# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Weekly Spotlight

### Food Safety

Access to enough safe and nutritious food is key to sustaining life and promoting good health. Unsafe food containing harmful bacteria, viruses, parasites or chemical substances can cause more than 200 different diseases, ranging from diarrhoea to cancers. Around the world, an estimated 600 million – almost 1 in 10 people – fall ill after eating contaminated food each year, resulting in 420 000 deaths and the loss of 33 million healthy life years (DALYs).

Food safety, nutrition and food security are closely linked. Unsafe food creates a vicious cycle of disease and malnutrition, particularly affecting infants, young children, elderly and the sick. In addition to contributing to food and nutrition security, a safe food supply also supports national economies, trade and tourism, stimulating sustainable development. The globalization of food trade, a growing world population, climate change and rapidly changing food systems have an impact on the safety of food. WHO aims to enhance the capacity to prevent, detect and respond to public health threats associated with unsafe food at the global and country levels.

Foodborne diseases impede socioeconomic development by straining health care systems and harming national economies, tourism and trade. The burden of foodborne diseases to public health and to economies has often been underestimated due to underreporting and difficulty to establish causal relationships between food contamination and resulting illness or death. Children under 5 years of age carry 40% of the foodborne disease burden, with 125 000 deaths every year.

The consumption and production of safe food have immediate and long-term benefits for people, the planet and the economy. Safe food is essential to human health and well-being, only food that is safe can be traded. Safe food allows for the uptake of nutrients and promotes long-term human development. When food is not safe, humans cannot develop, and the Sustainable Development Goals cannot be achieved.

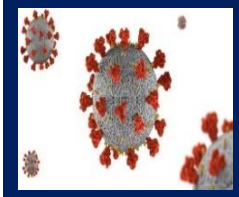
The 2019 World Bank report on the economic burden of the foodborne diseases indicated that US$ 110 billion is lost each year in productivity and medical expenses resulting from unsafe food in low- and middle-income countries. Unsafe or contaminated food leads to trade rejections, economic losses and food loss and waste, while safe food production improves economic opportunities by enabling market access and productivity.

**Taken from WHO website on 03/ July /2024**
**https://www.who.int/health-topics/food-safety#tab=tab_1**
**https://www.who.int/health-topics/food-safety#tab=tab_2**

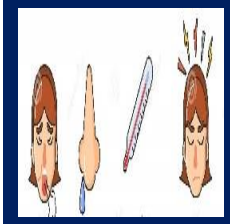
## EPI WEEK 25













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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 – 22 to 25 of 2024**

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

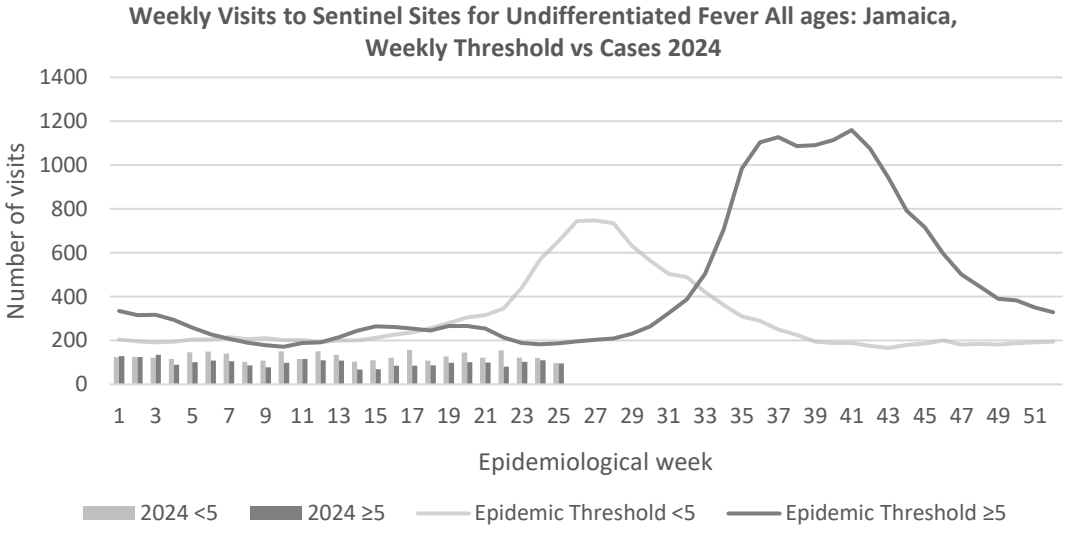
**KEY:**
**Yellow- late submission on Tuesday**
**Red – late submission after Tuesday**

| Epi week | Kingston and Saint Andrew | Saint Thomas | Saint Catherine | Portland | Saint Mary | Saint Ann | Trelawny | Saint James | Hanover | Westmoreland | Saint Elizabeth | Manchester | Clarendon |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2024 | | | | | | | | | | | | | |
| 22 | 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 |
| 23 | 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 |
| 24 | 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 |
| 25 | 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.




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

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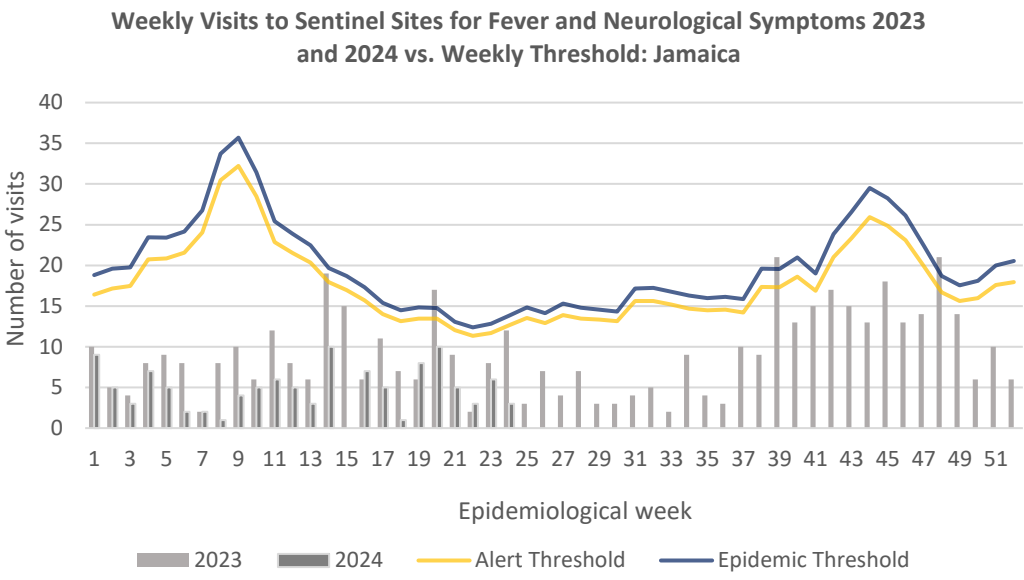
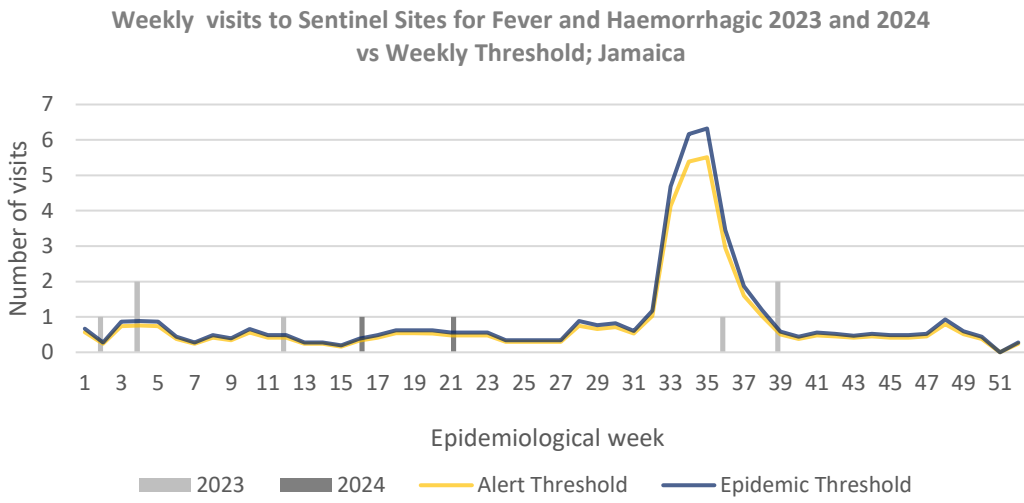
## FEVER AND NEUROLOGICAL

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).




## FEVER AND HAEMORRHAGIC

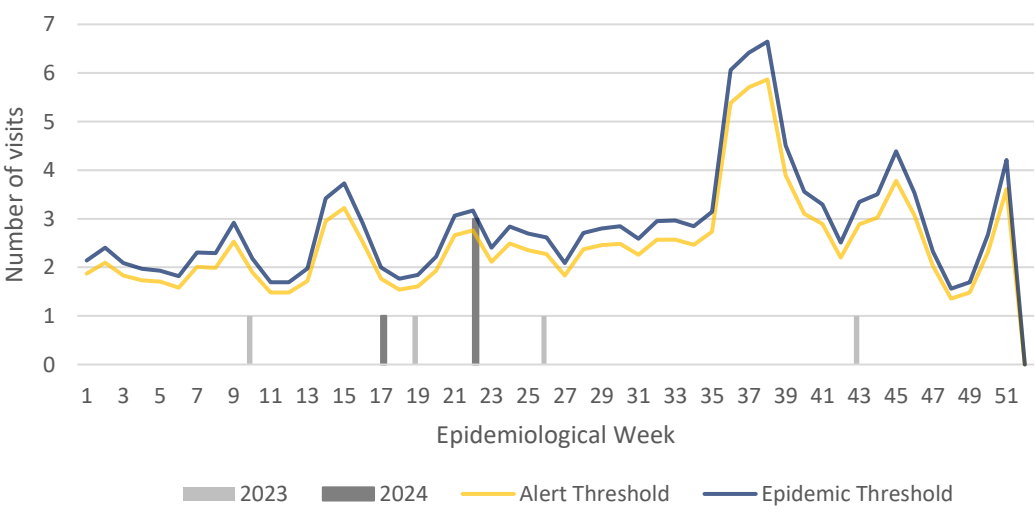
Temperature of >38$^0C$ /100.4$^0F$ (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.




## 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.

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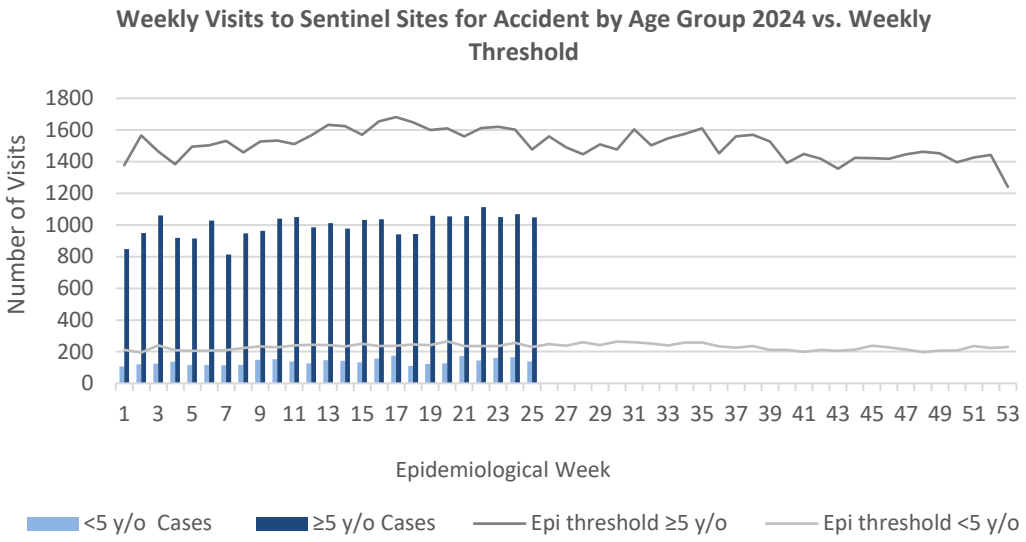
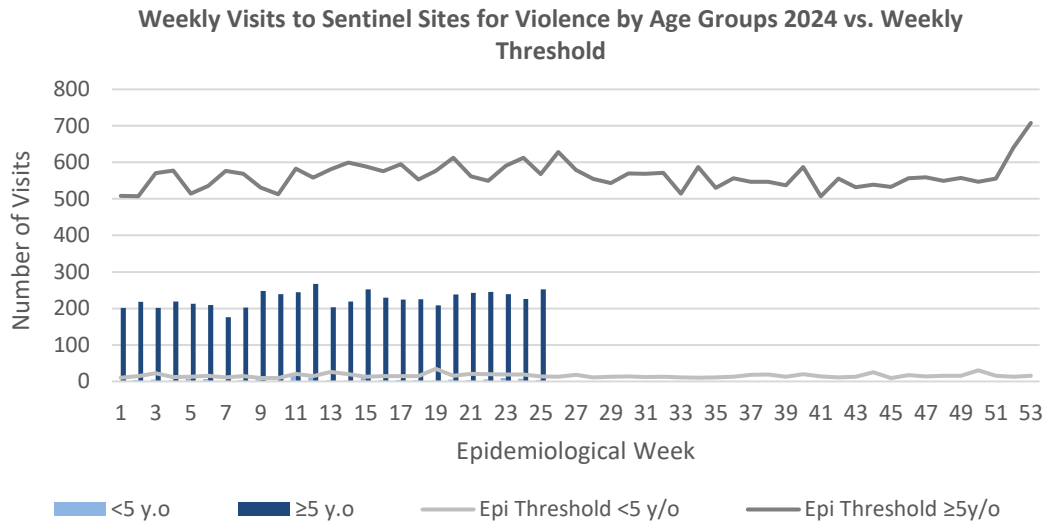
## ACCIDENTS

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



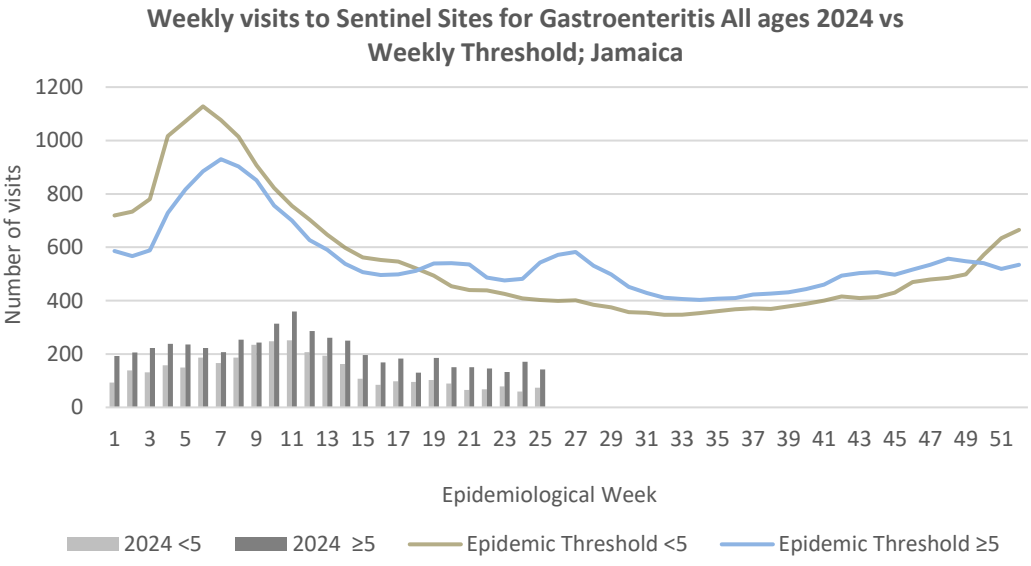

## VIOLENCE

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 2024 | PREVIOUS YEAR 2023 |
|---|---|---|---|---|
| NATIONAL /INTERNATIONAL INTEREST | Accidental Poisoning | | 187[β] | 186[β] |
| | Cholera | | 0 | 0 |
| | Severe Dengue[Y] | | See Dengue page below | See Dengue page below |
| | COVID-19 (SARS-CoV-2) | | 327 | 2460 |
| | Hansen's Disease (Leprosy) | | 0 | 0 |
| | Hepatitis B | | 9 | 41 |
| | Hepatitis C | | 1 | 18 |
| | HIV/AIDS | | NA | NA |
| | Malaria (Imported) | | 0 | 0 |
| | Meningitis | | 9 | 17 |
| | Monkeypox | | 0 | 3 |
| 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 | 1 |
| 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] | | 31 | 28 |
| | Ophthalmia Neonatorum | | 69 | 75 |
| | Pertussis-like syndrome | | 0 | 0 |
| | Rheumatic Fever | | 0 | 0 |
| | Tetanus | | 0 | 0 |
| | Tuberculosis | | 10 | 34 |
| | 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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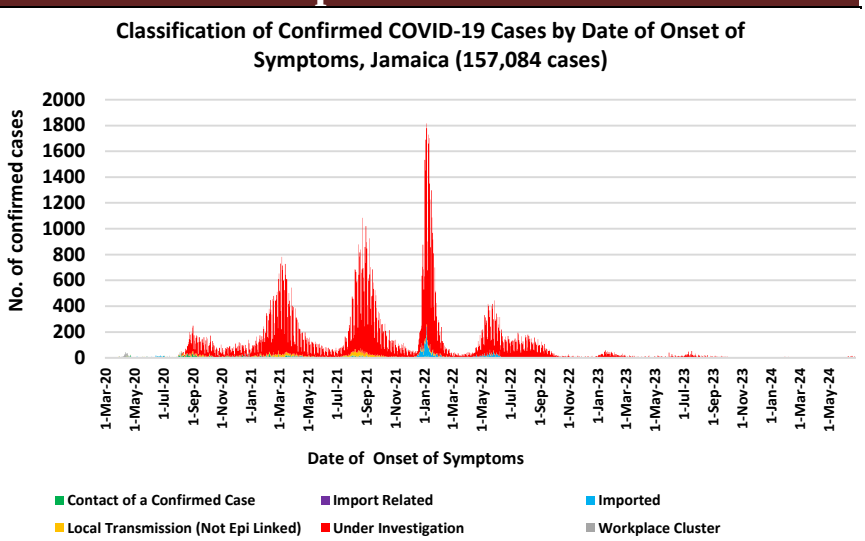
# COVID-19 Surveillance Update

| CASES | EW 25 | Total |
|---|---|---|
| Confirmed | 41 | 157084 |
| Females | 23 | 90522 |
| Males | 18 | 66559 |
| Age Range | 3 months to 98 years old | 1 day to 108 years |

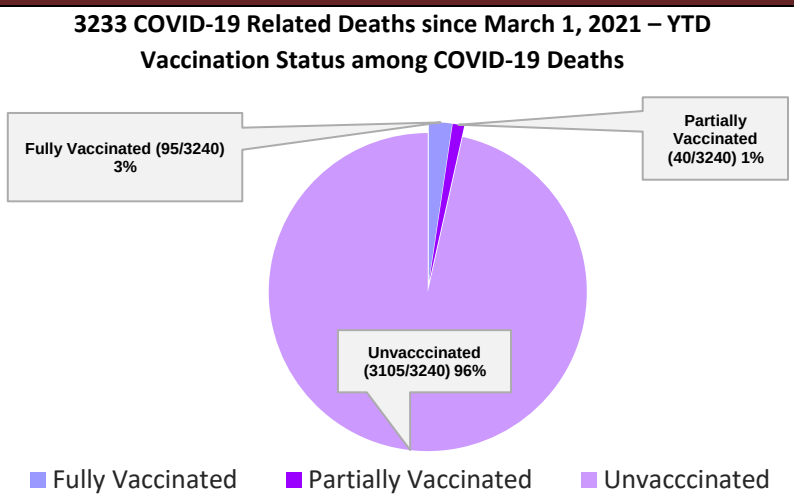
* 3 positive cases had no gender specification
* PCR or Antigen tests are used to confirm cases
* Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.




## COVID-19 Outcomes

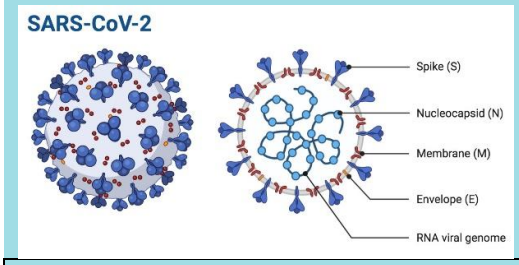
| Outcomes | EW 25 | Total |
|---|---|---|
| ACTIVE *2 weeks* | | 81 |
| DIED – COVID Related | 0 | 3802 |
| Died - NON COVID | 0 | 370 |
| Died - Under Investigation | 0 | 196 |
| Recovered and discharged | 0 | 103226 |
| Repatriated | 0 | 93 |
| Total | | 157084 |

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



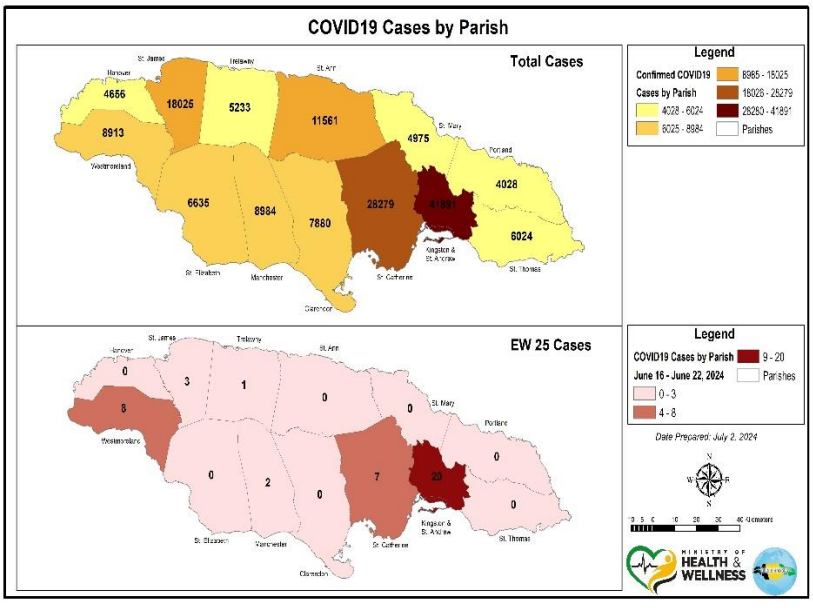

## COVID-19 Parish Distribution and Global Statistics

**COVID-19 Virus Structure**




**COVID-19 WHO Global Statistics EW 22-25, 2024**

| Epi Week | Confirmed Cases | Deaths |
|---|---|---|
| 22 | 39 500 | 473 |
| 23 | 31 400 | 427 |
| 24 | 32 200 | 445 |
| 25 | 34 300 | 417 |
| **Total (4weeks)** | **137 400** | **1762** |

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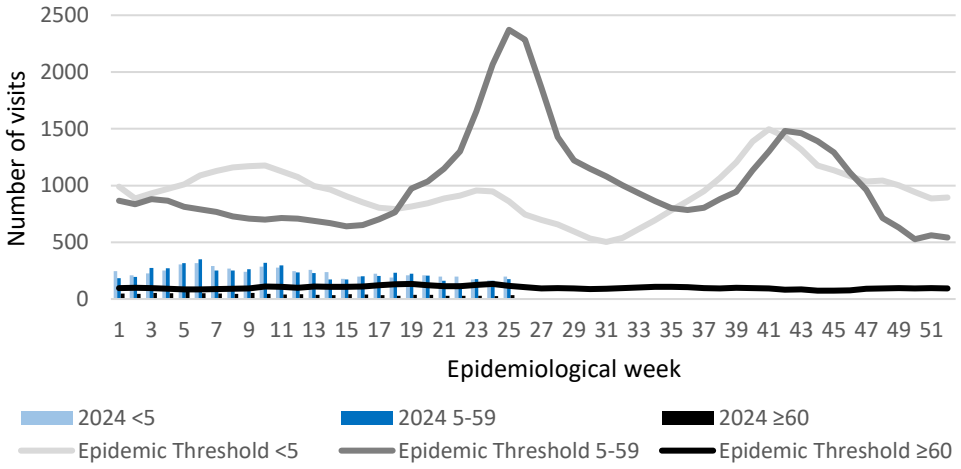
# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

# *EW 25*

June 16, 2024 – June 22, 2024 Epidemiological Week 25

| | *EW 25* | *YTD* |
|---|---|---|
| SARI cases | 14 | 174 |
| **Total Influenza positive Samples** | **0** | **89** |
| **Influenza A** | **0** | **86** |
| H3N2 | 0 | 26 |
| H1N1pdm09 | 0 | 60 |
| Not subtyped | 0 | 0 |
| **Influenza B** | **0** | **3** |
| B lineage not determined | 0 | 0 |
| B Victoria | 0 | 3 |
| **Parainfluenza** | 0 | 0 |
| **Adenovirus** | 0 | 0 |
| **RSV** | 0 | 28 |

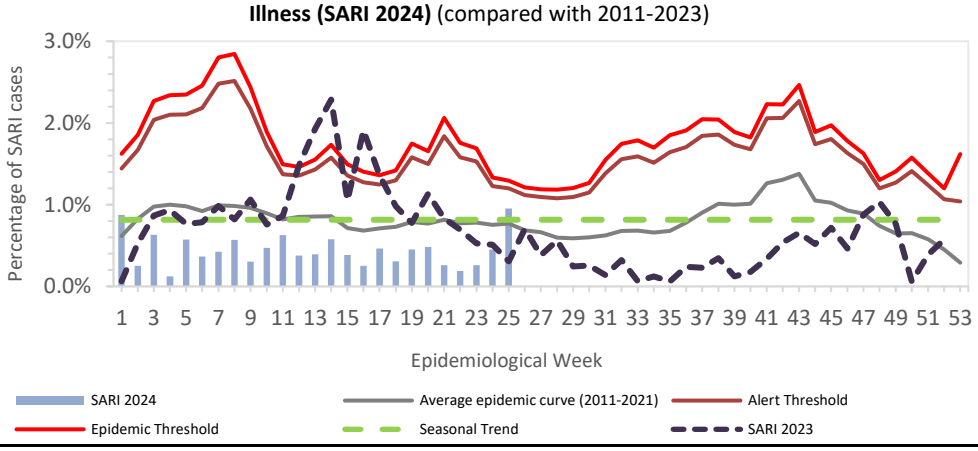
**Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2024 vs Weekly Threshold; Jamaica**




## Epi Week Summary

**During EW 25, fourteen (14) SARI admissions were reported.**

**Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2024)** (compared with 2011-2023)

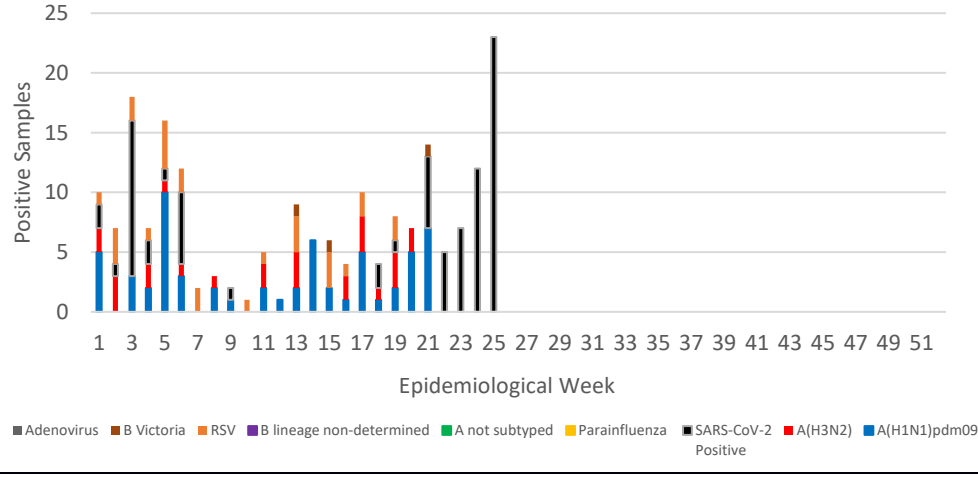



## Caribbean Update EW 25

**Caribbean:** Over the past four EWs, ILI cases have increased, associated with a higher proportion of positive cases of SARS-CoV-2 and influenza cases. Meanwhile, although SARI cases have remained at low level, there has been an increase in both the count and proportion of positive cases of SARS-CoV-2.Influenza activity has remained at intermediate levels during this period. The predominant viruses have been type A(H3N2), with concurrent circulation of influenza A(H1N1)pdm09. RSV activity has remained low. SARS-CoV-2 activity has shown a marked increase in the last two weeks, reaching elevated levels compared to previous waves. **By country:** Influenza activity has been observed over the last four EWs in the Dominican Republic, Guyana, and the Cayman Islands. SARS – CoV-2 activity was been noted in Belize, the Dominacan Republic, Jamaica, Saint Lucia, Suriname, Barbados, Guyana, the Cayman Islands and Saint Vincent and the Grenadines.

**(taken 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 - 2024**

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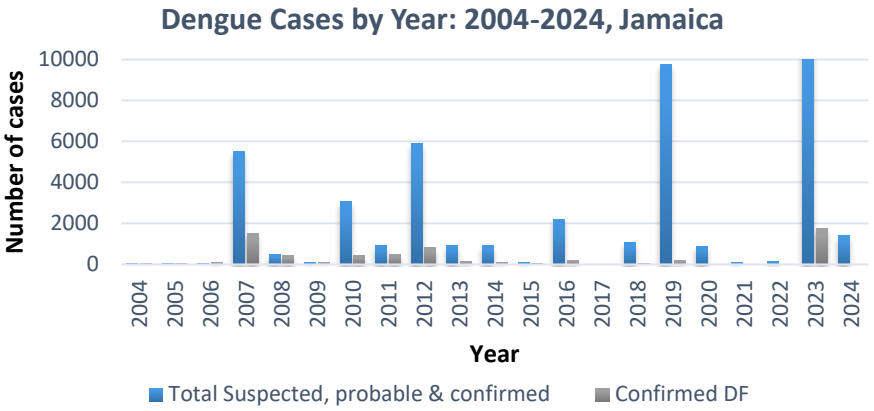
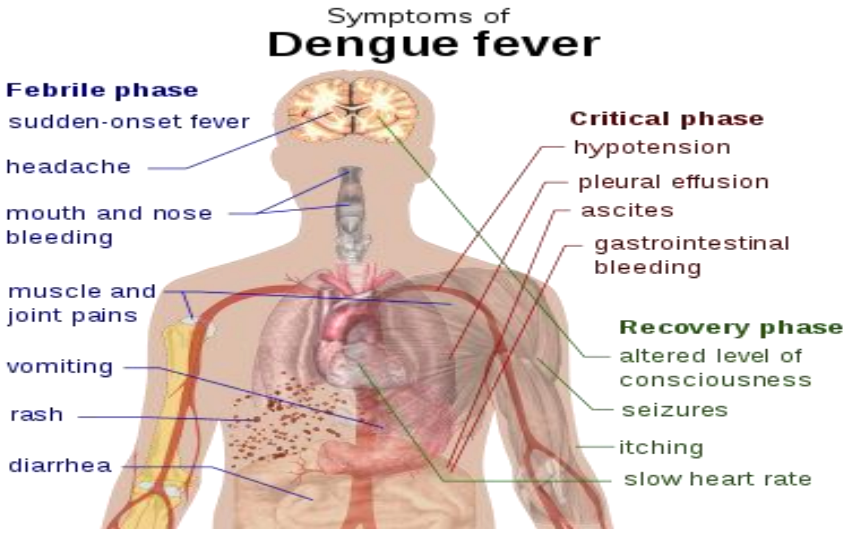
# Dengue Bulletin

June 16, 2024 – June 22, 2024 Epidemiological Week 25 | Epidemiological Week 25



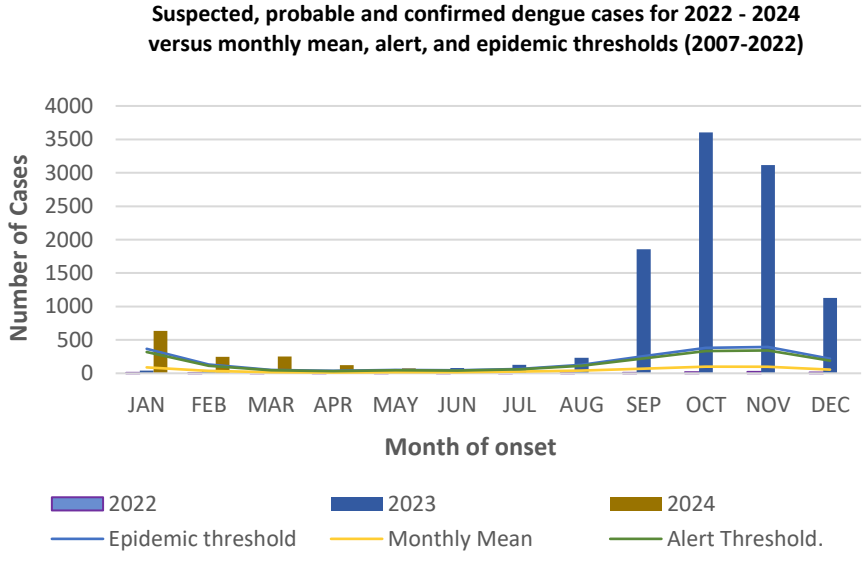

**Reported suspected, probable and confirmed dengue with symptom onset in week 25 of 2024**

| | 2024* | |
|---|---|---|
| | EW 25 | YTD |
| Total Suspected, Probable & Confirmed Dengue Cases | 1 | 1394 |
| Lab Confirmed Dengue cases | 0 | 5 |
| CONFIRMED Dengue Related Deaths | 0 | 0 |




**Points to note:**

- **Dengue deaths are reported based on date of death.**
- ***Figure as at July 2, 2024**
- **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-O05

The relationship between social determinants (socioeconomic status, and access to food), and medication adherence and lifestyle practices among persons with hypertension in Colombia and Jamaica

[1]Bennett N, [2]Duncan J, [2]Bailey A, [3]Hahne M, [3]Mills K, [3]Whelton P, [4]Anderson A, [5]Natacha Lanza Mora P, [5]Otero J, [5]Castaneda Hernandez A, [5]Lopez Jaramillo J, [4]Lopez-Lopez J, [6]Williams M, [6]Tutse-Tonwe V, [1]Ferguson T, [1]Tulloch-Reid M.

*[1]Caribbean Institute for Health Research, The University of the West Indies, Mona, Jamaica; [2]Department of Community Health and Psychiatry, The University of the West indies, Mona, Jamaica; [3]Department of Epidemiology, Tulane University School of Public Health and Tropical Medicine, New Orleans, USA; [4]University of Alabama at Birmingham, Birmingham, AL USA [5] Masira Research Institute, Universidad de Santander, Colombia; [6] Center for Translation Research and Implementation Science, National Heart, Lung and Blood Institute (NHLBI), NIH, Bethesda, Maryland, USA;*

**Objectives:** To examine associations between food insecurity and medication adherence and healthy lifestyle practices among hypertensive patients in Colombia and Jamaica

**Methods:** A Cross-sectional survey of hypertensive patients in primary care clinics using interviewer-administered-questionnaires was conducted. Medication adherence was measured using the IMPACT-MAS questionnaire and patients classified as having high or low/medium adherence. Unfavourable (≤2points) or favourable (≥3 points) lifestyle was on a 5-point scale–1 point for eating less salt, exercising regularly, none or were reducing alcohol consumption, adequate fruits (≥2 servings) and vegetables (≥3 servings) daily. Patients were food insecure based on a modified USDA food security instrument if there was uncertainty about money for food or their ability to obtain healthy foods. Logistic regression was used to assess the relationship between food insecurity and low/medium medication adherence & unfavourable lifestyle practices.

**Results:** Of the 576 participants (50% Colombian, 31% male), Columbian patients were older (64.6 vs 62.5 years), had higher educational attainment and longer duration of hypertension. They also reported lower levels of food-insecurity (63.8% vs 70.1% p=<0.0001), better medication adherence (88% vs. 50.7% p=<0.0001) and more favorable lifestyle adherence scores (86.2% vs 47.2% p<0.0001). When adjusting for age, sex, country, employment, and hypertension duration those who were food-insecure had increased odds of unfavourable lifestyle adherence OR 2.0[95%CI(1.2 3.5)] but there was no association with medication adherence.

**Conclusion:** Food-insecure participants had increased odds of unfavourable lifestyle adherence but not medication adherence. Understanding the role of food-insecurity in hypertensive patients is critical to improving their health outcomes.

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