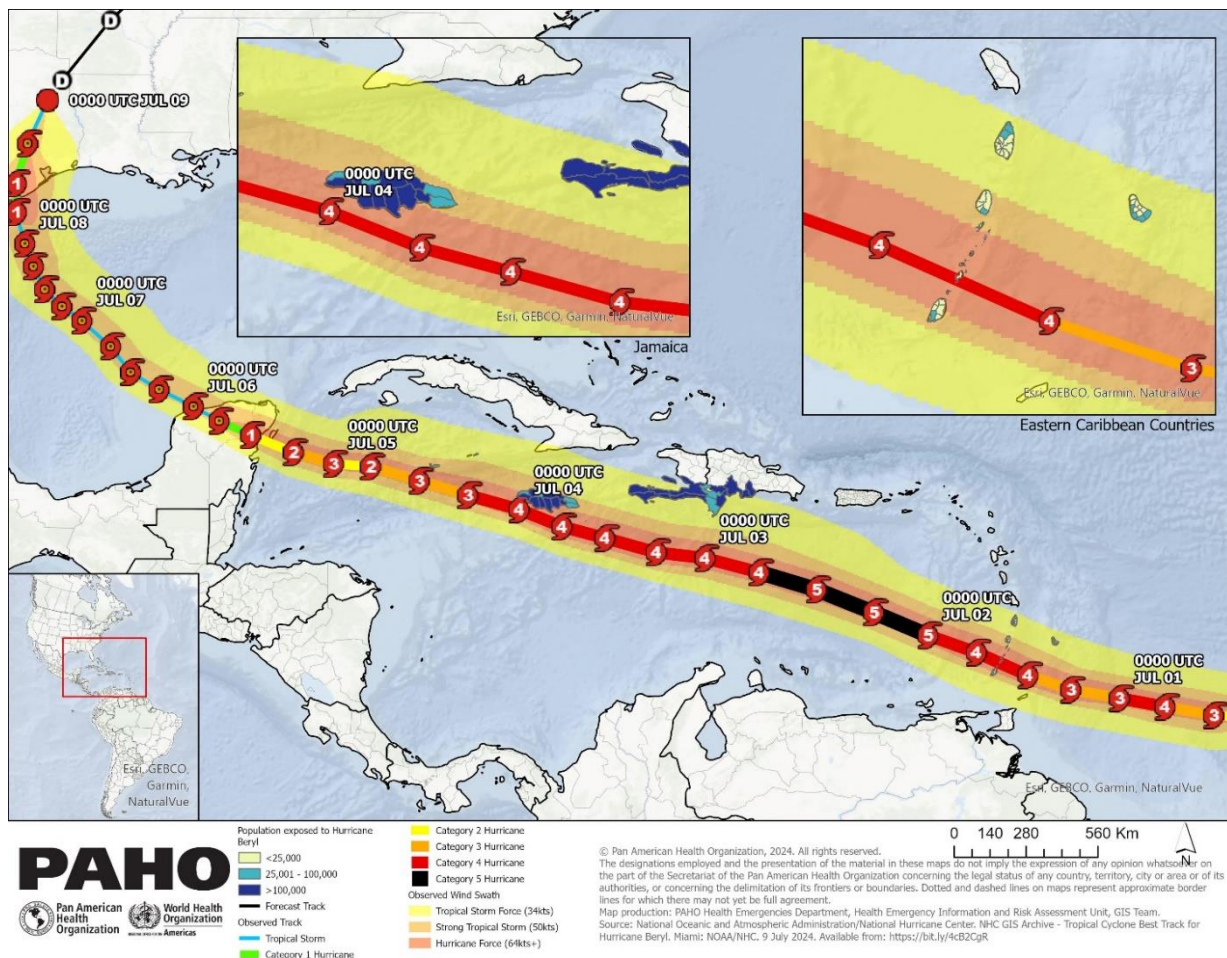


Regional Situation Report – Hurricane Season 2024

Hurricane Beryl

Sitrep No. 1, prepared on 11 July 2024

OVERVIEW



Hurricane Beryl, the first major hurricane of the 2024 season formed on 28 June in the Atlantic Ocean set records as the earliest Category 5 storm recorded in the North Atlantic Ocean (1). Over the past week, Beryl made landfall in Grenada, St Vincent and the Grenadines, and Jamaica as a high-end Category 4 storm, packing sustained winds of over 150 mph (240 km/h) and causing extensive damage to infrastructure, services, and livelihoods (3). More than 3 million people were potentially exposed to the storm in the three countries including 14 deaths, 90 injuries, and close to 3000 people displaced to shelters at the height of the storm (2,10). Initial assessments are ongoing, and precise figures are still being determined (2).

SITUATION SUMMARY

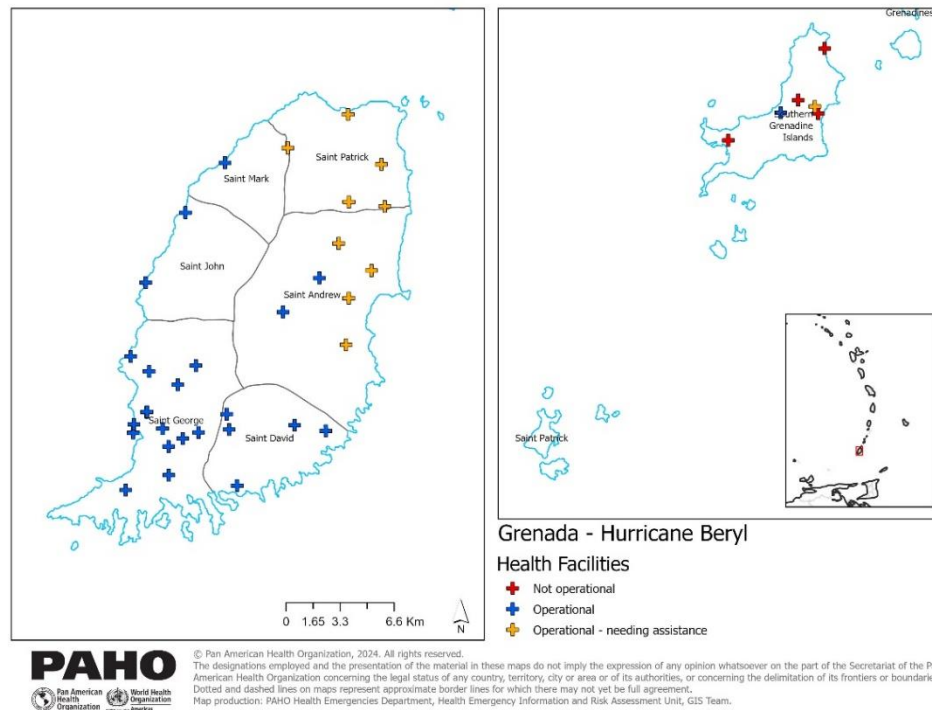
Grenada

Affected areas: The islands of Carriacou and Petite Martinique, along with St. Patrick Parish in northern mainland Grenada, experienced significant impacts from the storm. According to preliminary information, approximately 98% of the infrastructure were destroyed in Carriacou and Petite Martinique (1), and all three places suffered power outages, complicating communication efforts (2). Reports indicate water interruptions in the affected areas as well, but details are still pending confirmation (2). A state of emergency was declared for all three parishes from 1 July – 30 September 2024. While the airport terminal in Carriacou is currently destroyed, both the airstrip and seaport are operational, allowing movement of relief goods (3).

Affected population: A total of 478 people remain in 15 active shelters (five official and ten pop-up) in Carriacou and Petite Martinique as of 8 July 2024. To date, three deaths related to the hurricane were reported in Grenada – two in Carriacou and one on mainland Grenada (2).

Health systems impact: Of the 41 health centers with available preliminary assessment, 26 (63.41%) are operational, 11(26.83%) are operational with damage to electricity and/or running water, and 4 (9.76%) are still not operational (**Map 1**) (2).

Map 1: Health facilities by parish and status. Grenada. 8 July 2024.



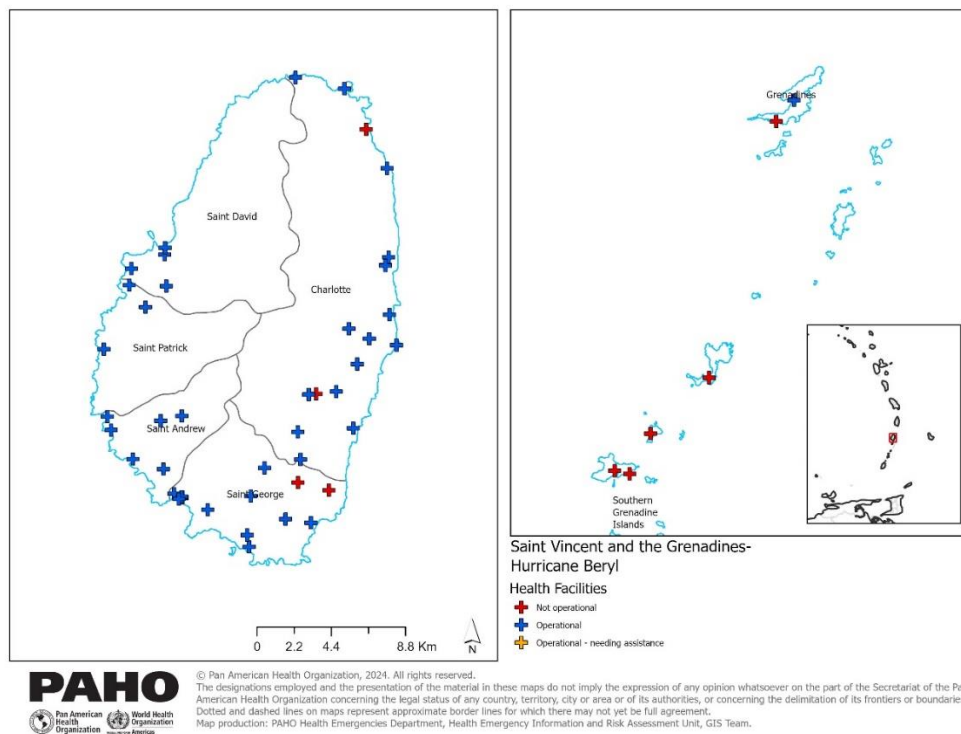
Source: Data from Grenada Ministry of Health, Wellness and Religious Affairs. Health facilities coordinates report as of 10 July 2024. St. George's: MoH; 2024. Unpublished.

Saint Vincent and the Grenadines

Affected areas: Extensive damage has been reported in the Grenadines and residents across these islands are facing significant challenges in housing and access to essential services. Union Island experienced near-total devastation, with 98% of housing destroyed, including the airport terminal, the power station, and no functioning sanitation facilities or adequate water access (1). While the full extent of damage in Mayreau and Canouan remains unknown due to telecommunication issues, similarly severe damage is expected (3).

Affected population: Approximately 700 people have been evacuated from the Union Island to mainland (St. Vincent). As of 8 July, 759 people remained in 35 shelters in St. Vincent. Additionally, 372 people remained in 11 shelters in the Grenadines: Bequia (one shelter with 53 people), Canouan (three shelters with 74 people), and Union Island (seven shelters with 245 people) (5, 6).

Map 2: Health facilities by parish and status. Saint Vincent and the Grenadines. 8 July 2024.



Source: Data from Saint Vincent and the Grenadines Ministry of Health Wellness and the Environment. Health facilities coordinates report as of 10 July 2024. Kingstown: MoH; 2024. Unpublished.

Health systems Impact: Preliminary assessment is available for 49 health facilities of which 38 (78%) are operational, however most of them suffer some form of damage that require immediate attention/repair as roof damage, roof leak, no power, issues with water and electricity, damage to doors and windows. All Health facilities in the Southern Grenadines (Canouan Clinic, Mayreau Clinic, Ashton Clinic, Clifton Smart Hospital and Clinic) are currently closed due to damage or providing very limited services from comprised facilities (**Map 2**) (3, 7).

Jamaica

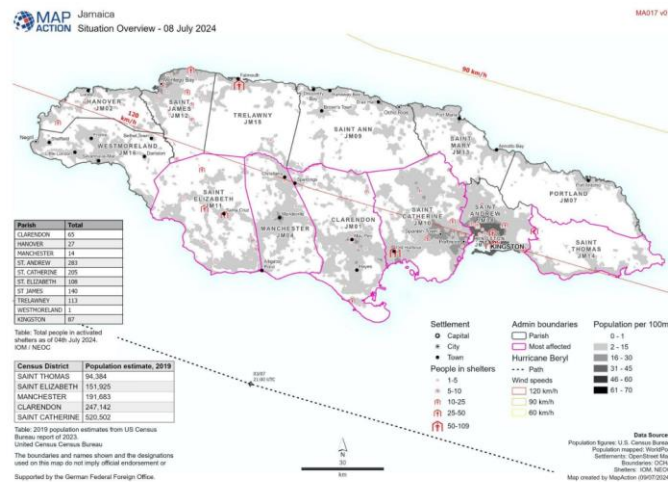
Affected areas: Hurricane Beryl nearly made landfall in Jamaica at 5:00 PM on 3 July 2024, with the Prime Minister issuing the Disaster Risk Management (Enforcement Measures) Order 2024 on 3 July which declared Jamaica a disaster area, and remained in effect for seven days (8). There has been widespread flooding reported in coastal areas (9), with particular damage reported in the southern coastal areas (8). As of 6 July, approximately 60% of local electricity company customers were without electricity; 70% of National Water Commission customers were without piped water mainly in Southern and North-East parishes, and one company reported that over 50% of their cellular sites were off the air (10).

Affected population: As of 6 July 2024, a total of 2.8 million persons have been potentially exposed, with three reported deaths along with 60 injured persons that are under investigation; no persons were missing and none have been evacuated (10). A total of 275 shelters were activated with over 1,800 people in 156 shelters (Map 3) (8). As of 5 July 2024, 42 shelters remained open, 27 (65%) of which were in the Southern Region (Clarendon, Manchester and St. Elizabeth parishes), with a total occupancy of 448 (10).

Health systems Impact: On 5 July 2024, according to the Jamaica Ministry of Health and Wellness (MoHW), 84 reports of major damage had been reported amongst health facilities, with the most damage occurring to those in St. Elizabeth Parish, but with damage to health facilities reported across the health regions. The preliminary estimate for repairs of all health facility damage is JMD 1.9B (USD 1.2M) (11).

As of 5 July 2024, a total of 14 of the island's 24 hospitals were fully operational, while the remaining 10 were expected to resume full services by 8 July; the Southern Regional Health Authority hospitals in St. Elizabeth, Manchester, and Clarendon remained in emergency mode. Seven of the 24 hospitals were receiving electricity from the national grid. Across the Southern Region as of 5 July, at least 40 health centers were operational in St. Elizabeth (n= 15), Manchester (n= 19), and Clarendon (n= 6) (11). <https://www.moh.gov.jm/location-of-hospitals-and-health-centres/>

Map 3. Total persons in activated shelters, by parish, as of 4 July 2024. Jamaica. 8 July 2024.



Source: United Nations Country Team (UNCT) Jamaica. Hurricane Beryl: Jamaica. Situation Report No.1, as of 9 July 2024. Kingston: UNCT Jamaica; 2024. Available from: <https://reliefweb.int/report/jamaica/hurricane-beryl-jamaica-situation-report-no-1-9-july-2024>

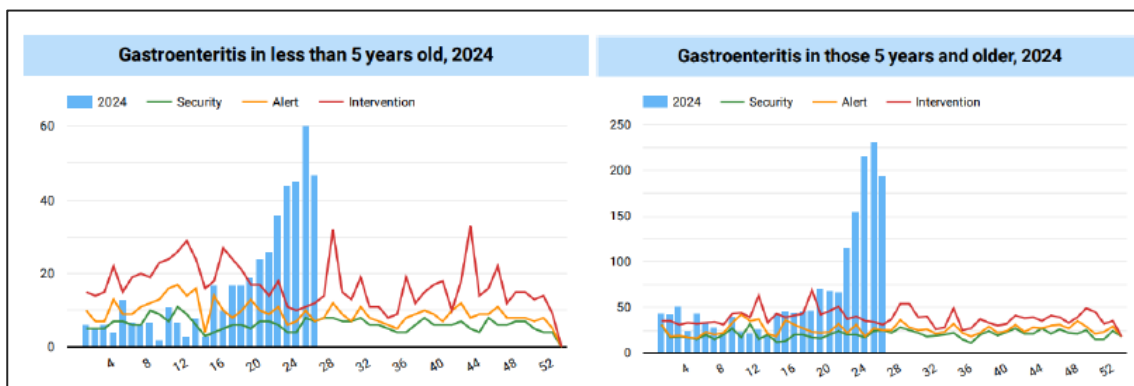
SURVEILLANCE

Surveillance continues to be an area of concern with no information available on the situation in shelters in most affected areas. According to anecdotal information from first responders in the field, there are reported increases in respiratory illnesses and dengue cases in all three countries after the hurricane, but surveillance data is currently not available (2). According to available information, there have been no reports of illnesses or outbreaks in any of the shelters in Jamaica, and a surveillance system is in place (16).

Grenada

According to available syndromic surveillance data up to epidemiological week (EW) 26 of 2024 (right before the hurricane), Grenada has been experiencing an increase in gastroenteritis cases since EW 22 for all age groups (Figure 1) (2). Similarly, dengue fever cases have also been increasing since EW 22.

Figure 1: Distribution of Gastroenteritis cases by age group and epidemiological week (EW), Grenada, EW1 – EW 26, 2024



Source: Pan American Health Organization. Hurricane Beryl: Grenada and Saint Vincent and the Grenadines, Situation Report No. 7, 8 July 2024. Bridgetown: PAHO; 2024. Available from: <https://www.paho.org/en/documents/situation-report-7-hurricane-beryl-grenada-and-st-vincent-and-grenadines-8-july-2024>.

Saint Vincent and the Grenadines

Syndromic surveillance data up to the week Hurricane Beryl passed through does not indicate any increasing trends, except for a potential rise in gastroenteritis cases among individuals aged five and older. Between EW 1 and EW 26 of 2024, a total of 1,041 cases were reported. For the same period, 536 cases were reported in 2023, and 198 cases in 2022 (2).

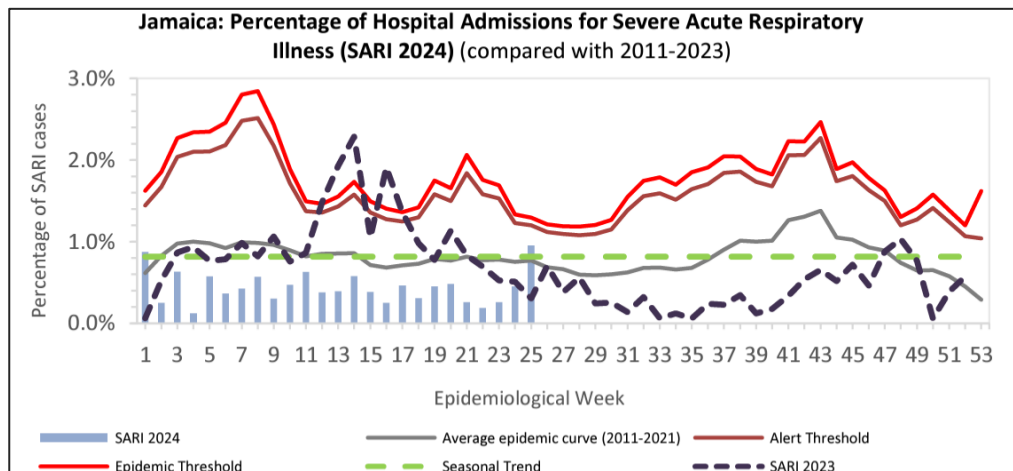
Furthermore, 23 cases of dengue were reported between January and June 2024, compared to just 15 cases throughout the entire year of 2023 (15).

Jamaica

As of EW 25 of 2024 (week ending 22 June), there was an increase in the percentage of hospital admissions due to severe acute respiratory illness (SARI), surpassing the seasonal trends, average epidemic curve (2011-2021), and 2023 data (Figure 2) (12).

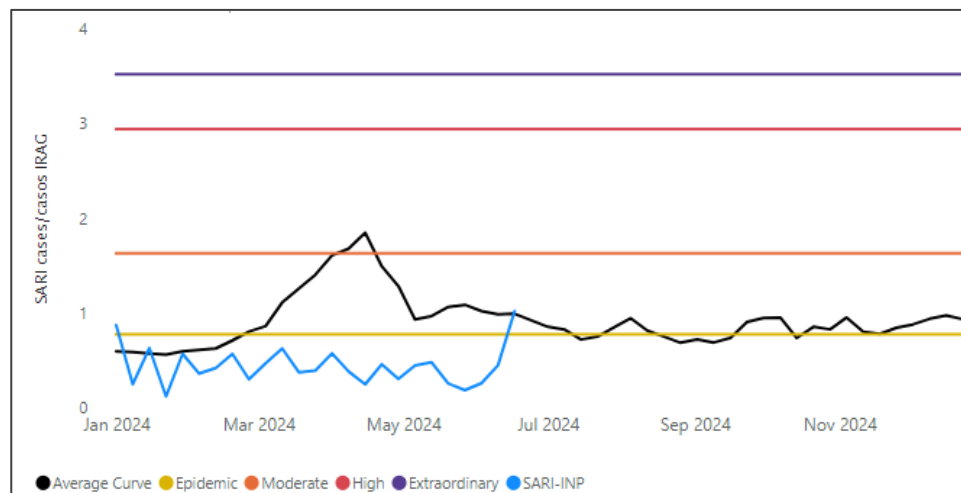
As of EW 26 of 2024 (week ending 29 June), there was also an observed increase in the number of SARI cases as well as pneumonia cases, both surpassing average curve and epidemic thresholds and with pneumonia cases surpassing moderate thresholds as well (Figure 3 and Figure 4) (13).

Figure 2. Percentage of hospital admissions for severe acute respiratory illness (SARI) in 2024 compared with 2011-2023 by epidemiological week (EW). As of EW 25 of 2024.



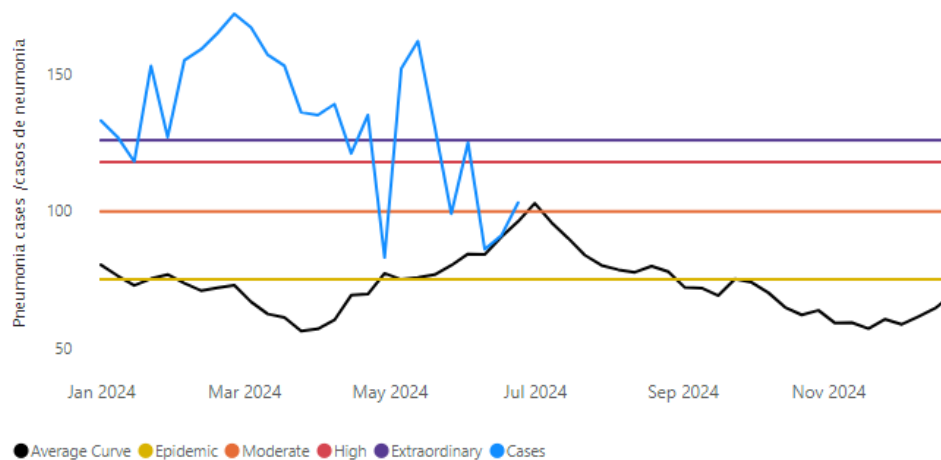
Source: Jamaica Ministry of Health and Wellness. National Surveillance Unit. Weekly Epidemiology Bulletin – Epidemiological Week 25, week ending 22 June 2024. Kingston: Jamaica MoH; 2024. Available from: <https://www.moh.gov.jm/wp-content/uploads/2024/07/Weekly-Bulletin-EW-25-2024.pdf>.

Figure 3. Number of severe acute respiratory illness (SARI) cases by epidemiological week (EW). Jamaica. As of EW 26 of 2024.



Source: Pan American Health Organization. Respiratory Viruses Weekly Report—Epidemiological Week 26 of 2024, data as of 5 July 2024. Washington, D.C.: PAHO; 2024 [cited 10 July 2024]. Available from: <https://www.paho.org/en/influenza-situation-report>.

Figure 4. Number of pneumonia cases by epidemiological week (EW). Jamaica. As of EW 26 of 2024.



Source: Pan American Health Organization. Respiratory Viruses Weekly Report—Epidemiological Week 26 of 2024, data as of 5 July 2024. Washington, D.C.: PAHO; 2024 [cited 10 July 2024]. Available from: <https://www.paho.org/en/influenza-situation-report>.

HEALTH RISK COMMUNICATION

The aftermath of Hurricane Beryl presents severe health risks across Grenada, Saint Vincent and the Grenadines, and Jamaica. The extensive damage to health facilities and other key medical centers significantly limits access to medical care. The destruction of homes and infrastructure has left many without proper shelter, exposing them to environmental extremes. Crowded and unsanitary living conditions increase the risk of respiratory infections, while exposure to mosquitoes from inadequate shelters increases the risk of vector-borne diseases such as dengue.

Additionally, the lack of potable water and proper sanitation facilities raises the risk of gastroenteritis outbreaks, while stagnant water and debris create ideal conditions for the proliferation of rodents, increasing the risk of leptospirosis. Unofficial reports from the affected regions suggest a rise in respiratory infections, dengue cases, and gastroenteritis, indicating heightened health risks.

In response, the Jamaica Ministry of Health and Wellness has published press releases to increase public awareness of post-hurricane health risks particularly due to infectious diseases, including leptospirosis, and foodborne, waterborne, and mosquito-borne diseases including dengue, and is monitoring the situation; mosquito fogging in the parishes is also underway (14). In St. Vincent and the Grenadines, the Ministry of Health, Wellness and the Environment has commenced dissemination of public health messages in the areas of safe hygiene practices, food safety post hurricane, mental health coping mechanisms, safe water consumption, gender-based violence and sexual and reproductive health (2).

PRIORITY NEEDS (2, 3, 8, 10, 16)

	Needs	Jamaica	Grenada	St. Vincent & the Grenadines
Shelter	<ul style="list-style-type: none"> • Temporary housing solutions • Tarpaulins and roofing materials • Essential household items 	<ul style="list-style-type: none"> • South-central Jamaica hardest hit 	<ul style="list-style-type: none"> • 95% of homes in Carriacou and Petit Martinique damaged 	<ul style="list-style-type: none"> • Significant damage in Mayreau, Union Island, and Bequia
WASH	<ul style="list-style-type: none"> • Drinking water • Water purification systems • Rehabilitation of toilets. 	<ul style="list-style-type: none"> • 70% of National Water Commission customers without water. 	<ul style="list-style-type: none"> • Severe disruption in Carriacou, Petite Martinique • 52 % of the country's water systems operational 	<ul style="list-style-type: none"> • No running water and toilet facilities are non-functional on Union Island • Unconfirmed reports of water disruptions in other areas
Health	<ul style="list-style-type: none"> • Complete damage assessment • Repair damaged health facilities • Restoration healthcare services • Replenish critical medicines, medical supplies, and other health commodities • Generators and radios for some health facilities • Ensure surveillance systems are in place, especially in the shelters • Safe shelter, food, and water rations for health care workers 	<ul style="list-style-type: none"> • Majority of health facilities are operational, with those in the Southern Region offering mainly partial services • 38% of all health facilities have suffered damage • 82 health facilities have suffered major damage • 64 facilities have roof damage 	<ul style="list-style-type: none"> • 4 of 6 health facilities in Carriacou were significantly damaged and remain closed 	<ul style="list-style-type: none"> • All Health facilities in the Southern Grenadines (n= 5) currently closed • 78% of 49 facilities assessed operational but all with some damage • Vaccine cold chain compromised in the Grenadines

PAHO/WHO RESPONSE (2, 3, 8, 10)

	Management & Coordination	Logistics and supplies
Grenada	<ul style="list-style-type: none"> • Coordination with the Ministry of Health to support the emergency management 	<ul style="list-style-type: none"> • Mobilized and delivered vital supplies, including water testing kits, purification tablets, jerrycans, generators, and cleaning supplies to health facilities on 8 July.
St. Vincent & the Grenadines	<ul style="list-style-type: none"> • Established Incident Management Team (IMST) for response coordination with the country and partners. • Deployed WASH expert with the Rapid Needs Assessment Team (RNAT) • PAHO Regional Response Team (RRT) members deploying for health facility and services assessment 	<ul style="list-style-type: none"> • Mobilized and delivered vital supplies, including water testing kits, purification tablets, jerrycans, generators, and cleaning supplies to health facilities on 7 July. • Procured chemicals, cleaning materials, chlorine for water disinfection, and water pumps locally. • Procured essential health emergency supplies for the Ministry of Health
Jamaica	<ul style="list-style-type: none"> • Activated the PAHO Jamaica Country Office Incident Management System • Provided technical guidance to the Ministry of Health and Wellness including for the Health Promotion and Communication Plan for Dengue. • Team designated to prepare the health aspect of proposal for the CERF, with US\$2.5 million allocated to Jamaica. 	<ul style="list-style-type: none"> • Procured essential health emergency supplies for the Ministry of Health
Overall	<ul style="list-style-type: none"> • Activated the PAHO Eastern Caribbean Countries (ECC) Crisis Management Team to coordinate the emergency response. • Held the first Health Sector Coordination Meeting with UN agencies, regional partners, and donors • Supported Regional Overview and Rapid Appeals for Saint Vincent and the Grenadines, Grenada, and Jamaica. • Maintained close coordination with Caribbean Disaster Emergency Management Agency (CDEMA), International Organization for Migration (IOM), and other regional and UN agencies. 	

GAPS AND CHALLENGES

Grenada and Saint Vincent & the Grenadines

- Emergency shelters are dealing with security and access problems, including risks of gender-based violence due to insufficient secure storage and locks. There is a pressing need to raise awareness about the risk of gender-based violence and to provide training for relevant stakeholders. (3).
- In the Grenadines, the vaccine cold chain is compromised, threatening vaccine services for all ages (2).
- Limited connectivity, difficulties in deploying public health personnel, and delays in activating shelter surveillance mechanisms (3).
- Healthcare workers, who are on the front lines, were also significantly affected, which in turn impacts their ability to support healthcare delivery, including surveillance efforts. (2).

Jamaica

- Humanitarian access is severely hindered by flooding, debris from fallen trees, landslides, and infrastructural damage. Reaching remote and rural areas is especially difficult due to blocked roads, delaying aid and restoration efforts (8).
- The disruption of utility services, including electricity, water, and communications, has severely hampered health service delivery, affecting approximately 60% of power customers, 70% of water customers, and hundreds of thousands of mobile and internet users (10).

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