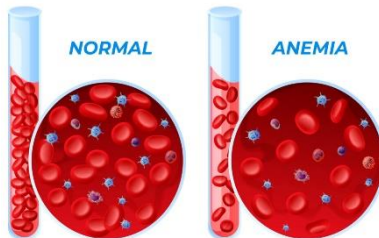


# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Weekly Spotlight

### Anaemia (Part 1)



Anaemia is a condition in which the number of red blood cells or the haemoglobin concentration within them is lower than normal. It mainly affects women and children. Anaemia occurs when there isn't enough haemoglobin in the body to carry oxygen to the organs and tissues. In severe cases, anaemia can

cause poor cognitive and motor development in children. It can also cause problems for pregnant women and their babies. Anaemia can be caused by poor nutrition, infections, chronic diseases, heavy menstruation, pregnancy issues and family history. It is often caused by a lack of iron in the blood. Anaemia is preventable and treatable. In many low- and lower-middle income settings, the most commonly- recognized causes of anaemia are iron deficiency and malaria.

#### Scope of the problem

The population groups most vulnerable to anaemia include children under 5 years of age, particularly infants and children under 2 years of age, menstruating adolescent girls and women, and pregnant and postpartum women. Anaemia is estimated to affect half a billion women 15–49 years of age and 269 million children 6–59 months of age worldwide. In 2019, 30% (539 million) of non-pregnant women and 37% (32 million) of pregnant women aged 15–49 years were affected by anaemia. The WHO Regions of Africa and South-East Asia are most affected with an estimated 106 million women and 103 million children affected by anaemia in Africa and 244 million women and 83 million children affected in South-East Asia.

Anaemia causes symptoms such as fatigue, reduced physical work capacity, and shortness of breath. Anaemia is an indicator of poor nutrition and other health problems. Common and non-specific symptoms of anaemia include:

- tiredness
- dizziness or feeling light-headed
- cold hands and feet
- headache
- shortness of breath, especially upon exertion.

Severe anaemia can cause more serious symptoms including:

- pale mucous membranes (in the mouth, nose etc.)
- pale skin and under the fingernails
- rapid breathing and heart rate
- dizziness when standing up
- bruising more easily.

Taken from WHO website on 28/January/2024

<https://www.who.int/news-room/fact-sheets/detail/anaemia>

<https://healthinfo.healthengine.com.au/anaemia-during-pregnancy-types-causes-treatments> (picture)

## EPI WEEK 3



Syndromic Surveillance

Accidents

Violence

Pages 2-4



Class 1 Notifiable Events

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COVID-19

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Influenza

Page 7



Dengue Fever

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Research Paper

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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 – 52 of 2024 to 3 of 2025

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
2025													
52	Late (T)	On Time	On Time	On Time	On Time	On Time	Late (T)	On Time	Late (T)	On Time	On Time	On Time	Late (T)
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	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time

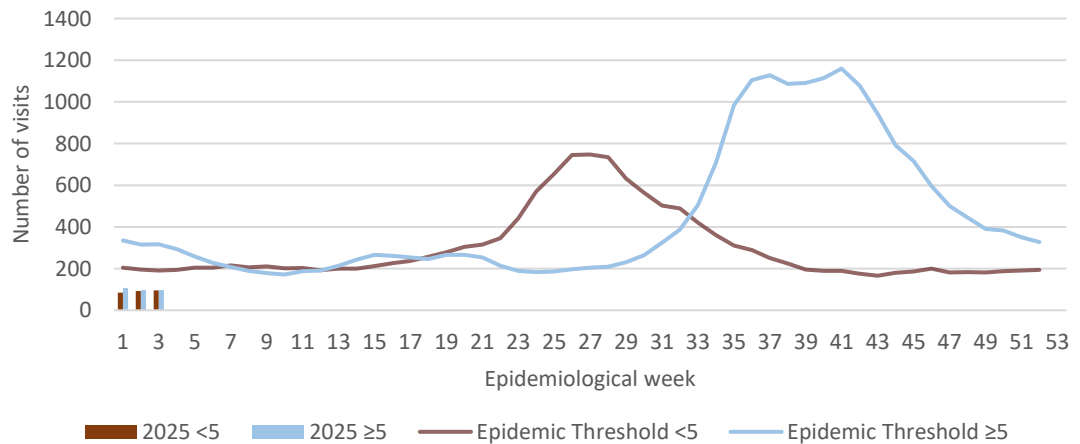
REPORTS FOR SYNDROMIC SURVEILLANCE

UNDIFFERENTIATED FEVER

Temperature of >38°C /100.4°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 2025



2 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



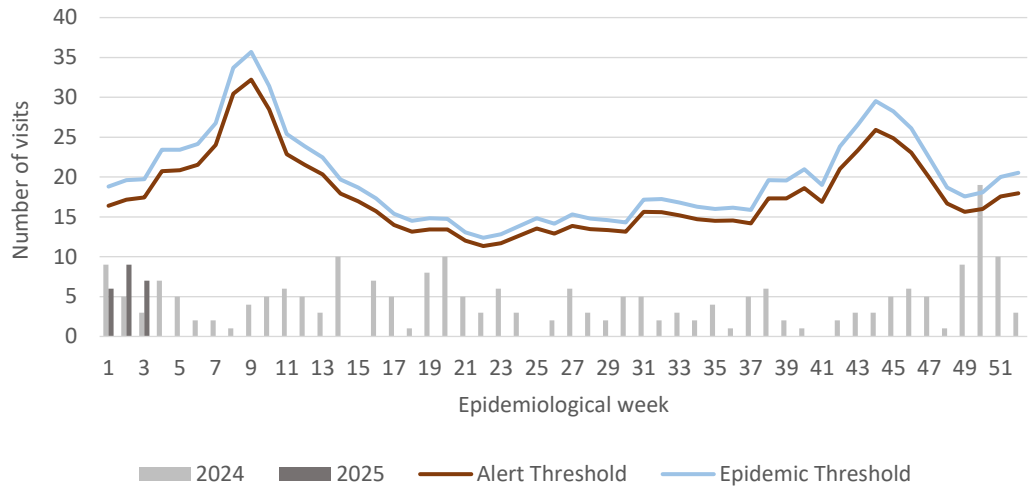
SENTINEL REPORT- 78 sites. Automatic reporting

**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 2024 and 2025 vs. Weekly Threshold: Jamaica

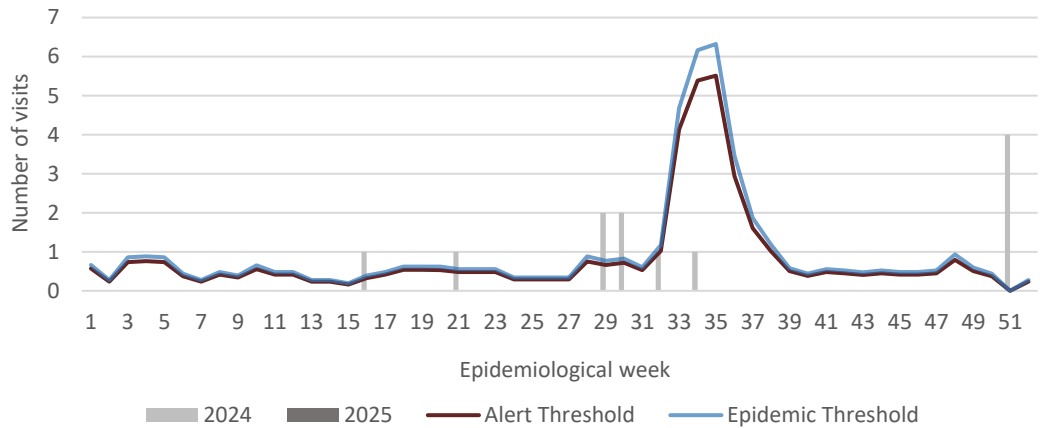


**FEVER AND HAEMORRHAGIC**

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 2024 and 2025 vs Weekly Threshold; Jamaica



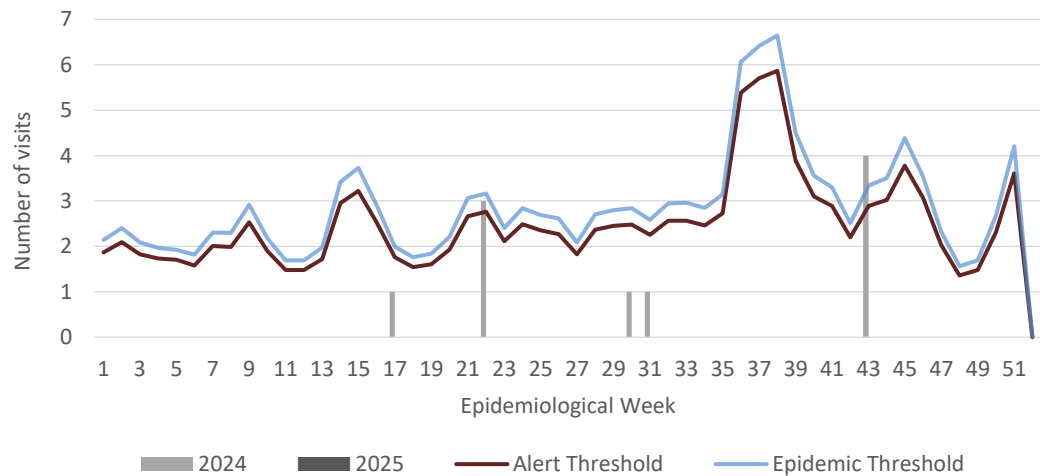
**FEVER AND JAUNDICE**

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 2024 and 2025



**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

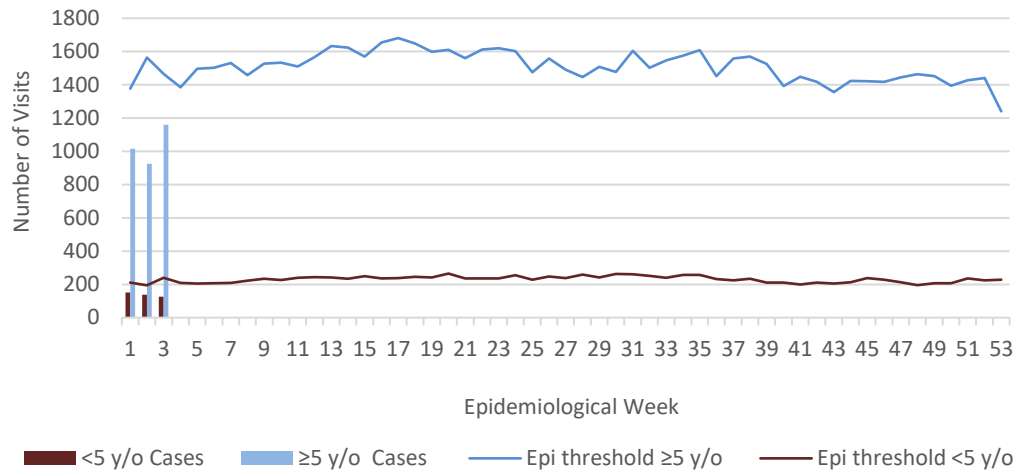


### ACCIDENTS

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



Weekly Visits to Sentinel Sites for Accident by Age Group 2025 vs. Weekly Threshold

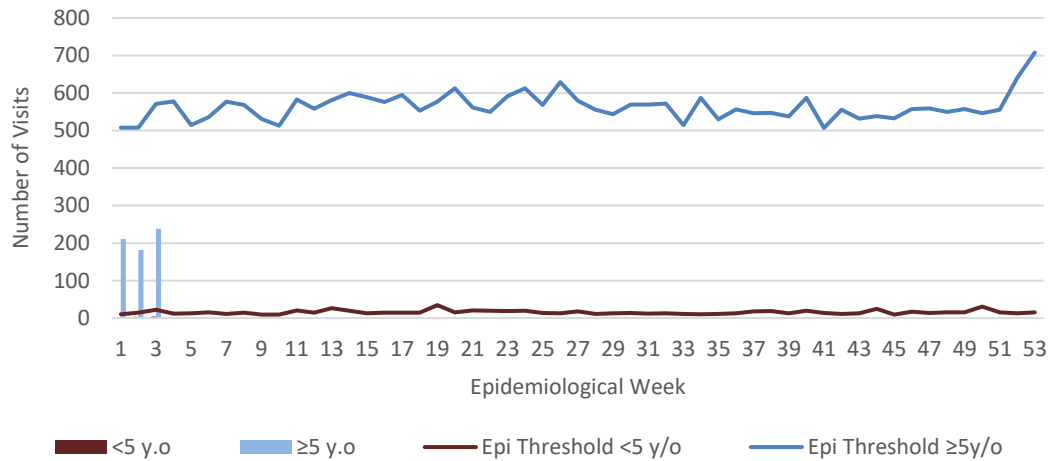


### VIOLENCE

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 2025 vs. Weekly Threshold

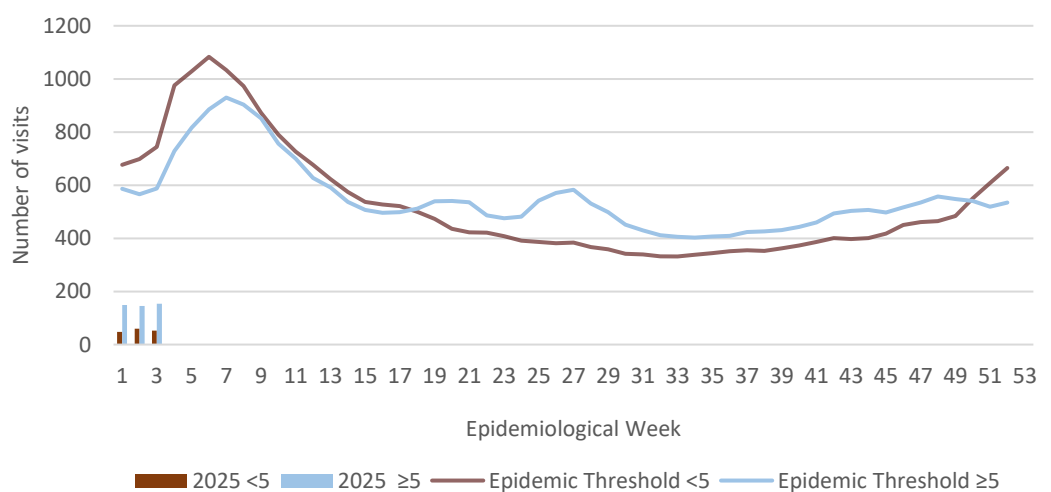


### GASTROENTERITIS

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 2025 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

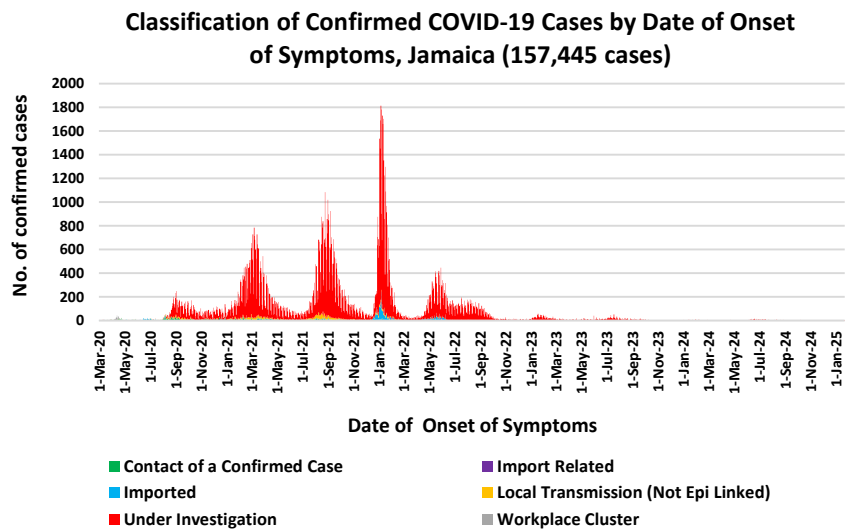
CLASS ONE NOTIFIABLE EVENTS				Comments	
	CLASS 1 EVENTS	Confirmed YTD <sup>α</sup>			
		CURRENT YEAR 2025	PREVIOUS YEAR 2024		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	1 <sup>β</sup>	21 <sup>β</sup>	AFP Field Guides from WHO indicate that for an effective surveillance system, detection rates for AFP should be 1/100,000 population under 15 years old (6 to 7) cases annually.  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)	7	50		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	0	4		
	Hepatitis C	0	1		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis	0	0		
	Monkeypox	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		
	Congenital Rubella Syndrome	0	0		
	Congenital Syphilis	0	0		
	Fever and Rash	Measles	0		0
		Rubella	0		0
	Maternal Deaths <sup>δ</sup>	6	6		
	Ophthalmia Neonatorum	0	12		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	0	4		
Yellow Fever	0	0			
Chikungunya <sup>ε</sup>	0	0			
Zika Virus <sup>θ</sup>	0	0	NA- Not Available		

 <p><b>5 NOTIFICATIONS-</b> All clinical sites</p>	 <p><b>INVESTIGATION REPORTS-</b> Detailed Follow up for all Class One Events</p>	 <p><b>HOSPITAL ACTIVE SURVEILLANCE-</b> 30 sites. Actively pursued</p>	 <p><b>SENTINEL REPORT-</b> 78 sites. Automatic reporting</p>
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# COVID-19 Surveillance Update

CASES	EW 3	Total
Confirmed	4	157445
Females	2	90716
Males	2	66726
Age Range	2 to 94 years old	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.

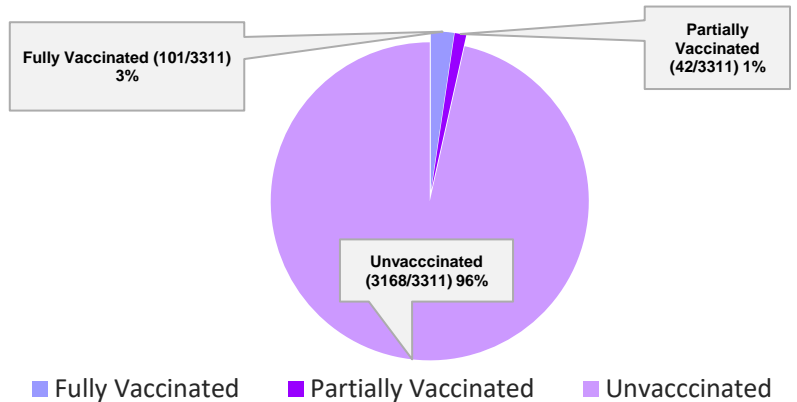


## COVID-19 Outcomes

Outcomes	EW 3	Total
ACTIVE *2 weeks*		5
DIED – COVID Related	0	3878
Died - NON COVID	0	394
Died - Under Investigation	0	143
Recovered and discharged	0	103226
Repatriated	0	93
<b>Total</b>		<b>157445</b>

\*Vaccination programme March 2021 – YTD  
 \* Total as at current Epi week

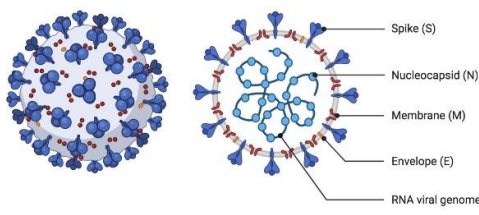
## 3311 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



## COVID-19 Parish Distribution and Global Statistics

### COVID-19 Virus Structure

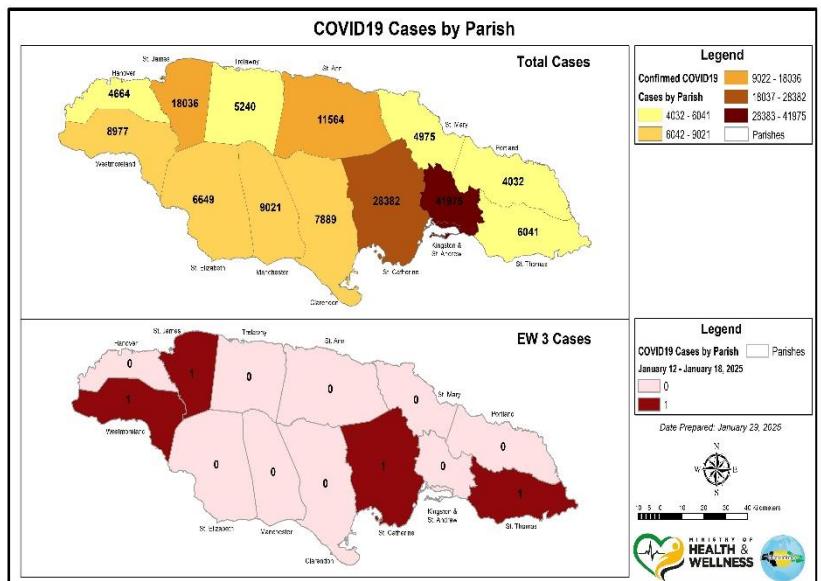
#### SARS-CoV-2



### COVID-19 WHO Global Statistics EW 52, 2024 - 3, 2025

Epi Week	Confirmed Cases	Deaths
52	47600	750
1	35200	697
2	24300	795
3	23100	619
<b>Total (4weeks)</b>	<b>130200</b>	<b>2861</b>

### COVID19 Cases by Parish



6 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



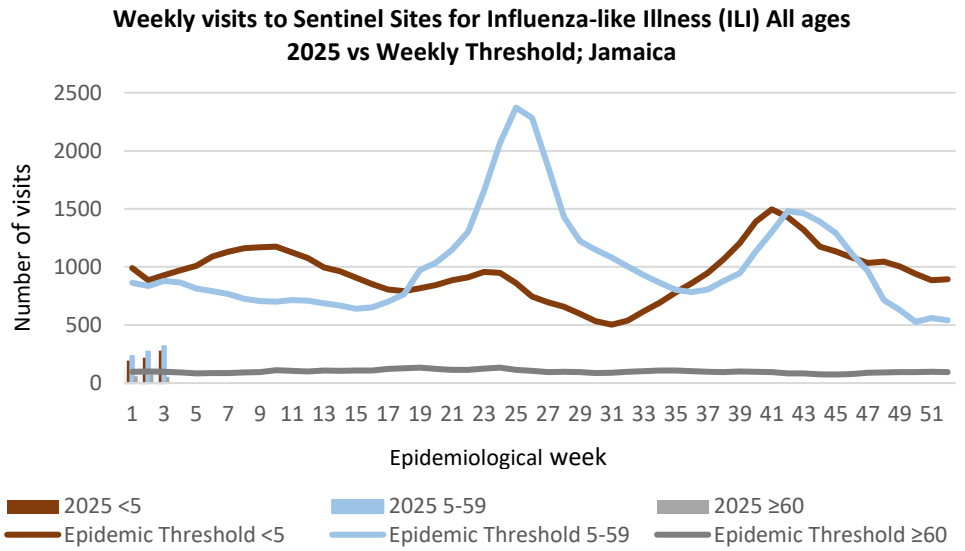
SENTINEL REPORT- 78 sites. Automatic reporting

# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

*EW 3*

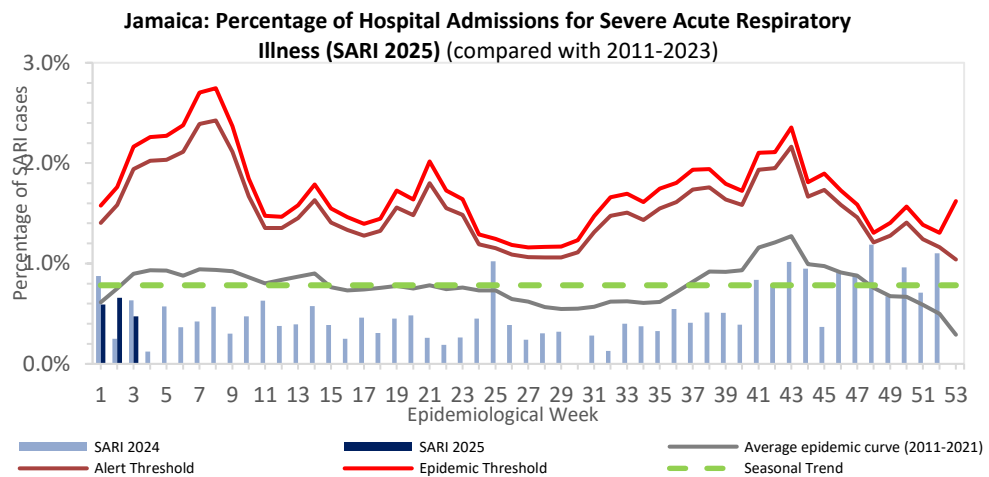
January 12, 2025 – January 18, 2025 Epidemiological Week 3

	EW 3	YTD
SARI cases	8	27
<b>Total Influenza positive Samples</b>	<b>5</b>	<b>28</b>
<b>Influenza A</b>	<b>5</b>	<b>27</b>
H3N2	3	9
H1N1pdm09	2	18
Not subtyped	0	0
<b>Influenza B</b>	<b>0</b>	<b>1</b>
B lineage not determined	0	0
B Victoria	0	1
<b>Parainfluenza</b>	<b>0</b>	<b>0</b>
<b>Adenovirus</b>	<b>0</b>	<b>0</b>
<b>RSV</b>	<b>0</b>	<b>5</b>



**Epi Week Summary**

During EW 3, eight (8) SARI admissions were reported.

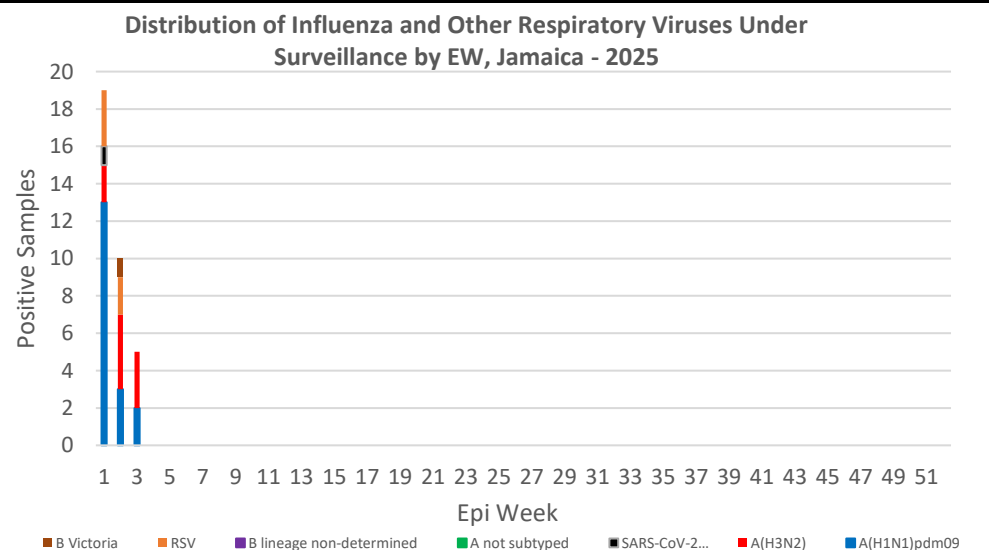


**Caribbean Update EW 3**

**Caribbean:** ILI and SARI cases have continued to decline over the past four EWs. Influenza activity, after increasing in previous weeks, has now started to decline, with A(H1N1)pdm09 as the predominant subtype. RSV activity has also maintained a downward trend over the past four EWs. Meanwhile, SARS-CoV-2 activity remains low.

**By country:** In the last four EWs, influenza activity has been reported in Saint Lucia, Barbados, the Cayman Islands, Guyana and Saint Vincent and the Grenadines. RSV activity has been detected in Belize, the Dominican Republic and Suriname.

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



**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

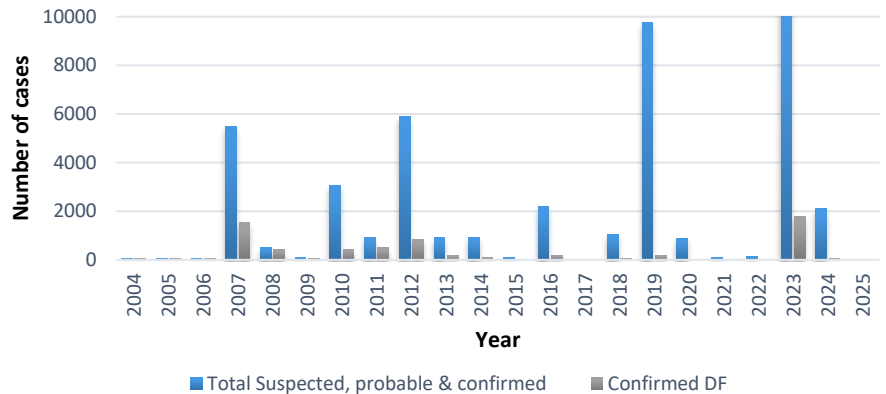
# Dengue Bulletin

January 12, 2024 – January 18, 2025 Epidemiological Week 3


Epidemiological Week 3



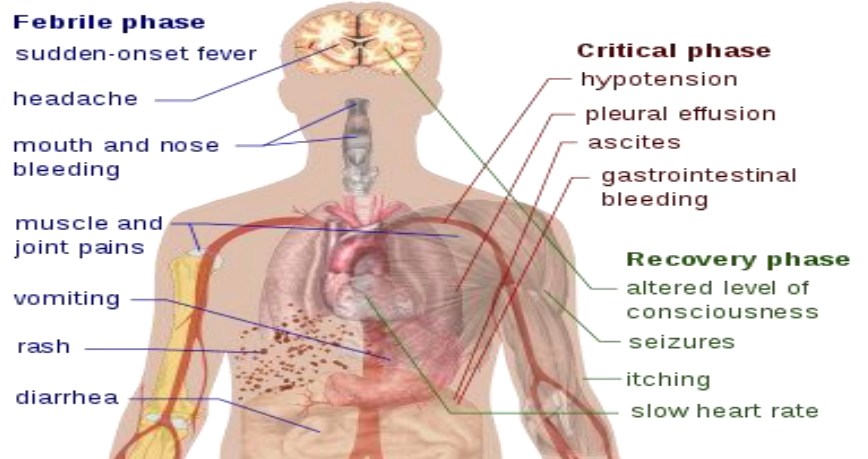
Dengue Cases by Year: 2004-2024, Jamaica



## Reported suspected, probable and confirmed dengue with symptom onset in week 3 of 2025

	2025*	
	EW 3	YTD
 Total Suspected, Probable & Confirmed Dengue Cases	0	15
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0

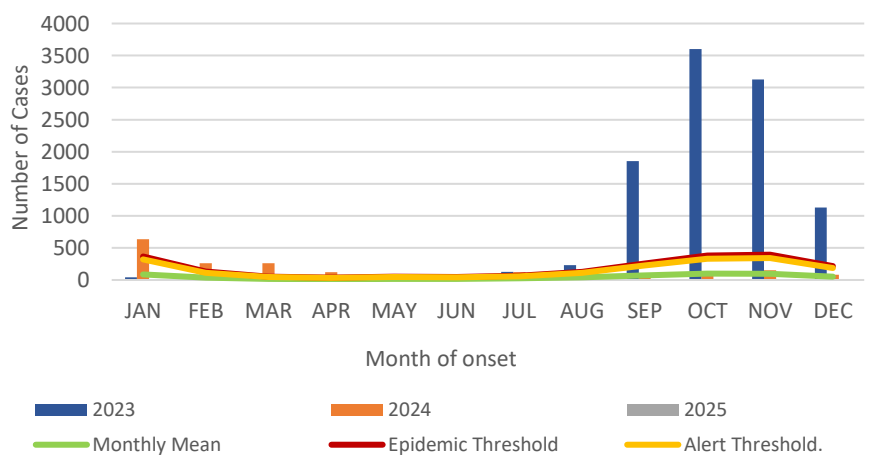
## Symptoms of Dengue fever



### Points to note:

- Dengue deaths are reported based on date of death.
- \*Figure as at January 31, 2025
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected, probable and confirmed dengue cases for 2023-2025 versus monthly mean, alert and epidemic threshold (2007-2022)



8 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



# RESEARCH PAPER

## Abstract

### THE EPIDEMIOLOGY OF OSTEOMYELITIS IN THE SICKLE CELL POPULATION OF JAMAICA

*Dr. Wayne Palmer, Dr. Darren Fray, Professor Knight- Madden, Dr. Andrew Ameerally  
Orthopaedics, Department Of Surgery, Anaesthesia And Intensive Care, University Hospital Of The West  
Indies*

**Introduction:** Knowing the most likely causative organism causing osteomyelitis in the sickle cell population is crucial in implementing empirical therapy; the most common causative organism varies globally.

**Objectives:** To determine the epidemiology of culture proven osteomyelitis in patients who attended the Sickle Cell Unit (SCU) from 2008- 2018, in particular, to determine the most common organisms and whether there was an association of the causal organism with patient location or disease severity.

**Methods:** Ethical approval was obtained from The University of the West Indies Ethics Committee. The charts of all eligible patients were examined. The gender, age, address of individuals and the site of the osteomyelitis and causative organism were extracted. Polyostotic episodes and those which required greater than 42 days of antibiotics were deemed severe. Data were analyzed using SPSS; associations were assessed using the Pearson Chi-Squared Test.

**Results:** Forty three patients met the inclusion criteria; 26 males and 17 females with the mean age being 16.5 years (Range 1-60). St. Catherine was the most common parish. The most prevalent organisms included Salmonella (42%), Staphylococcus Aureus (26%) and Enterobacter (12%). Commonly affected sites included the Tibia (44%), Humerus (26%) and Femur (16%), 7% were severe. There was no association between the causal organism and patient location ( $p=0.196$ ) or disease severity ( $p=0.367$ ).

**Conclusion:** Salmonella was the most common organism causing osteomyelitis in persons attending the SCU. Specific education of patients in avoidance of exposure to this organism may be helpful.



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9 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



HOSPITAL  
ACTIVE  
SURVEILLANCE-  
30 sites. Actively  
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SENTINEL  
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