



## Situation Overview



- La Soufrière volcano Saint Vincent and the Grenadines (VCT) active since [December 29, 2020](#). Started with effusive eruption activity, formation of a volcanic dome, changes to crater lake and seismic activity.
- Activity increased since [April 8, 2021](#) 3:00 am. Prime Minister, VCT gave the order to evacuate the red zone on April 8, 2021 at 4:00 pm and declared the red alert. Explosive eruptions commenced at 8:42 am on April 9, 2021.
- On [April 11, 2021](#) at 1:00 am another eruption occurred, followed by a power outage in the NE part of the Island. Power was restored at 6:00 am in Green zone.
- On [April 12, 2021](#), NEMO reported that at approximately 4:15 am, the dome had collapsed, and pyroclastic flow occurred along the valleys on the eastern and western coasts.
- Other explosive event occurred at 6:30 am and 8:00 pm on [April 13, 2021](#), also at 6:16 am on April 16, 2021.
- The swarm of long-period and hybrid earthquakes continue but the rate of occurrence dropped significantly last night, April 16, 2021 around 8:00 pm and has remained near-constant since.
- Satellite images show that the new crater measures 900m x 750m and estimated to be 100m deep. New crater has several vents but only one is clearly identified.
- Another eruption occurred on April 18, 2021 at 4:49 pm. Ash clouds were moving towards the south and west of the island.
- The volcano alert level remains **RED**

### HIGHLIGHTS

Estimated # of affected persons/evacuees	16,000-20,000
# of villages evacuated	30
# of public shelters	88
# persons in public shelters	4,243
# displaced families	986
# displaced persons in private shelters	4,209
# Missing persons	0
# Injured persons	0
# Deaths	0
# medevacs	0
# evacuated health facilities (2 hospitals, all others clinics)	18
# COVID-19 isolation centres	1
Capacity (beds) on main island <sup>1</sup> , at least	200
Capacity (beds) in the Grenadines <sup>2</sup> , at least	21
# Active COVID-19 cases	131
Total vaccines administered 14 April 2021	250
Teams of four nurses visit the shelters daily to administer COVID-19 vaccinations and tests; as well as carry out syndromic surveillance (Coughs, Fevers and Diarrhoea); none of these three symptoms were reported.	

1 & 2 Total capacity of beds, not # of available beds based on occupancy

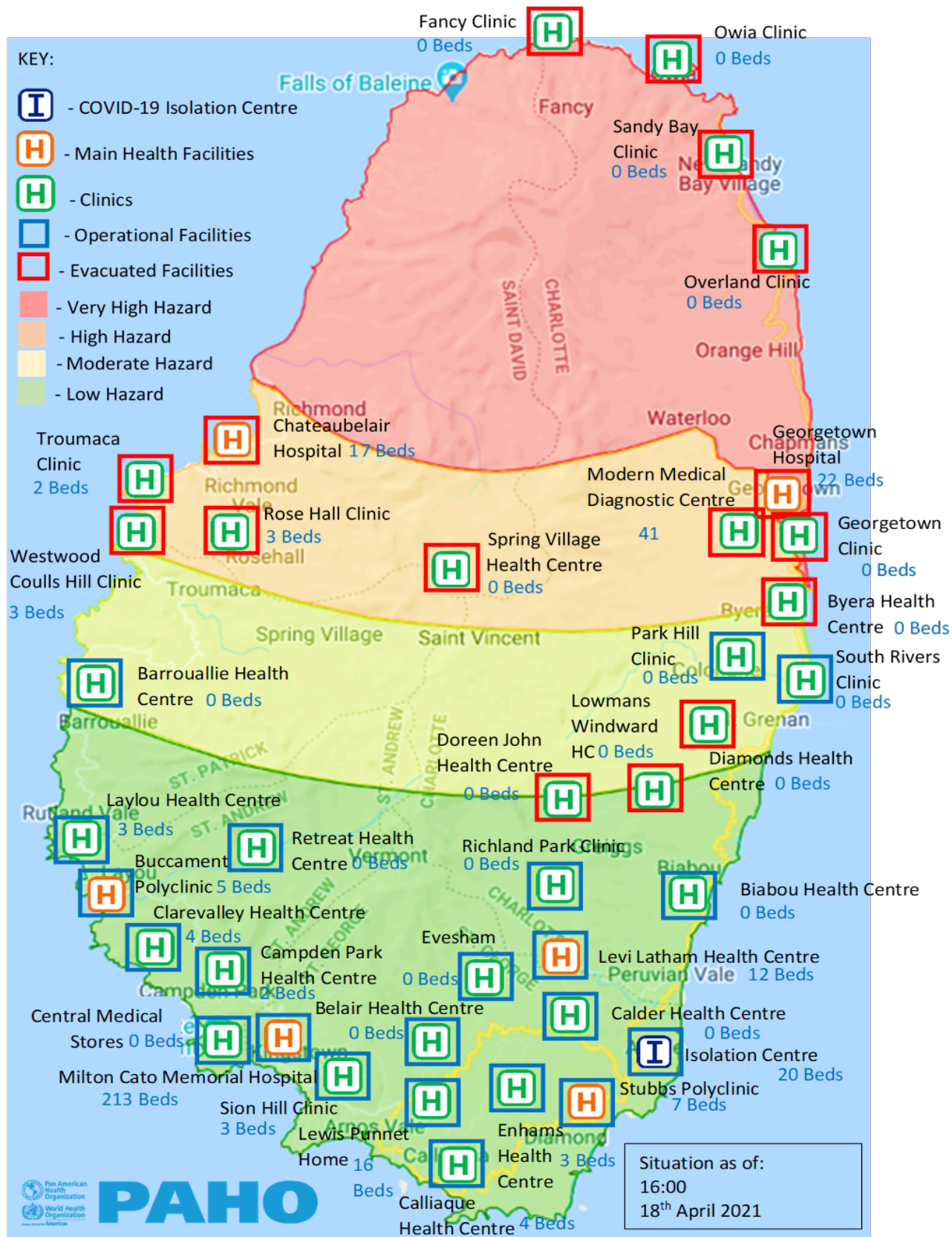
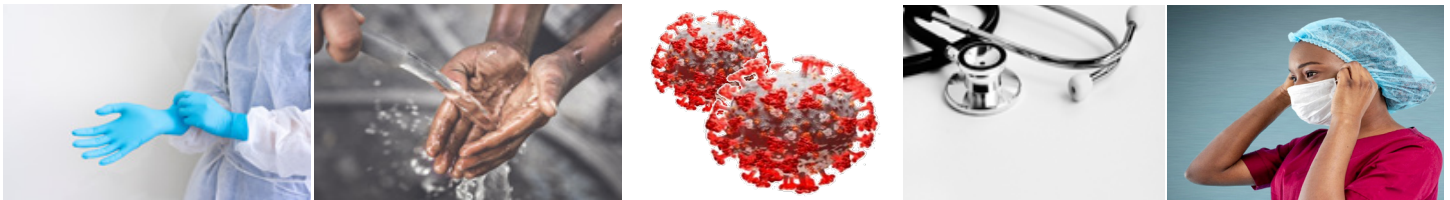


Figure 1. Map showing location of Health Care Facilities

## General Challenges

- Persons to be evacuated from the red zone.
- Persons re-entering the red zone to check on livestock and property.
- Explosive eruption/gas/ashes/tremors hampering ongoing evacuations (to the south of VCT but also to neighboring member states) and humanitarian efforts
- Extensive damage/disruption to infrastructure; facilities and services (including airport closure)
- Extensive damage to assets and livelihoods (fisheries, livestock and agriculture)
- Limited/temporary accommodation available to host evacuees
- Airport VCT and Barbados remain closed until 4:00 pm on Monday April 19, 2021.

## Health related challenges



- Limited capability for dialysis (2 beds) and oncology services (Georgetown Health Care facilities evacuated).
- Reported increase in diseases of the respiratory system at the Accident and Emergency Department
- Insufficient storage capacity for supplies
- Heightened risk of COVID-19 transmissions in shelters and confined spaces. On average only 6-8 persons per shelter have been vaccinated on entry
- Inadequate, clean and safe water supply
- Water contamination could result in outbreak of water-borne illnesses
- Increased in illness related to respiratory symptoms, including risk of asthma, especially in children
- Increased risk of burns due to pyroclastic flows and people returning to the red zone to retrieve belongings. Treatment of burn patients. Possibility for medevac to Martinique.
- Infection prevention control (in shelters)
- Need for safe water and food in shelters
- Insufficient/inadequate WASH facilities at shelters to cope with the number of evacuees
- Need for Oxygen Cylinders and PPEs
- Need for public information in shelters and cleaning of the ash, see guidelines: <https://www.ivhnhn.org/>
- Access to health care services for evacuees in neighboring countries
- Potential increased risk of outbreak of dengue in the short to medium term due to uncovered water tanks and other water-holding containers which provide sources for mosquito breeding. The ashfall will result in initial suppression of mosquito populations, which may rebound at a later date if potential breeding sites are not eliminated.
- The authorities in VCT have granted permissions to farmers, based on requests, to re-enter the red zone to search for and tend to surviving livestock. Access is strictly controlled and monitored. Risk of volcanic eruption and pyroclastic flow.
- There are reports of animal carcasses, but there appears to be pockets of green, especially in the north of the volcano where some livestock survived.
- Ash impact on the regional neighboring Islands. Montserrat reports little ash and smell of sulfur from La Soufriere, VCT
- Government of Barbados has requested assistance on the ashfall damage and impact assessment

## Mental Health Situation

- The eruption of La Soufriere in Saint Vincent and the Grenadines and the current Covid pandemic, present complex challenges for individuals, families, communities and the entire population. These problems are likely to adversely affect the mental health and psychosocial wellbeing of the residents of St. Vincent and the Grenadines.
- Immediate initial needs identified include the importance of delivering psychosocial communication to combat stress and fear caused by the eruptions, displacement, and limited access to services.

## National Response

- Contact tracing was initiated on confirmation of 3 positive cases of COVID-19 in shelters and 3 police officers. All cases were linked to previously identified positive individuals.
- Random COVID-19 rapid antigen testing is being conducted at shelters; Personnel at the NEMO have also been tested. All tested negative.
- Displaced doctors and nurses from the red and yellow zones are being assigned to clinics
- Health authorities are looking at having more doctor clinics in order to increase access to health care for evacuees in both private homes and shelters
- Medical teams have been visiting shelters attending to persons with Communicable Diseases
- Nutrition officers along with doctors, nurses and shelter teams are attending to individuals with Non Communicable Diseases (NCDs) such as diabetes and hypertension, to ensure that nutrition and healthy diets are maintained<sup>1</sup>.

<sup>1</sup> CMO provides update on contact tracing of COVID-19 positive persons in Shelters - WE FM 99.9 | The Clean, Fresh Sound (999wefm.com)

## PAHO Priority Responses (when requested by MoH)

- Damage assessment of health facilities including assessing structural and functional integrity of facilities
- Conducting water quality assessments
- Strengthening of Health Emergency Operation Center, including support to establish alternative medical care sites
- Support to MoH for coordination of international health response
- Assisting with coordination of personnel for provision of mental health and psychosocial support
- Maintenance of essential health services, including in coordination with Primary Health Clinics
- Support with shelter management including assisting with set up in line with shelter management guidelines in context of COVID-19
- Infection prevention control through provision of PPEs and masks
- Provision of Health communication materials in shelters and healthcare facilities
- Support the coordination of Mental Health and Psychosocial Support (MHPSS) and provide guidance on protecting the wellbeing of front line workers and the vulnerable groups.
- Protect and promote mental wellbeing, improving stress management, particularly in shelters.
- Provide updated Health needs lists in coordination with MoH VCT
- Support CDEMA assessment team with Detailed Damage Sectoral Analysis (DDSA)
- Support potential deployment of EMTs including Barbados Defence Force. Provide container with 60,000 masks, 7,000 N95 and 60,000 gowns for BDF EMT.
- Support MoH with H-EOC, storage, medical supplies, medication (including NCD-kits) and logistics

## Health Facilities

Two facilities were visited by the PAHO representative working with the CDEMA (DDSAT). South Rivers and Park Hill Health Centers are operational but damage as a result of the volcanic eruptions has been reported. A list of Medical supplies needed was prepared by staff and given to the relevant authority.

Recommendations for operating health facilities:

- Enforcement of COVID-19 protocols.
- Track and replenish medical supplies
- Provide water for drinking, washing and flushing
- Provide PPEs, cleaning materials and cleaners
- Provide MHPSS

## Water, Sanitation and Hygiene (WASH) and Environmental Health

The team consisting of PAHO WASH Advisor and UNICEF WASH Consultant visited five shelters in the Barrouallie area, west coast, in the green zone and bordering yellow area.

Four nurses visit the shelters daily; no symptoms of communicable diseases detected through syndromic surveillance.

Overall impression and guidance:

### Water Supply

CWSA representative informed that Barrouallie has a high-pressure gravity fed water system, which is now operational. Because of this high pressure, even large water storage tanks on several tall buildings can be filled with water. Unfortunately, the high pressure in the water systems also results in many leaking pipes, connections and faucets. Pressure reducers are installed to avoid the risks of broken plumbing. The many leaks are probably the reason that some shelters have very low pressure.

CWSA will increase the chlorination of water where needed.

### Water Analysis

As part of the Building Back Better concept, The PAHO WASH Advisor recommends that the country receives support in establishing a well-equipped and staffed National Analytical Laboratory that serves both government and private sector entities.

NAME OF SHELTER	TOTAL # OF PERSONS	MALE	FEMALE
Lodge Village Government School	150	53	87
Kingstown Government School	88	TBC	TBC
The Latter Day Saint Church shelters	45	24	21
New Adelthy Secondary School	51	34	17
New Ground Primary School	56	31	25
Diamond Primary	34	22	12
Kingdom Life Ministries Church and School	17	9	7
Barrouallie Learning Resource Center	76	34	42
Barrouallie Technical Institute	38	24	24
Barrouallie Government School	70	45	25
Petershope Central Leeward Secondary School	114	67	47
<b>TOTAL</b>	<b>739</b>	<b>343</b>	<b>307</b>

## Recommendations for the Selection and Preparation of Shelters

- The presence of basic amenities to support displaced people during emergencies (water storage, piped supply, showers).
- For the selection process of the shelters to employ multidisciplinary groups looking at structural integrity for relevant hazards scenarios (hurricanes volcanic eruption, floods), as well as assessing functionality with regards to water supply, water storage, sanitation, kitchen facilities, drainage and dust control, ventilation, mosquito control, physical access, wheel chair access, privacy in sleeping areas, etc.
- Implementation of the SPHERE standards.

## WASH Shelter needs and recommendations

- Baby-care Items: hot water flasks for baby bottle, baby-formula
- Cleaning supplies (brooms, mops, toilet brushes, disinfectant etc.)
- Cooking utensils
- Food sanitary
- Garbage collection at least twice weekly
- Hand sanitizer
- Hygiene education
- Hygiene kits
- Large wheeled and covered garbage bins
- Masks
- Mattresses
- Mental Health Support
- Partitioning for privacy in sleeping area.
- Regular re-supply of bottled drinking water, pampers and wipes, sanitary and hygiene kits (incl towels), hand sanitizer, masks, cleaning supplies and hygiene education.
- Reinstating existing water supply infrastructure to allow normal water supply
- Removal of large commercial stove
- Two new showers set up
- Ventilators for sleeping area

## Vector Control

Although the mosquito population has significantly decreased (possibly connected to the amount of ash, however this is unconfirmed), a potential rebound can be expected and with an ongoing dengue outbreak, the implementation of mosquito control measures is necessary.

## Logistics



Currently working with NEMO, CDEMA and WFP on establishing logistics system (warehousing, tracking). The port is very busy with multiple containers and loads of supplies coming in, including water tanks, bottled water, hygiene items, etc.

## Information Management

1. PAHO [situation reports](#) and donor alert
2. The International Volcanic Health Hazard Network (IVHHN): [a protocol for ash collection](#), [IVHHN ash protection pamphlet](#), [leaflet](#)

## CONTACT INFORMATION

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# ANNEX

## Available Supplies PAHO

PAHO is currently reviewing the revised health needs list of the Ministry of Health dated 18 April. PAHO has the following items available:

ITEM	QUANTITY	ITEM	QUANTITY
Generator	1	Bladder tank 5m3 w/accessories, 6-point distrib.Ramp	2
Mosquito nets	100	Bladder tank 10m3 w/accessories, 6-point distrib. Ramp	1
Oral Hydration Salts (boxes)	3	Aquatabs 67 mg for 10 liters, box of 1,600 blister x 10 tablets	30
Aquatabs	40,000	Aquatabs 8.68 gr for 1,000 liters, bottle, x60 tablets	100
Aquatabs 8.68g	24,480	Aquatabs 33 mg for 5 liters, box of 10,000 tablets	15
Water testing kits	6	450 Gallon water tanks	10
Masks	100,000	Water pumps	10
Streamline High-Wall Split NC System, DC Inverter 9000 BTU, 2.6KW (Installed) (OM)	4	Respirator masks dual cartridge	200
Streamline High-Wall Split NC System, DC Inverter 24000 BTU, 7.0KW (Installed) (OM)	2		
3M Dual Cartridge Respirator (Medium) (C12)	14		
3M Pre-Filter for 51P71 & 52P71 Respirator (pack of 10)	177		
3M Half Face Mask W/O Cartridges (EA) (B24)	10		
3M Multiple Gas Cartridge (Multi-Acid Gas/Organic Vapour) For 6200 1/2 Mask - Pair (B30)	10		
3M Filter Retainer for 51P71, 52P71, 53P71(B20)	20		
Bladder tank 10m3, distrib ramp, repair kit, cover	1		
Surgical Mask	100,000		
Face Shield	5,000		
First responder's trauma backpacks	30		
Jerry cans	1,000		
O2 cylinders	50		