

# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Weekly Spotlight

### Influenza (seasonal) Part 2

Influenza can worsen symptoms of other chronic diseases. In severe cases influenza can lead to pneumonia and sepsis. People with other medical issues or who have severe symptoms should seek medical care.



Hospitalization and death due to influenza occur mainly among high-risk groups. In industrialized countries most deaths associated with influenza occur among people aged 65 years or older. The effects of seasonal influenza epidemics in developing countries are not fully known, but research estimates that 99% of deaths in children under 5 years of age with influenza related lower respiratory tract infections are in developing countries.

#### Epidemiology

All age groups can be affected but there are groups that are more at risk than others.

- People at greater risk of severe disease or complications when infected are pregnant women, children under 5 years of age, older people, individuals with chronic medical conditions (such as chronic cardiac, pulmonary, renal, metabolic, neurodevelopmental, liver or hematologic diseases) and individuals with immunosuppressive conditions/treatments (such as HIV, receiving chemotherapy or steroids, or malignancy).
- Health and care workers are at high risk of acquiring influenza virus infection due to increased exposure to the patients, and of further spreading particularly to vulnerable individuals. Vaccination can protect health workers and the people around them.

Epidemics can result in high levels of worker/school absenteeism and productivity losses. Clinics and hospitals can be overwhelmed during peak illness periods.

#### Transmission

Seasonal influenza spreads easily, with rapid transmission in crowded areas including schools and nursing homes. When an infected person coughs or sneezes, droplets containing viruses (infectious droplets) are dispersed into the air and can infect persons in close proximity. The virus can also be spread by hands contaminated with influenza viruses. To prevent transmission, people should cover their mouth and nose with a tissue when coughing and wash their hands regularly.

In temperate climates, seasonal epidemics occur mainly during winter, while in tropical regions, influenza may occur throughout the year, causing outbreaks more irregularly.

The time from infection to illness, known as the incubation period, is about 2 days, but ranges from 1–4 days.

## EPI WEEK 3



Syndromic Surveillance

Accidents

Violence

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Class 1 Notifiable Events

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Taken from WHO website on 2/Feb/2026

[https://www.who.int/news-room/fact-sheets/detail/influenza-\(seasonal\)](https://www.who.int/news-room/fact-sheets/detail/influenza-(seasonal))

Picture taken from <https://www.freepik.com/free-photos-vectors/flu>

## 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 - 53 2025 to 3 of 2026.

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

**White**- No reports received

Epi week	Kingston and Saint Andrew	Saint Thomas	Saint Catherine	Portland	Saint Mary	Saint Ann	Trelawny	Saint James	Hanover	Westmoreland	Saint Elizabeth	Manchester	Clarendon
2025 - 2026													
53	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
1	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
2	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
3	On Time	On Time	On Time	Late (W)	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time	On Time	On Time

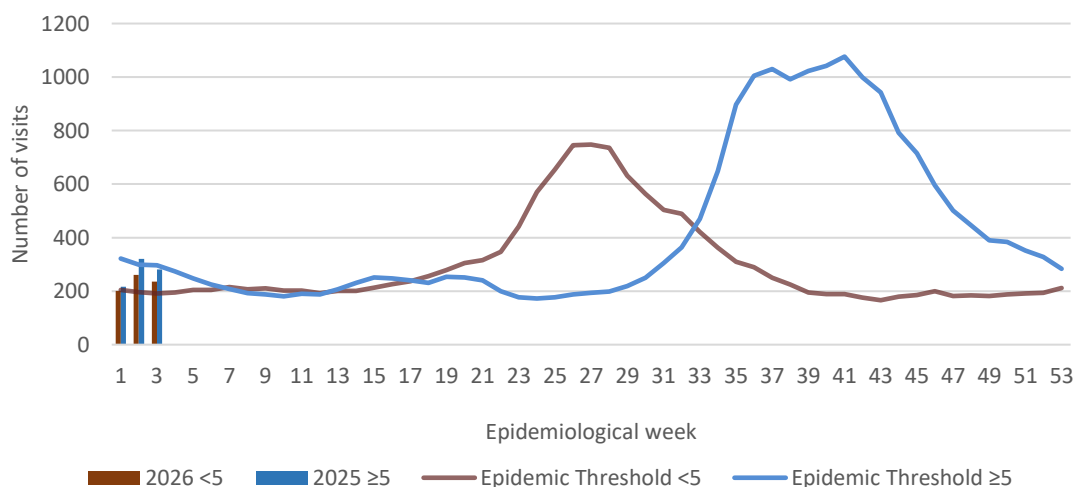
## SYNDROMIC SURVEILLANCE

FEVER  
UNDIFFERENTIATED FEVER

Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (or recent history of fever) with or without an obvious diagnosis or focus of infection.



Weekly Visits to Sentinel Sites for Undifferentiated Fever All ages: Jamaica, Weekly Threshold vs Cases 2026



2 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



HOSPITAL  
ACTIVE  
SURVEILLANCE-  
30 sites. Actively  
pursued



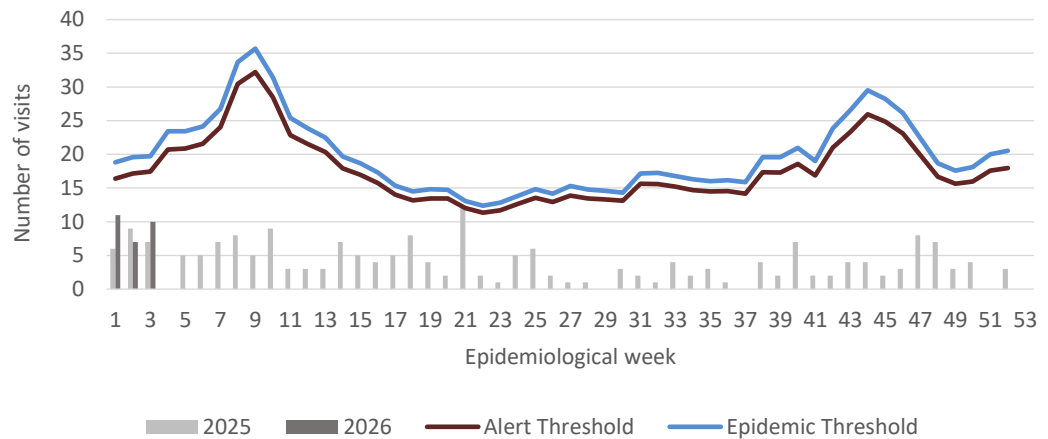
SENTINEL  
REPORT- 78 sites.  
Automatic reporting

**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).



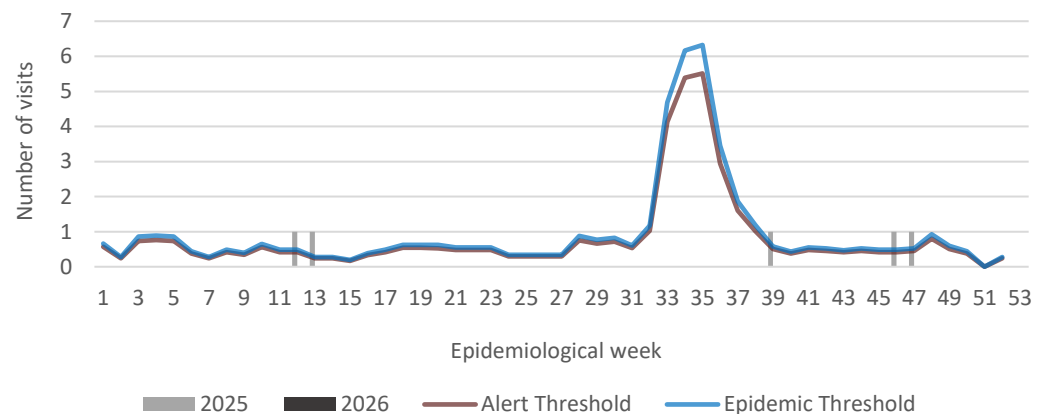
Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2025 and 2026 vs. Weekly Threshold: Jamaica

**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 symptoms 2025 and 2026 vs Weekly Threshold; Jamaica

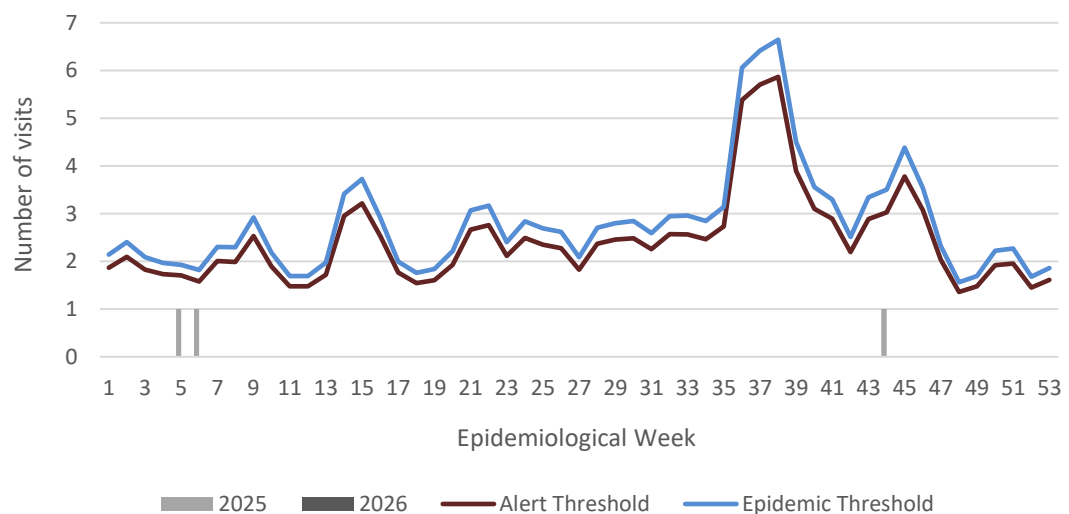
**FEVER AND JAUNDICE**

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.



Weekly visits for Fever and Jaundice symptoms: Jamaica, Weekly Threshold vs Cases 2025 and 2026



3 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
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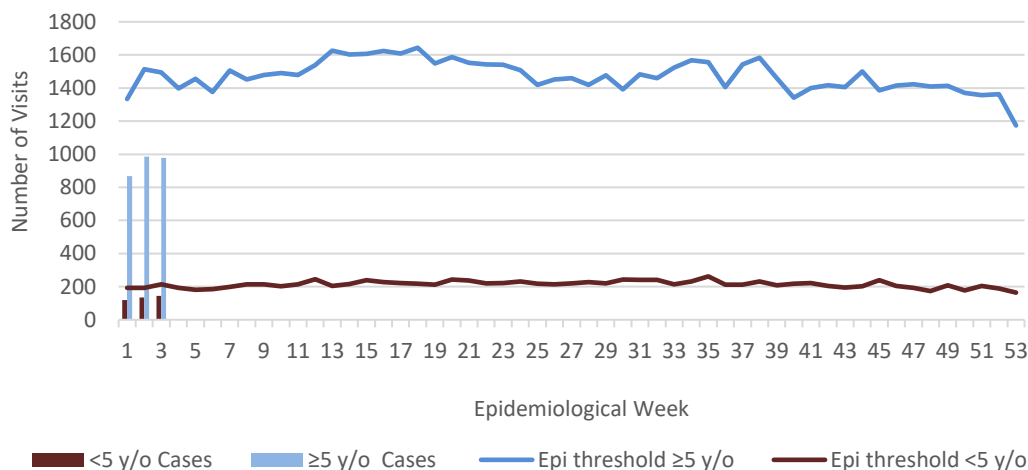
SENTINEL  
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**ACCIDENTS**

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



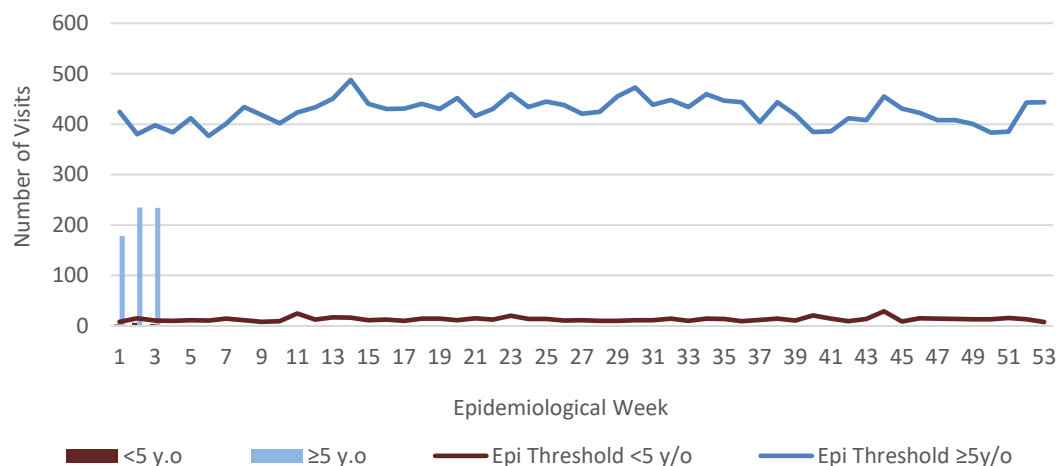
Weekly Visits to Sentinel Sites for Accident by Age Group 2026 vs. Weekly Threshold

**VIOLENCE**

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



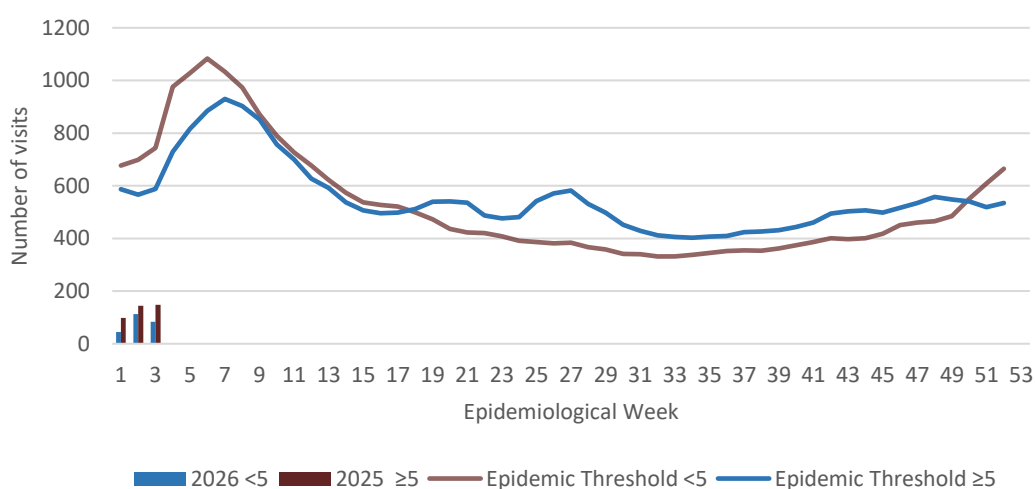
Weekly Visits to Sentinel Sites for Violence by Age Groups 2026 vs. Weekly Threshold

**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 2026 vs Weekly Threshold; Jamaica



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**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
			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.
	CLASS 1 EVENTS		CURRENT YEAR 2026	PREVIOUS YEAR 2025	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		0 <sup>β</sup>	6 <sup>β</sup>	Pertussis-like syndrome and Tetanus are clinically confirmed classifications.  <sup>γ</sup> Dengue Hemorrhagic Fever data include Dengue related deaths;  <sup>δ</sup> Figures include all deaths associated with pregnancy reported for the period.
	Cholera		0	0	
	Severe Dengue <sup>γ</sup>		See Dengue page below	See Dengue page below	
	COVID-19 (SARS-CoV-2)		0	7	
	Hansen’s Disease (Leprosy)		0	0	
	Hepatitis B		0	0	
	Hepatitis C		0	1	
	HIV/AIDS		NA	NA	
	Malaria (Imported)		0	0	
	Meningitis		0	3	
	Mpox		0	0	
EXOTIC/ UNUSUAL	Plague		0	0	<sup>ε</sup> CHIKV IgM positive cases <sup>θ</sup> Zika PCR positive cases <sup>β</sup> Updates made to prior weeks.  <sup>α</sup> Figures are cumulative totals for all epidemiological weeks year to date.
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	NA- Not Available
	Congenital Rubella Syndrome		0	0	
	Congenital Syphilis		0	0	
	Fever and Rash	Measles	0	0	
		Rubella	0	0	
	Maternal Deaths <sup>δ</sup>		1	6	
	Ophthalmia Neonatorum		0	8	
	Pertussis-like syndrome		0	0	
	Rheumatic Fever		0	0	
	Tetanus		0	0	
	Tuberculosis		0	1	
Yellow Fever		0	0		
Chikungunya <sup>ε</sup>		0	0		
Zika Virus <sup>θ</sup>		0	0		



5 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
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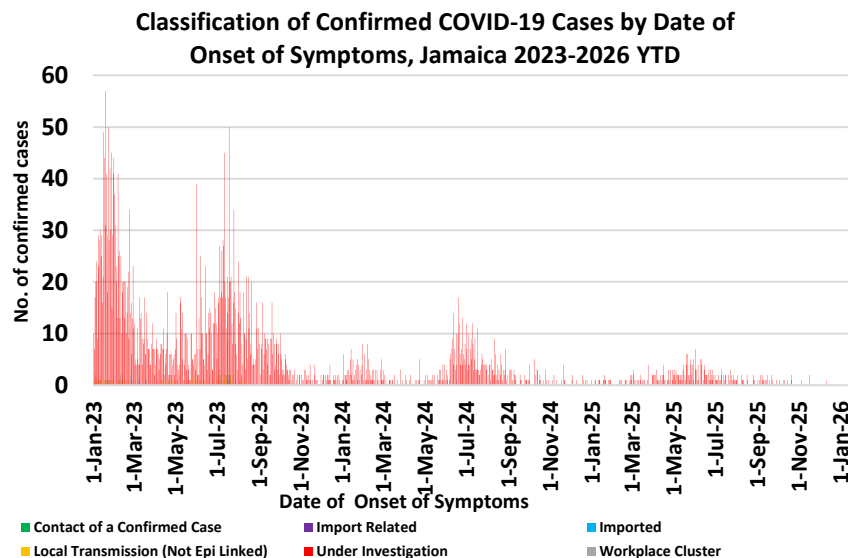
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# COVID-19 SURVEILLANCE

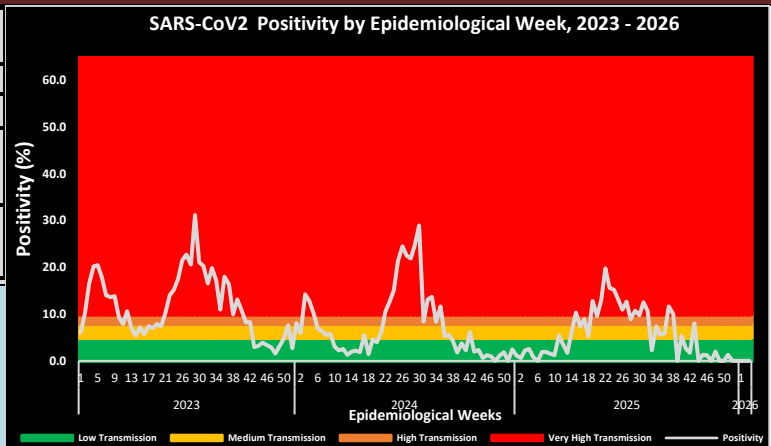
CASES	EW 3	Total
Confirmed	0	157750
Females	0	90883
Males	0	66864
Age Range	-	1 day to 108 years
* 3 positive cases had no gender specification * PCR or Antigen tests are used to confirm cases * Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.		



## COVID-19 Outcomes

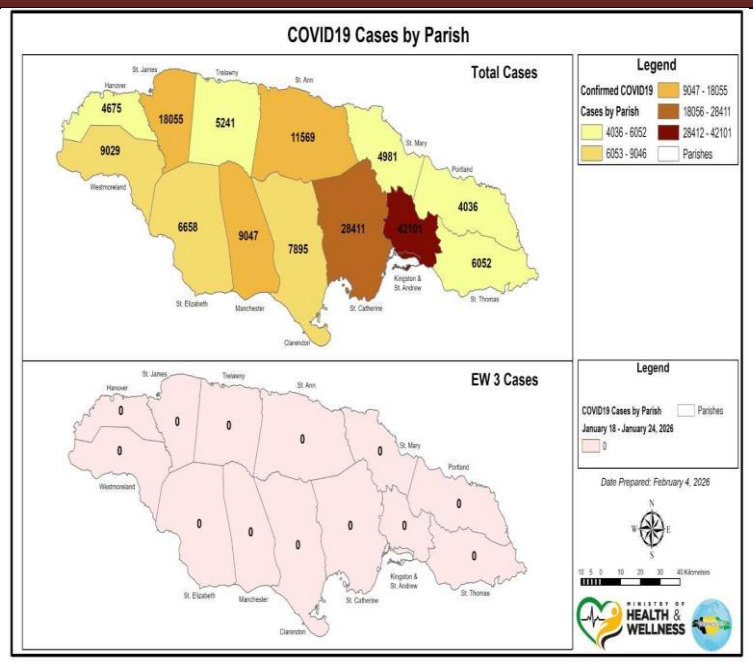
Number of Confirmed COVID-19 cases and deaths, Jamaica 2020-2025							
COVID-19	Year						
	2020	2021	2022	2023	2024	2025	Total
Cases	13,352	83,815	55,721	3,842	705	315	157,750
Deaths	332	2,815	621	116	24	13	3,921

\*Current positivity rate: 0.0%  
 - (positive samples/total samples tested)  
 \* Low transmission for infection



## COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure		
COVID-19 WHO Global Statistics EW 53 2025 -3 2026		
Epi Week	Confirmed Cases	Deaths
53	9800	368
1	8900	454
2	11900	480
3	8800	390
Total (4weeks)	39400	1692



6 NOTIFICATIONS-  
All clinical sites

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REPORTS- Detailed Follow up for all Class One Events

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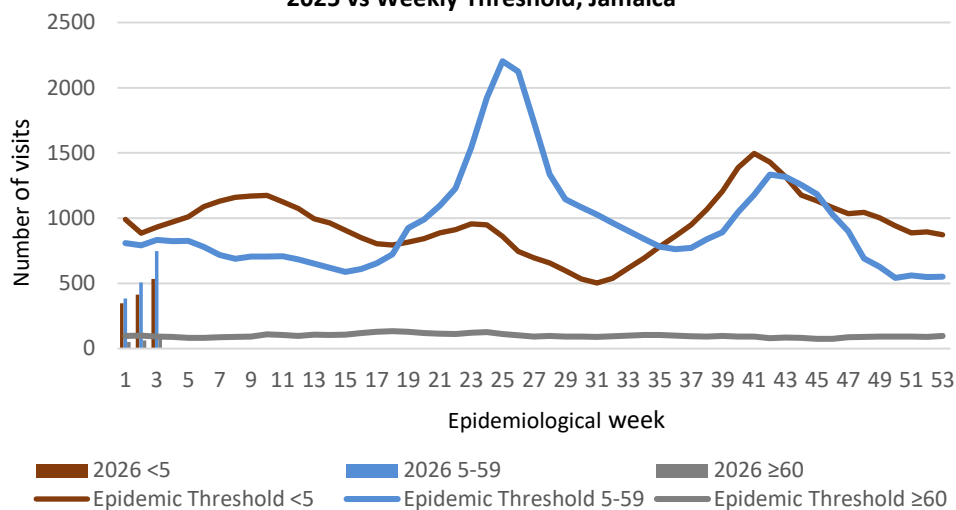
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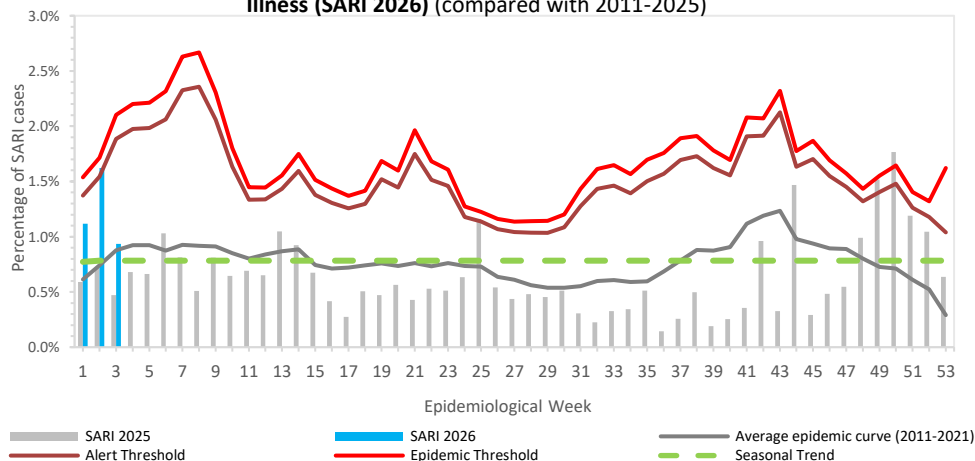
**INFLUENZA SURVEILLANCE***EW 3*

January 18, 2026 – January 24, 2026 Epidemiological Week 3

	EW 3	YTD
SARI cases	15	60
Total Influenza positive Samples	5	29
Influenza A	5	28
H1N1pdm09	0	2
H3N2	5	27
Not subtyped	0	0
Influenza B	0	0
B lineage not determined	0	0
B Victoria	0	0
Parainfluenza	0	0
Adenovirus	0	0
RSV	1	1

**Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages  
2025 vs Weekly Threshold; Jamaica****Epi Week Summary**

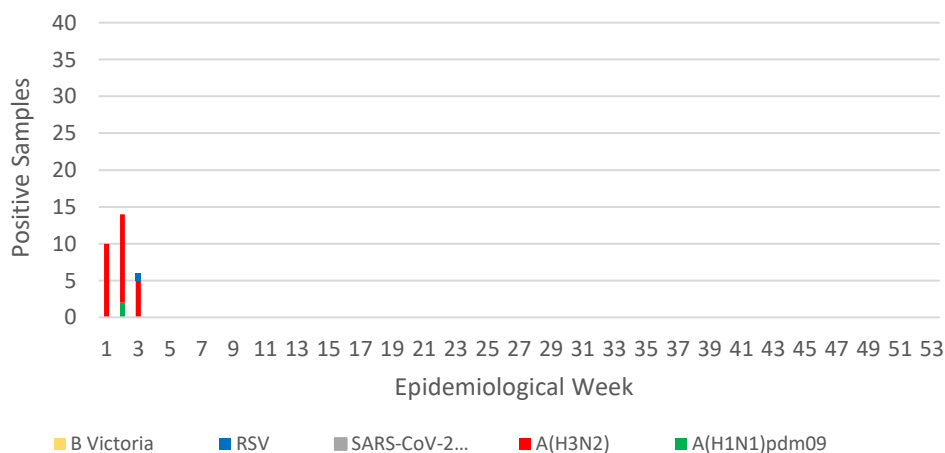
During EW 3, fifteen (15) SARI admissions were reported.

**Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2026) (compared with 2011-2025)****Caribbean Update EW 3**

(Updates as at EW 2)

Influenza activity remains high in the subregion, with a positivity rate of 32% and a marked predominance of influenza A(H3N2), which accounts for 86% of subtyped samples. RSV circulation has declined in recent weeks reaching a positivity rate of 6.2% while SARS-CoV-2 activity remains low and stable, below 1%. Cases of acute respiratory infections remained at low levels.

(Retrieved from PAHO Respiratory viruses weekly report)  
<https://www.paho.org/en/influenza-situation-report>

**Distribution of Influenza and Other Respiratory Viruses Under Surveillance by EW, Jamaica - 2026**

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**NOTIFICATIONS-**  
All clinical sites



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



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

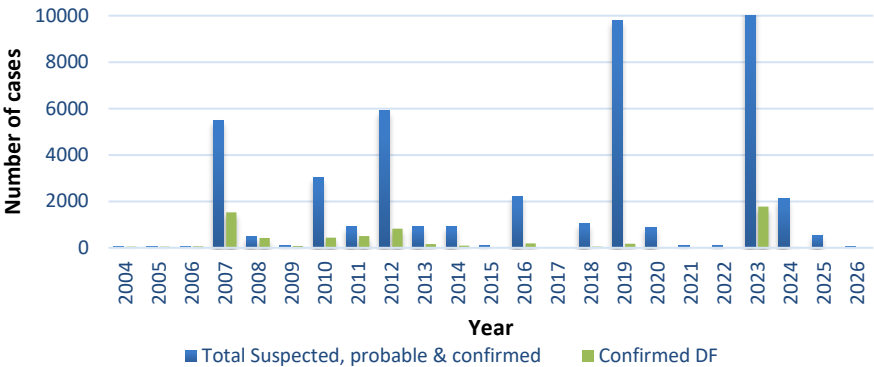
DENGUE SURVEILLANCE

January 18, 2026 – January 24, 2026 Epidemiological Week 3

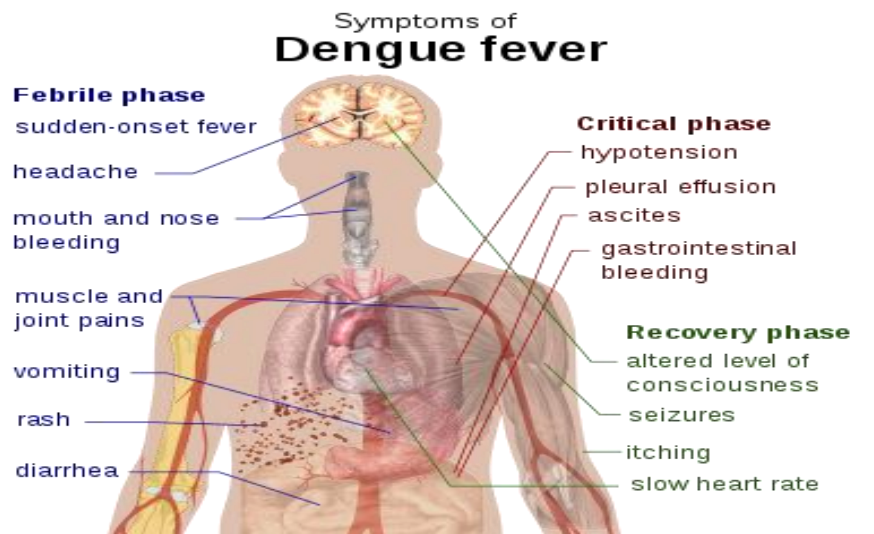
Epidemiological Week 3



Dengue Cases by Year: 2004-2025, Jamaica

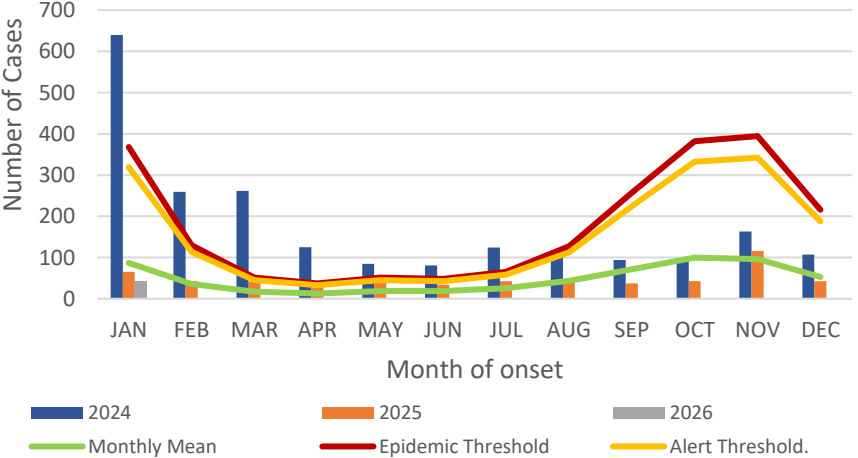


Reported suspected, probable and confirmed dengue with symptom onset in week 3 of 2026		
	2026*	
	EW 3	YTD
Total Suspected, Probable & Confirmed Dengue Cases	6	36
Lab Confirmed Dengue cases	0	1
CONFIRMED Dengue Related Deaths	0	0



- Points to note:**
- Dengue deaths are reported based on date of death.
  - \*Figure as at February 6, 2026
  - Only PCR positive dengue cases are reported as confirmed.
  - IgM positive cases are classified as probable dengue.

Suspected, probable and confirmed dengue cases for 2023-2026 versus monthly mean, alert and epidemic threshold (2007-2022)





# RESEARCH ABSTRACT

## Abstract

NHRC-24-O-10

### Investigation of the insecticidal activity of Jamaican *Myristica fragrans* Houtt. essential oil against *Aedes aegypti* mosquitoes

Golding M<sup>1</sup>, Khouri N<sup>1</sup>, Gould C<sup>2</sup>, Tiede E<sup>2</sup>, Wood T<sup>2</sup>, Sandiford S<sup>1</sup>

<sup>1</sup>University of the West Indies, Mona, Jamaica, <sup>2</sup>University at Buffalo, Buffalo, NY, USA

**Objective:** To evaluate the insecticidal activity of *Myristica fragrans* essential oil against all *Aedes aegypti* life stages

**Methods:** The essential oil of *Myristica fragrans* obtained via hydro-distillation was screened against the eggs, L1-L4 larvae, pupae and adults of the *Aedes aegypti* laboratory Rockefeller strain and L3 and pupae of a local mohMANDY1983!

(larvae/pupae) and 14 days (adults). The chemical composition of the oil was then determined using gas chromatography-mass spectrometry and ThermoScientific compound discoverer.

**Results:** The oil demonstrated no activity against the egg stage and the LC50 value of the L1 stage could not be determined. LC50 values for L2, L3 and L4 were 26.57, 7.179 and 246.1 ppm respectively. As expected, the LC50 value for the non-feeding pupal stage was higher at 1090 ppm. The oil also displayed excellent activity against a local field strain with LC50 values of 15.82 and 965.9 ppm for L3 and pupae respectively. At concentrations of 100 and 1000 ppm, the survival rate of adult Rockefeller mosquitoes decreased from 100% to 68.3% and 53.3%, respectively. The major constituents of the oil as determined by gas chromatography-mass spectrometry were alpha-thujene, terpinolene, and o-cymene with relative abundances of 32.09%, 31.86%, and 17.34%, respectively.

**Conclusion:** The remarkable efficacy of the *Myristica fragrans* essential oil, especially against both larval and adult forms of the *Aedes aegypti* mosquito, suggests that it may be viable for development as a mosquito insecticide, subject to further assessments.



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9 NOTIFICATIONS-  
All clinical  
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INVESTIGATION  
REPORTS- Detailed Follow  
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