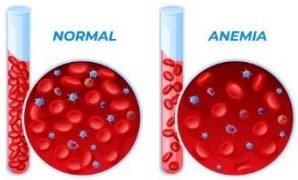
# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Weekly Spotlight

### Anaemia (Part 2)




**Signs and symptoms**

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.

**Causes**

Anaemia is diagnosed based on blood haemoglobin concentrations falling below specified thresholds established based on age, sex, and physiological status. It is considered a symptom of an underlying condition(s). Anaemia may be caused by several factors: nutrient deficiencies, inadequate diet (or the inadequate absorption of nutrients), infections, inflammation, chronic diseases, gynaecological and obstetric conditions, and inherited red blood cell disorders. Iron deficiency, primarily due to inadequate dietary iron intake, is considered the most common nutritional deficiency leading to anaemia. Deficiencies in vitamin A, folate, vitamin B12 and riboflavin can also result in anaemia due to their specific roles in the synthesis of haemoglobin and/or erythrocyte production. Additional mechanisms include nutrient losses (e.g. blood loss from parasitic infections, haemorrhage associated with childbirth, or menstrual loss), impaired absorption, low iron stores at birth, and nutrient interactions affecting iron bioavailability.

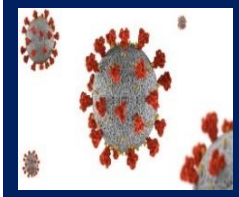
Infections can be another important cause of anaemia, depending on the local burden of infectious diseases, such as malaria, tuberculosis, HIV and parasitic infections. Infections can impair nutrient absorption and metabolism (e.g. malaria, ascariasis) or can cause nutrient loss (e.g. schistosomiasis, hookworm infection). Many different chronic conditions can cause inflammation and lead to anaemia of inflammation or anaemia of chronic disease. HIV infection causes anaemia through a wide range of mechanisms including ineffective production or excessive destruction of red blood cells, blood loss, and side effects of the drug treatment.Consistent heavy menstrual losses, maternal blood volume expansion during pregnancy, and blood loss during and after childbirth, particularly in cases of postpartum haemorrhage, commonly lead to anaemia. Additionally, in some regions, inherited red blood cell disorders are a common cause of anaemia. These include conditions such as α- and β-thalassemia due to abnormalities of haemoglobin synthesis, sickle cell disorders due to changes in the haemoglobin structure, other haemoglobinopathies due to haemoglobin gene variants, abnormalities of red cell enzymes, or abnormalities of the red blood cell membrane.

Taken from WHO website on 3/February/2025
https://www.who.int/news-room/fact-sheets/detail/anaemia
https://healthinfo.healthengine.com.au/anaemia-during-pregnancy-types-causes-treatments (picture

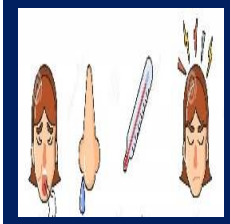
## EPI WEEK 4













## 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 – 1 to 4 of 2025**

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

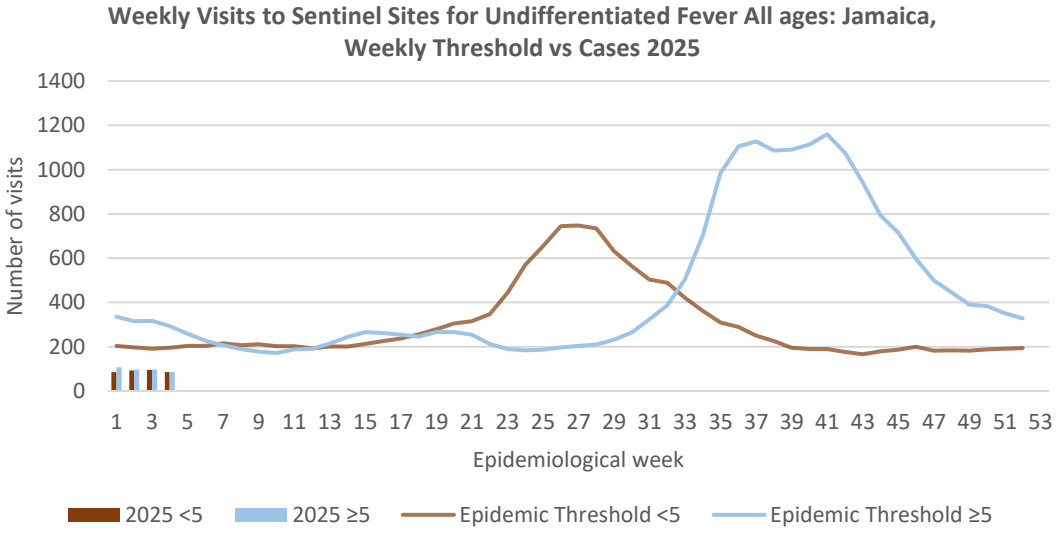
**KEY:**
**Yellow- late submission on Tuesday**
**Red – late submission after Tuesday**

| 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 | | | | | | | | | | | | | |
| 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 |
| 4 | 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 $>38^0C$ /$100.4^0F$ (or recent history of fever) with or without an obvious diagnosis or focus of infection.






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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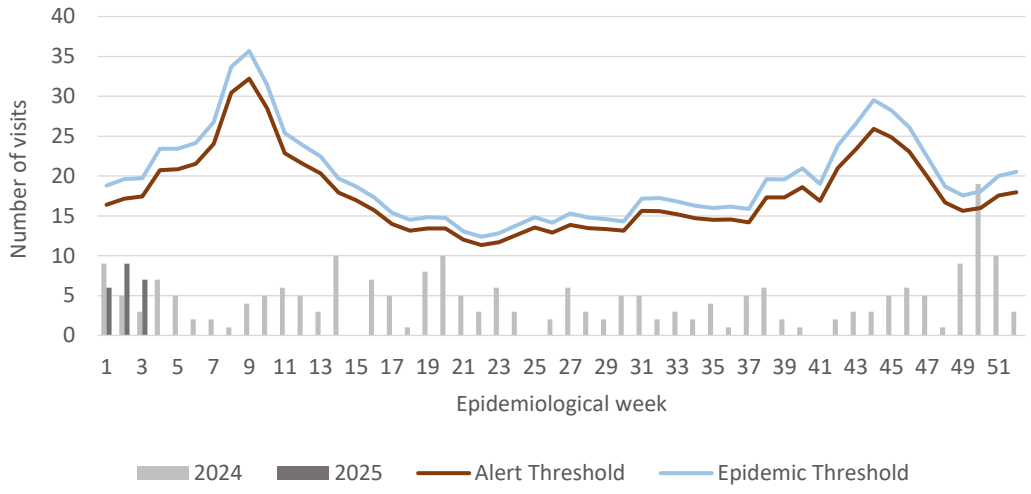
## FEVER AND NEUROLOGICAL

Temperature of >38$^0$C /100.4$^0$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).

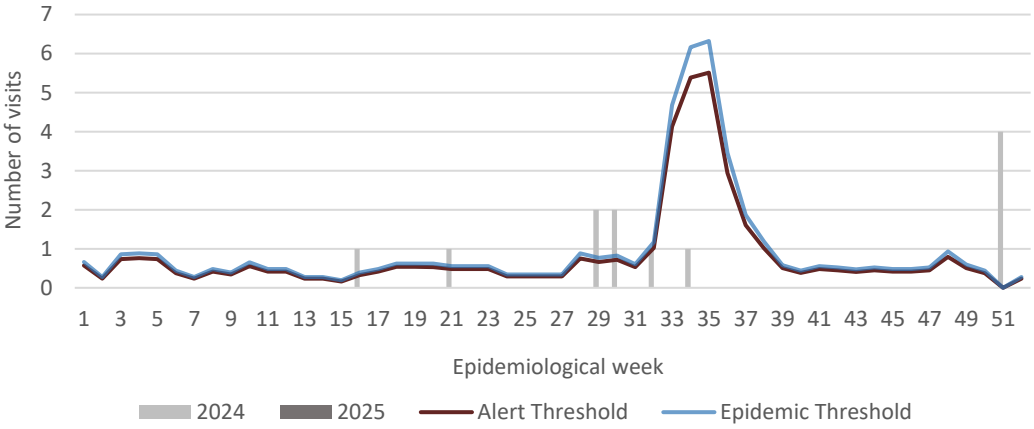
Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2024 and 2025 vs. Weekly Threshold: Jamaica




## FEVER AND HAEMORRHAGIC

Temperature of >38$^0C$ /100.4$^0F$ (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

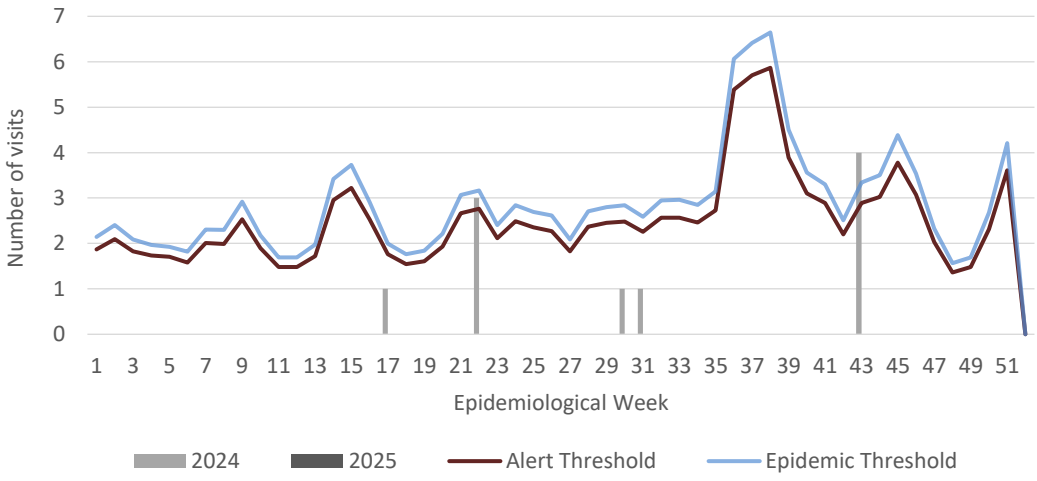



## FEVER AND JAUNDICE

Temperature of >38$^0C$ /100.4$^0F$ (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

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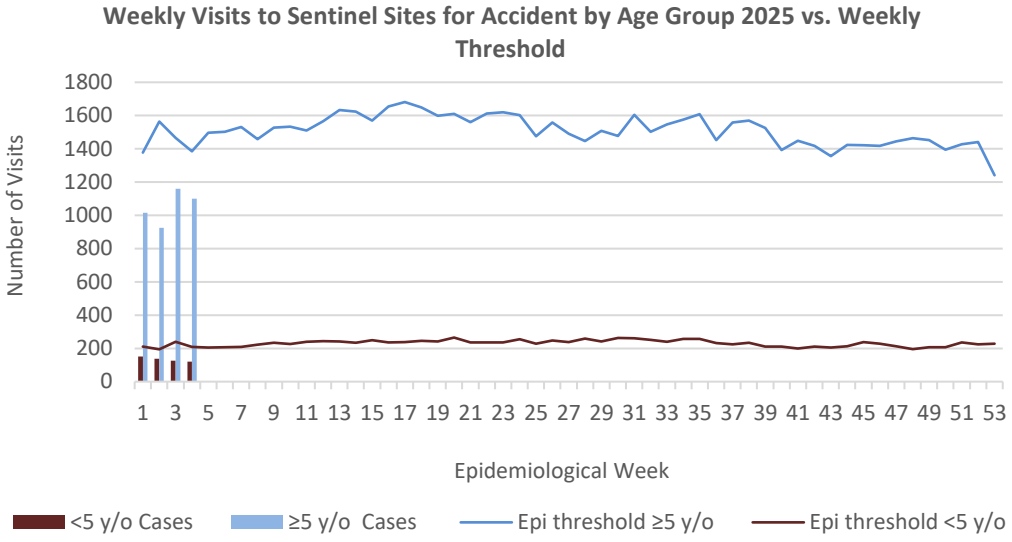
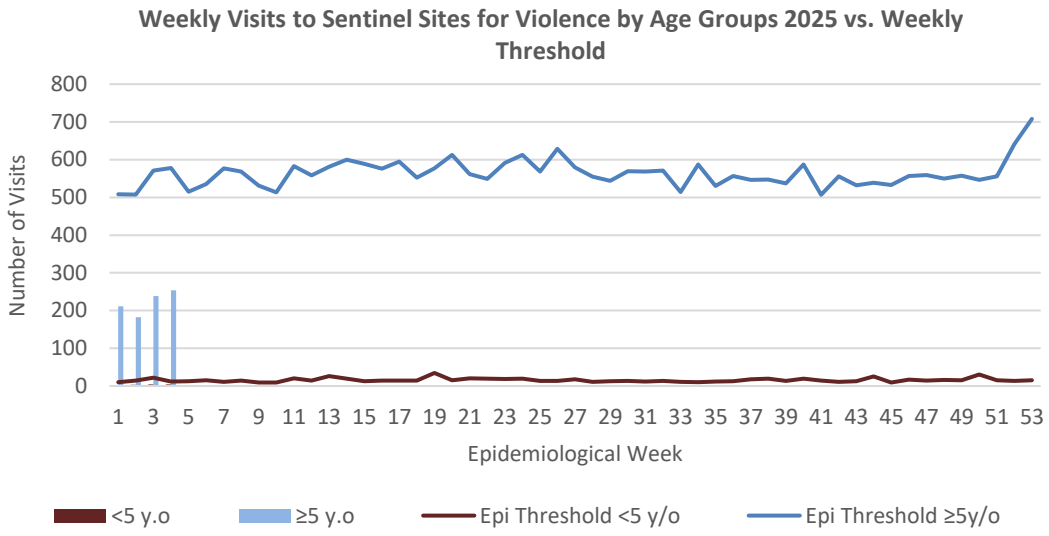
## ACCIDENTS

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



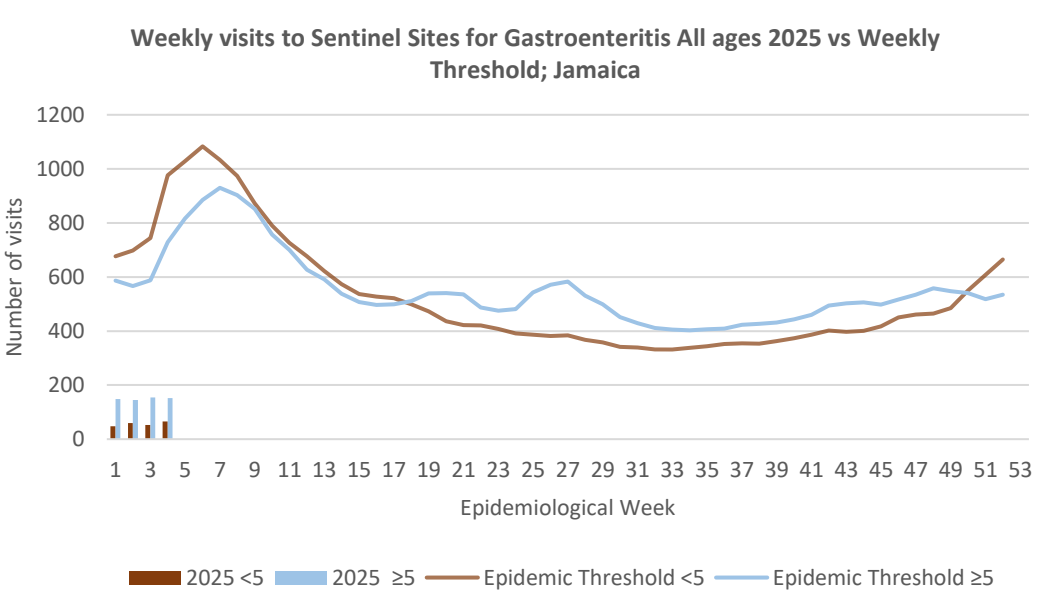

## VIOLENCE

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




## GASTROENTERITIS

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

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## CLASS ONE NOTIFIABLE EVENTS

| | CLASS 1 EVENTS | | Confirmed YTD[α] CURRENT YEAR 2025 | PREVIOUS YEAR 2024 |
|---|---|---|---|---|
| NATIONAL /INTERNATIONAL INTEREST | Accidental Poisoning | | 1[β] | 21[β] |
| | Cholera | | 0 | 0 |
| | Severe Dengue[Y] | | See Dengue page below | See Dengue page below |
| | COVID-19 (SARS-CoV-2) | | 10 | 68 |
| | Hansen's Disease (Leprosy) | | 0 | 0 |
| | Hepatitis B | | 0 | 6 |
| | Hepatitis C | | 0 | 1 |
| | HIV/AIDS | | NA | NA |
| | Malaria (Imported) | | 0 | 0 |
| | Meningitis | | 0 | 0 |
| | Monkeypox | | 0 | 0 |
| EXOTIC/ UNUSUAL | Plague | | 0 | 0 |
| H IGH 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[δ] | | 6 | 6 |
| | Ophthalmia Neonatorum | | 0 | 16 |
| | Pertussis-like syndrome | | 0 | 0 |
| | Rheumatic Fever | | 0 | 0 |
| | Tetanus | | 0 | 0 |
| | Tuberculosis | | 0 | 7 |
| | Yellow Fever | | 0 | 0 |
| | Chikungunya[ε] | | 0 | 0 |
| | Zika Virus[θ] | | 0 | 0 |

Comments

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.

[Y]Dengue Hemorrhagic Fever data include Dengue related deaths;

[δ] Figures include all deaths associated with pregnancy reported for the period.

[ε] CHIKV IgM positive cases

[θ] Zika PCR positive cases

[β] Updates made to prior weeks.

[α] Figures are cumulative totals for all epidemiological weeks year to date.

NA- Not Available



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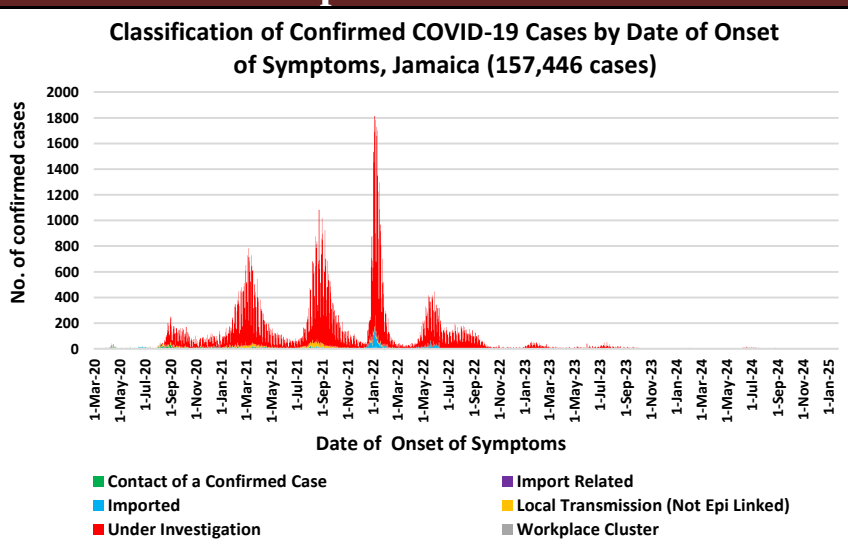
# COVID-19 Surveillance Update

| CASES | EW 4 | Total |
|---|---|---|
| Confirmed | 5 | 157446 |
| Females | 2 | 90717 |
| Males | 3 | 66726 |
| Age Range | 5 months to 49 years old | 1 day to 108 years |

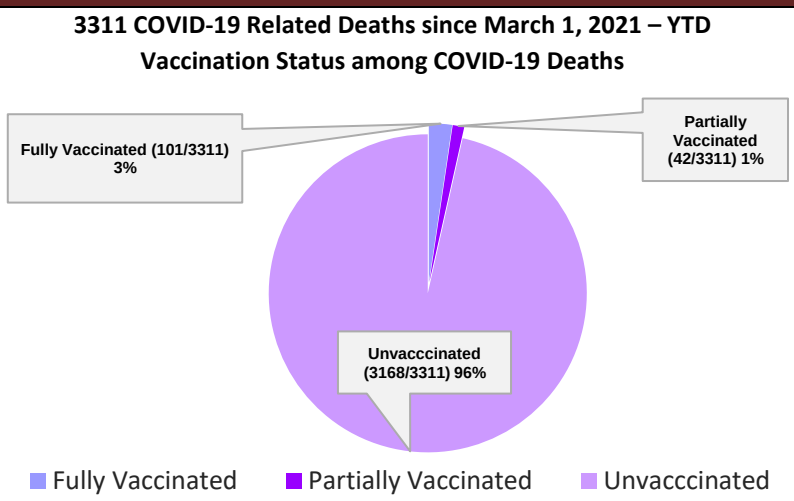
* 3 positive cases had no gender specification
* PCR or Antigen tests are used to confirm cases
* Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.



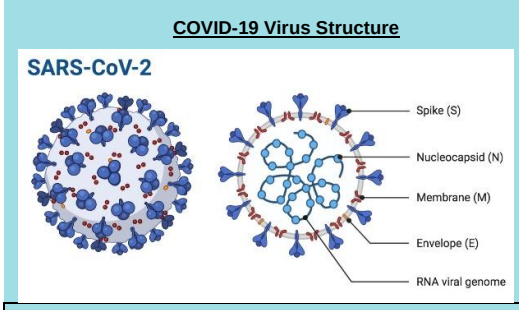

## COVID-19 Outcomes

| Outcomes | EW 4 | Total |
|---|---|---|
| ACTIVE *2 weeks* | | 8 |
| DIED – COVID Related | 0 | 3875 |
| Died - NON COVID | 0 | 394 |
| Died - Under Investigation | 0 | 143 |
| Recovered and discharged | 0 | 103226 |
| Repatriated | 0 | 93 |
| Total | | 157446 |

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

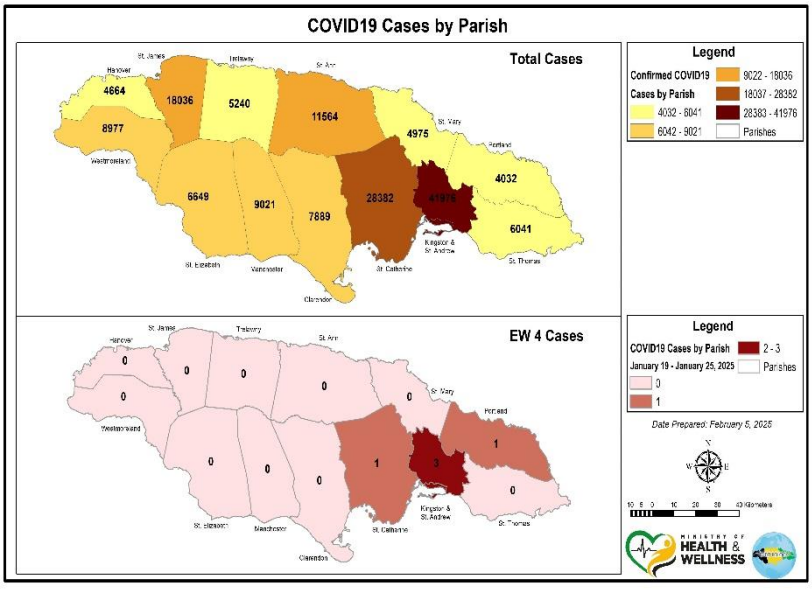



## COVID-19 Parish Distribution and Global Statistics




COVID-19 WHO Global Statistics EW 1 - 4, 2025

| Epi Week | Confirmed Cases | Deaths |
|---|---|---|
| 1 | 35400 | 698 |
| 2 | 24000 | 790 |
| 3 | 23000 | 607 |
| 4 | 19100 | 158 |
| **Total (4weeks)** | **101500** | **2253** |

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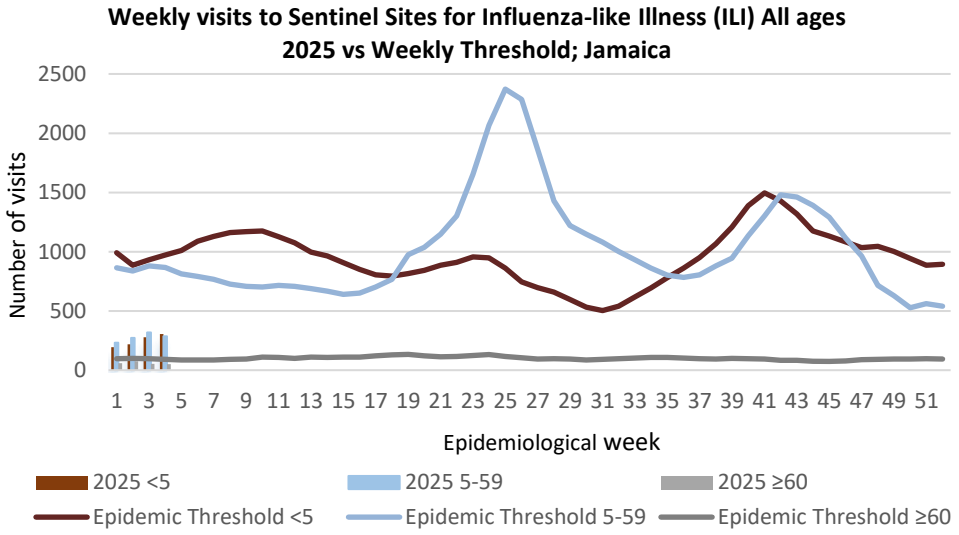
# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

# *EW 4*

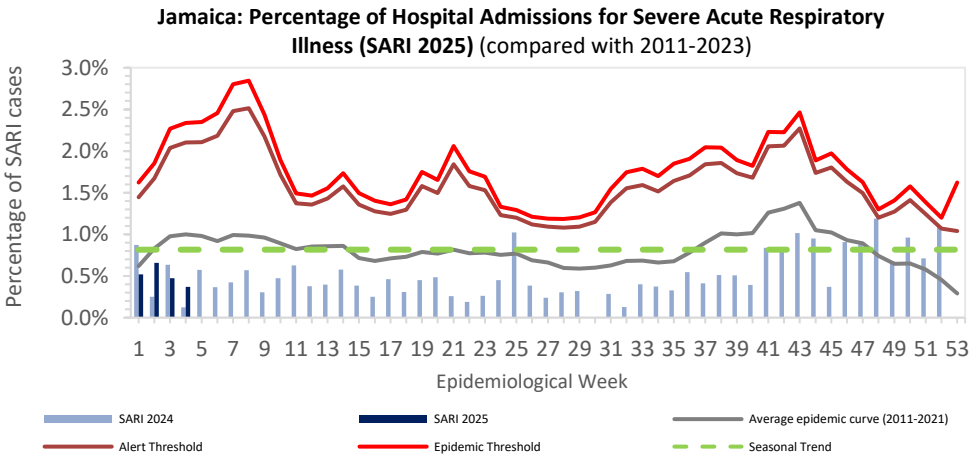
January 19, 2025 – January 25, 2025 Epidemiological Week 4

| | *EW 4* | *YTD* |
|---|---|---|
| SARI cases | 6 | 33 |
| **Total Influenza positive Samples** | **1** | **46** |
| **Influenza A** | **1** | **45** |
| H3N2 | 1 | 17 |
| H1N1pdm09 | 0 | 28 |
| Not subtyped | 0 | 0 |
| **Influenza B** | **0** | **1** |
| B lineage not determined | 0 | 0 |
| B Victoria | 0 | 2 |
| **Parainfluenza** | 0 | 0 |
| **Adenovirus** | 0 | 0 |
| **RSV** | 0 | 17 |




## Epi Week Summary

**During EW 4, six (6) SARI admissions were reported.**

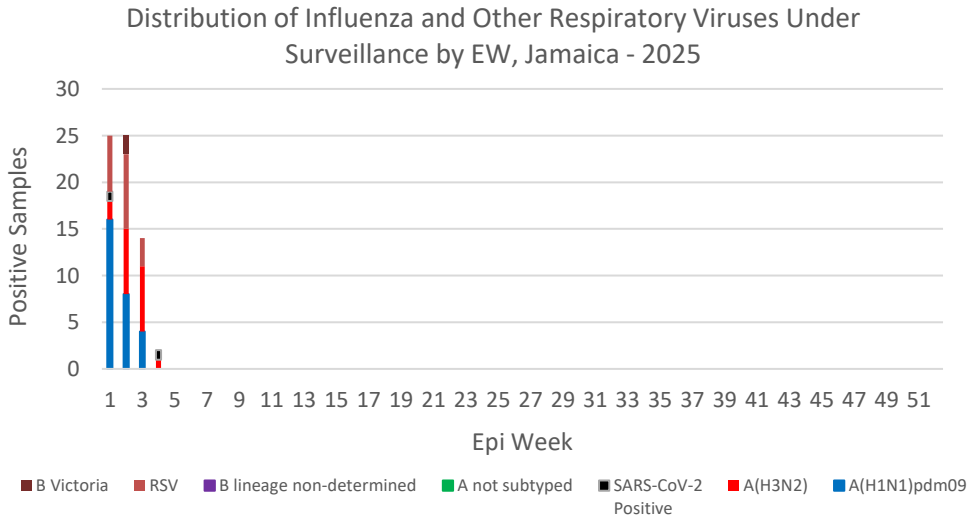



## Caribbean Update EW 4

**Caribbean**: ILI and SARI cases have shown a slight increase over the past four EWs, although levels remain lower than those observed during previous waves. Influenza activity has also increased during this period, with A(H1N1) pdm09 being the predominant subtype. RSV activity has continued to decline, while SARS-CoV-2 activity remains low.

**By country:** In recent weeks, influenza activity has been reported in Saint Lucia, Suriname, Barbados, the Cayman Islands, Guyana, and Saint Vincent and the Grenadines. Additionally, RSV activity has been detected in Suriname and Grenada.

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

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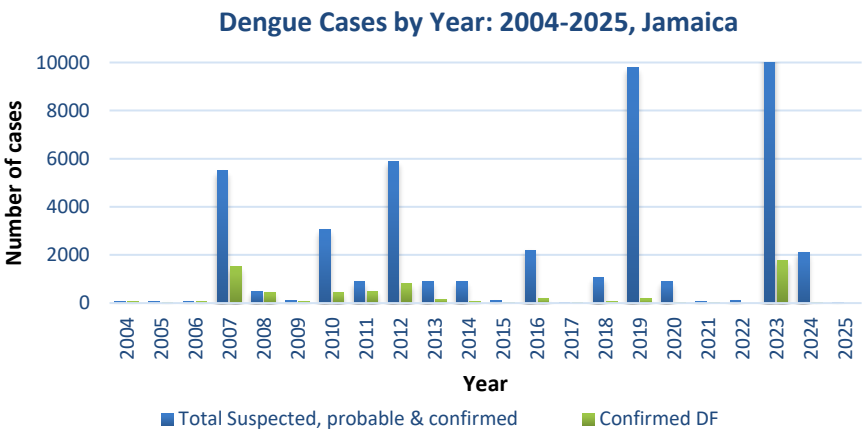
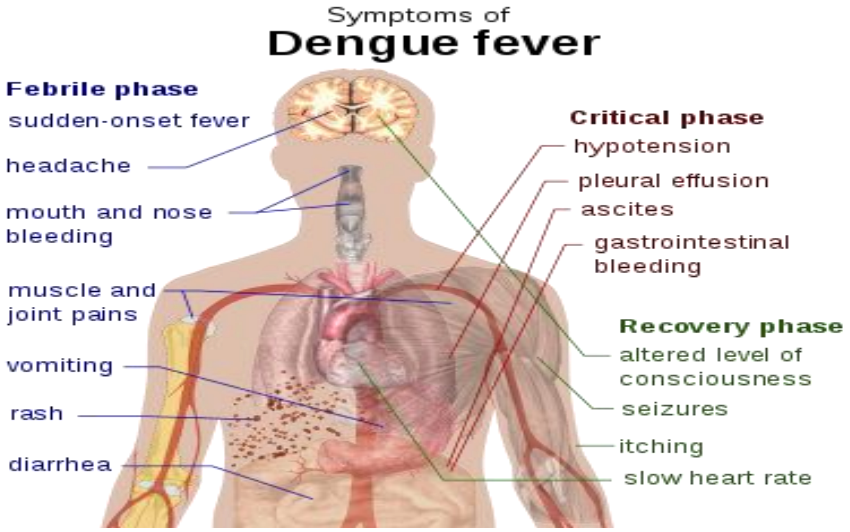
# Dengue Bulletin

January 19, 2024 – January 25, 2025 Epidemiological Week 4 | Epidemiological Week 4



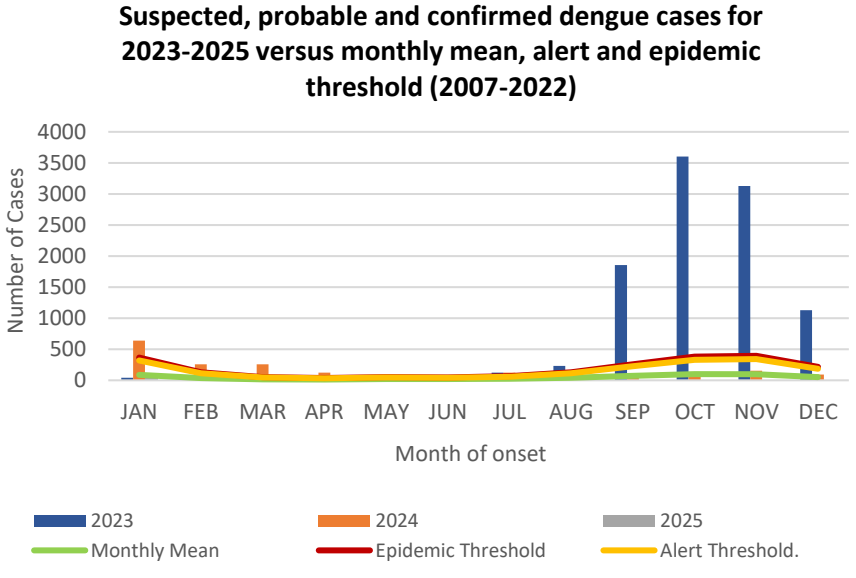

**Reported suspected, probable and confirmed dengue with symptom onset in week 4 of 2025**

| | 2025* | |
|---|---|---|
| | EW 4 | YTD |
| Total Suspected, Probable & Confirmed Dengue Cases | 0 | 35 |
| Lab Confirmed Dengue cases | 0 | 0 |
| CONFIRMED Dengue Related Deaths | 0 | 0 |




**Points to note:**

- **Dengue deaths are reported based on date of death.**
- ***Figure as at February 6, 2025**
- **Only PCR positive dengue cases are reported as confirmed.**
- **IgM positive cases are classified as presumed dengue.**



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# RESEARCH PAPER


## Abstract

**NHRC-23-O01**

### Potential years of life lost in Jamaica, 2010 – 2020

Campbell E[1], Harris A[1], Grant A[1], Anderson S[1], Martin-Chen N[1], Webster-Kerr K[1]

[1]*Ministry of Health and Wellness, Jamaica*

**Aim:** To analyze trends in potential years of life lost (PYLL) between 2010 and 2020 in Jamaica.

**Methods:** National mortality and demographic data were obtained from the Registrar General's Department and Statistical Institute of Jamaica. PYLL was computed as the sum of all deaths at each age multiplied by years of life lost before 75 years per 100,000 population. PYLL was ranked by disease category, calendar year and sex. The relative percentage change was calculated, and chi-square tests used to evaluate trends between 2010 and 2020.

**Results:** The leading causes of mortality were non-communicable diseases (NCDs; 4,720/100,000), followed by external causes (2,805/100,000). When disaggregated by disease, the highest mean PYLL for 2010-2020 was observed for assault (1,641/100,000) in the overall population and in males (3,086/100,000), versus females (329/100,000). The second-highest PYLL was for human immunodeficiency virus (HIV) overall (547/100,000), and in males (573/100,000). However, HIV was the leading cause of premature death in females (520/100,000), with a significant decrease for both sexes between 2010-2020 (-32%; p=0.005). Diabetes had the third-highest PYLL (514/100,000) in the population and in males (553/100,000). It was the second leading cause of premature death in females (509/100,000), with a significant increase in the past decade for both sexes (64%, p=0.002). There were significant increases in PYLL from 2010-2020 for NCDs such as hypertensive diseases (91%, p=0.001), ischemic heart disease (84%, p=0.003) and stroke (44%, p=0.007).

**Conclusions:** This analysis highlights the burden of premature death in Jamaica and suggests that individuals are dying before their life expectancy.



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