

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Physical Activity



Regular physical activity is proven to help prevent and manage noncommunicable diseases (NCDs) such as heart disease, hypertension, stroke, diabetes and several cancers. It also helps to maintain a healthy body weight and can improve mental health, quality of life and well-being. Physical activity refers to all movement. Popular ways to be active include walking, cycling, wheeling, sports, active recreation and play, and can be done at any level of skill and for enjoyment by everybody. Work such as household chores or jobs requiring physical labour is another way to be physically active.

Yet, current global estimates show 1 in 3 adults and 81% of adolescents do not do enough physical activity. Furthermore, as countries develop economically, levels of inactivity increase and can be as high as 70% due to changing transport patterns, increased use of technology for work and recreation, cultural values and increasing sedentary behaviour.

Sedentary behaviour is periods of low energy expenditure such as sitting and watching TV. Both sedentary behaviour and inadequate levels of physical activity have negative impacts on health systems, the environment, economic development, community and individual well-being and quality of life.

Physical inactivity is one of the leading risk factors for noncommunicable diseases (NCDs) and death worldwide. Alternately, regular physical activity reduces risk of many types of cancer by 8–28%; heart disease and stroke by 19%; diabetes by 17%, depression and dementia by 28–32%. It is estimated that 4–5 million deaths per year could be averted if the global population was more active.

One in 4 adults and 4 in 5 adolescents don't do enough physical activity. Women and girls generally are less active than men and boys, widening health inequalities. Older adults and people living with disabilities are also less likely to be active and miss out on the physical, mental and social health benefits. Physical inactivity burdens society through the hidden and growing cost of medical care and loss of productivity.

WHO developed an economic analysis which predicts that nearly 500 million new cases of preventable major NCDs will occur globally between 2020 and 2030 if the prevalence of physical inactivity does not change. These NCDs will cost an estimated US \$300 billion in healthcare costs alone in that 11 year period, or about US\$ 27 billion per year. These estimates do not include the significant indirect costs including loss of productivity.

Failing to increase levels of physical activity will negatively impact attainment of global targets as well as multiple SDGs.

Taken from WHO website on 26/September/2024

https://www.who.int/health-topics/physical-activity#tab=tab_1

https://www.who.int/health-topics/physical-activity#tab=tab_2

EPI WEEK 37



Syndromic Surveillance

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Class 1 Notifiable Events

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Sentinel Surveillance in Jamaica



A syndromic surveillance system is good for early detection of and response to public health events.

Sentinel surveillance occurs when selected health facilities (sentinel sites) form a network that reports on certain health conditions on a regular basis, for example, weekly. Reporting is mandatory whether or not there are cases to report.

Jamaica’s sentinel surveillance system concentrates on visits to sentinel sites for health events and syndromes of national importance which are reported weekly (see pages 2 -4). There are seventy-eight (78) reporting sentinel sites (hospitals and health centres) across Jamaica.

Table showcasing the Timeliness of Weekly Sentinel Surveillance Parish Reports for the Four Most Recent Epidemiological Weeks – 34 to 37 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 | | | | | | | | | | | | | |
| 34 | On Time | On Time | On Time | On Time | On Time | On Time | On Time | On Time | Late (T) | On Time | On Time | On Time | On Time |
| 35 | 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 |
| 36 | On Time | late (w) | On Time | On Time | On Time | On Time | On Time | On Time | On Time | On Time | On Time | On Time | On Time |
| 37 | On Time | On Time | On Time | On Time | On Time | On Time | On Time | On Time | On Time | On Time | On Time | On Time | On Time |

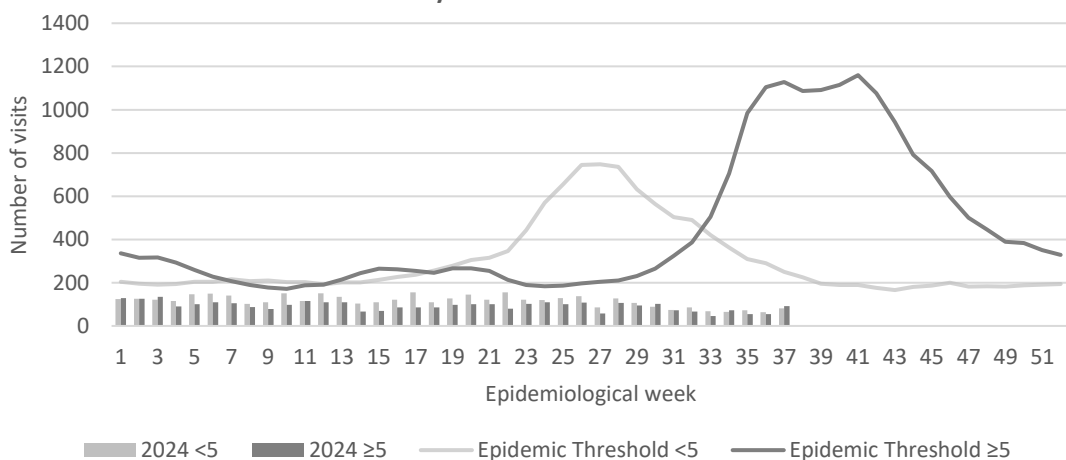
REPORTS FOR SYNDROMIC SURVEILLANCE

UNDIFFERENTIATED FEVER

Temperature of >38°C /100.4°F (or recent history of fever) with or without an obvious diagnosis or focus of infection.



Weekly Visits to Sentinel Sites for Undifferentiated Fever All ages: Jamaica, Weekly Threshold vs Cases 2024



2 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



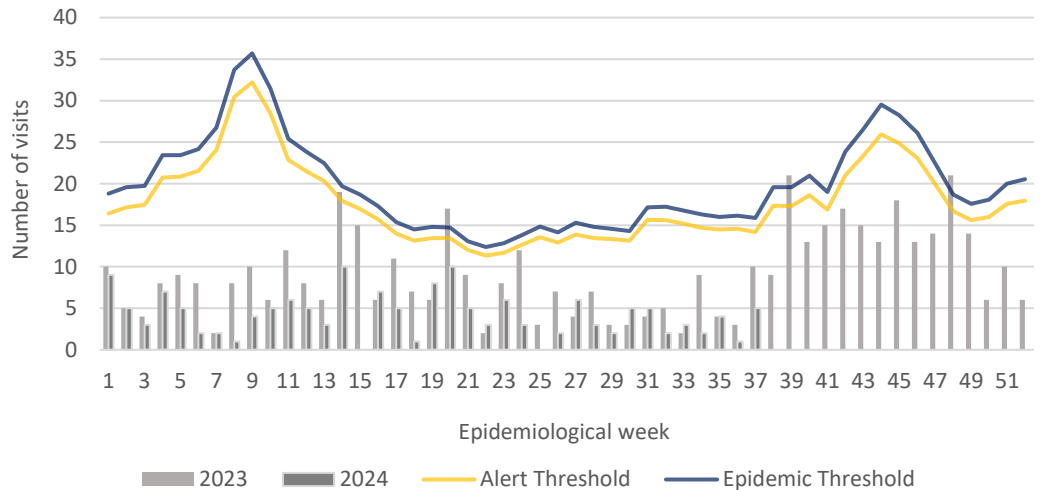
SENTINEL REPORT- 78 sites. Automatic reporting

FEVER AND NEUROLOGICAL

Temperature of $>38^{\circ}\text{C}$ / 100.4°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 2023 and 2024 vs. Weekly Threshold: Jamaica

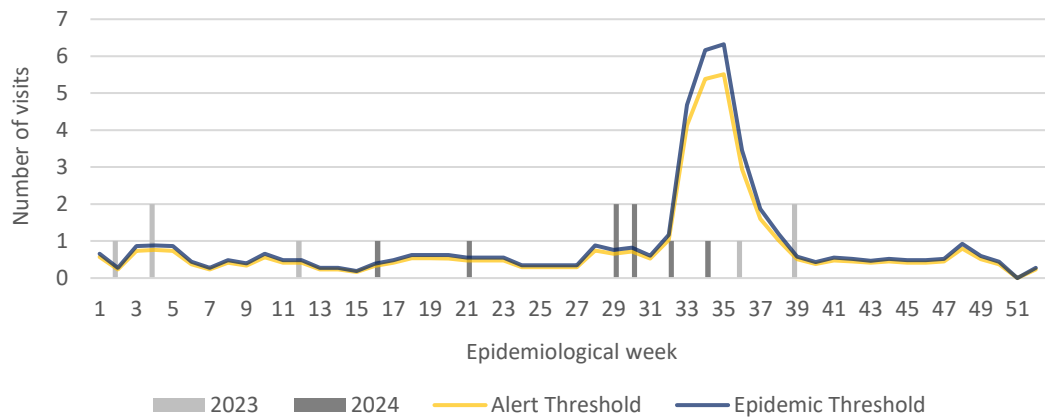


FEVER AND HAEMORRHAGIC

Temperature of $>38^{\circ}\text{C}$ / 100.4°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 2023 and 2024 vs Weekly Threshold; Jamaica



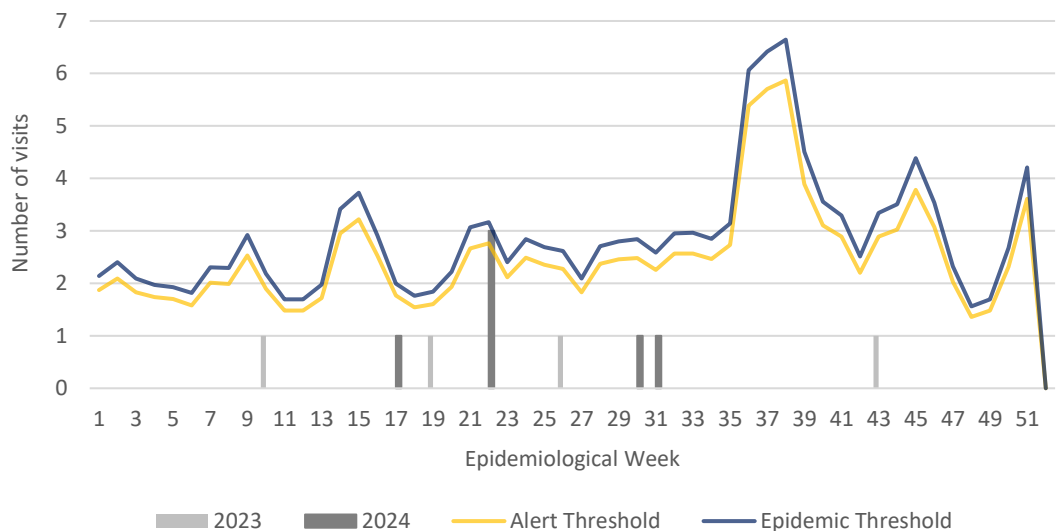
FEVER AND JAUNDICE

Temperature of $>38^{\circ}\text{C}$ / 100.4°F (or recent history of fever) in a previously healthy person presenting with jaundice.

The epidemic threshold is used to confirm the emergence of an epidemic in order to implement control measures. It is calculated using the mean reported cases per week plus 2 standard deviations.



Fever and Jaundice cases: Jamaica, Weekly Threshold vs Cases 2023 and 2024



3 NOTIFICATIONS-
All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



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SENTINEL REPORT- 78 sites. Automatic reporting

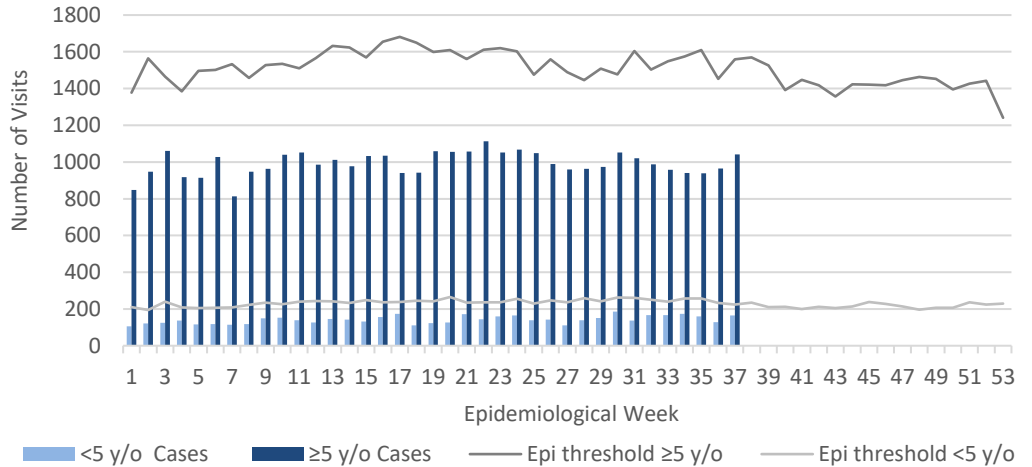


ACCIDENTS

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 2024 vs. Weekly Threshold

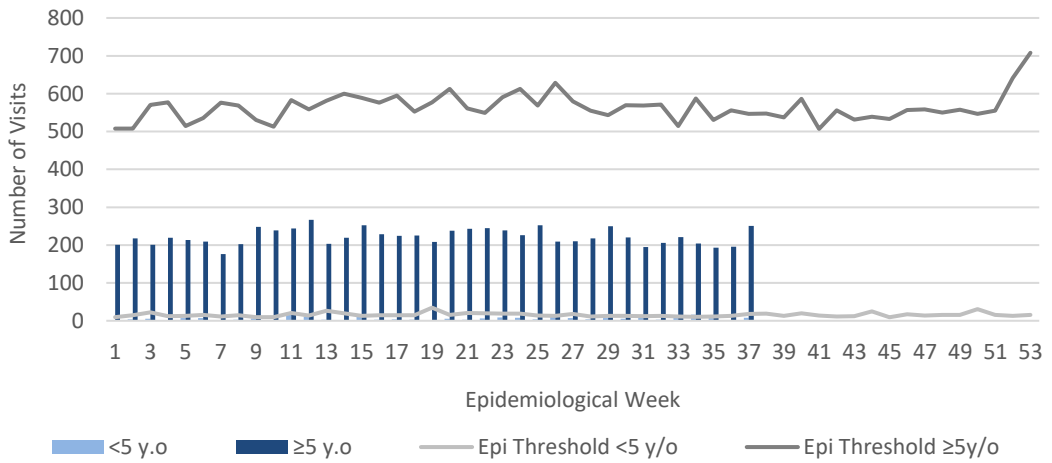


VIOLENCE

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 2024 vs. Weekly Threshold

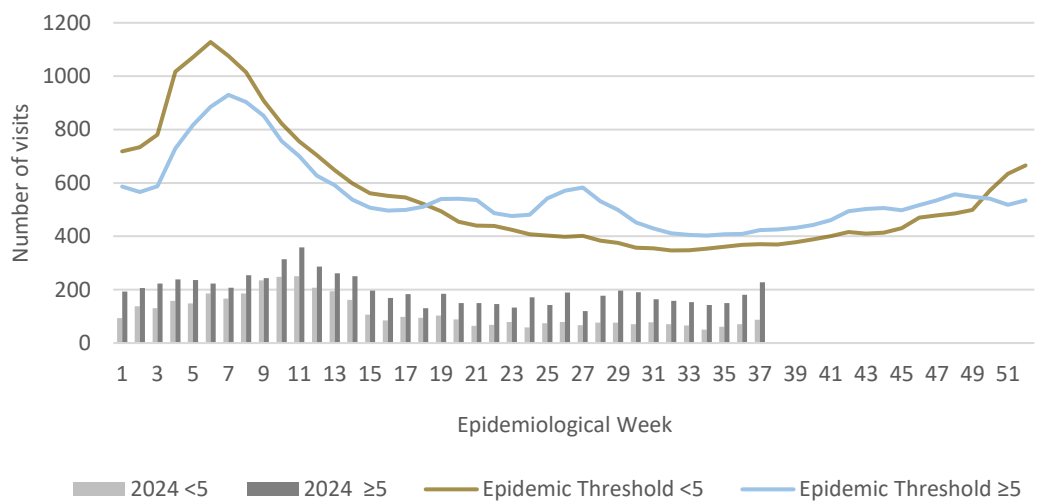


GASTROENTERITIS

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 2024 vs Weekly Threshold; Jamaica



4 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



SENTINEL REPORT- 78 sites. Automatic reporting




| CLASS ONE NOTIFIABLE EVENTS | | | | Comments | |
|----------------------------------|------------------------------|----------------------------|-----------------------|--|---|
| | CLASS 1 EVENTS | Confirmed YTD ^α | | 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. | |
| | | CURRENT YEAR 2024 | PREVIOUS YEAR 2023 | | |
| NATIONAL /INTERNATIONAL INTEREST | Accidental Poisoning | 206 ^β | 272 ^β | 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. | |
| | Cholera | 0 | 0 | | |
| | Severe Dengue ^γ | See Dengue page below | See Dengue page below | | |
| | COVID-19 (SARS-CoV-2) | 647 | 3596 | | |
| | Hansen’s Disease (Leprosy) | 0 | 0 | | |
| | Hepatitis B | 16 | 50 | | |
| | Hepatitis C | 3 | 24 | | |
| | HIV/AIDS | NA | NA | | |
| | Malaria (Imported) | 2 | 3 | | |
| | Meningitis | 9 | 21 | | |
| | Monkeypox | 0 | 3 | | |
| EXOTIC/ UNUSUAL | Plague | 0 | 0 | ^ε CHIKV IgM positive cases ^θ Zika PCR positive cases ^β Updates made to prior weeks. | |
| HIGH MORBIDITY/ MORTALITY | Meningococcal Meningitis | 0 | 0 | | |
| | Neonatal Tetanus | 0 | 0 | | |
| | Typhoid Fever | 0 | 0 | | |
| | Meningitis H/Flu | 1 | 2 | | |
| SPECIAL PROGRAMMES | AFP/Polio | 0 | 0 | ^α 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 ^δ | 44 | 40 | | |
| | Ophthalmia Neonatorum | 103 | 102 | | |
| | Pertussis-like syndrome | 0 | 0 | | |
| | Rheumatic Fever | 0 | 0 | | |
| | Tetanus | 0 | 0 | | |
| | Tuberculosis | 21 | 51 | | |
| | Yellow Fever | 0 | 0 | | |
| | Chikungunya ^ε | 0 | 0 | | |
| Zika Virus ^θ | 0 | 0 | | | |


NA- Not Available




5 NOTIFICATIONS-
All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



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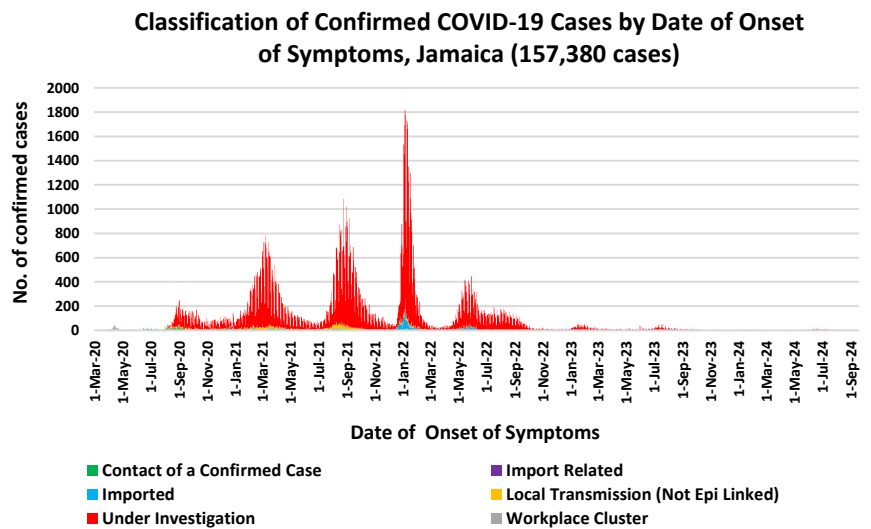


SENTINEL REPORT- 78 sites. Automatic reporting

COVID-19 Surveillance Update

| CASES | EW 37 | Total |
|-----------|-------------------------|--------------------|
| Confirmed | 12 | 157380 |
| Females | 7 | 90684 |
| Males | 5 | 66693 |
| Age Range | 4 weeks to 88 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.

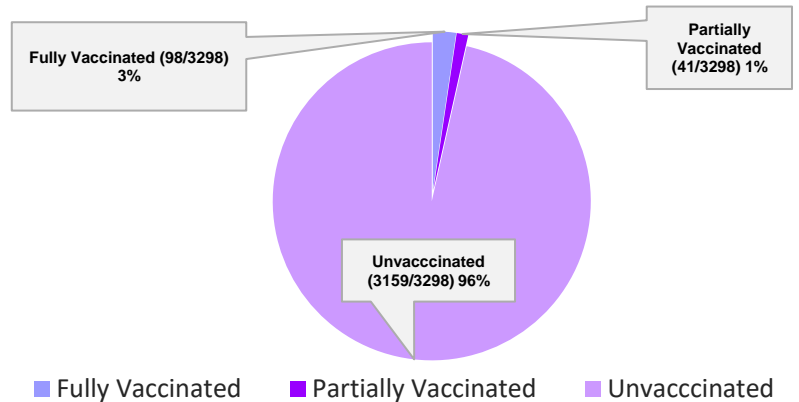


COVID-19 Outcomes

| Outcomes | EW 37 | Total |
|----------------------------|-------|---------------|
| ACTIVE *2 weeks* | | 22 |
| DIED – COVID Related | 0 | 3862 |
| Died - NON COVID | 0 | 382 |
| Died - Under Investigation | 0 | 151 |
| Recovered and discharged | 0 | 103226 |
| Repatriated | 0 | 93 |
| Total | | 157380 |

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

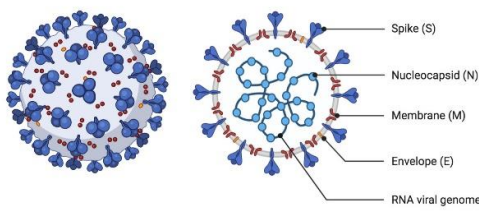
3298 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

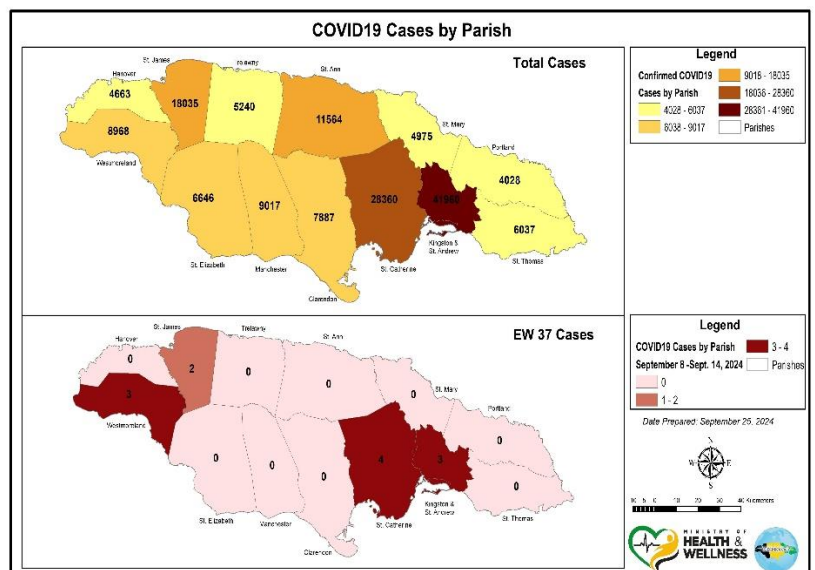
SARS-CoV-2



COVID-19 WHO Global Statistics EW 34-37, 2024

| Epi Week | Confirmed Cases | Deaths |
|-----------------------|-----------------|-------------|
| 34 | 61100 | 1300 |
| 35 | 62600 | 1400 |
| 36 | 63200 | 1400 |
| 37 | 65000 | 1100 |
| Total (4weeks) | 251900 | 5200 |

COVID19 Cases by Parish



6 NOTIFICATIONS-
All clinical sites

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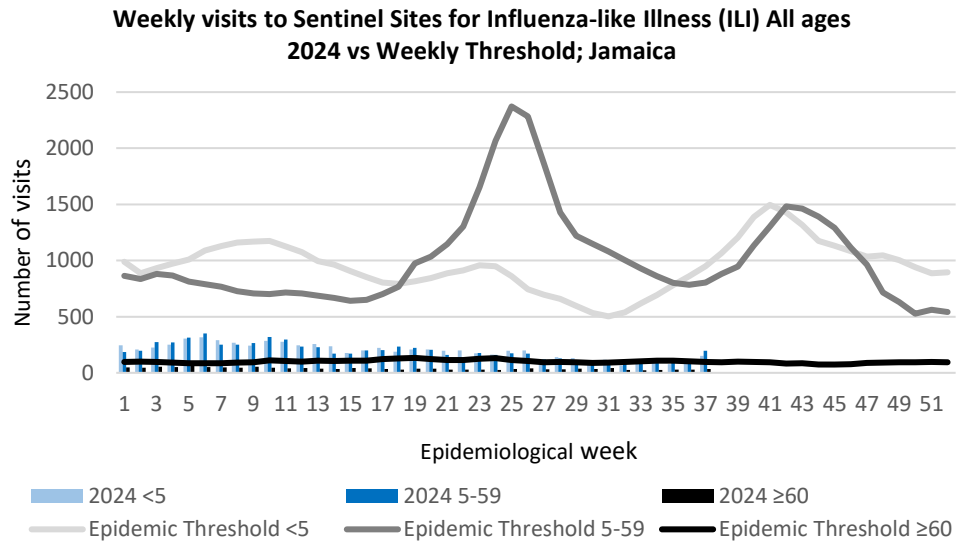


NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 37

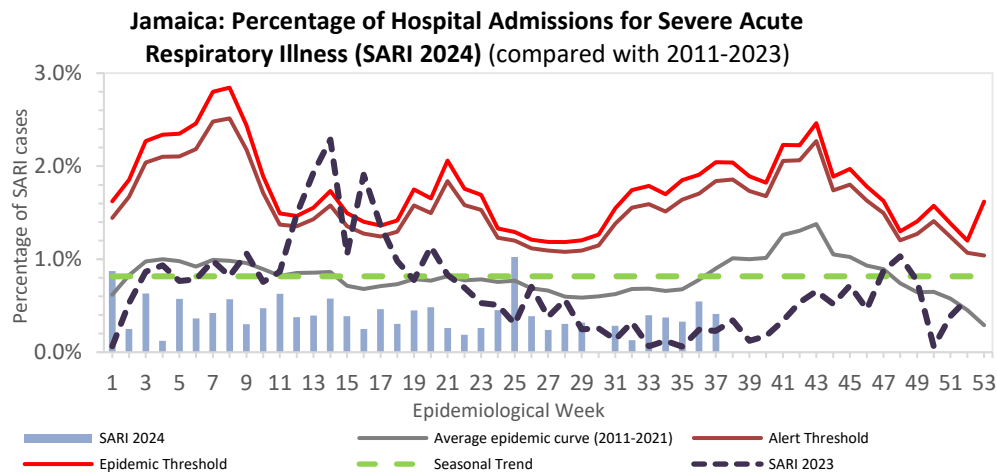
September 8, 2024 – September 14, 2024 Epidemiological Week 37

| | EW 37 | YTD |
|---|----------|------------|
| SARI cases | 7 | 233 |
| Total Influenza positive Samples | 0 | 143 |
| Influenza A | 0 | 138 |
| H3N2 | 0 | 38 |
| H1N1pdm09 | 0 | 100 |
| Not subtyped | 0 | 0 |
| Influenza B | 0 | 5 |
| B lineage not determined | 0 | 0 |
| B Victoria | 0 | 5 |
| Parainfluenza | 0 | 0 |
| Adenovirus | 0 | 0 |
| RSV | 0 | 37 |



Epi Week Summary

During EW 37, seven (7) SARI admissions were reported.

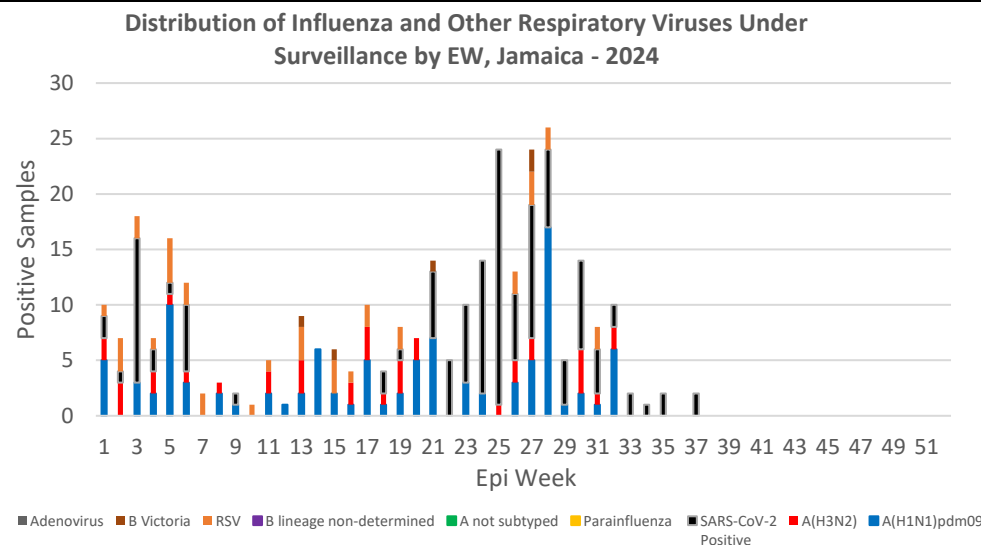


Caribbean Update EW 37

Caribbean: ILI cases have maintained a declining trend associated with a higher proportion of positive influenza cases. SARI cases have remained low, with most positive cases associated with SARS-CoV-2. Influenza activity has been declining over the past four EW, with A(H3N2) being predominant, following by A(H1N1)pdm09. RSV activity has remained low and SARS-CoV-2 activity remains high compared to previous waves, although declining.

By country: In the last four EW, influenza activity has been observed in Belize, the Dominican Republic, Saint Lucia, Suriname and Guyana. Additionally, SARS-CoV-2 activity has been recorded in Haiti, Jamaica, Saint Lucia Barbados, Guyana, and Saint Vincent and the Grenadines. RSV activity has been detected in the Dominican Republic and Guyana.

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



7 NOTIFICATIONS-
All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

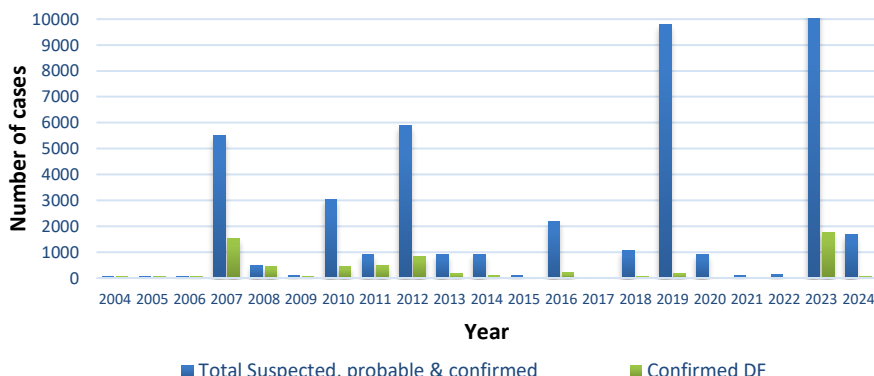
Dengue Bulletin

September 8, 2024 – September 14, 2024 Epidemiological Week 37


Epidemiological Week 37



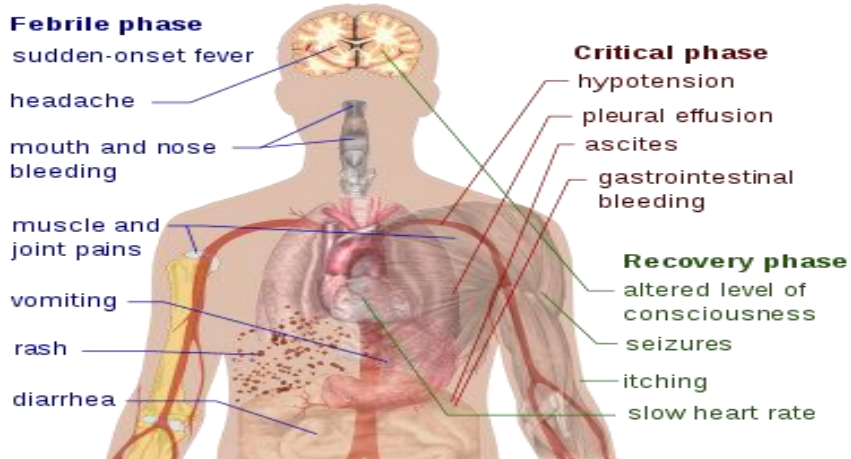
Dengue Cases by Year: 2004-2024, Jamaica



Reported suspected, probable and confirmed dengue with symptom onset in week 37 of 2024

| | 2024* | |
|---|-------|------|
| | EW 37 | YTD |
|  Total Suspected, Probable & Confirmed Dengue Cases | 4 | 1681 |
| Lab Confirmed Dengue cases | 0 | 41 |
| CONFIRMED Dengue Related Deaths | 1 | 2 |

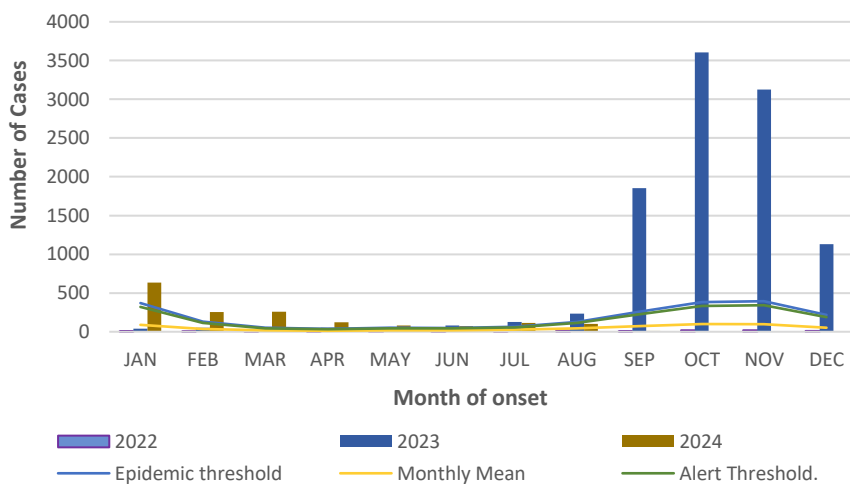
Symptoms of Dengue fever



Points to note:

- Dengue deaths are reported based on date of death.
- *Figure as at September 25, 2024
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected, probable and confirmed dengue cases for 2022 - 2024 versus monthly mean, alert, and epidemic thresholds (2007-2022)



8 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



SENTINEL REPORT- 78 sites. Automatic reporting

RESEARCH PAPER

Abstract

NHRC-23-17

Maternal and perinatal outcomes of eclampsia and preeclampsia at public hospitals in the South East Region (SERHA) Jamaica, a five-year review.

Lord, C¹, Grant, A¹, Reid, M², Harris MA³, McCaw Binns, A²

¹ Ministry of Health & Wellness, Jamaica ² University of the West Indies, Jamaica ³ Pan American Health Organization, Trinidad and Tobago

Objective: To describe maternal and perinatal outcomes associated with eclampsia and preeclampsia at public hospitals in SERHA, 2015–2019.

Methods: This retrospective cohort study reviewed medical records of patients and their neonates. Data were extracted from 788 records. (194 eclampsia patients (100%), 443 pre-eclampsia patients (1 in 4 records) and 151 normotensive women). Chi-square analysis tested for associations with eclampsia/preeclampsia. Logistic regression was used to determine factors associated with these conditions. Regression models considered: eclampsia/preeclampsia vs. no hypertension.

Results: Of the 788 records reviewed, the median age for eclampsia was 22 years (IQR 18, 27) and preeclampsia, 29 years (IQR 22, 35). Mean number of antenatal visits for women diagnosed with eclampsia was 5.6 ± 2.8 and preeclampsia 7.0 ± 3.5 . The most common prodromal symptoms were headache for eclampsia (70.6%) and epigastric pain for preeclampsia (38.2%). Significant common maternal complications were postpartum haemorrhage (eclampsia 23% and preeclampsia 30.4%) and HELLP Syndrome (eclampsia 8.6% and preeclampsia 7.1%). Babies delivered by eclampsia women were nineteen times more likely to be premature (OR 19.3, 95%CI, 8.1, 46.0). Those delivered by preeclampsia women were twenty two times more likely to be premature (OR 22.0, 95%CI, 9.7, 52.1). Neonates were fourteen times more likely to be admitted to the nursery for mothers with eclampsia (OR 13.8, 95%CI, 7.9, 24.0) seven times for preeclampsia (OR 7.3, 95%CI, 4.48, 12.0).

Conclusion: Eclampsia and preeclampsia are associated with obstetric complications and adverse maternal and perinatal outcomes. Improved antenatal monitoring and early intervention are necessary for better outcomes.



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9 NOTIFICATIONS-
All clinical
sites



INVESTIGATION
REPORTS- Detailed Follow
up for all Class One Events



HOSPITAL
ACTIVE
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30 sites. Actively
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