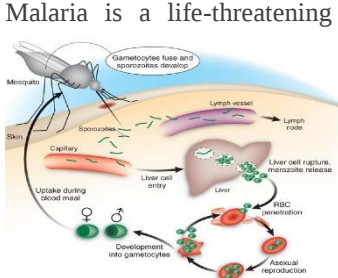


# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Weekly Spotlight

## Malaria



Malaria is a life-threatening disease spread to humans by some types of mosquitoes. It is mostly found in tropical countries. It is preventable and curable. The infection is caused by a parasite and does not spread from person to person. Symptoms can be mild or life-threatening. Mild symptoms are fever, chills and headache. Severe symptoms include fatigue, confusion, seizures, and difficulty breathing. Infants, children under 5 years, pregnant women and girls, travellers and people with HIV or AIDS are at higher risk of severe infection. Malaria can be prevented by avoiding mosquito bites and with medicines. Treatments can stop mild cases from getting worse.

Malaria mostly spreads to people through the bites of some infected female *Anopheles* mosquitoes. Blood transfusion and contaminated needles may also transmit malaria. The first symptoms may be mild, similar to many febrile illnesses, and difficult to recognize as malaria. Left untreated, *P. falciparum* malaria can progress to severe illness and death within 24 hours. There are 5 *Plasmodium* parasite species that cause malaria in humans and 2 of these species – *P. falciparum* and *P. vivax* – pose the greatest threat. *P. falciparum* is the deadliest malaria parasite and the most prevalent on the African continent. *P. vivax* is the dominant malaria parasite in most countries outside of sub-Saharan Africa. The other malaria species which can infect humans are *P. malariae*, *P. ovale* and *P. knowlesi*.

## Symptoms

The most common early symptoms of malaria are fever, headache and chills. Symptoms usually start within 10–15 days of getting bitten by an infected mosquito.

Symptoms may be mild for some people, especially for those who have had a malaria infection before. Because some malaria symptoms are not specific, getting tested early is important.

Some types of malaria can cause severe illness and death. Infants, children under 5 years, pregnant women, travellers and people with HIV or AIDS are at higher risk. Severe symptoms include:

- extreme tiredness and fatigue
- impaired consciousness
- multiple convulsions
- difficulty breathing
- dark or bloody urine
- jaundice (yellowing of the eyes and skin)
- abnormal bleeding.

People with severe symptoms should get emergency care right away. Getting treatment early for mild malaria can stop the infection from becoming severe. Malaria infection during pregnancy can also cause premature delivery or delivery of a baby with low birth weight.

**Taken from WHO website on 24/Oct/2025**

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

[https://www.google.com/search?q=picture+of+malaria+parasite&rlz=1C1CGEA\\_enjM1049jM1049&oq=picture+of+malaria&gs\\_lcrp=EgZjaHJvbwUqBwgCEAAyQAyBwgAEAAyQAyBggBEUFUOTIHCAIQABIDHICAMQABIDHICAQABIDHICAUQABIDHICAWQABIDHICAHCAQABIDHICAKQABIDHICAKQABIANIBIC5ENDg5ajBqN6gKCALCAA&source=chrome&ie=UTF-8&vhid=KHF5veo3S\\_lx7M8vssid=Mt7\\_ajVKE6WZwbkPm4-HsA.66](https://www.google.com/search?q=picture+of+malaria+parasite&rlz=1C1CGEA_enjM1049jM1049&oq=picture+of+malaria&gs_lcrp=EgZjaHJvbwUqBwgCEAAyQAyBwgAEAAyQAyBggBEUFUOTIHCAIQABIDHICAMQABIDHICAQABIDHICAUQABIDHICAWQABIDHICAHCAQABIDHICAKQABIDHICAKQABIANIBIC5ENDg5ajBqN6gKCALCAA&source=chrome&ie=UTF-8&vhid=KHF5veo3S_lx7M8vssid=Mt7_ajVKE6WZwbkPm4-HsA.66)

## EPI WEEK 42



## Syndromic Surveillance

## Accidents

## Violence

Pages 2-4



## Class 1 Notifiable Events

Page 5



## COVID-19 Surveillance

Page 6



## Influenza Surveillance

Page 7



## Dengue Surveillance

Page 8



## Research Abstract

Page 9

## 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 - 39 to 42 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     |                           |              |                 |          |            |           |          |             |         |              |                 |            |           |
| 39       | 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   |
| 40       | 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   |
| 41       | 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   |
| 42       | On Time                   | On Time      | On Time         | Late (T) | On Time    | On Time   | On Time  | Late (T)    | On Time | On Time      | On Time         | On Time    | On Time   |

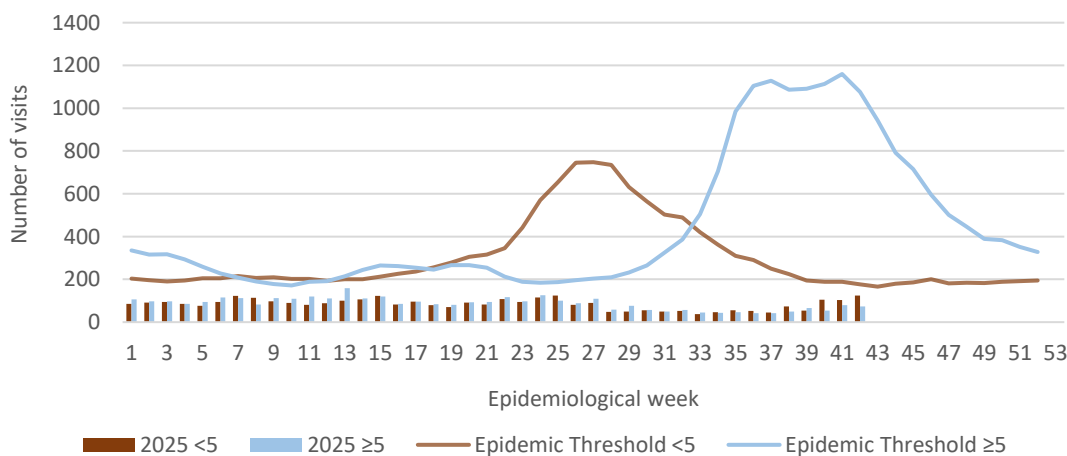
## SYNDROMIC SURVEILLANCE

## 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 2025



2

NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



HOSPITAL  
ACTIVE  
SURVEILLANCE-  
30 sites. Actively  
pursued



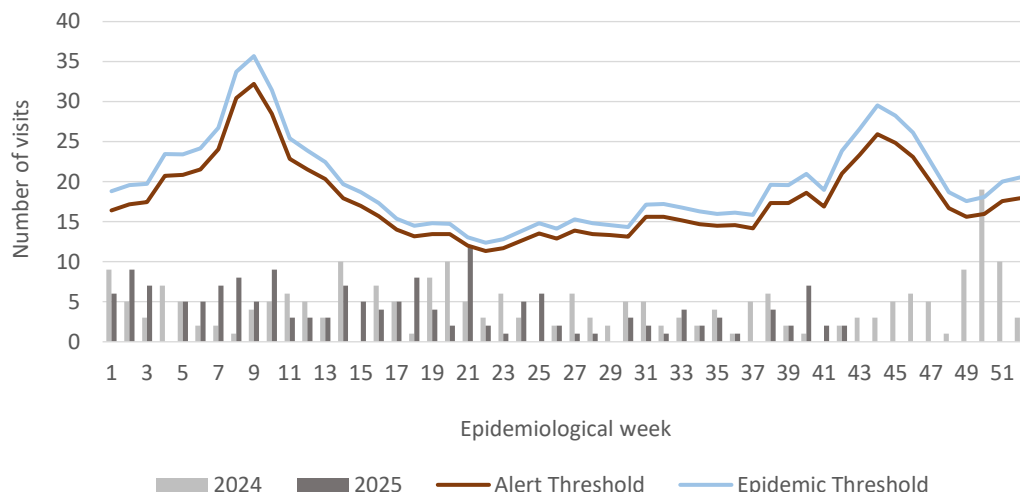
SENTINEL  
REPORT- 78 sites.  
Automatic reporting

**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).



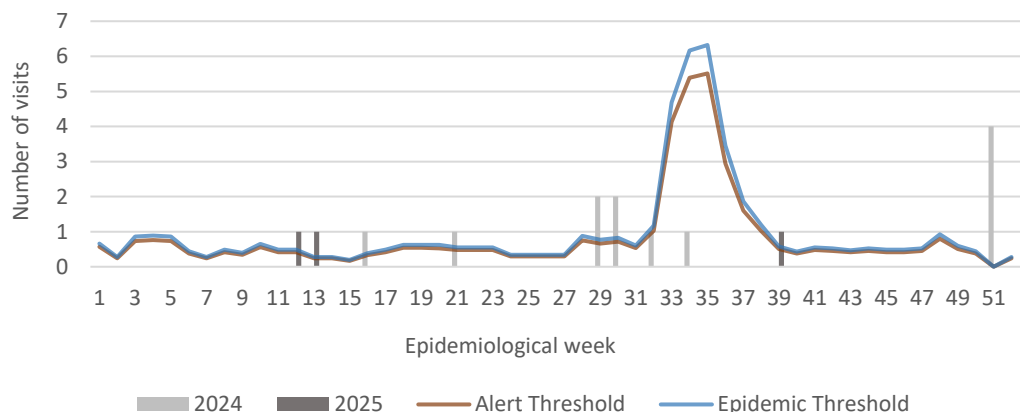
Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2024 and 2025 vs. Weekly Threshold: Jamaica

**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 symptoms 2024 and 2025 vs Weekly Threshold; Jamaica

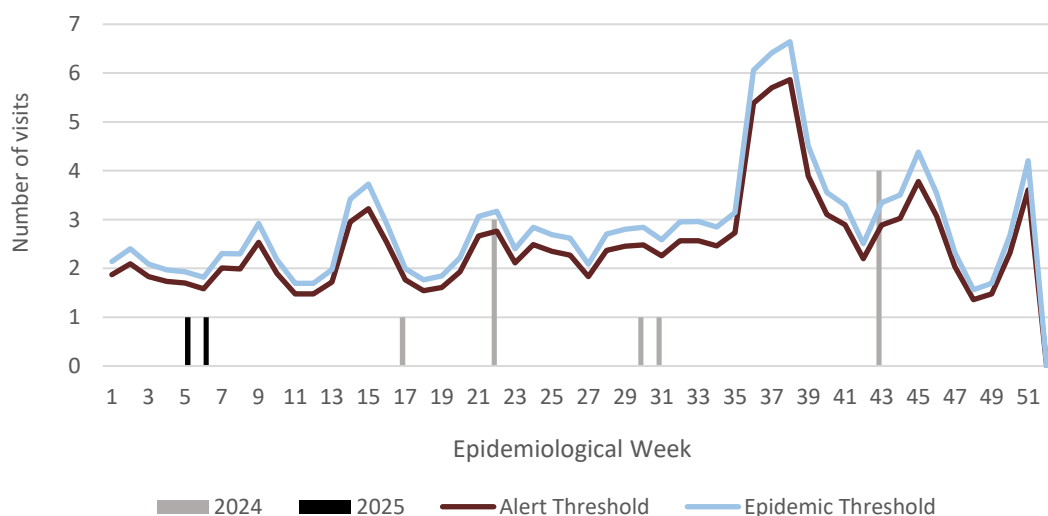
**FEVER AND JAUNDICE**

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.



Weekly visits for Fever and Jaundice symptoms: 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



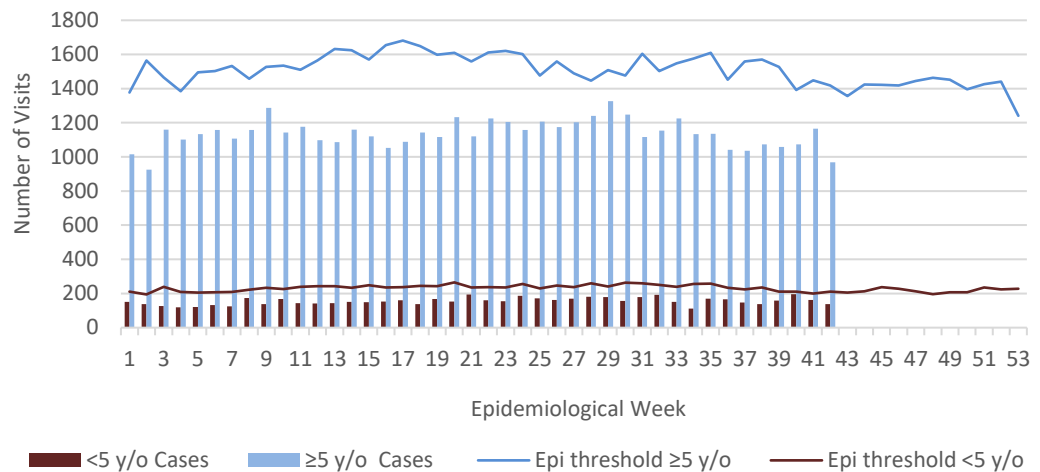
**SENTINEL REPORT-** 78 sites. Automatic reporting

## 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

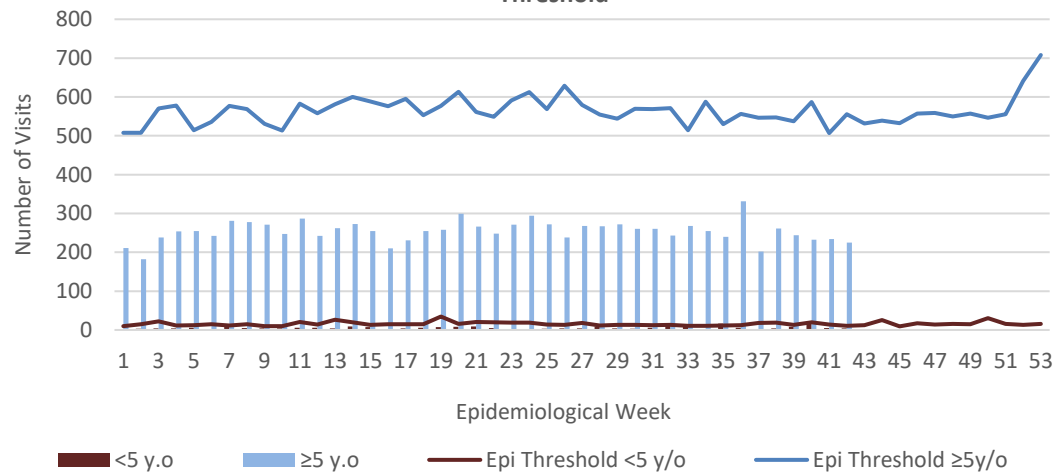


## VIOLENCE

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

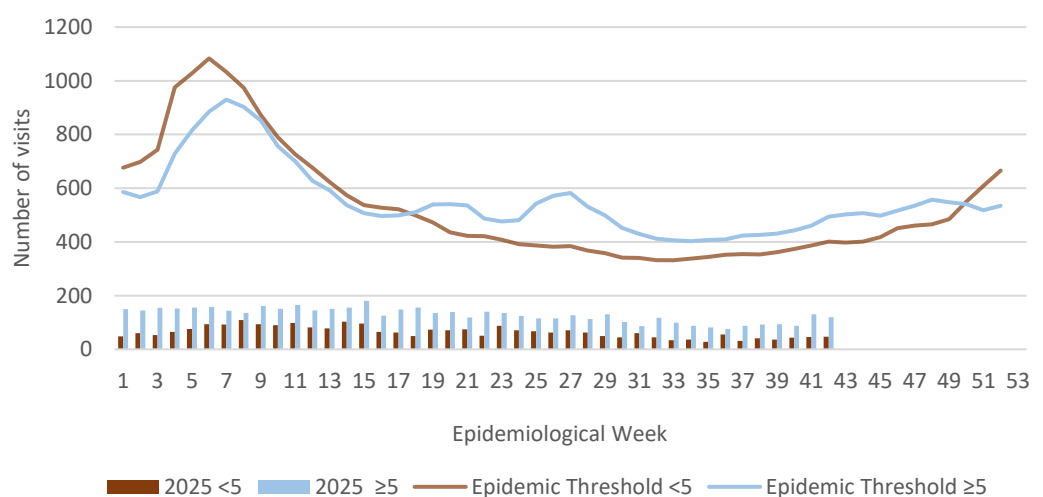


## GASTROENTERITIS

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                                                                                                                                                                         |                                           |
|----------------------------------|------------------------------|---------|----------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
|                                  |                              |         | 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 2025          | PREVIOUS YEAR 2024    |                                                                                                                                                                                  |                                           |
| NATIONAL /INTERNATIONAL INTEREST | Accidental Poisoning         |         | 115 <sup>β</sup>           | 258 <sup>β</sup>      | Pertussis-like syndrome and Tetanus are clinically confirmed classifications.                                                                                                    |                                           |
|                                  | Cholera                      |         | 0                          | 0                     |                                                                                                                                                                                  |                                           |
|                                  | Severe Dengue <sup>γ</sup>   |         | See Dengue page below      | See Dengue page below |                                                                                                                                                                                  |                                           |
|                                  | COVID-19 (SARS-CoV-2)        |         | 306                        | 669                   | <sup>γ</sup> Dengue Hemorrhagic Fever data include Dengue related deaths;                                                                                                        |                                           |
|                                  | Hansen’s Disease (Leprosy)   |         | 0                          | 0                     |                                                                                                                                                                                  |                                           |
|                                  | Hepatitis B                  |         | 5                          | 37                    |                                                                                                                                                                                  |                                           |
|                                  | Hepatitis C                  |         | 1                          | 9                     |                                                                                                                                                                                  |                                           |
|                                  | HIV/AIDS                     |         | NA                         | NA                    | <sup>δ</sup> Figures include all deaths associated with pregnancy reported for the period.                                                                                       |                                           |
|                                  | Malaria (Imported)           |         | 1                          | 2                     |                                                                                                                                                                                  |                                           |
|                                  | Meningitis                   |         | 11                         | 18                    |                                                                                                                                                                                  |                                           |
|                                  | Mpox                         |         | 1                          | 0                     | <sup>ε</sup> CHIKV IgM positive cases                                                                                                                                            |                                           |
| EXOTIC/ UNUSUAL                  | Plague                       |         | 0                          | 0                     |                                                                                                                                                                                  |                                           |
| HIGH MORBIDITY/ MORTALITY        | Meningococcal Meningitis     |         | 0                          | 0                     | <sup>θ</sup> Zika PCR positive cases                                                                                                                                             |                                           |
|                                  | Neonatal Tetanus             |         | 0                          | 0                     |                                                                                                                                                                                  |                                           |
|                                  | Typhoid Fever                |         | 0                          | 0                     |                                                                                                                                                                                  | <sup>β</sup> Updates made to prior weeks. |
|                                  | Meningitis H/Flu             |         | 0                          | 0                     |                                                                                                                                                                                  |                                           |
| SPECIAL PROGRAMMES               | AFP/Polio                    |         | 0                          | 0                     | <sup>α</sup> Figures are cumulative totals for all epidemiological weeks year to date.                                                                                           |                                           |
|                                  | Congenital Rubella Syndrome  |         | 0                          | 0                     |                                                                                                                                                                                  |                                           |
|                                  | Congenital Syphilis          |         | 0                          | 0                     |                                                                                                                                                                                  |                                           |
|                                  | Fever and Rash               | Measles | 0                          | 0                     |                                                                                                                                                                                  |                                           |
|                                  |                              | Rubella | 0                          | 0                     |                                                                                                                                                                                  |                                           |
|                                  | Maternal Deaths <sup>δ</sup> |         | 47                         | 53                    |                                                                                                                                                                                  |                                           |
|                                  | Ophthalmia Neonatorum        |         | 35                         | 159                   |                                                                                                                                                                                  |                                           |
|                                  | Pertussis-like syndrome      |         | 0                          | 0                     |                                                                                                                                                                                  |                                           |
|                                  | Rheumatic Fever              |         | 0                          | 0                     |                                                                                                                                                                                  |                                           |
|                                  | Tetanus                      |         | 2                          | 0                     |                                                                                                                                                                                  |                                           |
|                                  | Tuberculosis                 |         | 39                         | 44                    |                                                                                                                                                                                  |                                           |
|                                  | Yellow Fever                 |         | 0                          | 0                     |                                                                                                                                                                                  |                                           |
|                                  | Chikungunya <sup>ε</sup>     |         | 0                          | 0                     | NA- Not Available                                                                                                                                                                |                                           |
|                                  | Zika Virus <sup>θ</sup>      |         | 0                          | 0                     |                                                                                                                                                                                  |                                           |



5 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



HOSPITAL  
ACTIVE  
SURVEILLANCE-  
30 sites. Actively  
pursued

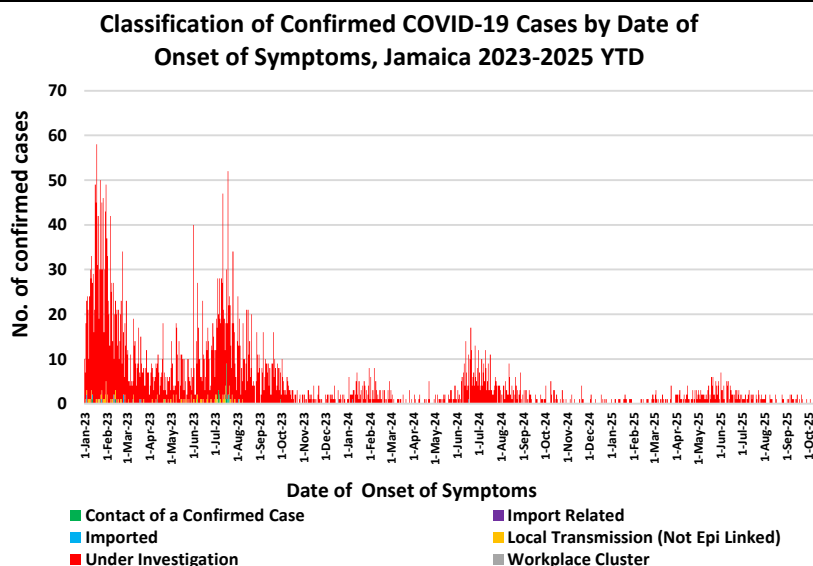


SENTINEL  
REPORT- 78 sites.  
Automatic reporting

# COVID-19 SURVEILLANCE

| CASES     | EW 42               | Total              |
|-----------|---------------------|--------------------|
| Confirmed | 2                   | 157745             |
| Females   | 2                   | 90879              |
| Males     | 0                   | 66863              |
| Age Range | 4 years to 74 years | 1 day to 108 years |

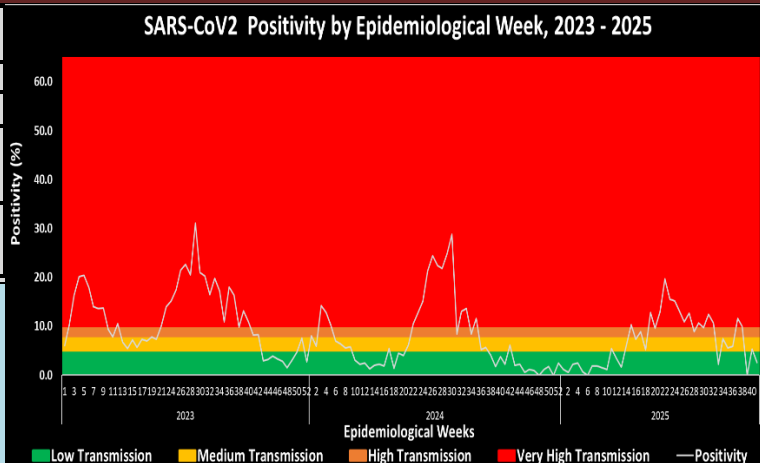
\* 3 positive cases had no gender specification  
 \* PCR or Antigen tests are used to confirm cases  
 \* Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.



## COVID-19 Outcomes

| Number of Confirmed COVID-19 cases and deaths, Jamaica 2020-2025 |       |       |       |      |      |      |        |
|------------------------------------------------------------------|-------|-------|-------|------|------|------|--------|
| COVID-19                                                         | Year  |       |       |      |      |      | Total  |
|                                                                  | 2020  | 2021  | 2022  | 2023 | 2024 | 2025 |        |
| Cases                                                            | 13352 | 83814 | 45920 | 3842 | 705  | 306  | 157741 |
| Deaths                                                           | 332   | 2815  | 621   | 116  | 24   | 13   | 3921   |

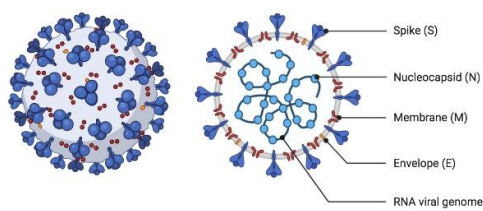
\*Current positivity rate 1.7%  
 - (positive samples/total samples tested)  
 \* Low transmission for infection



## COVID-19 Parish Distribution and Global Statistics

### COVID-19 Virus Structure

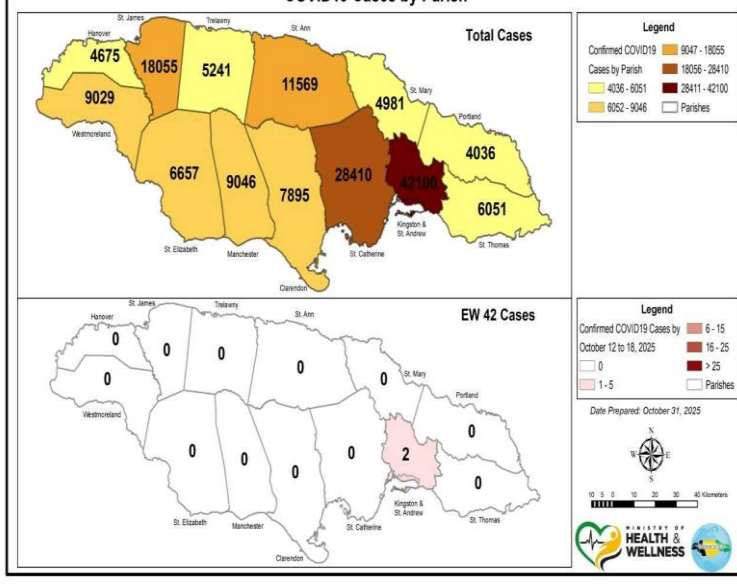
#### SARS-CoV-2



### COVID-19 WHO Global Statistics EW 39 -42 2025

| Epi Week              | Confirmed Cases | Deaths     |
|-----------------------|-----------------|------------|
| 39                    | 41600           | 286        |
| 40                    | 40000           | 97         |
| 41                    | 37100           | 106        |
| 42                    | 36200           | 84         |
| <b>Total (4weeks)</b> | <b>154900</b>   | <b>573</b> |

### COVID19 Cases by Parish



## INFLUENZA SURVEILLANCE

EW 42

October 12, 2025 – October 18, 2025 Epidemiological Week 42

|                                         | EW 42    | YTD        |
|-----------------------------------------|----------|------------|
| SARI cases                              | 2        | 335        |
| <b>Total Influenza positive Samples</b> | <b>0</b> | <b>182</b> |
| <b>Influenza A</b>                      | <b>0</b> | <b>156</b> |
| H1N1pdm09                               | 0        | 85         |
| H3N2                                    | 0        | 71         |
| Not subtyped                            | 0        | 0          |
| <b>Influenza B</b>                      | <b>0</b> | <b>26</b>  |
| B lineage not determined                | 0        | 0          |
| B Victoria                              | 0        | 26         |
| <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>34</b>  |

## Epi Week Summary

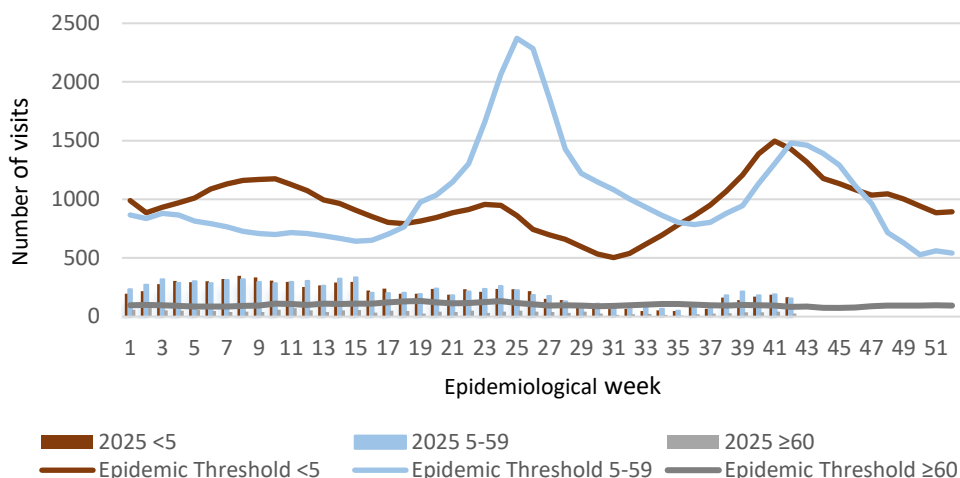
During EW 42, two (2) SARI admissions was reported.

## Caribbean Update EW 42

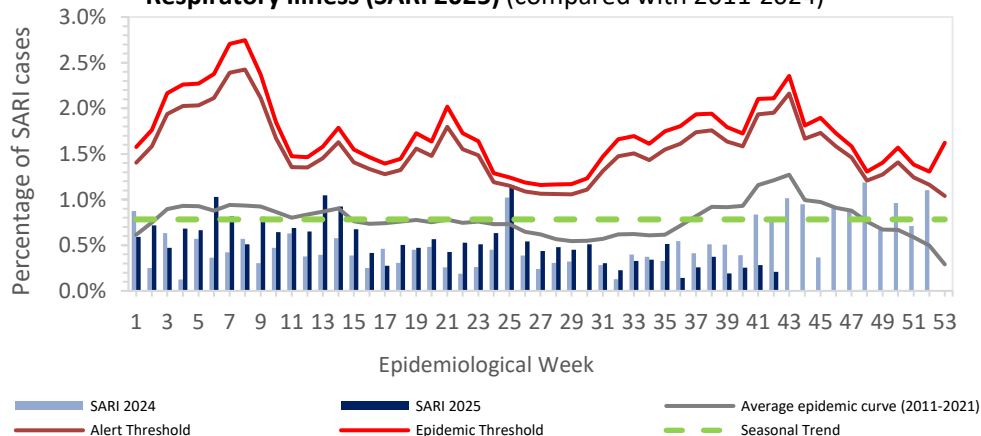
Influenza activity, primarily driven by the concurrent circulation of subtype A(H1N1)pdm09 and influenza B, increased during the last EW, with a subregional positivity rate of 5.5%. RSV circulation rose compared to the previous EW, reaching a positivity rate of 11.8%. SARS-CoV-2 activity also increased during the last EW, with a subregional positivity rate of 6.7%. SARI cases show a downward trend, mainly associated with influenza. In contrast, ILI cases present a slight increase, also predominantly linked to influenza, followed by SARS-CoV-2. At the country level, influenza activity shows an upward trend in Belize and the Dominican Republic, while Cuba, Haiti, Jamaica, the Cayman Islands and Guyana show a downward trend. Regarding RSV, circulation decreased in Cuba and Barbados compared to the previous EW. It also declined in Cayman Islands, although positivity remains high (16.8%). Belize, Haiti, Suriname and Saint Vincent and the Grenadines maintain low circulation, while the Dominican Republic, Jamaica, Saint Lucia and Guyana show an increase, reaching positivity rate of 42.9%, 3.1%, 7% and 4%, respectively. As for SARS-CoV-2, activity declined in Cuba and Suriname during the last EW. Haiti, Belize, the Dominican Republic and Saint Lucia have maintained low and stable circulation for several weeks. Jamaica shows an upward trend with a positivity rate of 6.7%, while Barbados, the Cayman Islands, Saint Vincent and the Grenadines and Guyana show increased circulation this EW, with positivity rates of 15.6%, 7.8%, 6.2% and 0.1% respectively.

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

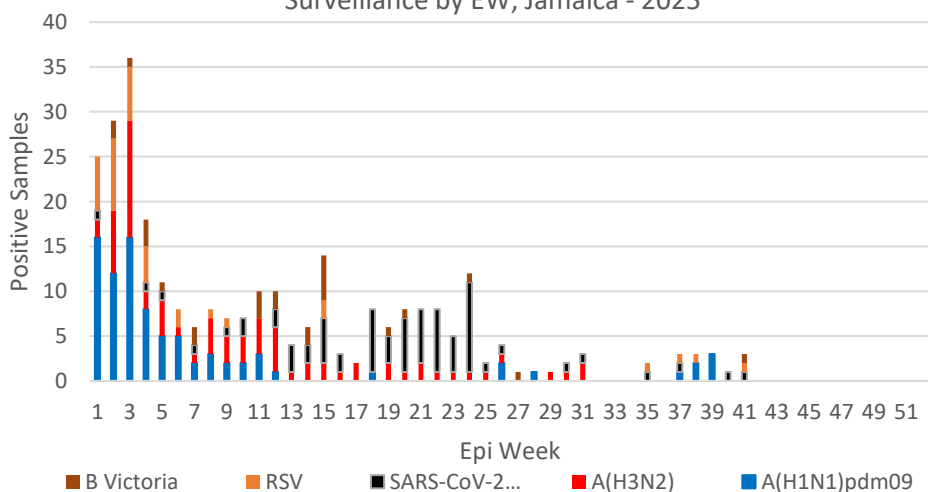
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages  
2025 vs Weekly Threshold; Jamaica



Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2025) (compared with 2011-2024)



Distribution of Influenza and Other Respiratory Viruses Under Surveillance by EW, Jamaica - 2025



7 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



HOSPITAL  
ACTIVE  
SURVEILLANCE-  
30 sites. Actively  
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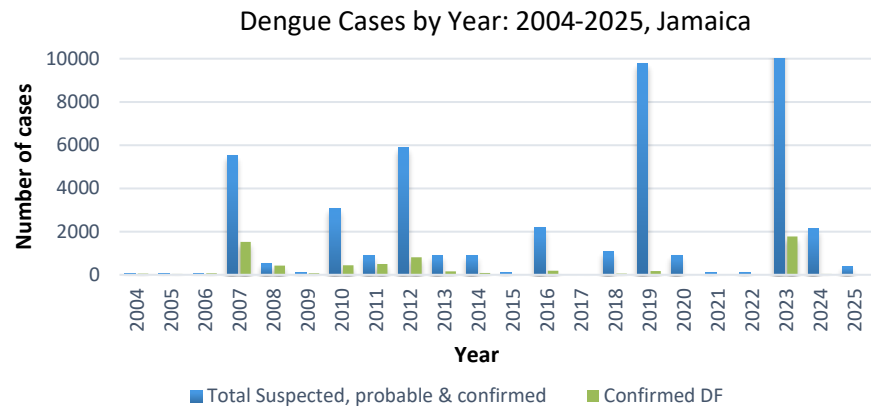


SENTINEL  
REPORT- 78 sites.  
Automatic reporting

DENGUE SURVEILLANCE

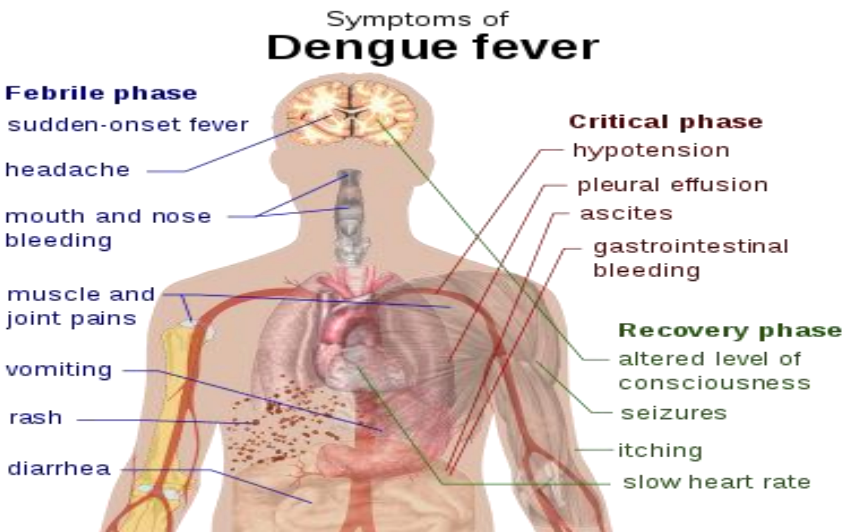
October 12, 2025 – October 18, 2025 Epidemiological Week 42

Epidemiological Week 42



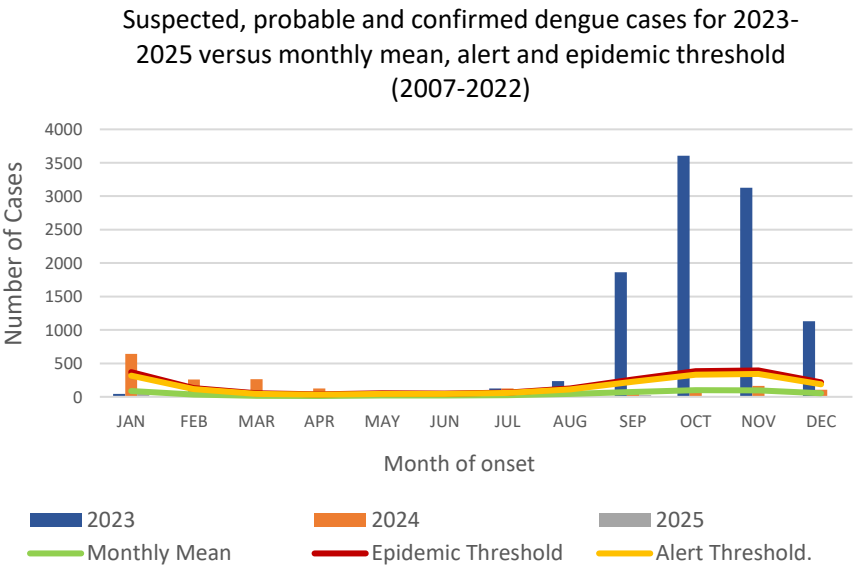
Reported suspected, probable and confirmed dengue with symptom onset in week 42 of 2025

|  | 2025* |     |
|-----------------------------------------------------------------------------------|-------|-----|
|                                                                                   | EW 42 | YTD |
| Total Suspected, Probable & Confirmed Dengue Cases                                | 0     | 379 |
| 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 October 9, 2025
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as probable dengue.



# RESEARCH ABSTRACT

## Abstract

NHRC-23-O15

### A cross-sectional survey of antibiotic use among patients admitted at two urban hospitals in Jamaica

Mc Gowan, D<sup>1,2</sup>, Pate- Robinson K<sup>1</sup>, Ferguson, TS<sup>1</sup>, Thorbourne A<sup>1</sup>, Mitchell A<sup>1</sup>, Headley C<sup>2</sup>, Prout J<sup>2</sup>, Thompson T<sup>1</sup>

<sup>1</sup>University of the West Indies Mona Jamaica, <sup>2</sup>Cornwall Regional Hospital Montego Bay Jamaica

**Objectives:** To estimate prevalence of antibiotic use, evaluate antibiotic usage patterns, antimicrobial stewardship and estimate the direct costs for antimicrobial use at the Cornwall Regional Hospital (CRH) and the University Hospital of the West Indies (UHWI).

**Methods:** We conducted a cross-sectional clinical chart review involving 368 patients admitted to the UHWI and CRH on specific days from August 2021 to January 2022. Data were extracted using a project specific questionnaire and analyzed using Stata 17. Prevalent antibiotic use was defined as being administered at least one antimicrobial during the survey day. Annual costs were estimated using costs/dose for each antibiotic provided by the hospital pharmacy.

**Results:** Analyses included 163 UHWI participants and 205 CRH participants. Mean age (SD) was 44.89 years (24.42). Overall prevalence of antibiotic use was 54% (n=199). Prevalence was similar at UHWI and CRH (57% vs. 51%, p=0.149)

Cephalosporins were the predominant antibiotic class prescribed (27%, n=103). Statistically significant differences in antimicrobial stewardship indicators were observed between the two facilities: supporting microbiology cultures done, 51.3% UHWI, 29.8% CRH (p value < 0.001), antibiotic review date documented, 17.8% UHWI, 5.4% CRH (p value 0.005), evidence of de-escalation, 9.5% UHWI, 0% CRH (p = 0.001). Annual direct cost of antimicrobial usage in these institutions amounted to \$ 1.77 million USD.

**Conclusion:** Approximately half of patients admitted to these Jamaican hospitals receive antimicrobial therapy with cephalosporins being the most common antibiotics used. Clinically relevant gaps in antimicrobial stewardship were observed at both institutions. Antibiotic usage carries substantial direct costs.



The Ministry of Health and Wellness  
15 Knutsford Boulevard, Kingston 5, Jamaica  
Tele: (876) 633-7924  
Email: surveillance@moh.gov.jm



9 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
up for all Class One Events



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SURVEILLANCE-  
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