

# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Dengue and Severe Dengue

**Warning signs of severe dengue**  
**Watch out for the warning signs of severe dengue!**

Many people with dengue can be cared for at home with adequate rest and hydration. But **go straight to hospital if you live in a dengue-prone area and, a few days after first getting sick with fever, you experience:**

**A drop in body temperature (below 38°C/100°F)**

**Accompanied by any of the following:**

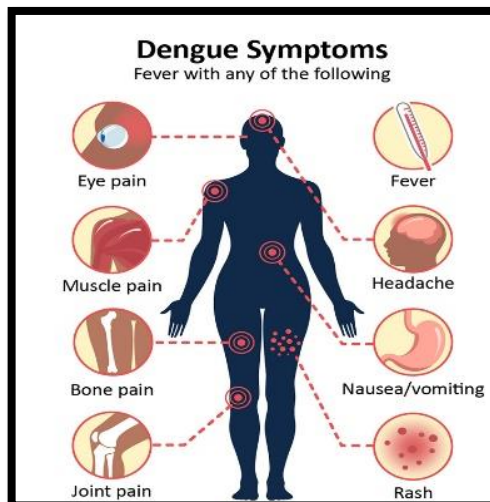
- Severe stomach pain
- Persistent vomiting
- Fast breathing
- Bleeding gums
- Fatigue
- Restlessness
- Blood in vomit
- Drowsiness

**Early and appropriate medical care saves lives!**

### Key facts

- Dengue is a viral infection transmitted to humans through the bite of infected mosquitoes. The primary vectors that transmit the disease are *Aedes aegypti* mosquitoes and, to a lesser extent, *Ae. albopictus*.

- The virus responsible for causing dengue, is called dengue virus (DENV). There are four DENV serotypes and it is possible to be infected four times.
- Severe dengue is a leading cause of serious illness and death in some Asian and Latin American countries. It requires management by medical professionals.
- There is no specific treatment for dengue/severe dengue. Early detection of disease progression associated with severe dengue, and access to proper medical care lowers fatality rates of severe dengue to below 1%.
- Dengue is found in tropical and sub-tropical climates worldwide, mostly in urban and semi-urban areas.
- The global incidence of dengue has grown dramatically with about half of the world's population now at risk. Although an estimated 100-400 million infections occur each year, over 80% are generally mild and asymptomatic.
- Dengue prevention and control depends on effective vector control measures. Sustained community involvement can improve vector control efforts substantially.
- While many DENV infections produce only mild illness, DENV can cause an acute flu-like illness. Occasionally this develops into a potentially lethal complication, called severe dengue.



## EPI WEEK 14



SYNDROMES

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CLASS 1 DISEASES

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RESEARCH PAPER

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SENTINEL SYNDROMIC SURVEILLANCE

Sentinel Surveillance in Jamaica



A syndromic surveillance system is good for early detection of and response to public health events.

Sentinel surveillance occurs when selected health facilities (sentinel sites) form a network that reports on certain health conditions on a regular basis, for example, weekly. Reporting is mandatory whether or not there are cases to report.

Jamaica's sentinel surveillance system concentrates on visits to sentinel sites for health events and syndromes of national importance which are reported weekly (see pages 2 -4). There are seventy-eight (78) reporting sentinel sites (hospitals and health centres) across Jamaica.

Table showcasing the Timeliness of Weekly Sentinel Surveillance Parish Reports for the Four Most Recent Epidemiological Weeks - 11 to 14 of 2022

Parish health departments submit reports weekly by 3 p.m. on Tuesdays. Reports submitted after 3 p.m. are considered late.

**KEY:**  
**Yellow** - late submission on Tuesday  
**Red** - late submission after Tuesday

Epi week	Kingston and Saint Andrew	Saint Thomas	Saint Catherine	Portland	Saint Mary	Saint Ann	Trelawny	Saint James	Hanover	Westmoreland	Saint Elizabeth	Manchester	Clarendon
2022													
11	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
12	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	Late (W)
13	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
14	On Time	On Time	On Time	On Time	On Time	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time	On Time

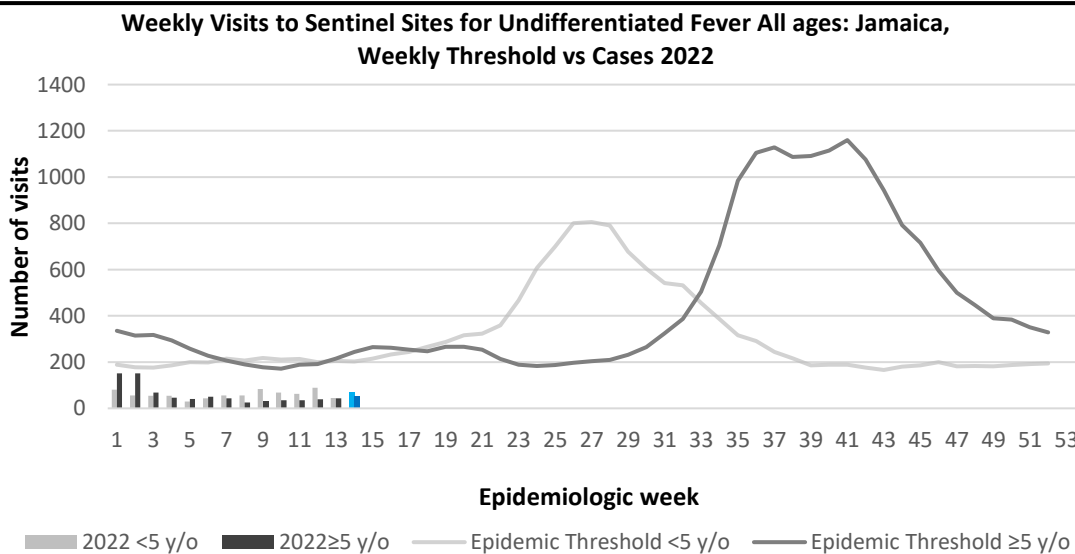
REPORTS FOR SYNDROMIC SURVEILLANCE

UUNDIFFERENTIATED FEVER

Temperature of >38°C /100.4°F (or recent history of fever) with or without an obvious diagnosis or focus of infection.



**KEY**  
 VARIATIONS OF BLUE SHOW CURRENT WEEK



**2 NOTIFICATIONS-** All clinical sites

**INVESTIGATION REPORTS-** Detailed Follow up for all Class One Events

**HOSPITAL ACTIVE SURVEILLANCE-** 30 sites. Actively pursued

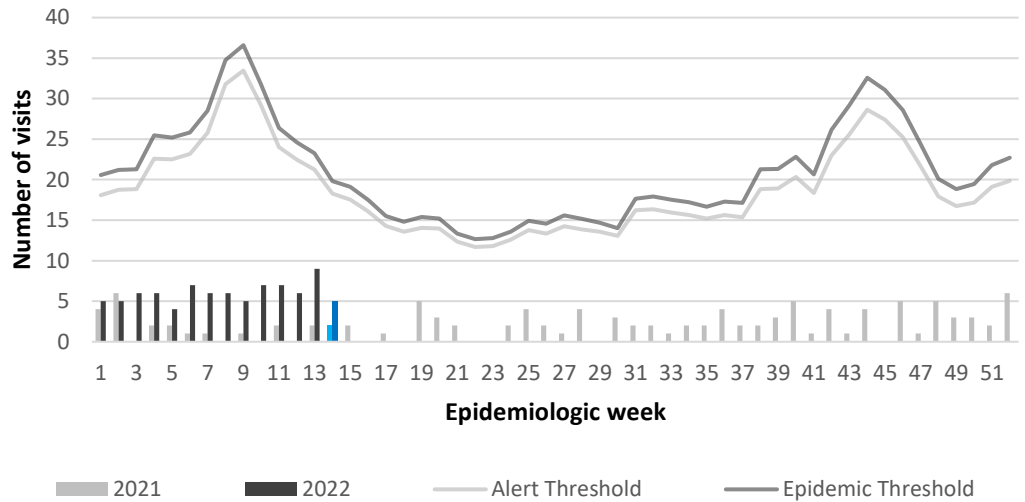
**SENTINEL REPORT-** 78 sites. Automatic reporting

**FEVER AND NEUROLOGICAL**

Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (or recent history of fever) in a previously healthy person with or without headache and vomiting. The person must also have meningeal irritation, convulsions, altered consciousness, altered sensory manifestations or paralysis (except AFP).



**Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2021 and 2022 vs. Weekly Threshold: Jamaica**

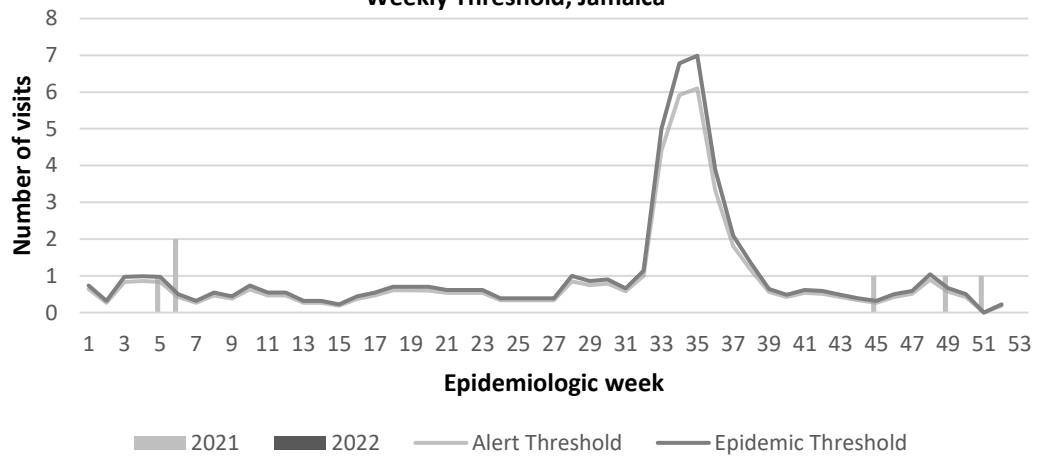


**FEVER AND HAEMORRHAGIC**

Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



**Weekly visits to Sentinel Sites for Fever and Haemorrhagic 2021 and 2022 vs Weekly Threshold; Jamaica**



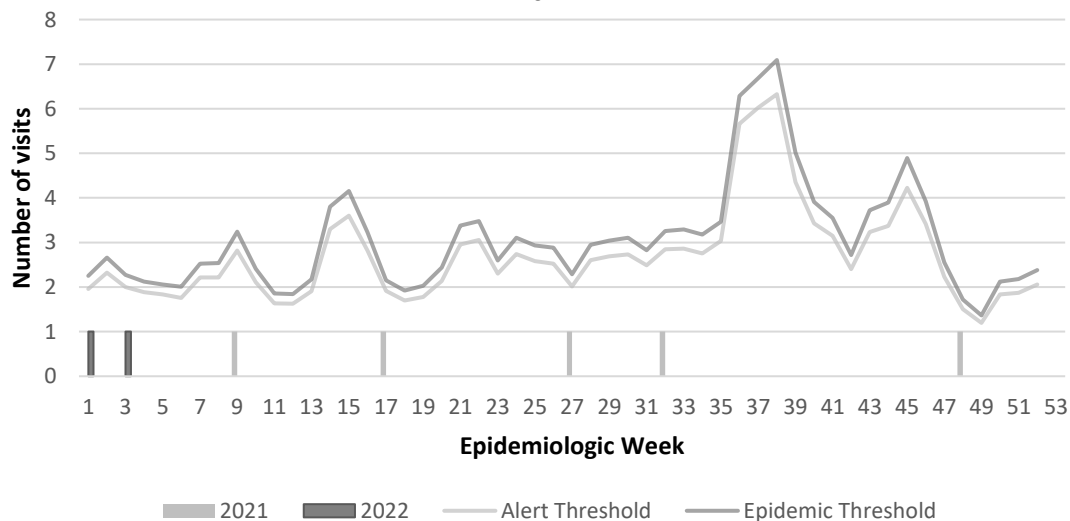
**FEVER AND JAUNDICE**

Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (or recent history of fever) in a previously healthy person presenting with jaundice.

The epidemic threshold is used to confirm the emergence of an epidemic in order to implement control measures. It is calculated using the mean reported cases per week plus 2 standard deviations.



**Fever and Jaundice cases: Jamaica, Weekly Threshold vs Cases 2021 and 2022**



**3 NOTIFICATIONS-**  
All clinical sites



**INVESTIGATION REPORTS-** Detailed Follow up for all Class One Events



**HOSPITAL ACTIVE SURVEILLANCE-** 30 sites. Actively pursued



**SENTINEL REPORT-** 78 sites. Automatic reporting

**ACCIDENTS**

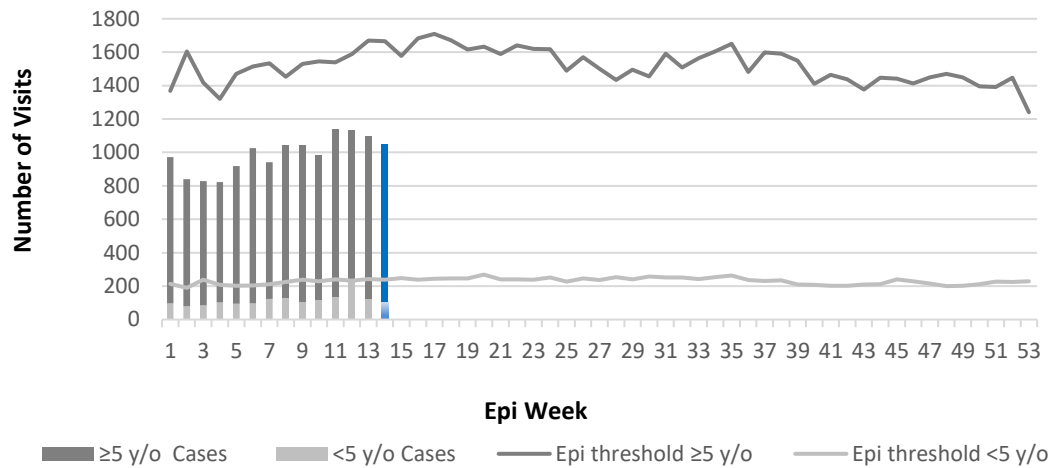
Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.

**KEY**

VARIATIONS OF BLUE SHOW CURRENT WEEK



**Weekly Visits to Sentinel Sites for Accident by Age Group 2022 vs. Weekly Threshold**

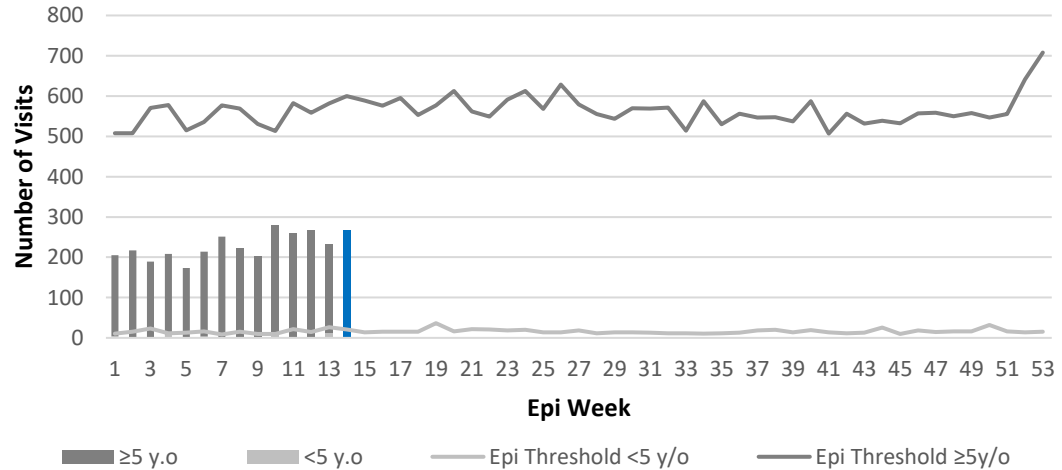


**VIOLENCE**

Any injury for which the cause is intentional, e.g. gunshot wounds, stab wounds, etc.



**Weekly Visits to Sentinel Sites for Violence by Age Groups 2022 vs. Weekly Threshold**

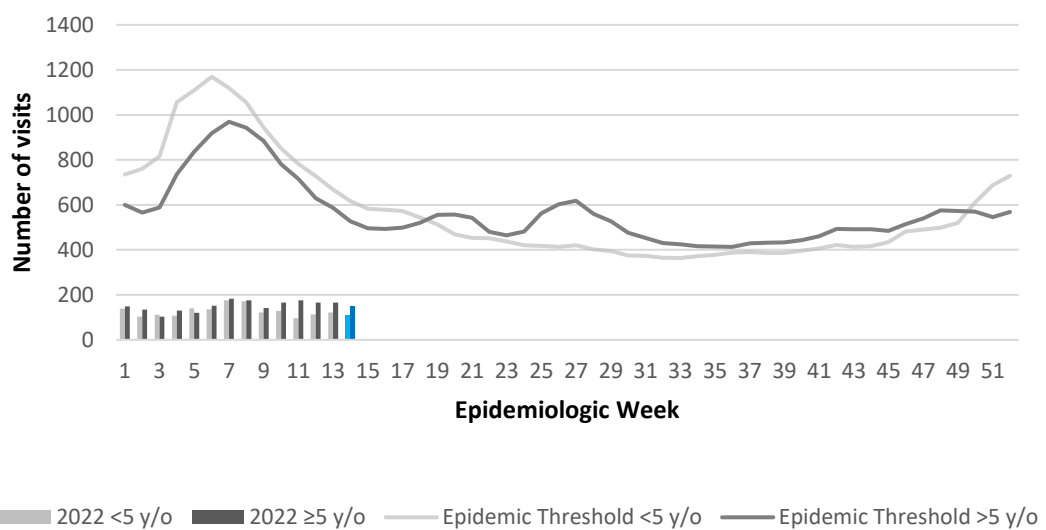


**GASTROENTERITIS**

Inflammation of the stomach and intestines, typically resulting from bacterial toxins or viral infection and causing vomiting and diarrhoea.



**Weekly visits to Sentinel Sites for Gastroenteritis All ages 2022 vs Weekly Threshold; Jamaica**



**4 NOTIFICATIONS-**  
All clinical sites



**INVESTIGATION REPORTS-** Detailed Follow up for all Class One Events



**HOSPITAL ACTIVE SURVEILLANCE-** 30 sites. Actively pursued



**SENTINEL REPORT-** 78 sites. Automatic reporting

CLASS ONE NOTIFIABLE EVENTS				Comments	
	CLASS 1 EVENTS	Confirmed YTD <sup>α</sup>		AFP Field Guides from WHO indicate that for an effective surveillance system, detection rates for AFP should be 1/100,000 population under 15 years old (6 to 7) cases annually.	
		CURRENT YEAR 2022	PREVIOUS YEAR 2021		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	34 <sup>β</sup>	32 <sup>β</sup>	<p>Pertussis-like syndrome and Tetanus are clinically confirmed classifications.</p> <p><sup>γ</sup> Dengue Hemorrhagic Fever data include Dengue related deaths;</p> <p><sup>δ</sup> Figures include all deaths associated with pregnancy reported for the period.</p> <p><sup>ε</sup> CHIKV IgM positive cases</p> <p><sup>θ</sup> Zika PCR positive cases</p> <p><sup>β</sup> Updates made to prior weeks in 2020.</p> <p><sup>α</sup> Figures are cumulative totals for all epidemiological weeks year to date.</p>	
	Cholera	0	0		
	Dengue Hemorrhagic Fever <sup>γ</sup>	See Dengue page below	See Dengue page below		
	COVID-19 (SARS-CoV-2)	31920	29844		
	Hansen's Disease (Leprosy)	0	0		
	Hepatitis B	3	4		
	Hepatitis C	0	1		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis (Clinically confirmed)	2	3		
EXOTIC/ UNUSUAL	Plague	0	0		
HIGH MORBIDITY/ MORTALITY	Meningococcal Meningitis	0	0		
	Neonatal Tetanus	0	0		
	Typhoid Fever	0	0		
	Meningitis H/Flu	0	0		
SPECIAL PROGRAMMES	AFP/Polio	0	0		
	Congenital Rubella Syndrome	0	0		
	Congenital Syphilis	0	0		
	Fever and Rash	Measles	0	0	
		Rubella	0	0	
	Maternal Deaths <sup>δ</sup>	11	13		
	Ophthalmia Neonatorum	29	23		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
Tuberculosis	5	11			
Yellow Fever	0	0			
Chikungunya <sup>ε</sup>	0	0			
Zika Virus <sup>θ</sup>	0	0	NA- Not Available		



5 NOTIFICATIONS-  
All clinical sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



HOSPITAL  
ACTIVE  
SURVEILLANCE-  
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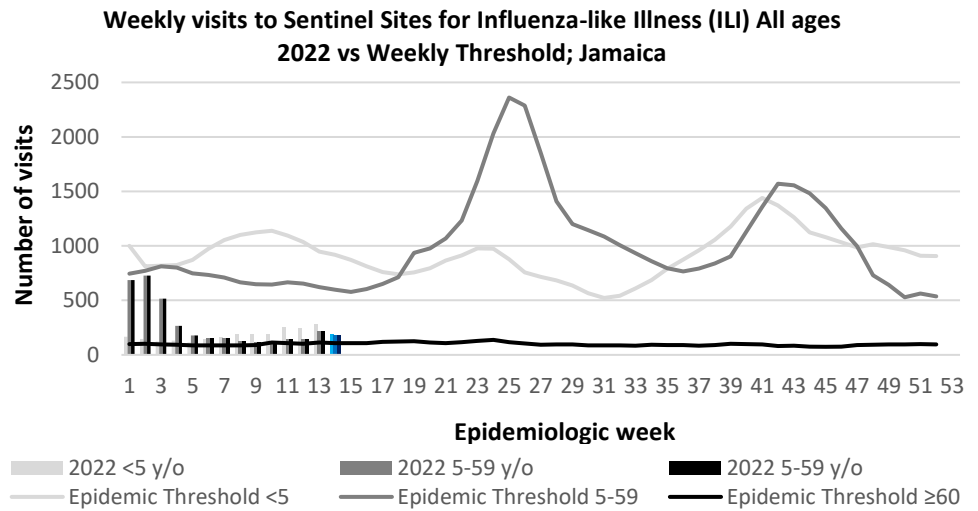
SENTINEL  
REPORT- 78 sites.  
Automatic reporting

# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

## EW 14

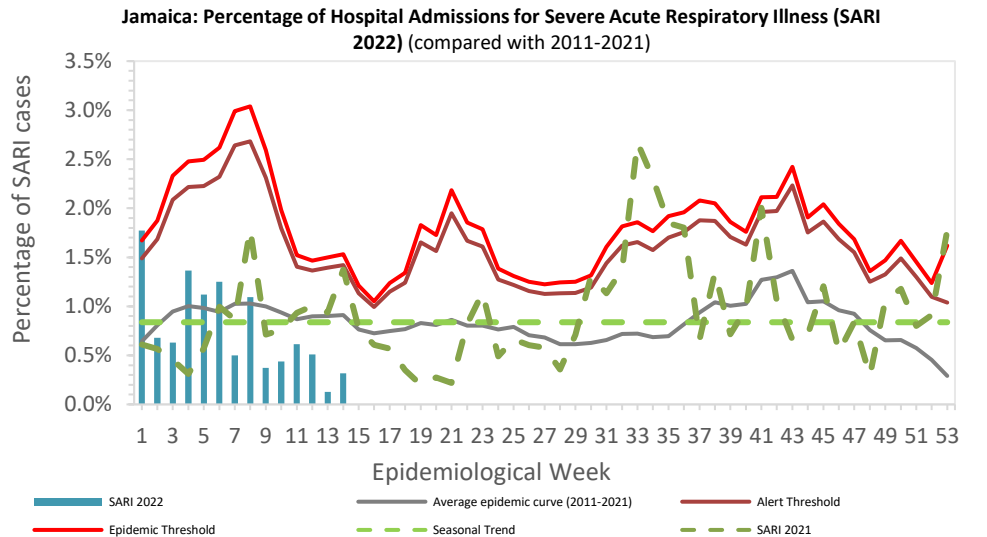
April 3– 9, 2022 Epidemiological Week 14

	EW 14	YTD
SARI cases	5	167
<b>Total Influenza positive Samples</b>	<b>0</b>	<b>0</b>
<b>Influenza A</b>	<b>0</b>	<b>0</b>
H3N2	0	0
H1N1pdm09	0	0
Not subtyped	0	0
<b>Influenza B</b>	<b>0</b>	<b>0</b>
<b>Parainfluenza</b>	<b>0</b>	<b>0</b>



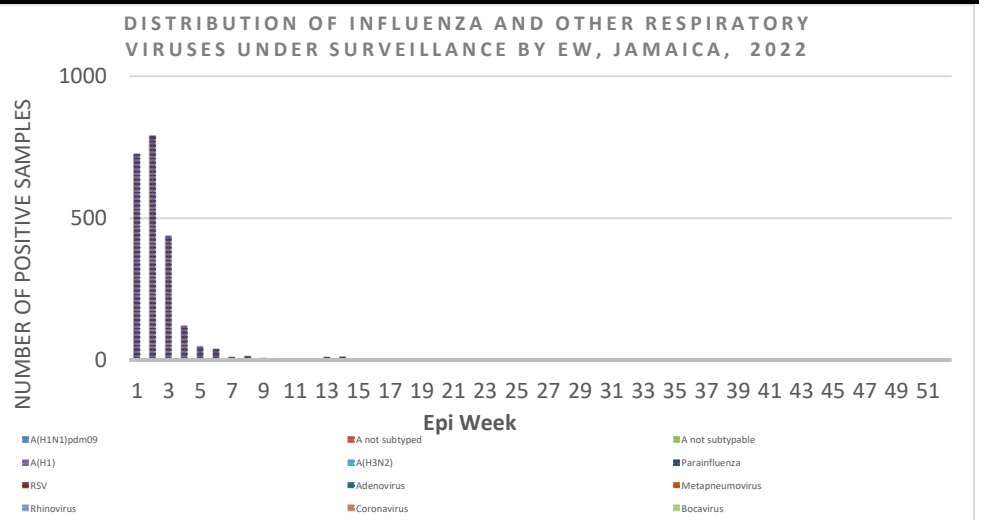
### Epi Week Summary

During EW 14, five (5) SARI admissions were reported.



### Caribbean Update EW 14

**Caribbean:** Influenza activity remained low. In Belize, SARS-CoV-2 and RSV detections continued to increase and in Haiti, SARS-CoV-2 activity continued elevated and increasing.



**6 NOTIFICATIONS-**  
All clinical sites

**INVESTIGATION REPORTS-** Detailed Follow up for all Class One Events

**HOSPITAL ACTIVE SURVEILLANCE-** 30 sites. Actively pursued

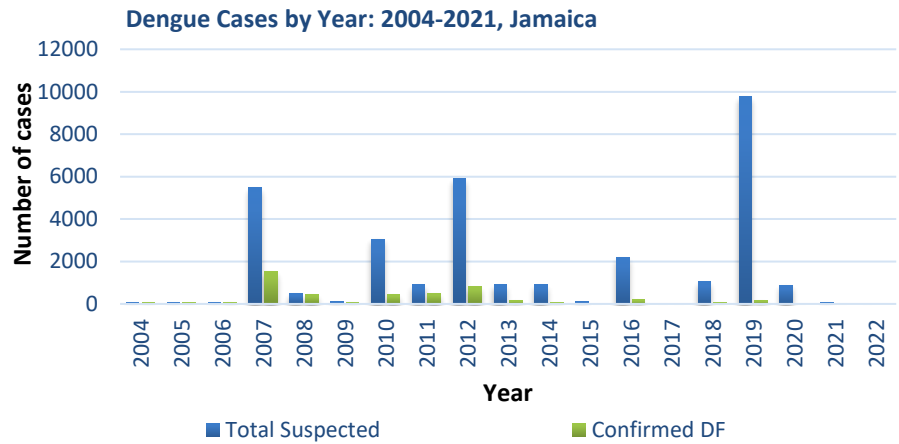
**SENTINEL REPORT-** 78 sites. Automatic reporting



# Dengue Bulletin

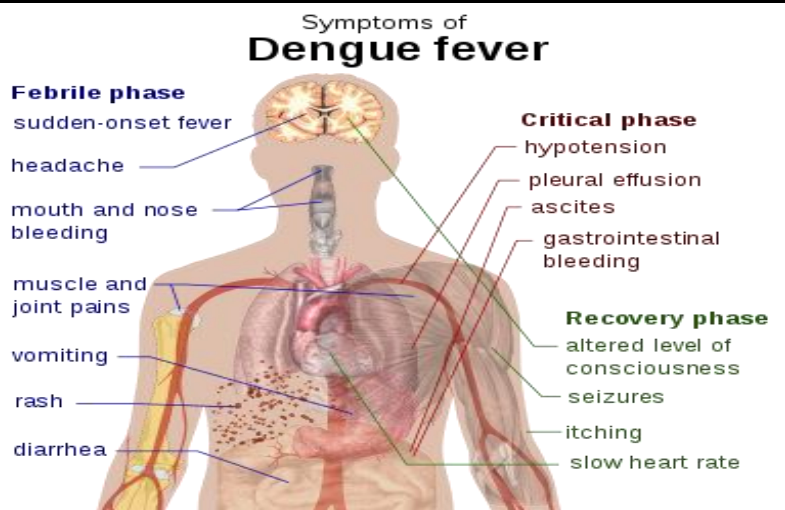
April 3 – 9, 2022 Epidemiological Week 14

Epidemiological Week 14



## Reported suspected and confirmed dengue with symptom onset in week 14 of 2022

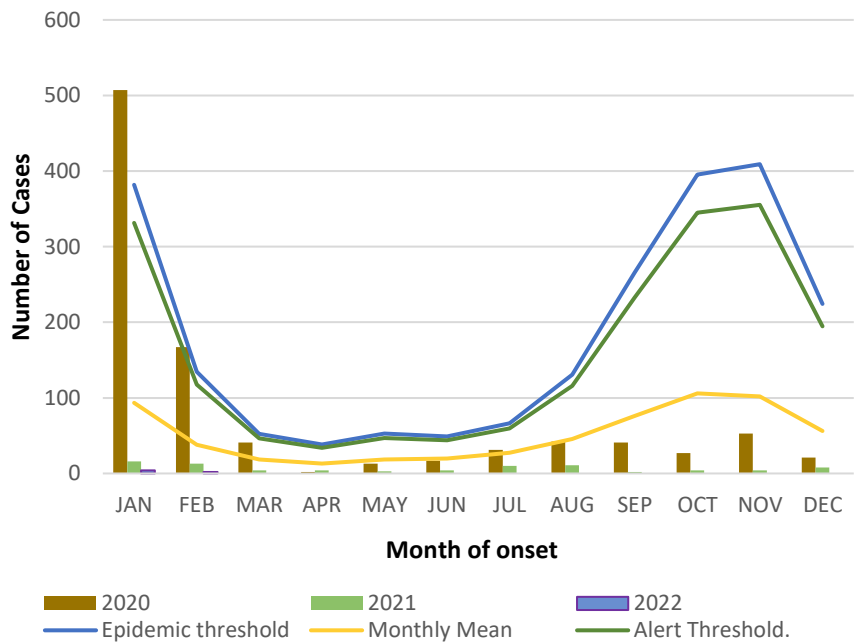
	2022*	
	EW 14	YTD
Total Suspected Dengue Cases	0	6
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



### Points to note:

- \*Figure as at April 5, 2022
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected dengue cases for 2020, 2021 and 2022 versus monthly mean, alert, and epidemic thresholds (2007-2021)



**7 NOTIFICATIONS-**  
All clinical sites



**INVESTIGATION REPORTS-** Detailed Follow up for all Class One Events



**HOSPITAL ACTIVE SURVEILLANCE-** 30 sites. Actively pursued



**SENTINEL REPORT-** 78 sites. Automatic reporting

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# RESEARCH PAPER

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## Abstract

### *Knowledge and Practice Related to Lifestyle Among Adults with Diabetes and Hypertension*

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**Aim:** To determine the level of knowledge and assess the lifestyle practices of adult patients with Diabetes and/or Hypertension attending the primary health care clinics in Jamaica.

**Background:** Diabetes and Hypertension are among the leading causes of preventable morbidity and related disability worldwide. The shift in disease burden from infectious diseases to non-communicable diseases has been attributed to dietary and physical activity changes.

**Method:** In this cross-sectional study using 150 randomly selected adults from primary health care centres in seven parishes of Jamaica. A 69-item interviewer-administered questionnaire was used. The questions measured knowledge and lifestyle practices related to diet, smoking, exercise and alcohol consumption.

**Results:** The majority (%) of the sample was female (76%) and most persons were within the age group of 56 years or over (68.6%). The mean knowledge score of exercise was 4.7 (SD 1.2) with a score range of 1 to 6. No statistical differences presented in mean knowledge of exercise by socioeconomic and demographic characteristics. Nine of the ten questions assessing knowledge of diet were answered correctly by the majority (50.7% - 93.3%).

The mean knowledge score for alcohol consumption and smoking was 5.5 (SD 0.9) and 2.9 (SD 0.3), respectively. Just over a half (52.3%) of the sample reported exercising (52.3%) and consuming sugar-sweetened beverages (53%). Very little reported drinking alcohol in the last three months (10.7%) and a minority (4.7%) of the sample reported that they are currently smoking.

**Conclusion:** Mean knowledge scores for exercise, alcohol consumption and smoking were relatively high, while lifestyle practices among participants was relatively low. We recommend further research to assess the facilitators and barriers to adopting lifestyle changes among Jamaican adults.

**Keywords:** Knowledge, Lifestyle, Practice, Diabetes, Hypertension



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8 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



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