WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Pertussis Surveillance (Part 3)

Final classification (cont'd)
A confirmed case of pertussis may be determined by laboratory confirmation or epidemiological linkage.

Laboratory confirmation.
A laboratory-confirmed case is a person who meets the suspected case definition with laboratory confirmation by one of the following:

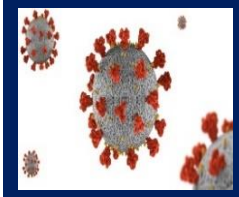
1. isolation of B. pertussis
   OR
2. detection of genomic sequences of B. pertussis by means of polymerase chain reaction (PCR) assay, if polymerase chain reaction (PCR) meets performance criteria outlined below
   OR
3. elevated IgG antibodies to pertussis toxin in an individual ≥ 11 years of age, one year or longer after last vaccine dose.

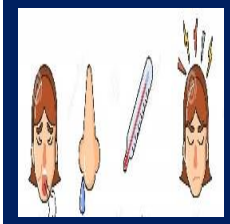
Culture and PCR detection of acute pertussis infection have higher specificity and are preferred diagnostic methodologies over serology. Serology should be reserved for cases ≥ 4 weeks from cough onset; however, IgG can sometimes remain elevated for more than a year after infection or vaccination, leading to potential false positives.

Epidemiologically linked.
An epidemiologically linked case is a person meeting the suspected case definition with close contact to a laboratory-confirmed case (or another epidemiologically linked case in an outbreak setting) in the three weeks prior to onset of cough. h Close contact is defined as having face-to-face exposure to a case, which includes household or family contact, people having stayed overnight in the same room with a case, and people having direct contact with respiratory, oral or nasal secretions with a laboratory-confirmed case.

Taken from WHO website on 12/May/2025
https://cdn.who.int/media/docs/default-source/immunization/vpd_surveillance/vpd-surveillance-standards-publication/who-surveillancevaccinepreventable-16-pertussis-r2.pdf?sfvrsn=a0157ae7_10#:~:text=Recommended%20types%20of%20surveillance%20for%20pertussis&text=Prioritize%20facilities%20with%20a%20large,%2Dbased%20surveillance%20(4).
Picture taken from https://stock.adobe.com/search?k=bordetella

EPI WEEK 18





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 – 15 to 18 of 2025

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

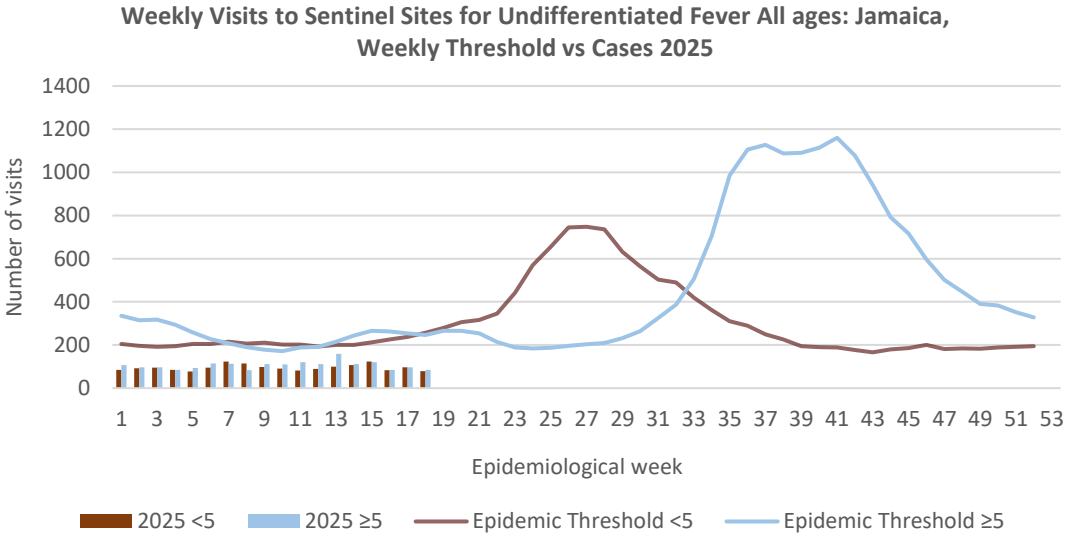
KEY:
Yellow- late submission on Tuesday
Red – late submission after Tuesday

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													
15	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
16	On Time	On Time	On Time	On Time	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time
17	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
18	On Time	Late (T)	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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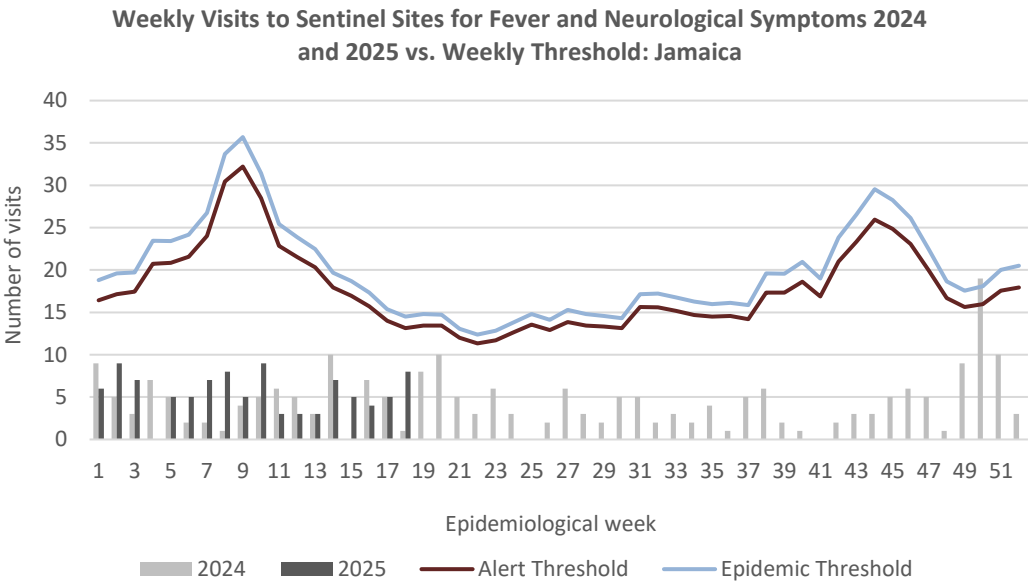
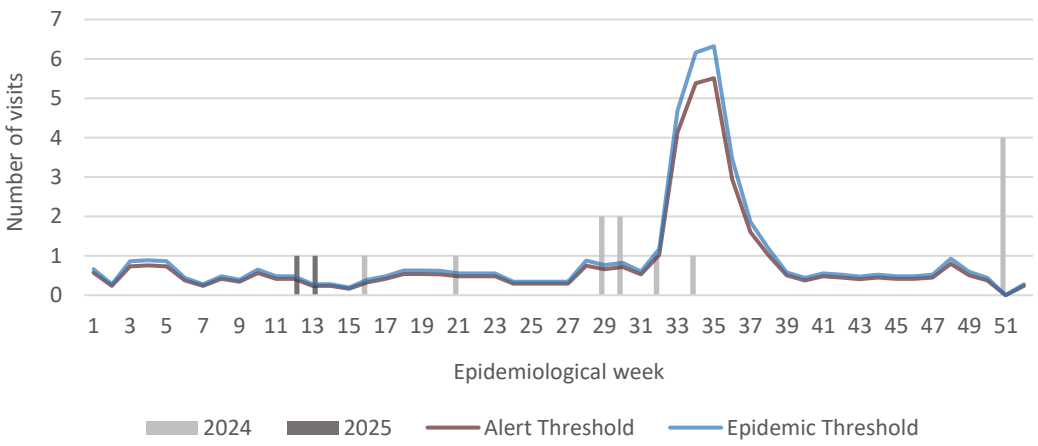
FEVER AND NEUROLOGICAL

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

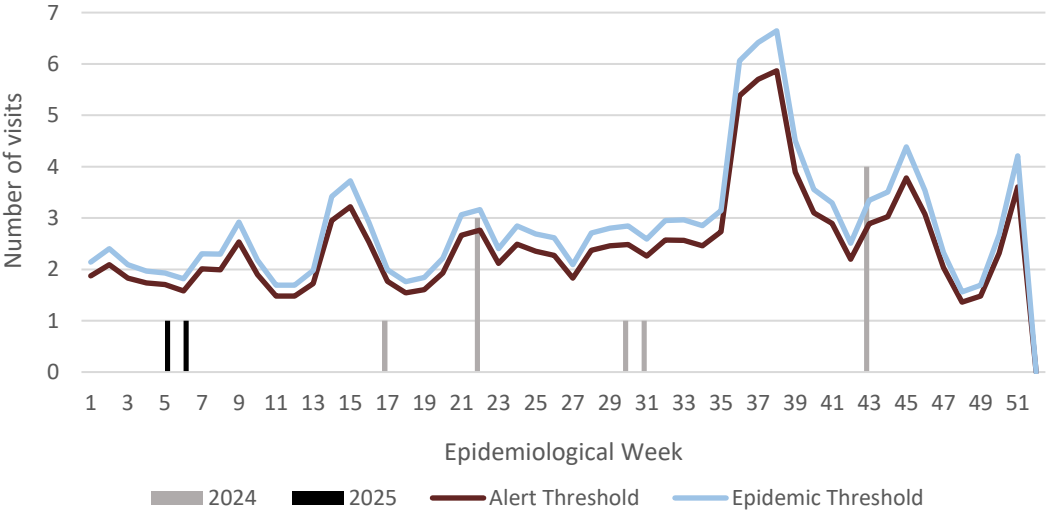
Temperature of >38^0C /100.4^0F (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



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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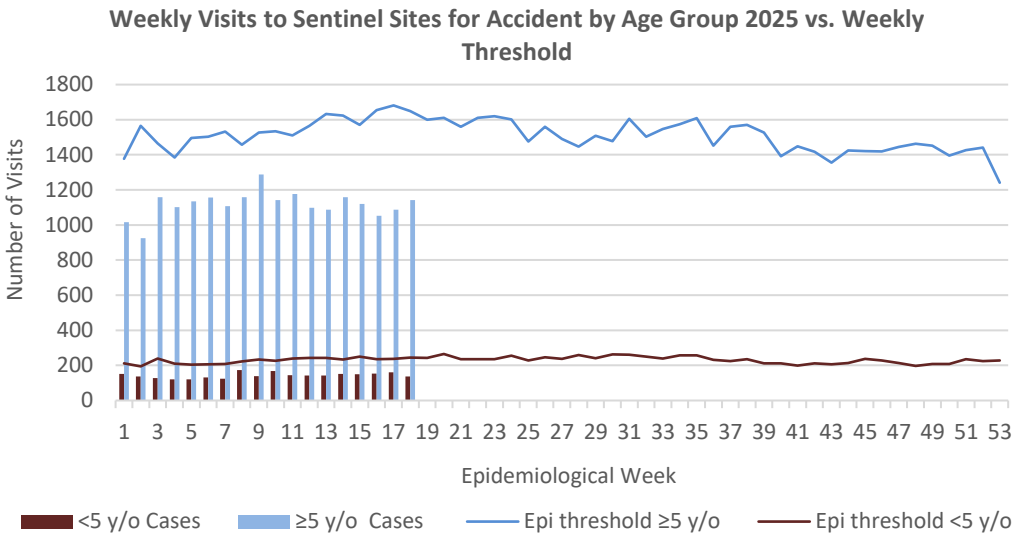
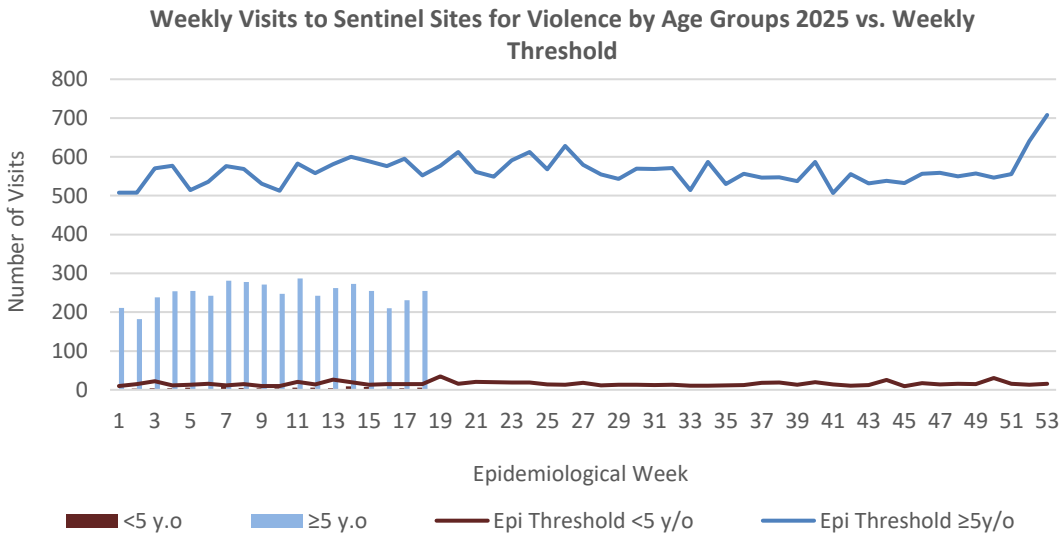
ACCIDENTS

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



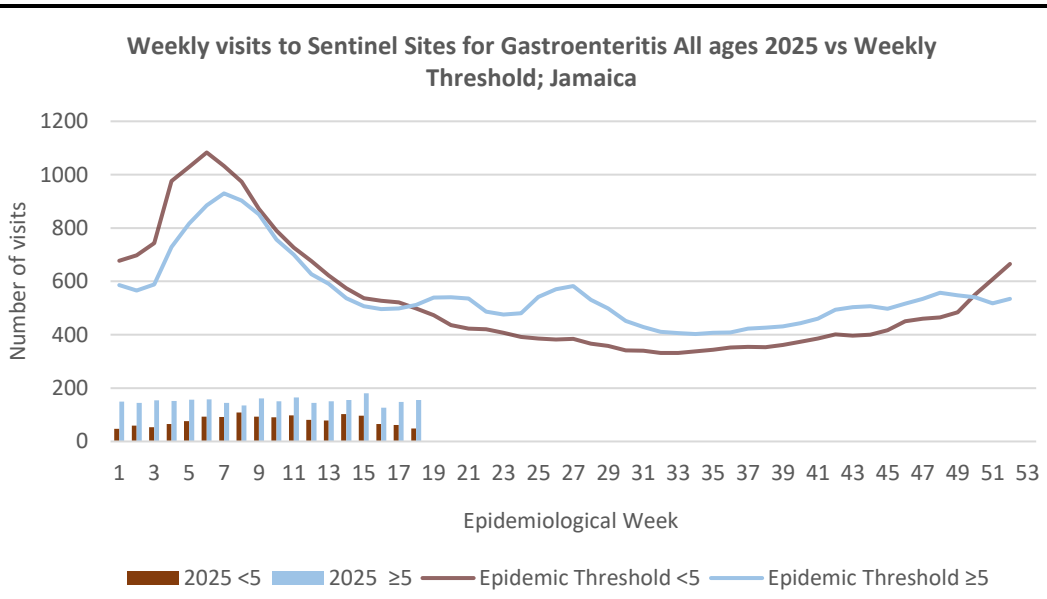
VIOLENCE

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 2025	PREVIOUS YEAR 2024
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		31[β]	151[β]
	Cholera		0	0
	Severe Dengue[Y]		See Dengue page below	See Dengue page below
	COVID-19 (SARS-CoV-2)		95	178
	Hansen's Disease (Leprosy)		0	0
	Hepatitis B		0	16
	Hepatitis C		1	5
	HIV/AIDS		NA	NA
	Malaria (Imported)		0	0
	Meningitis		4	9
	Monkeypox		1	0
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]		23	22
	Ophthalmia Neonatorum		12	64
	Pertussis-like syndrome		0	0
	Rheumatic Fever		0	0
	Tetanus		1	0
	Tuberculosis		8	23
	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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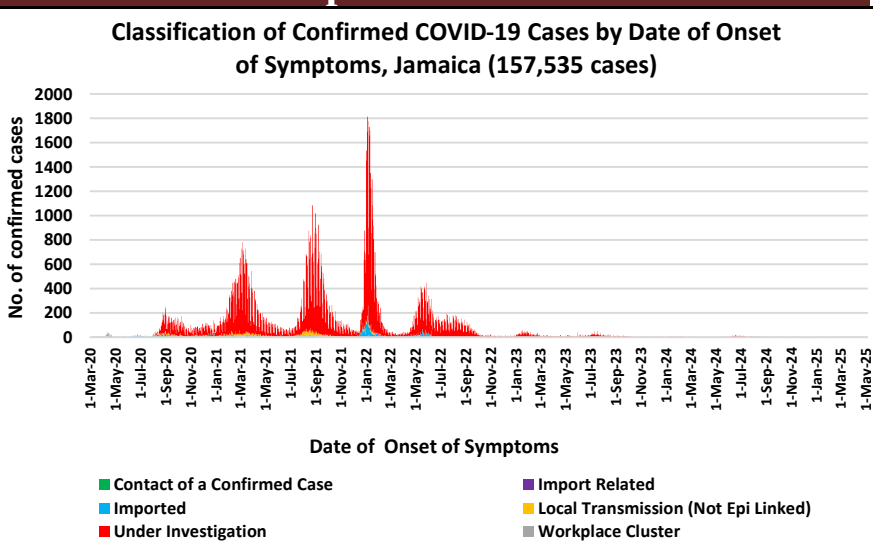
COVID-19 Surveillance Update

CASES	EW 18	Total
Confirmed	10	157535
Females	8	90766
Males	2	66766
Age Range	1 days to 76 years	1 day to 108 years

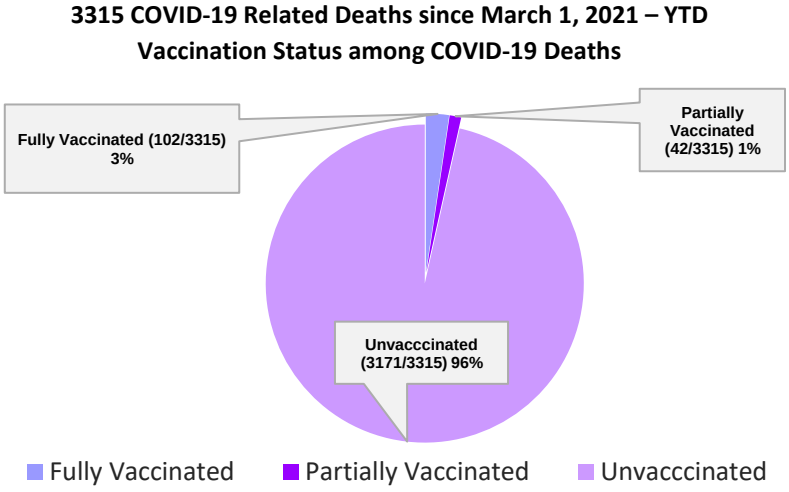
* 3 positive cases had no gender specification
* PCR or Antigen tests are used to confirm cases
* Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.



COVID-19 Outcomes

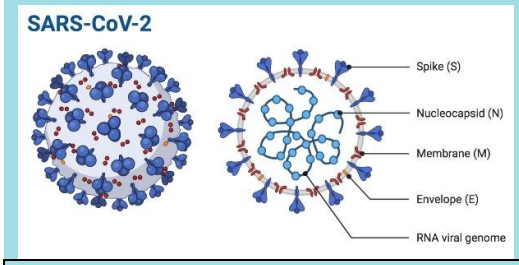
Outcomes	EW 18	Total
ACTIVE *2 weeks*		18
DIED – COVID Related	0	3879
Died - NON COVID	0	396
Died - Under Investigation	0	142
Recovered and discharged	0	103226
Repatriated	0	93
Total		157535

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



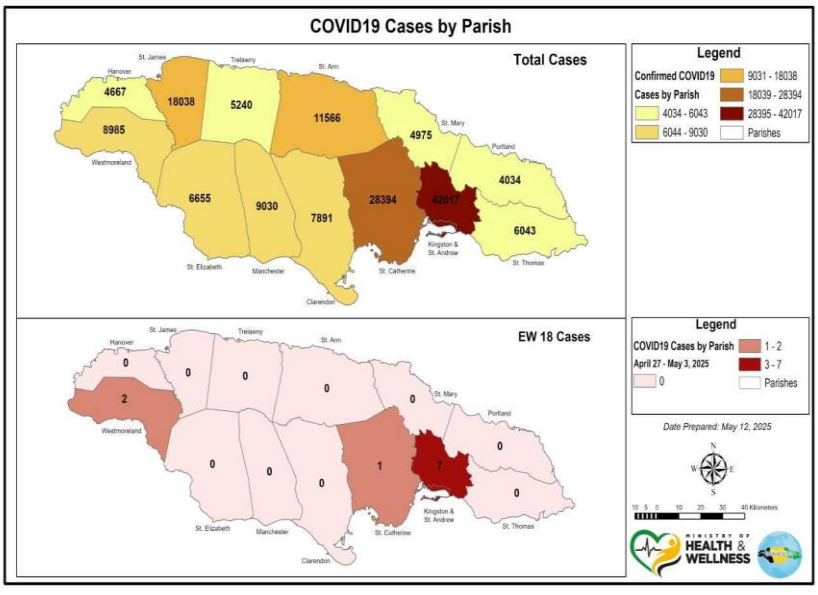
COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure



COVID-19 WHO Global Statistics EW 15 -18, 2025

Epi Week	Confirmed Cases	Deaths
15	7800	428
16	6800	349
17	5100	309
18	5000	278
Total (4weeks)	**24700**	**1364**



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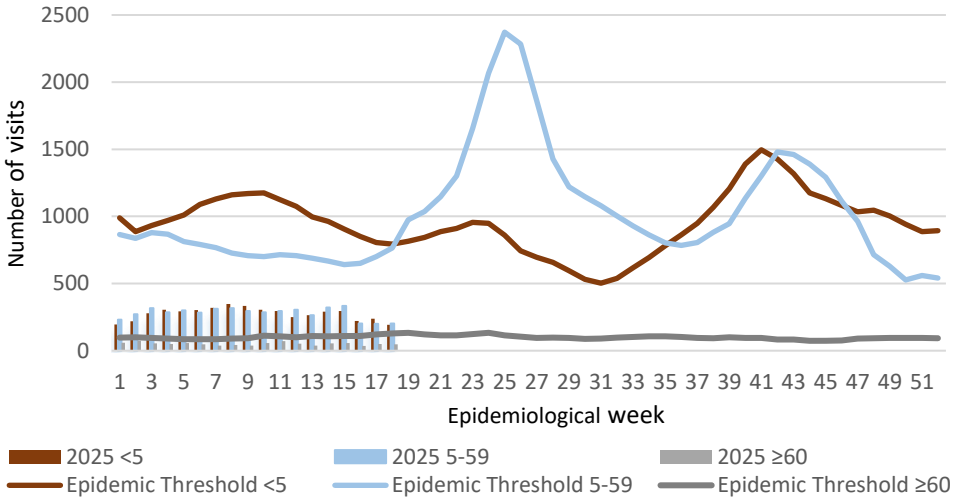
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 18

April 27, 2025 – May 3, 2025 Epidemiological Week 18

	EW 18	*YTD*
SARI cases	7	184
Total Influenza positive Samples	**0**	**143**
Influenza A	**0**	**127**
H1N1pdm09	0	75
H3N2	0	52
Not subtyped	0	0
Influenza B	**0**	**16**
B lineage not determined	0	0
B Victoria	0	16
Parainfluenza	0	0
Adenovirus	0	0
RSV	0	28

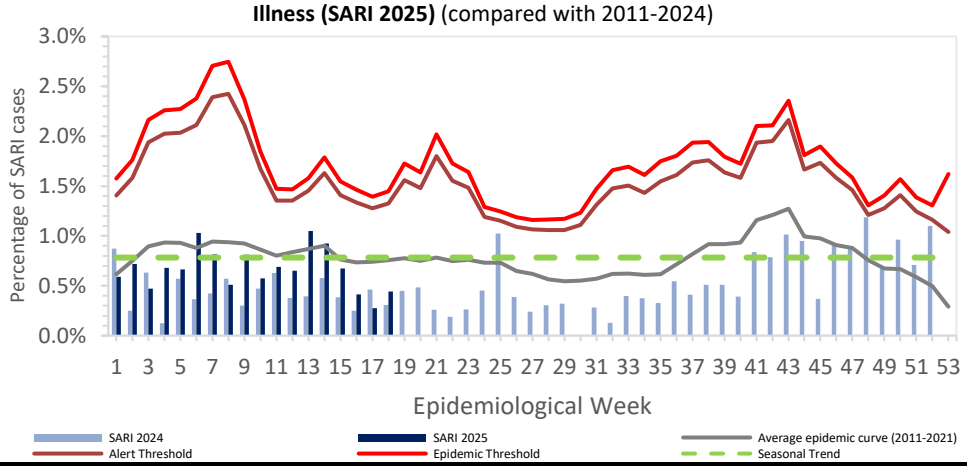
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2025 vs Weekly Threshold; Jamaica



Epi Week Summary

During EW 18, seven (7) SARI admissions were reported.

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



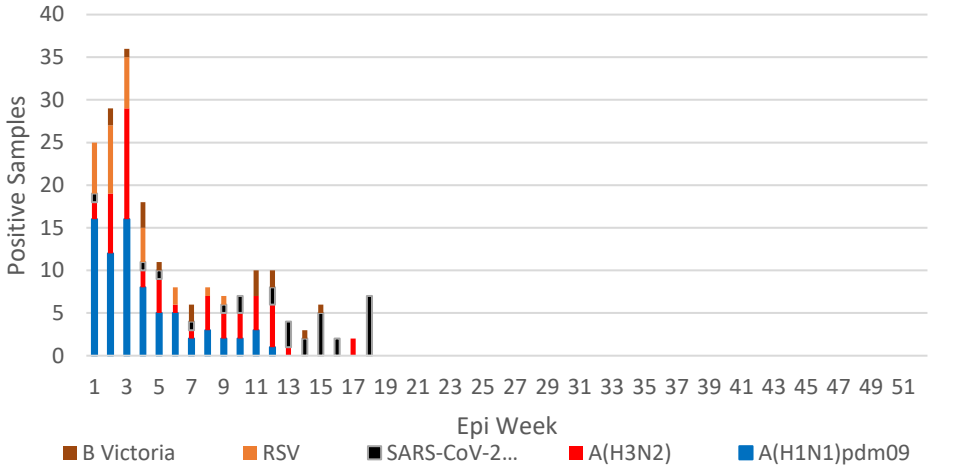
Caribbean Update EW 18

Caribbean: Influenza activity is decreasing for ILI and SARI. The predominant influenza subtype reported was A(H1N1)pdm09. RSV and SARS-CoV-2 cases remain low, with a slight increase over the past two EW.

By country: Over the past four EW, influenza activity has increased in Belize, the Dominican Republic and Guyana, while it has decreased in Barbados, Suriname, Jamaica, the Cayman Islands, Saint Lucia, and Saint Vincent and the Grenadines. A decline in RSV activity was observed in Belize, Cuba, the Dominican Republic, and Saint Lucia, along with an increase in SARS-CoV detection in Cuba and Jamaica.

(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 - 2025



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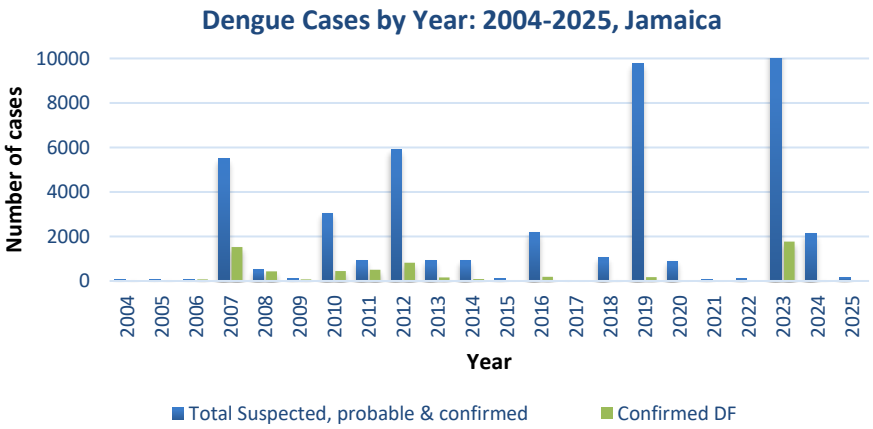
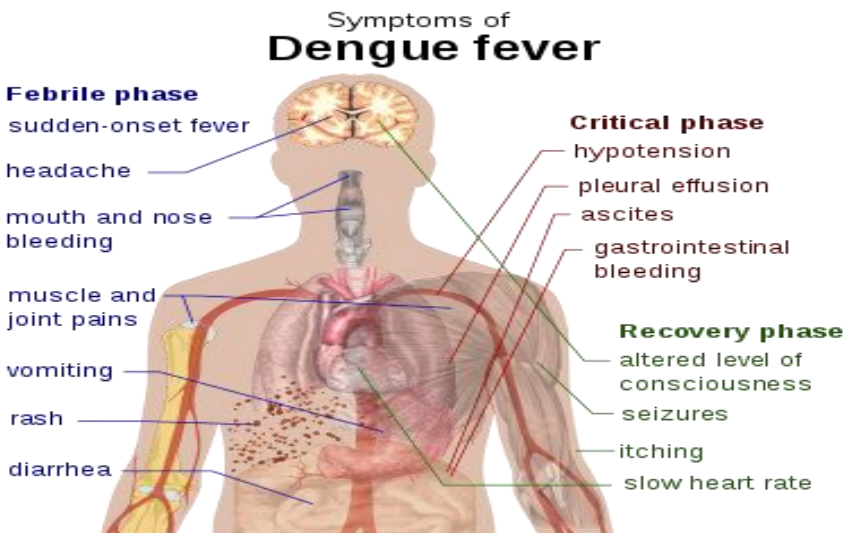
Dengue Bulletin

April 27, 2025 – May 3, 2025 Epidemiological Week 18 | Epidemiological Week 18



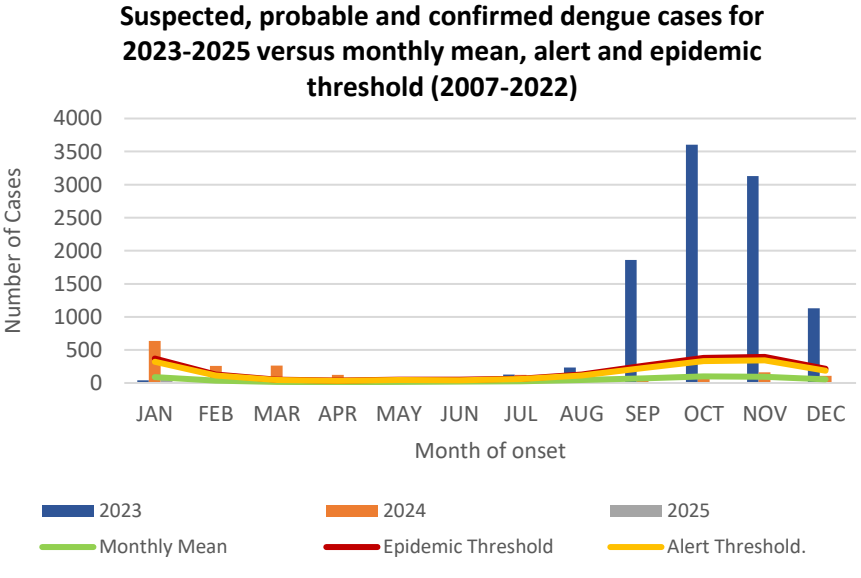
Reported suspected, probable and confirmed dengue with symptom onset in week 18 of 2025

	2025*	
	EW 18	YTD
Total Suspected, Probable & Confirmed Dengue Cases	1	165
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, May 14, 2025**
- **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-O15

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

Mc Gowan, D[1, 2], Pate- Robinson K[1], Ferguson, TS[1], Thorbourne A[1], Mitchell A[1], Headley C[2], Prout J[2], Thompson T[1]

[1]University of the West Indies Mona Jamaica, [2]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.

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