

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Leprosy (Hansen Disease)



Leprosy, also known as Hansen’s disease, is a chronic infectious disease caused by *Mycobacterium leprae*. The disease affects the skin, the peripheral nerves, mucosal surfaces of the upper respiratory tract and the eyes. Leprosy is known to occur at all ages ranging from early childhood to old age. Leprosy is curable and treatment during early stages can prevent disability. Leprosy is transmitted via droplets, from the nose and mouth, during close and frequent contact with untreated cases.

Symptoms may occur within one year but can also take as long as 20 years or even more to occur. The disease manifests commonly through skin lesion and peripheral nerve involvement. Leprosy is diagnosed by finding at least one of the following cardinal signs: (1) definite loss of sensation in a pale (hypopigmented) or reddish skin patch; (2) thickened or enlarged peripheral nerve, with loss of sensation and/or weakness of the muscles supplied by that nerve; (3) presence of acid-fast bacilli in a slit-skin smear.

Skin lesion has usually a different pigmentation than the surrounding normal skin (less pigmented, reddish or copper-coloured) and may have various aspects (flat, raised or nodules). Skin lesion can be single or multiple with a definite loss of sensation. Leprosy is a highly variable disease, affecting different people in different ways, according to their immune response. Those at one end of the spectrum, with a high level of immunity, harbour a low number of bacilli and are referred to as patients with PB leprosy. Those with many bacilli in the body are referred to as patients with MB leprosy.

Paucibacillary (PB) case: a case of leprosy with 1 to 5 skin lesions, without demonstrated presence of bacilli in a skin smear. **Multibacillary (MB) case:** a case of leprosy with more than five skin lesions; or with nerve involvement (pure neuritis, or any number of skin lesions and neuritis); or with the demonstrated presence of bacilli in a slit-skin smear, irrespective of the number of skin lesions.

Early diagnosis and complete treatment with multidrug therapy (MDT) remain the key strategies for reducing the disease burden of leprosy. The 2018 Guidelines for the diagnosis, treatment and prevention of leprosy published by WHO, recommends the same 3-drug regimen with rifampicin, dapson and clofazimine for all leprosy patients, with a duration of treatment of 6 months for PB leprosy and of 12 months for MB leprosy.

Taken from WHO website on 21/August/2024

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

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

https://www.who.int/health-topics/leprosy#tab=tab_3

EPI WEEK 32



Syndromic Surveillance

Accidents

Violence

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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 – 29 to 32 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													
29	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
30	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
31	On Time	On Time	On Time	Late (W)	On Time	Late (W)	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time
32	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

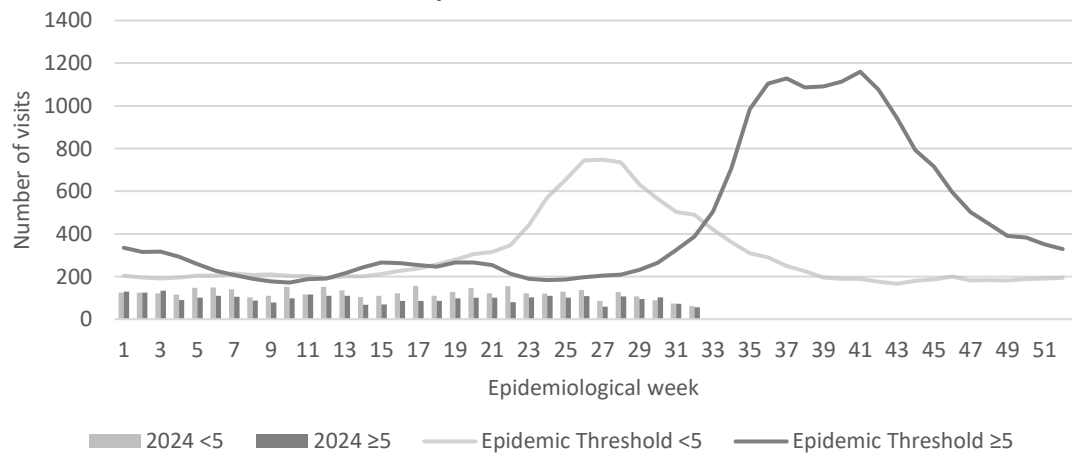
REPORTS FOR SYNDROMIC SURVEILLANCE

UNDIFFERENTIATED FEVER

Temperature of $>38^{\circ}\text{C}$ / 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



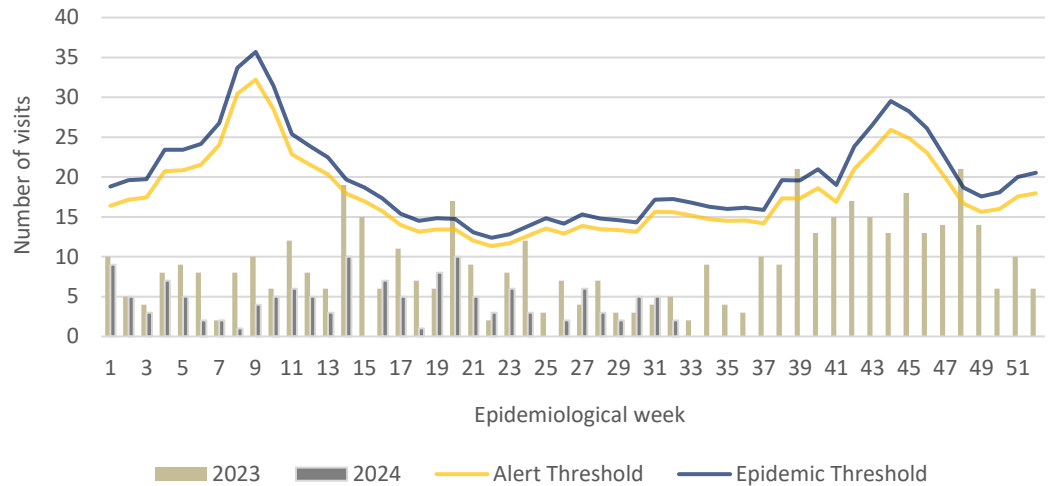
SENTINEL REPORT- 78 sites. Automatic reporting

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

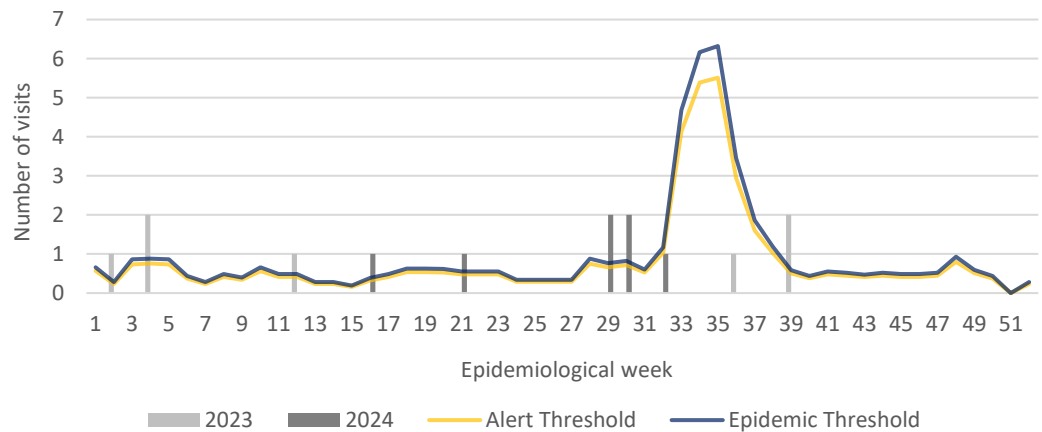


FEVER AND HAEMORRHAGIC

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



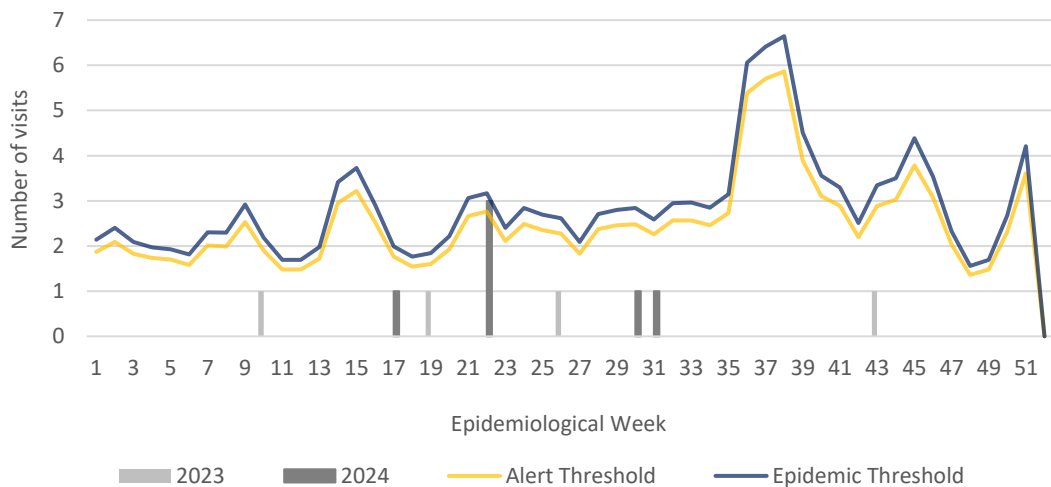
FEVER AND JAUNDICE

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

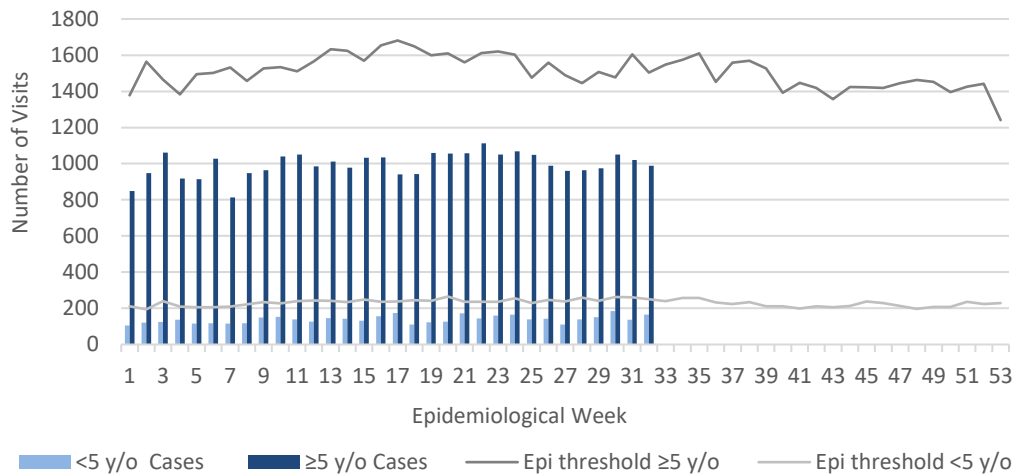


ACCIDENTS

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

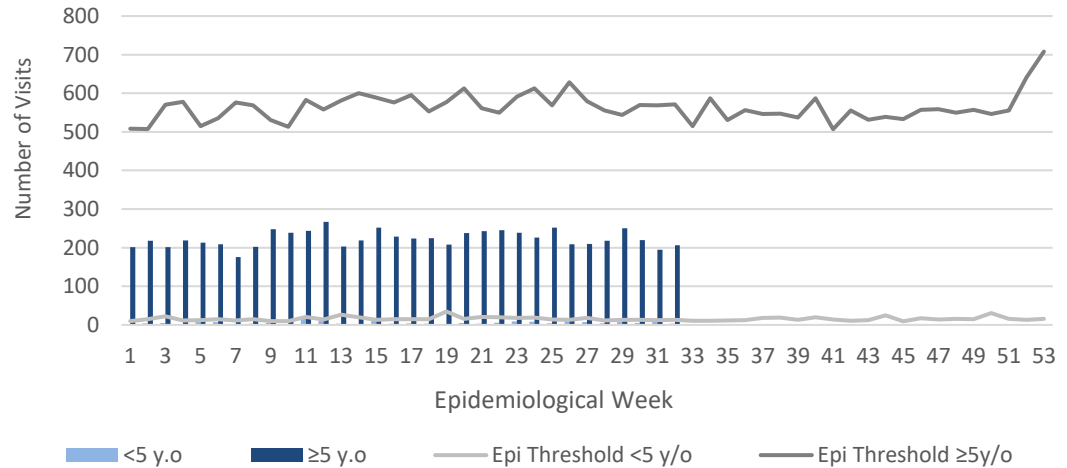


VIOLENCE

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

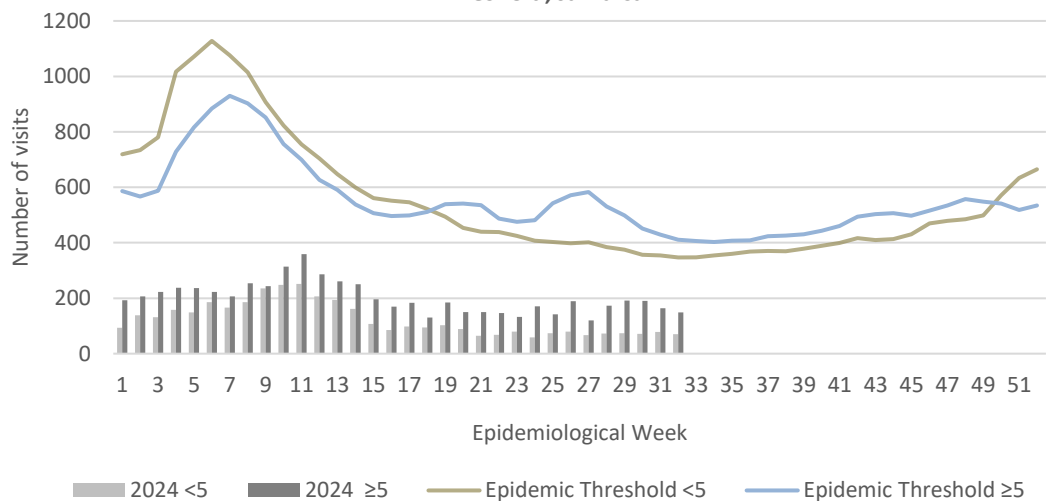


GASTROENTERITIS

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




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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	233 ^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)	561	3306		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	10	43		
	Hepatitis C	1	24		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	1	0		
	Meningitis	9	20		
	Monkeypox	0	3		
EXOTIC/ UNUSUAL	Plague	0	0	^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.	
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		
	Congenital Rubella Syndrome	0	0		
	Congenital Syphilis	0	0		
	Fever and Rash	Measles	0		0
		Rubella	0		0
	Maternal Deaths ^δ	42	35		
	Ophthalmia Neonatorum	72	86		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	19	43		
	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



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

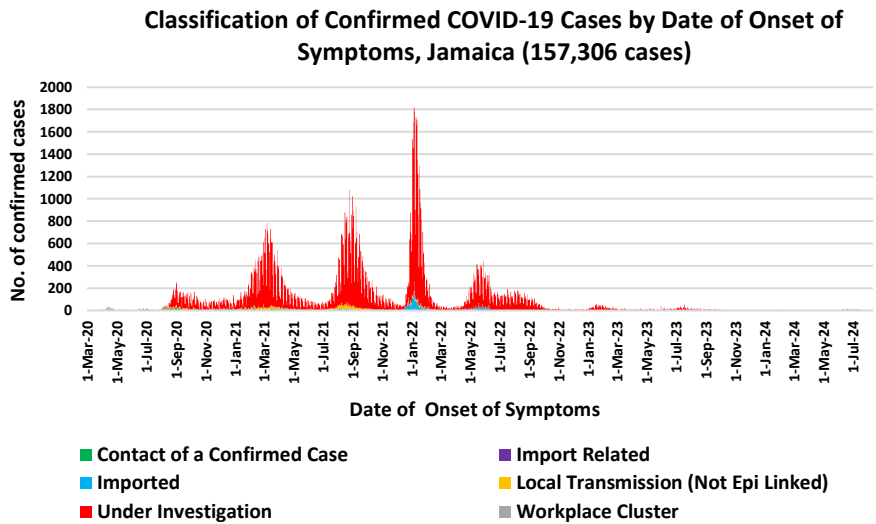


SENTINEL REPORT- 78 sites. Automatic reporting

COVID-19 Surveillance Update

CASES	EW 32	Total
Confirmed	22	157306
Females	15	90651
Males	7	66652
Age Range	3 days to 90 years old	1 day to 108 years

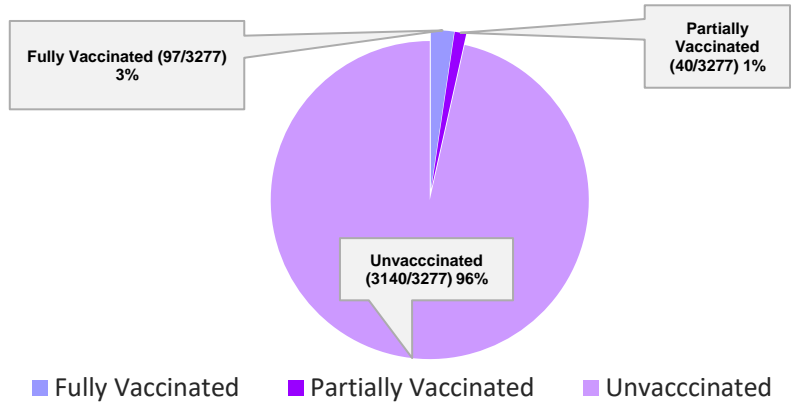
* 3 positive cases had no gender specification
 * PCR or Antigen tests are used to confirm cases
 * Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.



COVID-19 Outcomes

Outcomes	EW 32	Total
ACTIVE *2 weeks*		37
DIED – COVID Related	0	3840
Died - NON COVID	0	377
Died - Under Investigation	0	166
Recovered and discharged	0	103226
Repatriated	0	93
Total		157306

3277 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths

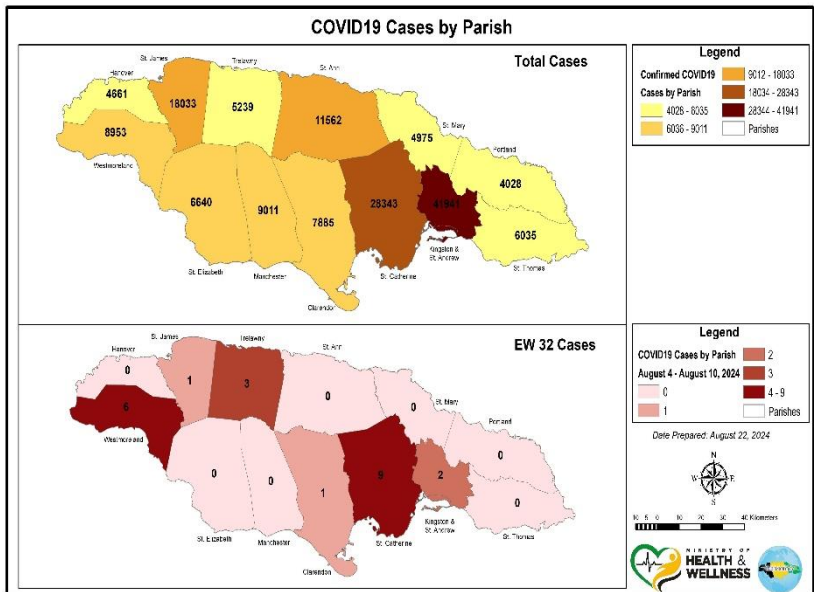


COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

SARS-CoV-2

- Spike (S)
- Nucleocapsid (N)
- Membrane (M)
- Envelope (E)
- RNA viral genome



COVID-19 WHO Global Statistics EW 29-32, 2024

Epi Week	Confirmed Cases	Deaths
29	46500	734
30	52100	832
31	56000	904
32	47200	815
Total (4weeks)	201800	3285

6 NOTIFICATIONS-
All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

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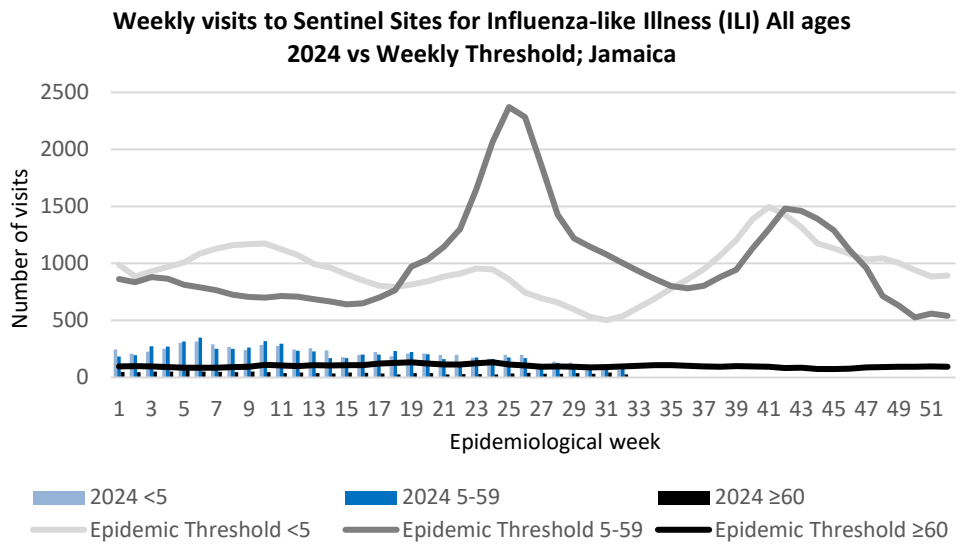
SENTINEL REPORT- 78 sites. Automatic reporting

NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 32

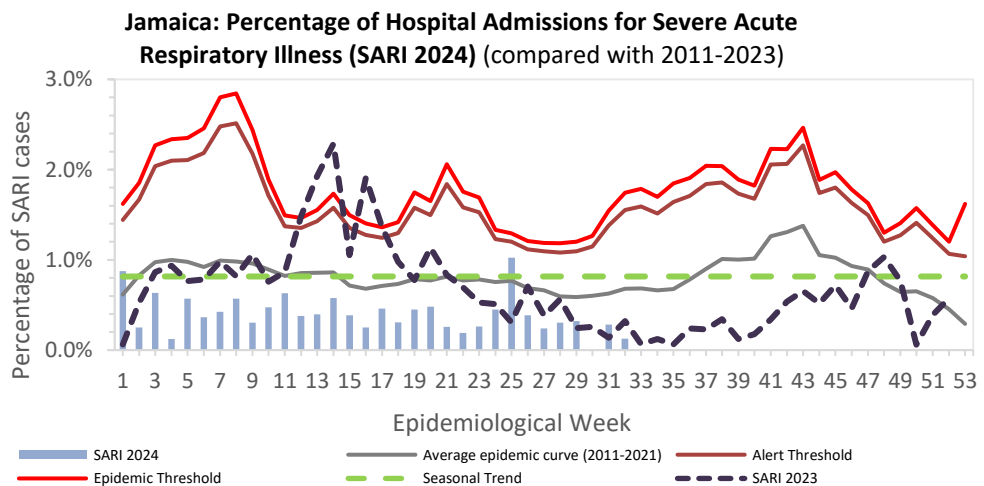
August 4, 2024 – August 10, 2024 Epidemiological Week 32

	EW 32	YTD
SARI cases	2	200
Total Influenza positive Samples	0	125
Influenza A	0	120
H3N2	0	32
H1N1pdm09	0	88
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	32



Epi Week Summary

During EW 32, two (2) SARI admissions were reported.

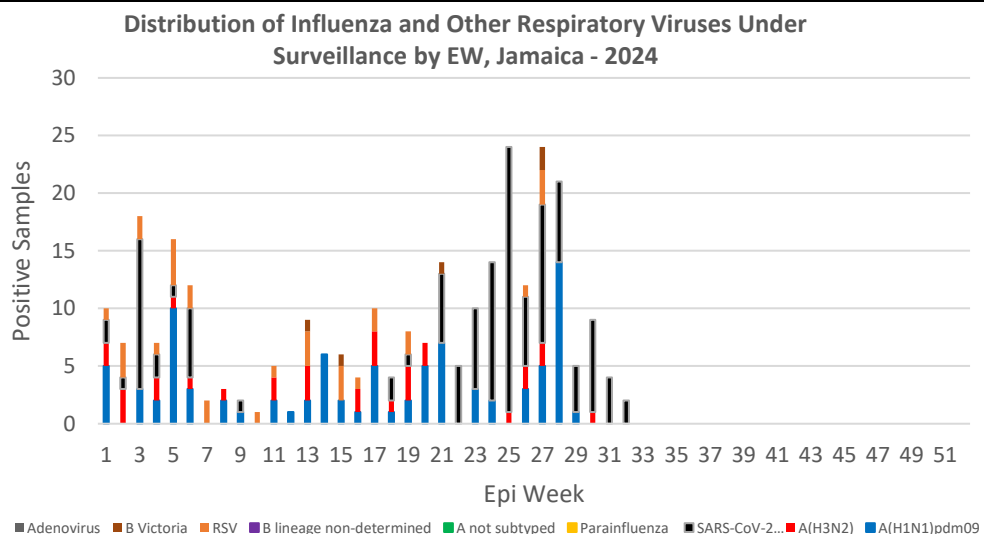


Caribbean Update EW 32

Caribbean: After the rise observed in previous weeks, ILI cases have shown a declining trend over the past four EW, associated with a higher proportion of positive influenza cases. SARI cases have remained at low levels. Influenza activity has fluctuated at moderate levels during the past four EW, with A(H3N2) being predominant, followed by A(H1N1)pdm09. RSV activity has RS-CoV-2 activity remains stable at high levels.

By country: In the last four EW, influenza activity has been observed in Belize, the Dominican Republic, Jamaica, the Cayman Islands, and Guyana. Additionally, SARS-CoV-2 activity has been recorded in Belize, Jamaica, Saint Lucia, 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>



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

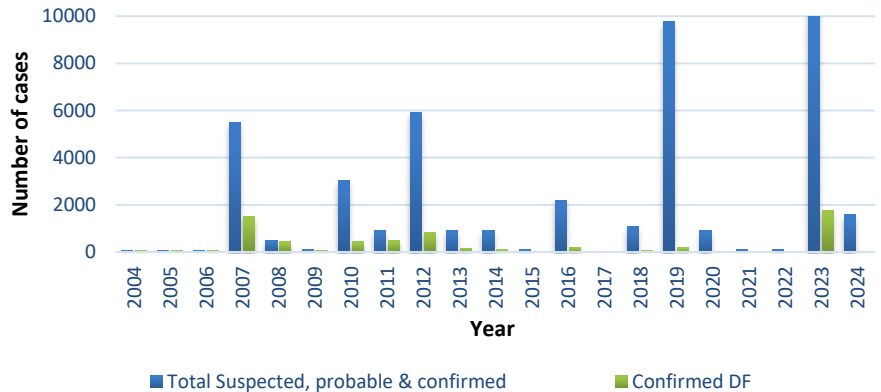
Dengue Bulletin

August 4, 2024 – August 10, 2024 Epidemiological Week 32

Epidemiological Week 32



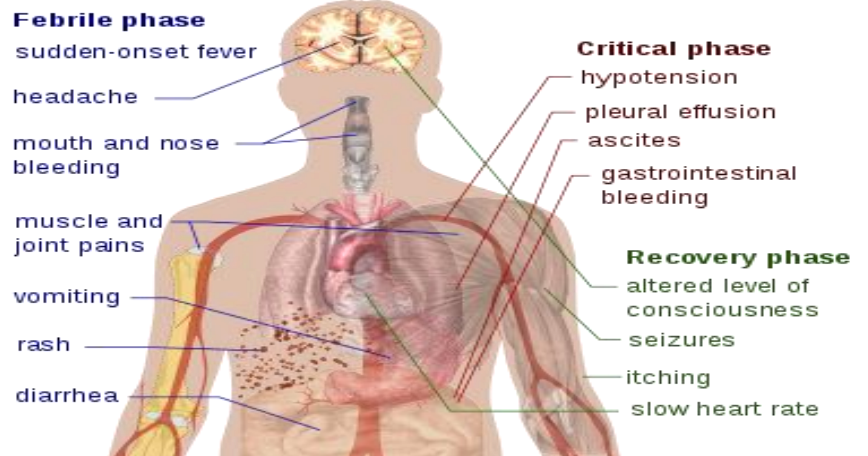
Dengue Cases by Year: 2004-2024, Jamaica



Reported suspected, probable and confirmed dengue with symptom onset in week 32 of 2024

	2024*	
	EW 32	YTD
Total Suspected, Probable & Confirmed Dengue Cases	14	1576
Lab Confirmed Dengue cases	0	34
CONFIRMED Dengue Related Deaths	0	1

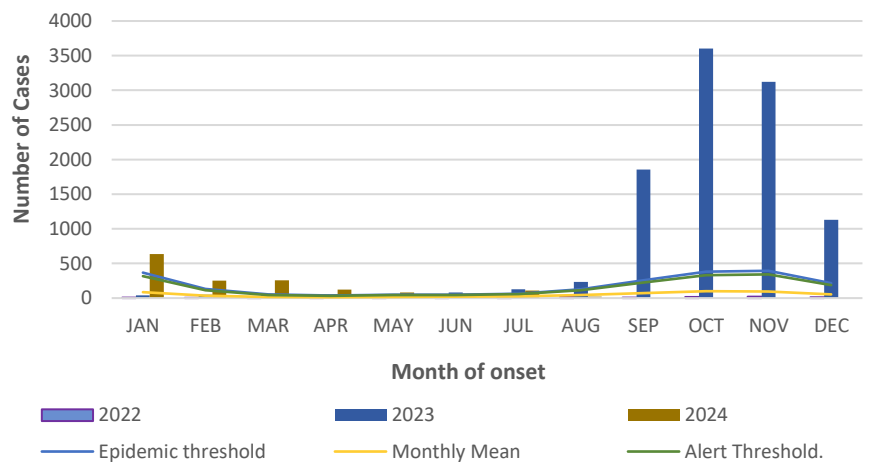
Symptoms of Dengue fever



Points to note:

- Dengue deaths are reported based on date of death.
- *Figure as at August 21, 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-O12

Time to Viral Clearance of COVID-19: Analysis of National Surveillance Data, Jamaica

Webster-Kerr K¹, Grant A¹, Harris A¹, Wiggan J¹, Henningham D¹, Rowe D¹, Azille-Lewis J⁴, Thorpe R¹, Mullings T¹, Lord C², Dawkins-Beharie T³, Wellington I¹, Gordon-Johnson K¹, Martin-Chen N¹, Campbell E¹, Brown M¹, Roberts T¹, Duncan J⁵

¹National Epidemiology, Ministry of Health and Wellness, Jamaica W.I., ²Family Health Unit, Ministry of Health and Wellness, Jamaica W.I., ³St. Elizabeth Health Department, Southern Regional Health Authority, Ministry of Health and Wellness, Jamaica W.I., ⁴Child Abuse Prevention Unit, Ministry of Youth Development & Empowerment, Youth at Risk, Gender Affairs, Seniors Security and Dominicans with Disabilities, Commonwealth of Dominica, ⁵Department of Community Health and Psychiatry, University of the West Indies, Mona, Jamaica, W.I.

Objective: To estimate time to viral clearance for COVID-19 cases occurring from March to June 2020.

Methods: Cross-sectional analysis was conducted on National Surveillance data. Viral clearance was defined as time from first positive nasopharyngeal swab to the first of two consecutive negative tests. Clinical severity (mild, moderate, severe, critical) was based on WHO definition. PCR tests were used for confirmation of COVID-19 cases. Frequency distributions, median and interquartile range (IQR) were computed. Kruskal Wallis and Mann-Whitney tests evaluated differences by age, sex, and severity. A p-value of < 0.05 was considered statistically significant.

Results: Data were available for 431 cases. Median time to viral clearance (days) was 28.0 (IQR: 18.0). Viral clearance differed by age ($p < 0.05$), sex ($p < 0.0001$) and clinical severity ($p < 0.05$). For clinical severity, mildly ill cases had longest time (median: 29.0, IQR: 17.0). Females had a longer time (median: 30.0, IQR: 15.0) than males (median: 23.0, IQR: 20.0). Viral clearance was greater in cases < 60 years (median: 28.0, IQR: 19.0) than those ≥ 60 years (median: 19.0, IQR: 21.0). 44.8% of cases were from a workplace cluster with median age of 23 years. Viral clearance for workplace cluster cases versus non-workplace cluster was 33.0, (IQR: 10.0) versus 20.0, (IQR: 19.0).

Conclusion: Median time to viral clearance was 28 days and was influenced by age, sex, clinical severity and time of testing. More viral clearance studies are needed to guide response in future public health events.



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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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Automatic reporting