# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Weekly Spotlight

### Mental Health of adolescents

Adolescence is a unique and formative time. Physical, emotional and social changes, including exposure to poverty, abuse, or violence, can make adolescents vulnerable to mental health problems. One in six people are aged 10–19 years. Protecting adolescents from adversity, promoting socio-emotional learning and psychological well-being, and ensuring access to mental health care are critical for their health and well-being during adolescence and adulthood.Globally, it is estimated that 1 in 7 (14%) 10–19 year-olds experience mental health conditions *(1)*, yet these remain largely unrecognized and untreated.Adolescents with mental health conditions are particularly vulnerable to social exclusion, discrimination, stigma (affecting readiness to seek help), educational difficulties, risk-taking behaviours, physical ill-health and human rights violations.

### Mental health determinants

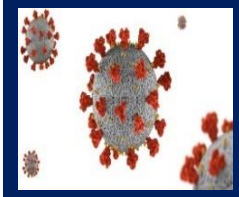
Adolescence is a crucial period for developing social and emotional habits important for mental well-being. These include adopting healthy sleep patterns; exercising regularly; developing coping, problem-solving, and interpersonal skills; and learning to manage emotions. Protective and supportive environments in the family, at school and in the wider community are important. Multiple factors affect mental health. The more risk factors adolescents are exposed to, the greater the potential impact on their mental health. Factors that can contribute to stress during adolescence include exposure to adversity, pressure to conform with peers and exploration of identity. Media influence and gender norms can exacerbate the disparity between an adolescent's lived reality and their perceptions or aspirations for the future. Other important determinants include the quality of their home life and relationships with peers. Violence (especially sexual violence and bullying), harsh parenting and severe and socioeconomic problems are recognized risks to mental health.Some adolescents are at greater risk of mental health conditions due to their living conditions, stigma, discrimination or exclusion, or lack of access to quality support and services. These include adolescents living in humanitarian and fragile settings; adolescents with chronic illness, autism spectrum disorder, an intellectual disability or other neurological condition; pregnant adolescents, adolescent parents, or those in early or forced marriages; orphans; and adolescents from minority ethnic or sexual backgrounds or other discriminated groups.

**Taken from WHO website on 14/ Mar/2024**
**https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health**

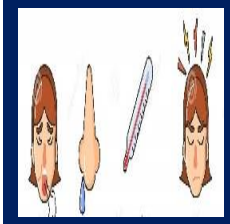
## EPI WEEK 09













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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 – 6 to 9 of 2024**

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

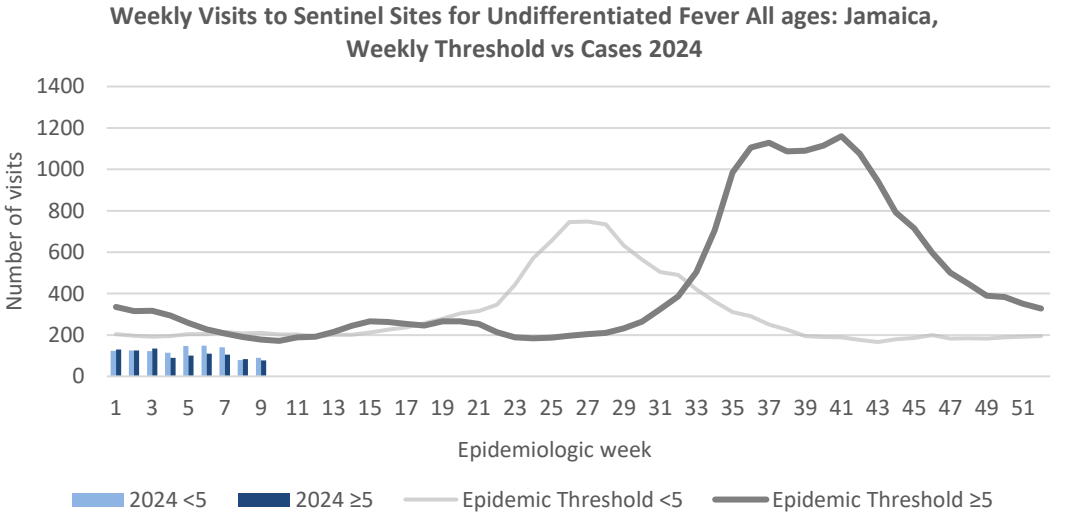
**KEY:**
**Yellow- late submission on Tuesday**
**Red – late submission after Tuesday**

| 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 | | | | | | | | | | | | | |
| 6 | 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 |
| 7 | On Time | On Time | On Time | On Time | On Time | Late (W) | On Time | On Time | On Time | On Time | On Time | On Time | On Time |
| 8 | On Time | On Time | On Time | Late (T) | On Time | Late (T) | On Time | On Time | On Time | On Time | On Time | On Time | On Time |
| 9 | 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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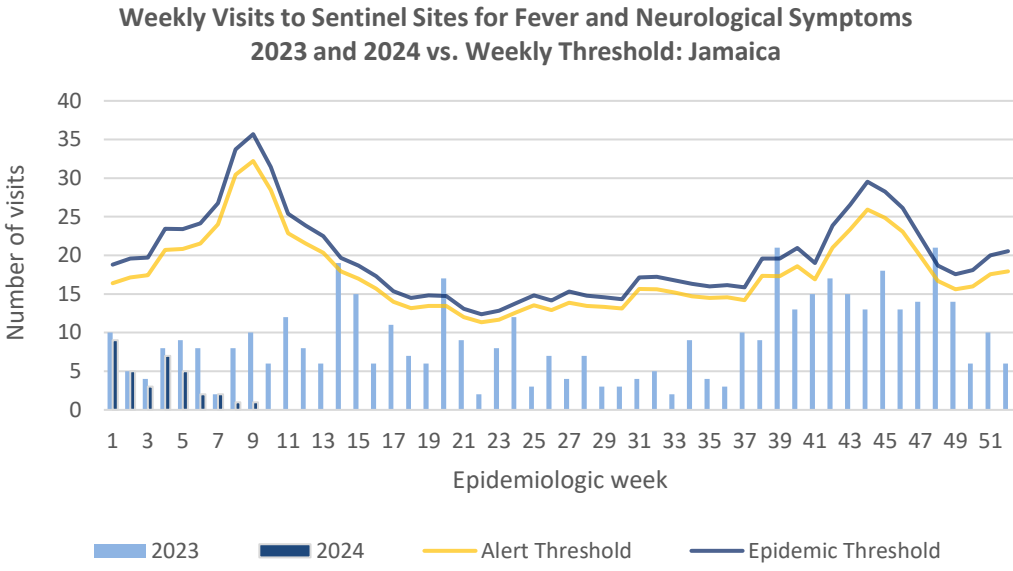
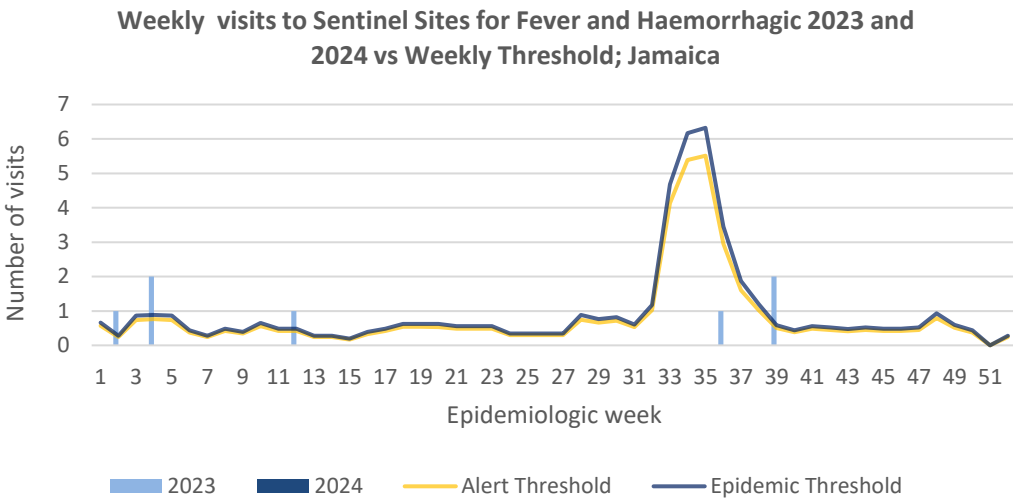
## FEVER AND NEUROLOGICAL

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).




## FEVER AND HAEMORRHAGIC

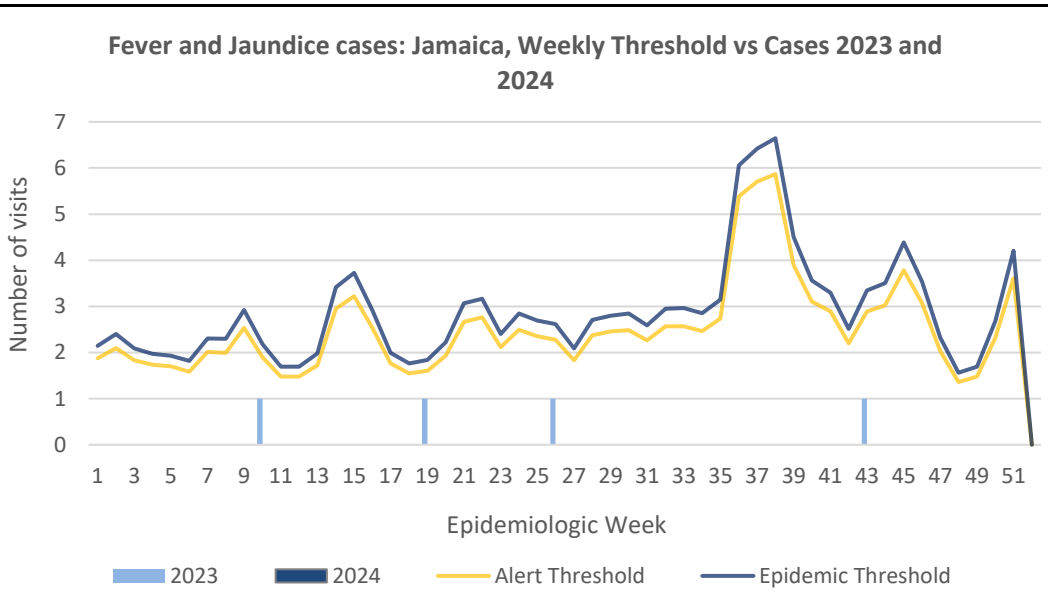
Temperature of >38$^0C$ /100.4$^0F$ (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.




## 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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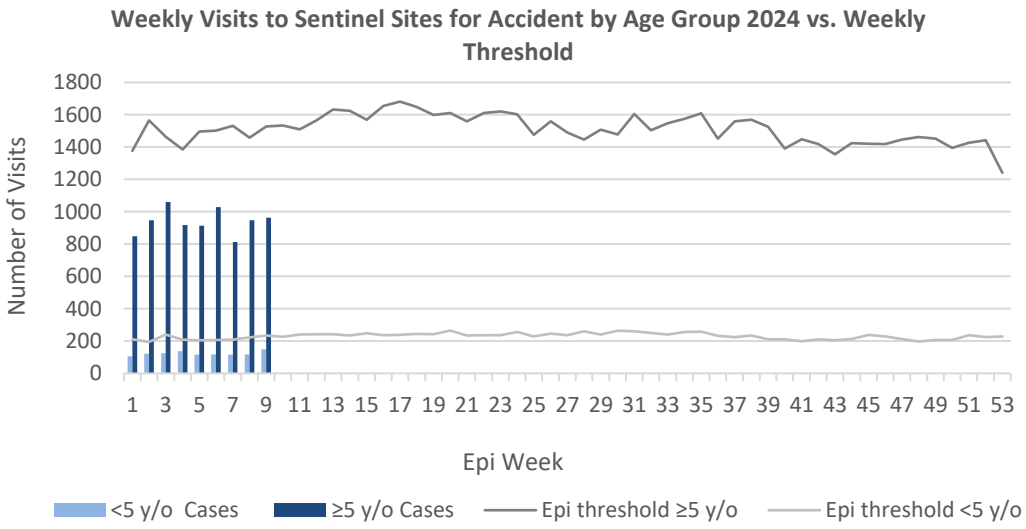
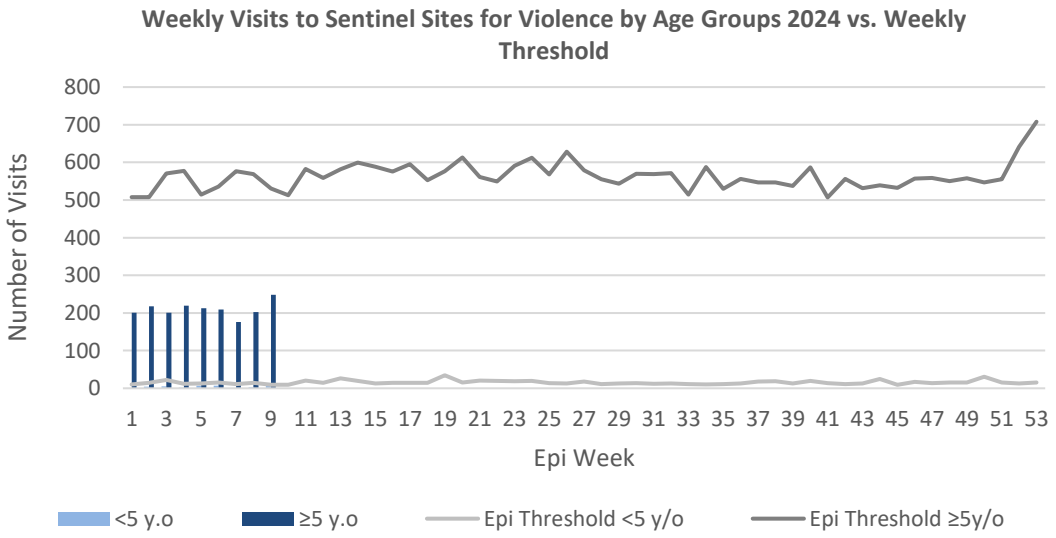
## ACCIDENTS

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



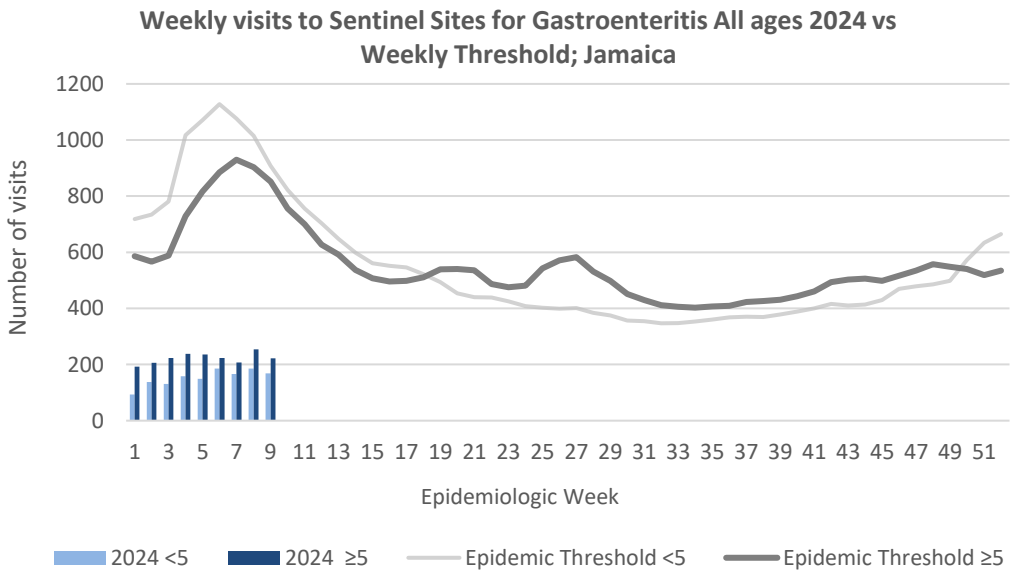

## VIOLENCE

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 | | 51[β] | 55[β] |
| | Cholera | | 0 | 0 |
| | Dengue Hemorrhagic Fever[γ] | | See Dengue page below | See Dengue page below |
| | COVID-19 (SARS-CoV-2) | | 145 | 1541 |
| | Hansen's Disease (Leprosy) | | 0 | 0 |
| | Hepatitis B | | 0 | 14 |
| | Hepatitis C | | 0 | 5 |
| | HIV/AIDS | | NA | NA |
| | Malaria (Imported) | | 0 | 0 |
| | Meningitis | | 1 | 9 |
| | Monkeypox | | 0 | 1 |
| 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 | 7 |
| | Ophthalmia Neonatorum | | 18 | 31 |
| | Pertussis-like syndrome | | 0 | 0 |
| | Rheumatic Fever | | 0 | 0 |
| | Tetanus | | 0 | 0 |
| | Tuberculosis | | 1 | 11 |
| | 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.

[γ] 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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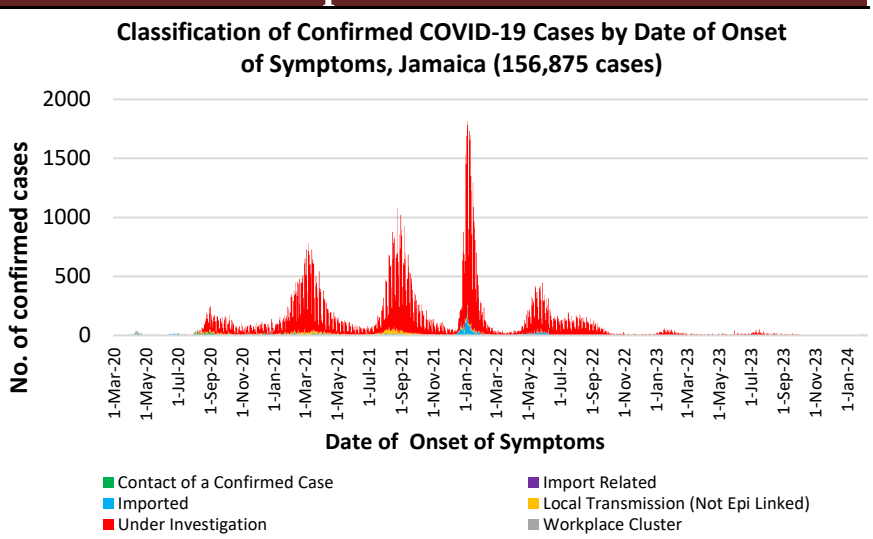
# COVID-19 Surveillance Update

| CASES | EW 09 | Total |
|---|---|---|
| Confirmed | 14 | 156875 |
| Females | 6 | 90408 |
| Males | 8 | 66464 |
| Age Range | 7 months to 82 years | 1 day to 108 years |

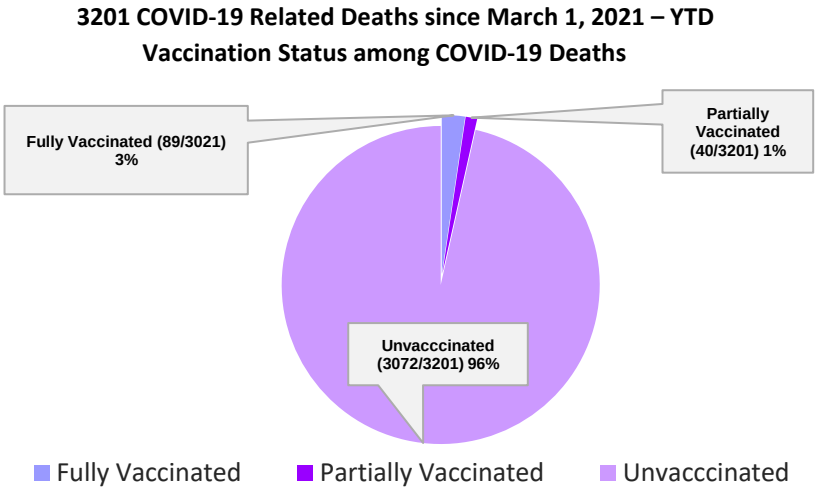
* 3 positive cases had no gender specification
* PCR or Antigen tests are used to confirm cases
* Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.




## COVID-19 Outcomes

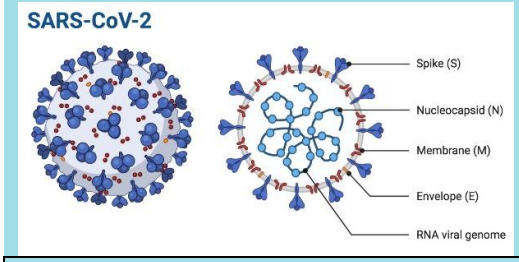
| Outcomes | EW 09 | Total |
|---|---|---|
| ACTIVE *2 weeks* | | 25 |
| DIED – COVID Related | 0 | 3763 |
| Died - NON COVID | 0 | 362 |
| Died - Under Investigation | 0 | 234 |
| Recovered and discharged | 0 | 103226 |
| Repatriated | 0 | 93 |
| Total | | 156875 |

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



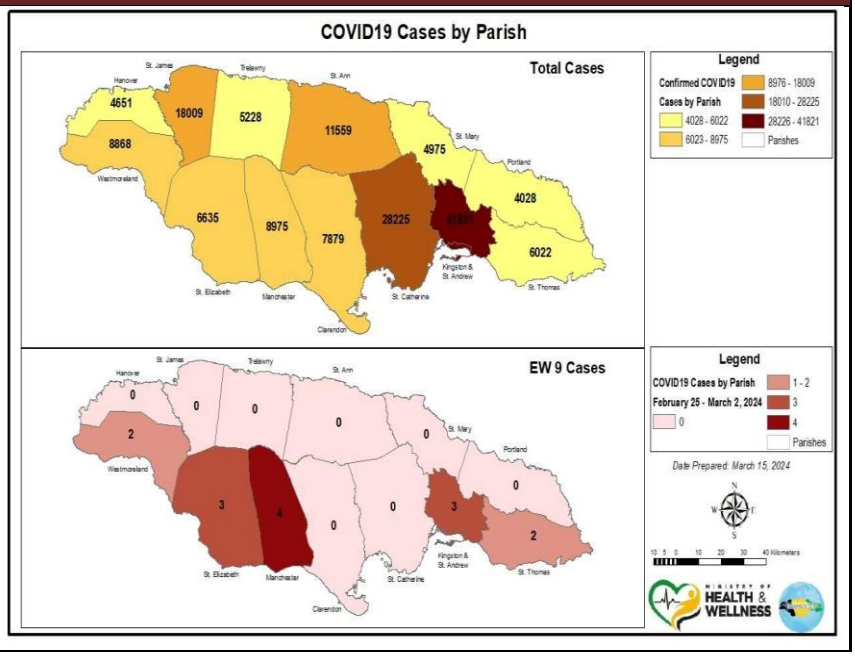

## COVID-19 Parish Distribution and Global Statistics

**COVID-19 Virus Structure**




**COVID-19 WHO Global Statistics EW 6-9, 2024**

| Epi Week | Confirmed Cases | Deaths |
|---|---|---|
| 6 | 115, 500 | 2,400 |
| 7 | 98, 500 | 2,000 |
| 8 | 86, 400 | 1,700 |
| 9 | 70,100 | 1, 400 |
| **Total (4weeks)** | **370, 500** | **7, 500** |

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March 15 , 2024 ISSN 0799-3927

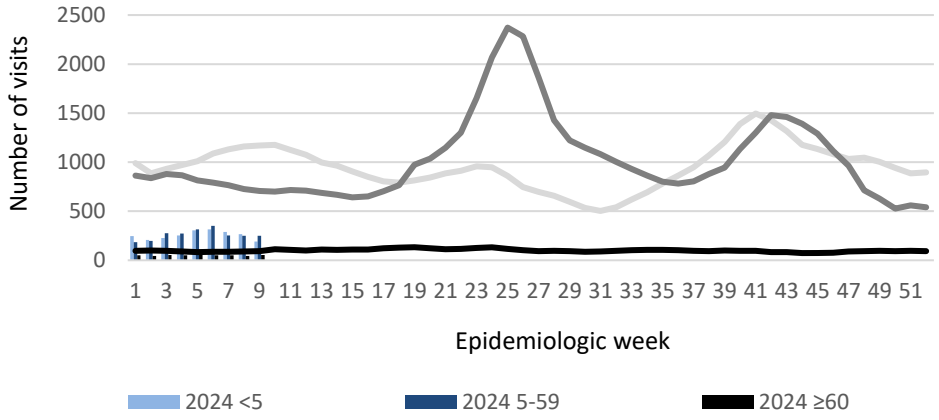
# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

# *EW 9*

February 25, 2024 – March 2, 2024 Epidemiological Week 09

| | *EW 09* | *YTD* |
|---|---|---|
| SARI cases | 5 | 66 |
| **Total Influenza positive Samples** | **0** | **34** |
| **Influenza A** | **0** | **34** |
| H3N2 | 0 | 10 |
| H1N1pdm09 | 0 | 24 |
| Not subtyped | 0 | 0 |
| **Influenza B** | **0** | **0** |
| B lineage not determined | 0 | 0 |
| B Victoria | 0 | 0 |
| **Parainfluenza** | 0 | 0 |
| **Adenovirus** | 0 | 0 |
| **RSV** | 0 | 15 |

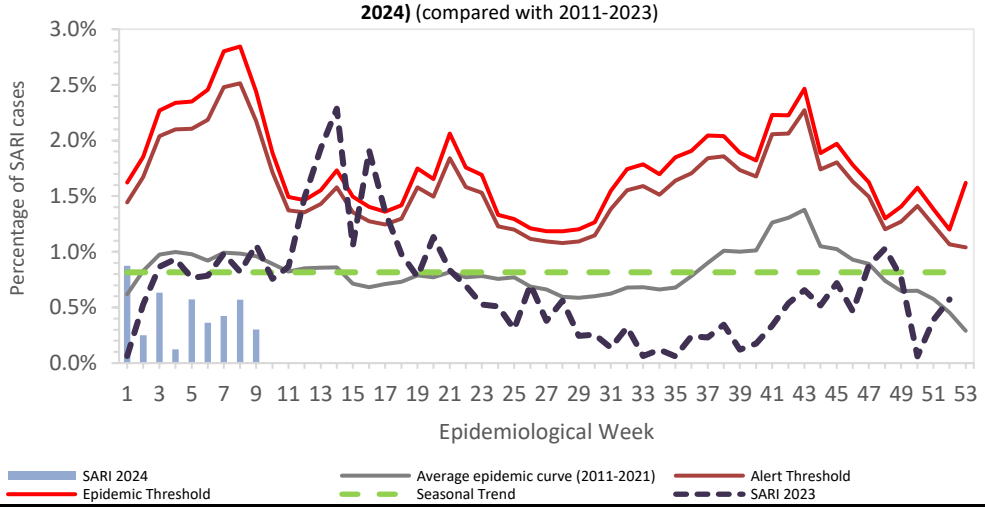
**Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2024 vs Weekly Threshold; Jamaica**




## Epi Week Summary

**During EW 09, five (5) SARI admissions were reported.**

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



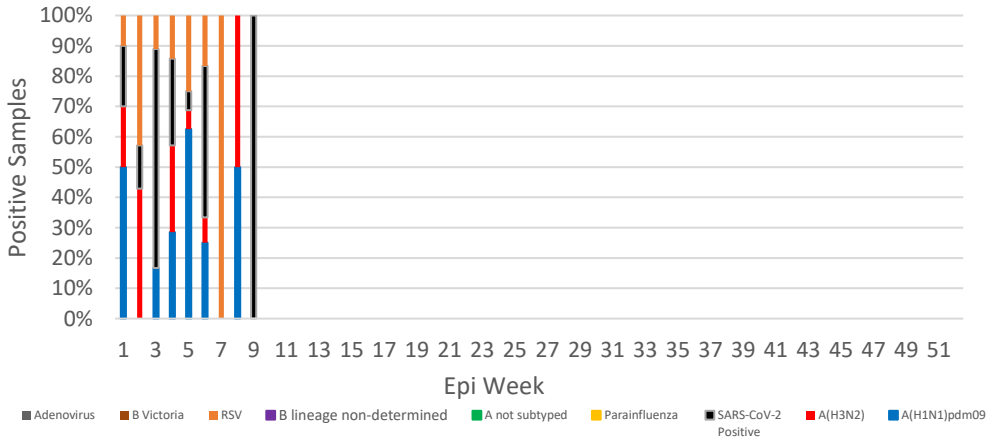

## Caribbean Update EW 9

**Caribbean**: ILI cases have declined from high levels in preceding weeks to moderate levels in the most recent EW associated with decreases in positive influenza and SARS-Co-V-2 cases; SARI cases have remained on the decline.Influenza activity has increased in the last four EWs, reaching low circulation levels. During the last four EWs, the predominant viruses have been type A( H1N1) pdm09, followed by A(H3N2) and, to a lesser extent, B/Victoria. RSV activity has remained at low levels.SARS-CoV-2 activity has declined to moderate levels, continuing to show a decreasing trend.

By countires: Elevated influenza activity has been observed in Suriname.

**(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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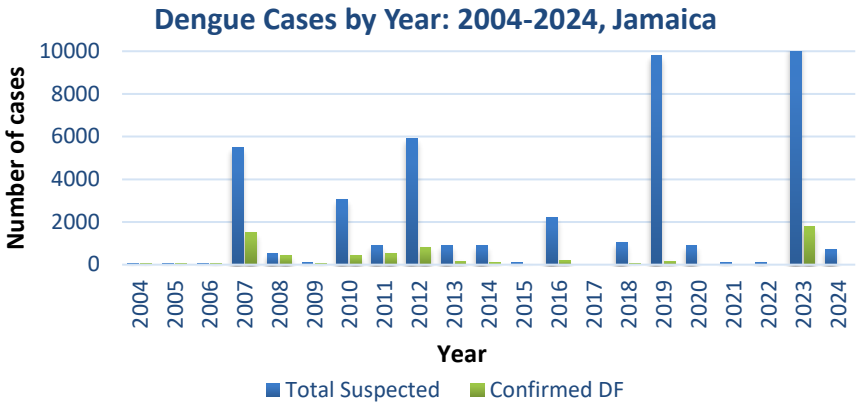
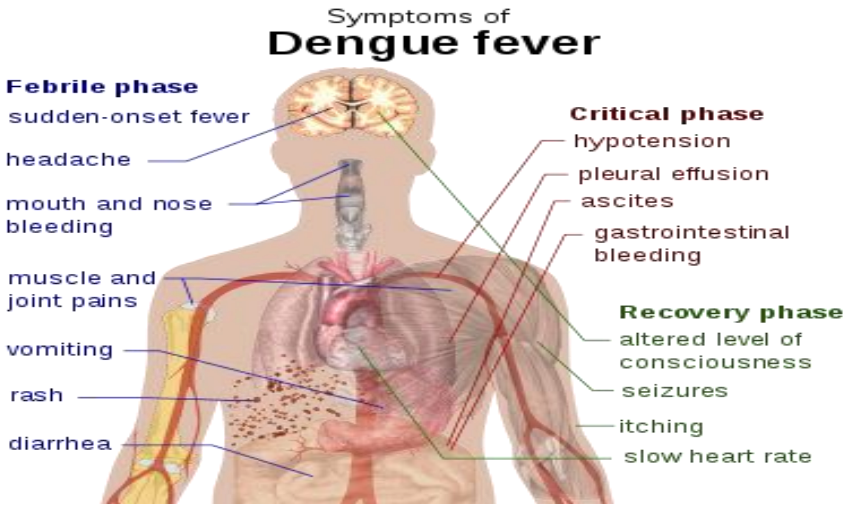
# Dengue Bulletin

February 25, 2024 – March 2, 2024 Epidemiological Week 09 | Epidemiological Week 09



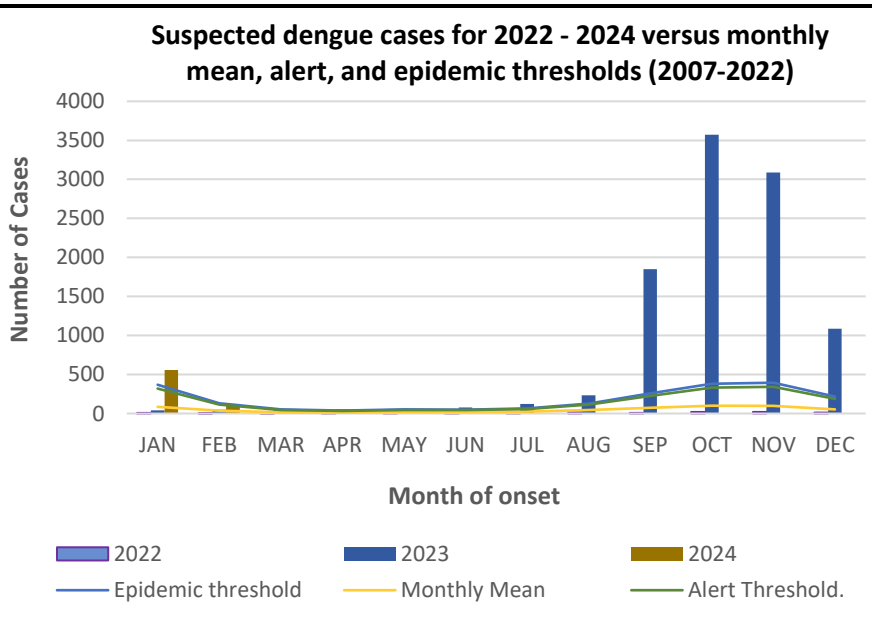

**Reported suspected, probable and confirmed dengue with symptom onset in week 09 of 2024**

| | 2024* | |
|---|---|---|
| | EW 09 | YTD |
| Total Suspected , Probable & Confirmed Dengue Cases | 2 | 701 |
| 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 March 15, 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_22_O14**

**Financial Burden of In-patient Stroke care at Kingston Public Hospital in 2020**

Morgan-Channer K[1], Amza A[2], Buckley -Smith D[3] , Wright K[4], Henry-McKoy D[5]
*[1]Kingston Public Hospital ,North Street, Jamaica [2] Kingston Public Hospital ,North Street, Jamaica, [3-5] Kingston Public Hospital ,North Street, Jamaica*

**Objectives:** To estimate the direct costs of stroke care per stroke patient admitted through the Accident and Emergency (A&E) Department at Kingston Public Hospital (KPH) for 2020.

**Methods:** We estimated the total direct cost of stroke from a health system perspective using an incidence-based, bottom-up costing approach. This approach required elucidating the service delivery process :KPH stroke care pathway and estimating relevant resource items and then costing them. Estimation of direct costs included stroke etiology diagnostic services and inpatient care costs: pharmacy and nursing care supplies. We created a Current Practice Model of the KPH Stroke care pathway based on the average stroke patient with Disability index of MRS score 4-5. Our analysis was based on the Current Practice Model of KPH Stroke care pathway and KPH Stroke registry data. We noted that there were limitations in KPH Current Practice Stroke Care Model due to a lack of onsite diagnostic services and the limited resource setting.

**Results:** The total number of stroke admissions in 2020 was 1090 persons. We estimated that cost per stroke patient to range from $97,103.40 to $276,373.79 JMD for an average length in-hospital stay of four days. We estimated that total direct stroke care costs at KPH for 2020 to be $117,674,551.74 JMD {approximately $764,120.46 USD} with the calculation inclusive 7% of all acute ischemic stroke patients being IV thrombolysis eligible.

**Conclusion:** Our data suggests that the total cost of direct stroke care at KPH is over 117 million JMD for 2020, a significant financial toll. Our study does not include stroke outpatient costs nor the financial loss from disability affecting the stroke survivor or their family which are significant additional variables to investigate in further research. Nation based programs to promote healthy lifestyle practices can reduce prevalence of modifiable stroke risk factors which may reduce the financial burden of stroke.

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