

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Pertussis



Pertussis, also known as whooping cough, is a highly contagious respiratory infection caused by the bacterium *Bordetella pertussis*. In 2018, there were more than 151 000 cases of pertussis globally. Pertussis spreads easily from person to person mainly through droplets produced by coughing or sneezing. The disease is most dangerous in infants, and is a significant cause of disease and death in this age group.

The first symptoms generally appear 7 to 10 days after infection. They include a mild fever, runny nose and cough, which in typical cases gradually develops into a hacking cough followed by whooping (hence the common name of whooping cough). Pneumonia is a relatively common complication, and seizures and brain disease occur rarely.

People with pertussis are most contagious up to about 3 weeks after the cough begins, and many children who contract the infection have coughing spells that last 4 to 8 weeks. Antibiotics are used to treat the infection.

Prevention

The best way to prevent pertussis is through immunization. The three-dose primary series diphtheria-tetanus-pertussis (DTP3) (- containing) vaccines decrease the risk of severe pertussis in infancy. In 2018, 86% of the global target population had received the recommended three doses of DTP-containing vaccine during infancy.

WHO recommends the first dose be administered as early as 6 weeks of age; with subsequent doses given 4-8 weeks apart, at age 10-14 weeks and 14-18 weeks. A booster dose is recommended, preferably during the second year of life. Based on local epidemiology, further booster doses may be warranted later in life.

Vaccination of pregnant women is effective in preventing disease in infants too young to be vaccinated. National programmes may consider vaccination of pregnant women with pertussis-containing vaccine as a strategy additional to routine primary infant pertussis vaccination in countries or settings with high or increasing infant morbidity/mortality from pertussis.

Taken from WHO website on 21/April/2025
https://www.who.int/health-topics/pertussis#tab=tab_1
https://www.who.int/health-topics/pertussis#tab=tab_2
 Picture taken from <https://stock.adobe.com/search?k=bordetella>

EPI WEEK 15



Syndromic Surveillance

Accidents

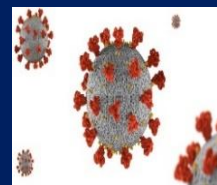
Violence

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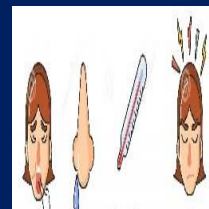
Class 1 Notifiable Events

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Research Paper

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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 – 12 to 15 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													
12	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
13	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
14	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
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

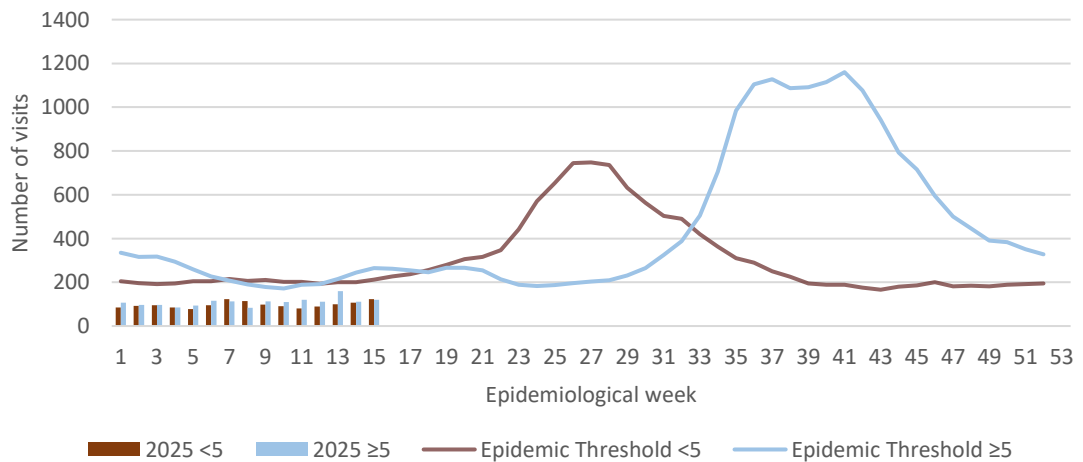
REPORTS FOR SYNDROMIC SURVEILLANCE

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 2025



2 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



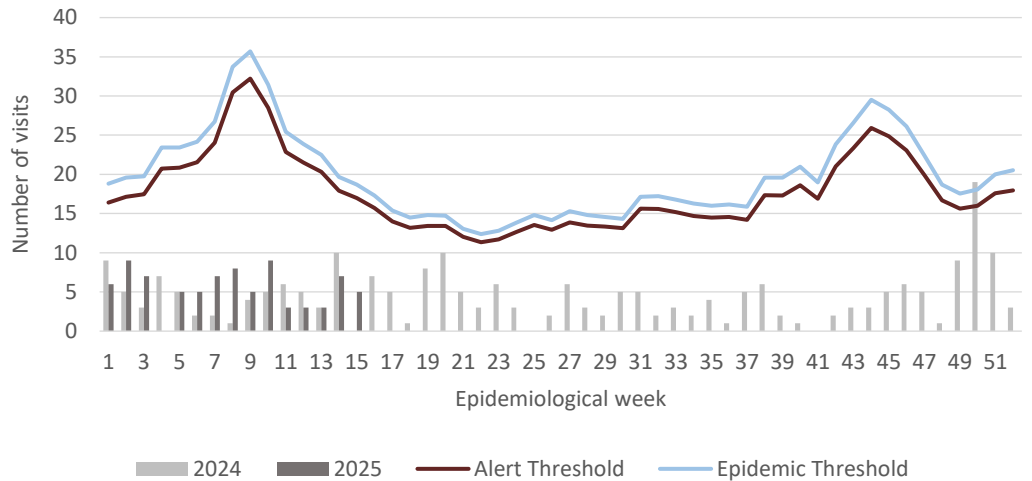
SENTINEL REPORT- 78 sites. Automatic reporting

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 2024 and 2025 vs. Weekly Threshold: Jamaica

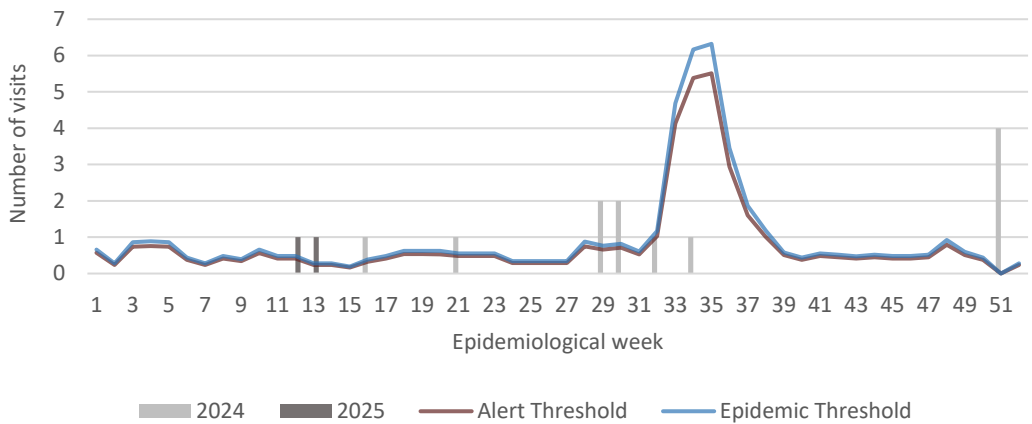


FEVER AND HAEMORRHAGIC

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 2024 and 2025 vs Weekly Threshold; Jamaica



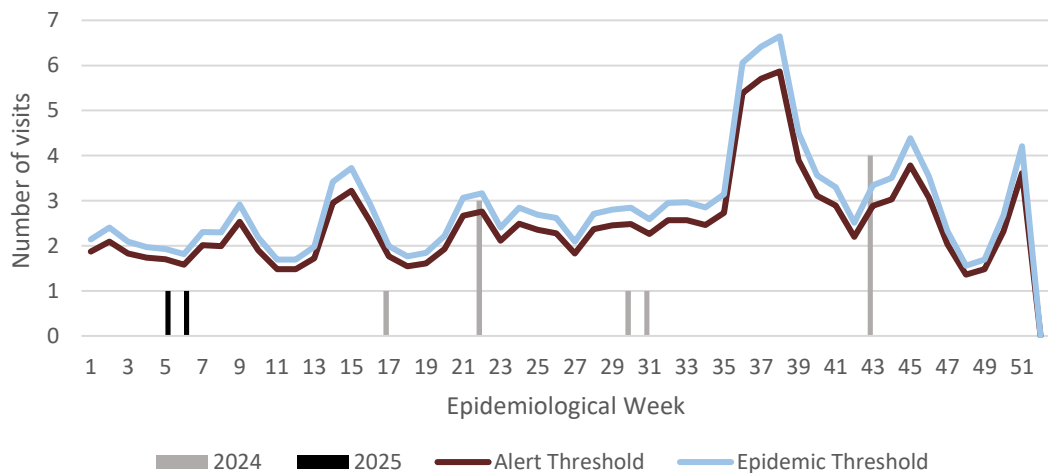
FEVER AND JAUNDICE

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 2024 and 2025



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

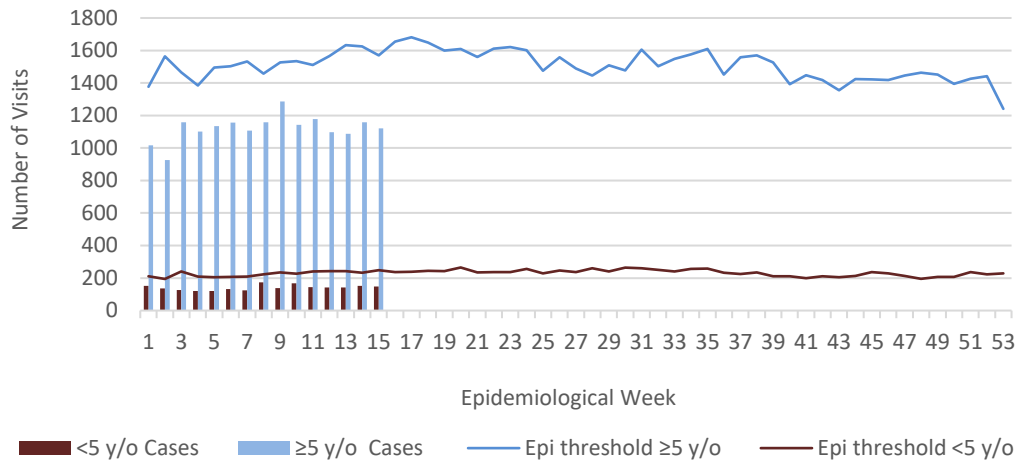


ACCIDENTS

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 2025 vs. Weekly Threshold

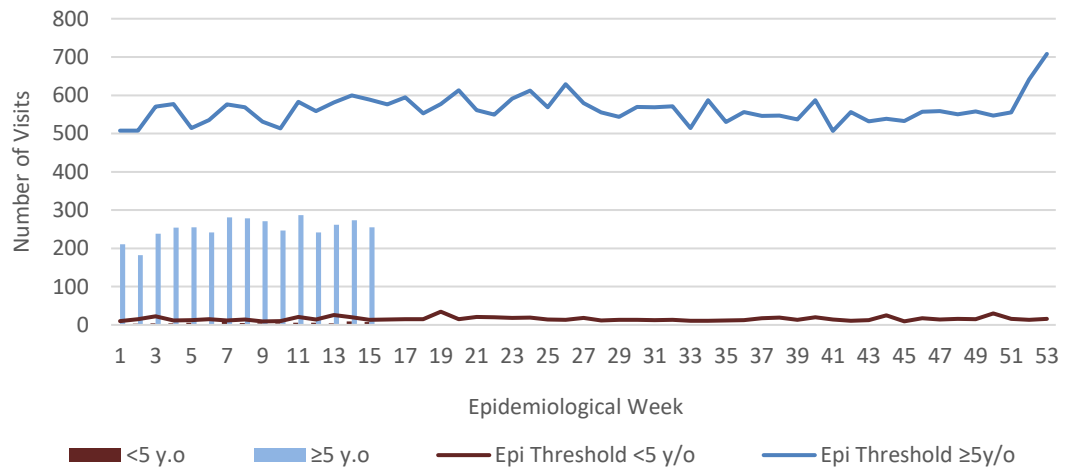


VIOLENCE

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 2025 vs. Weekly Threshold

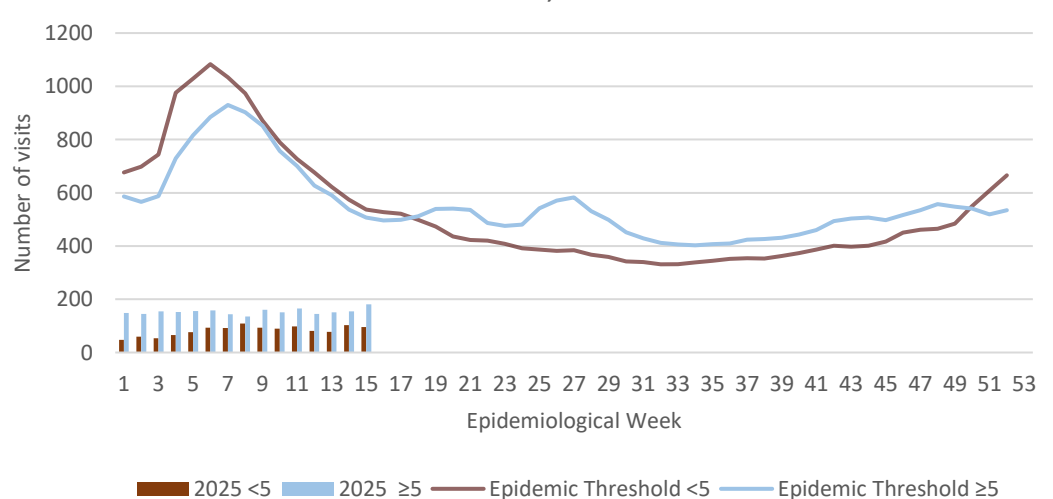


GASTROENTERITIS

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 2025 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

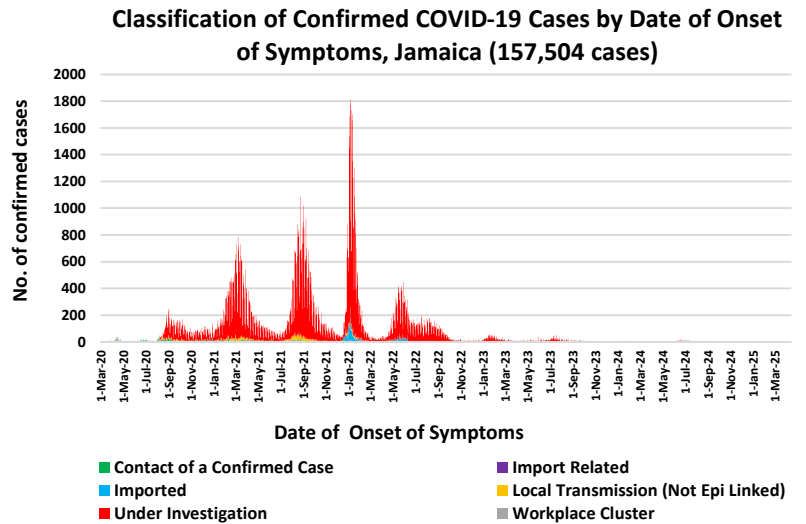
CLASS ONE NOTIFIABLE EVENTS				Comments	
	CLASS 1 EVENTS	Confirmed YTD ^α			
		CURRENT YEAR 2025	PREVIOUS YEAR 2024		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	12 ^β	130 ^β	AFP Field Guides from WHO indicate that for an effective surveillance system, detection rates for AFP should be 1/100,000 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.	
	Cholera	0	0		
	Severe Dengue ^γ	See Dengue page below	See Dengue page below		
	COVID-19 (SARS-CoV-2)	67	166		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	0	12		
	Hepatitis C	1	4		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis	4	8		
	Monkeypox	0	0		
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	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	18	20		
	Ophthalmia Neonatorum	10	52		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	1	0		
	Tuberculosis	2	17		
Yellow Fever	0	0			
Chikungunya ^ε	0	0			
Zika Virus ^θ	0	0	NA- Not Available		

 <p>5 NOTIFICATIONS- All clinical sites</p>	 <p>INVESTIGATION REPORTS- Detailed Follow up for all Class One Events</p>	 <p>HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued</p>	 <p>SENTINEL REPORT- 78 sites. Automatic reporting</p>
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COVID-19 Surveillance Update

CASES	EW 15	Total
Confirmed	13	157504
Females	7	90745
Males	6	66755
Age Range	5 months to 92 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.

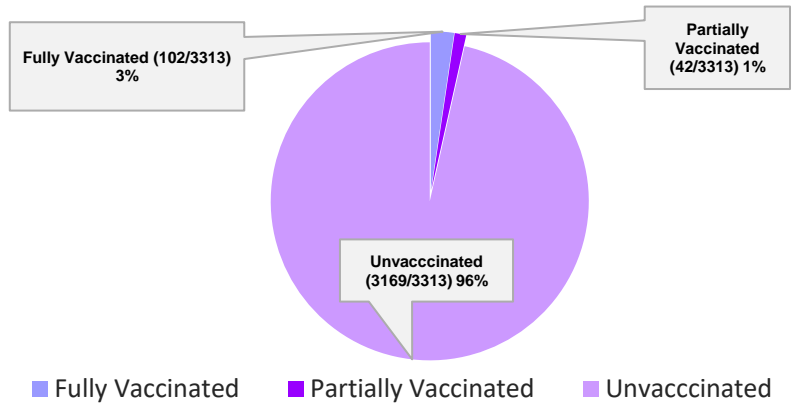


COVID-19 Outcomes

Outcomes	EW 15	Total
ACTIVE *2 weeks*		18
DIED – COVID Related	0	3877
Died - NON COVID	0	396
Died - Under Investigation	0	142
Recovered and discharged	0	103226
Repatriated	0	93
Total		157504

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

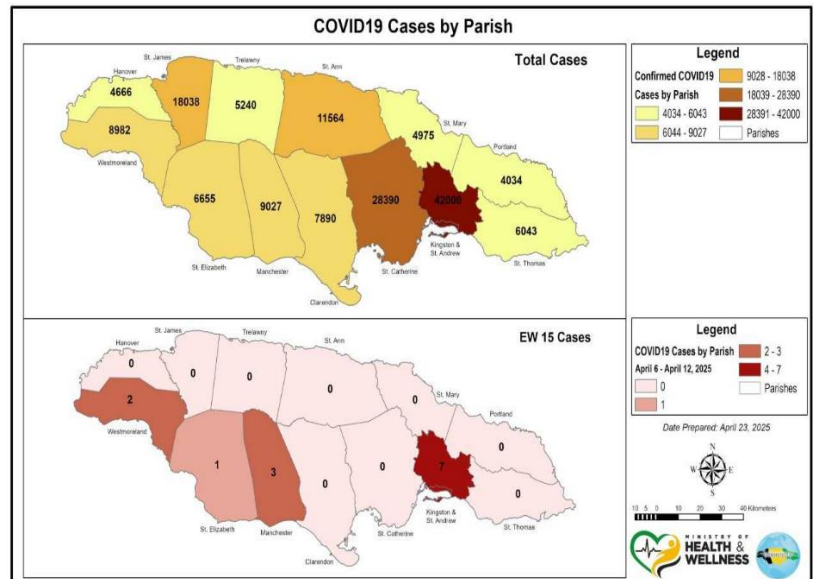
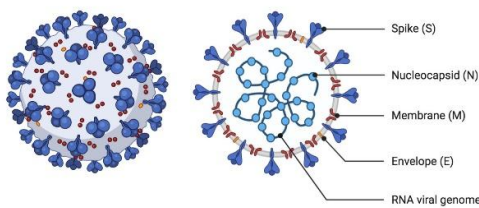
3313 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

SARS-CoV-2



COVID-19 WHO Global Statistics EW 12 -15, 2025

Epi Week	Confirmed Cases	Deaths
12	16500	536
13	9500	468
14	6700	369
15	6400	331
Total (4weeks)	39100	1704

6 NOTIFICATIONS-
 All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

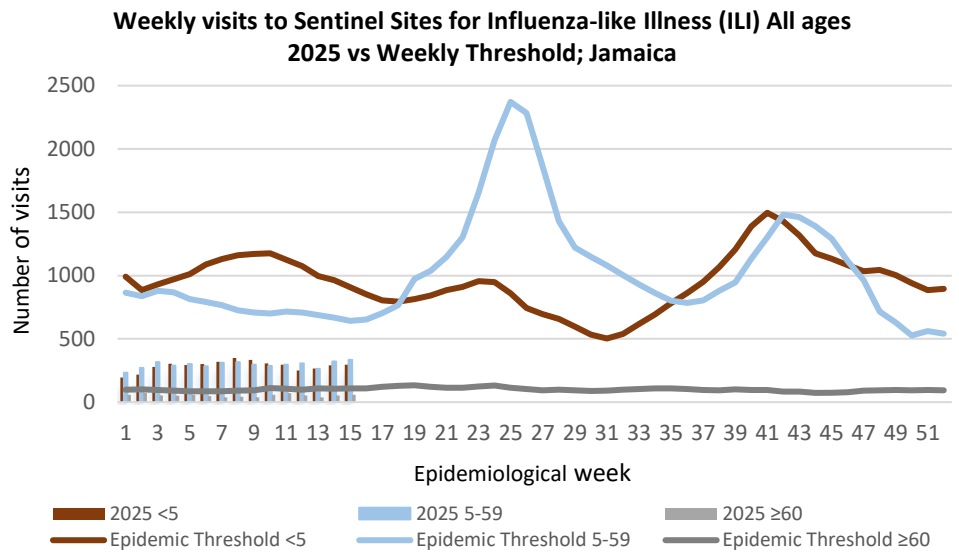
SENTINEL REPORT- 78 sites. Automatic reporting

NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 15

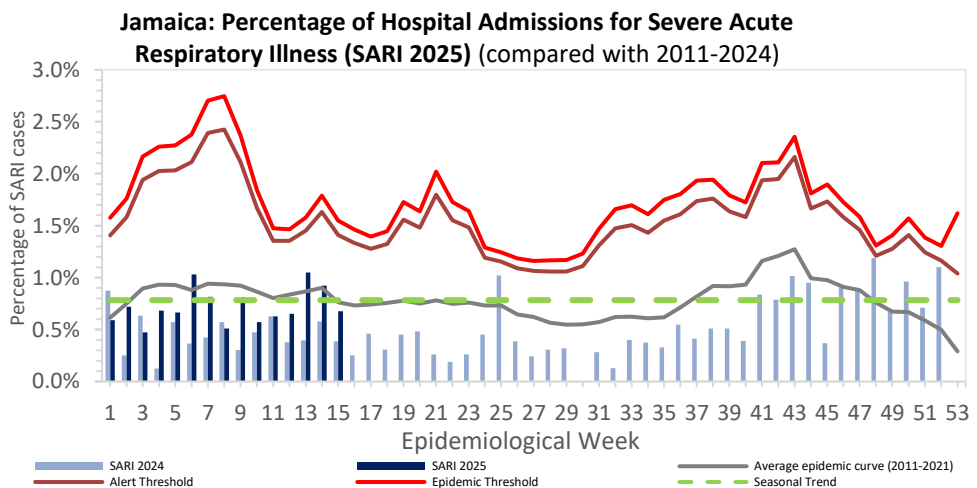
April 6, 2025 – April 12, 2025 Epidemiological Week 15

	EW 15	YTD
SARI cases	10	166
Total Influenza positive Samples	1	133
Influenza A	0	119
H1N1pdm09	0	74
H3N2	0	45
Not subtyped	0	0
Influenza B	1	14
B lineage not determined	0	0
B Victoria	1	14
Parainfluenza	0	0
Adenovirus	0	0
RSV	0	28



Epi Week Summary

During EW 15, ten (10) SARI admissions were reported.

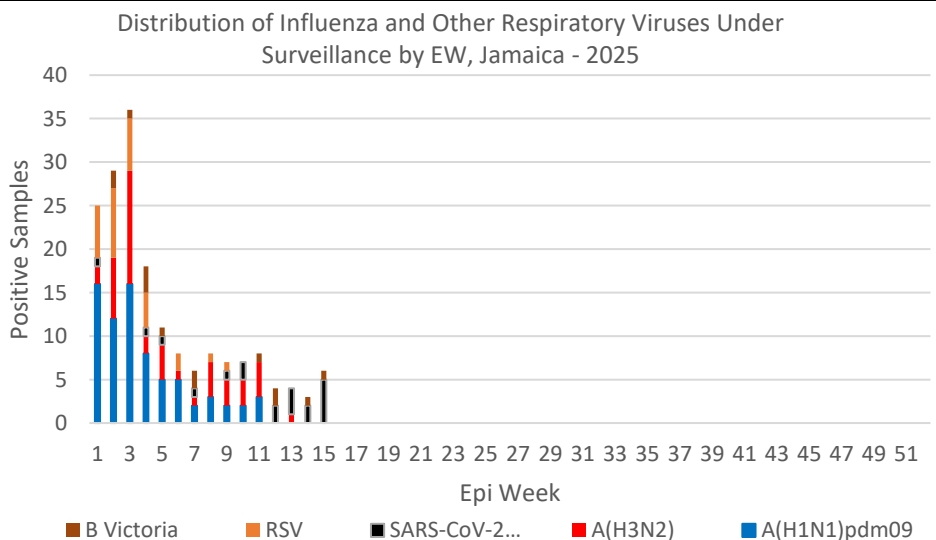


Caribbean Update EW 15

Caribbean: Influenza activity is decreasing for ILI (influenza-like illness) and SARI (severe acute respiratory infection). The predominant influenza subtype reported was A(H1N1)pdm09. RSV cases remain low, with a slight increase over the past two epidemiological weeks. SARS-CoV-2 levels remain low.

By country: Over the past four epidemiological weeks, influenza activity has increased in Cuba and Barbados, while it has decreased in Belize, Suriname, Guyana, the Dominican Republic, Jamaica, Saint Lucia and Suriname, along with an increase in SARS-CoV-2 detection in Jamaica

(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



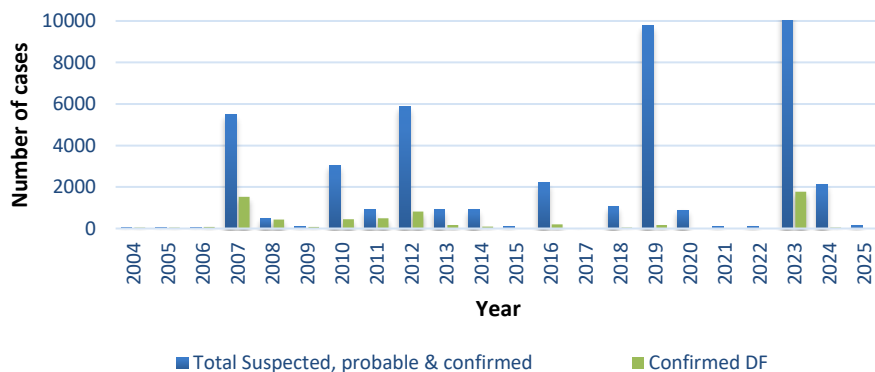
Dengue Bulletin

April 6, 2025 – April 12, 2025 Epidemiological Week 15


Epidemiological Week 15

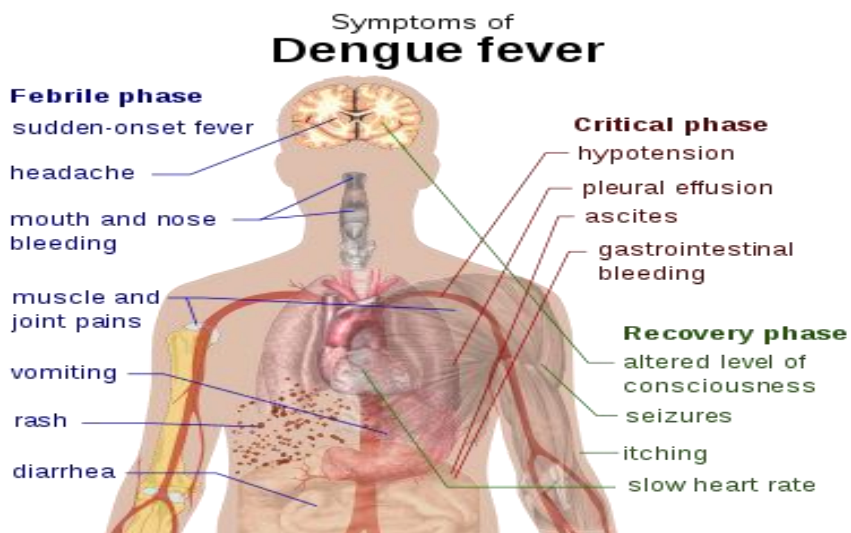


Dengue Cases by Year: 2004-2025, Jamaica



Reported suspected, probable and confirmed dengue with symptom onset in week 15 of 2025

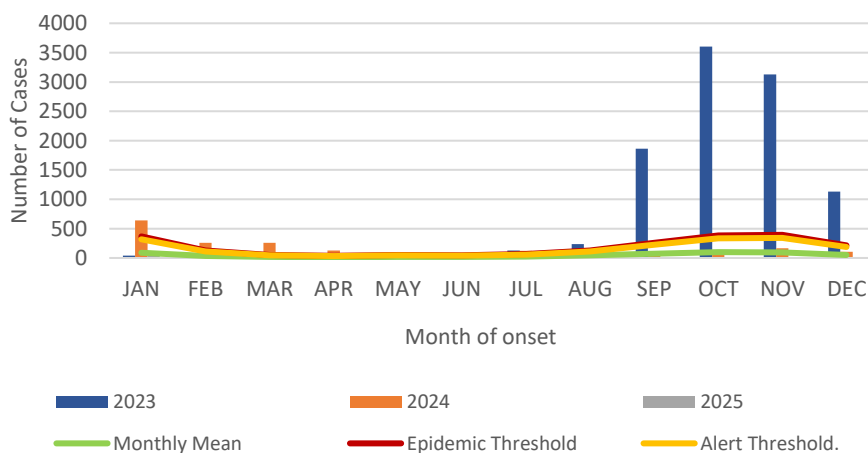
	2025*	
	EW 15	YTD
 Total Suspected, Probable & Confirmed Dengue Cases	5	139
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- Dengue deaths are reported based on date of death.
- *Figure as at, April 24, 2025
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected, probable and confirmed dengue cases for 2023-2025 versus monthly mean, alert and epidemic threshold (2007-2022)



8 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



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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
SURVEILLANCE-
30 sites. Actively
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SENTINEL
REPORT- 78 sites.
Automatic reporting