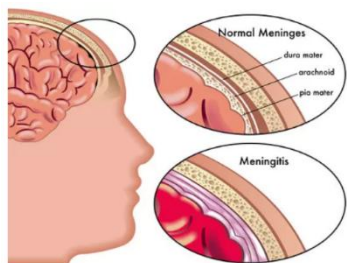


# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Weekly Spotlight

### Meningitis



Meningitis is the inflammation of the tissues surrounding the brain and spinal cord. It can be infectious or non-infectious in origin, can be associated with high risk of death and long-term complications, and requires urgent medical care. Meningitis remains a significant global health threat. It can be caused by several species of bacteria, viruses, fungi and parasites. Injuries, cancers and drugs cause a small number of cases. Bacterial meningitis is the most serious type of meningitis. It is a severe, life-threatening condition that can often lead to long-term adverse health consequences. There are four main causes of acute bacterial meningitis:

- *Neisseria meningitidis* (meningococcus)
- *Streptococcus pneumoniae* (pneumococcus)
- *Haemophilus influenzae*
- *Streptococcus agalactiae* (group B streptococcus).

These bacteria are responsible for more than half of the deaths from meningitis globally and can cause other severe diseases like sepsis and pneumonia. Additional important causes of meningitis worldwide include other bacteria species (e.g. *Mycobacterium tuberculosis*, non-typhoidal *Salmonella spp.*, *Listeria monocytogenes*), viruses (e.g. enteroviruses, herpesviruses and arboviruses), fungi (e.g. *Cryptococcus spp.*), and parasites (e.g. some species of amoebae).

#### Who is at risk?

Meningitis can affect anyone anywhere, and at any age. The pathogens that cause it can vary, based on a person's age and immune system, and level of exposure to risk, which can be influenced by their living conditions and geographical location. Newborn babies are most at risk from Group B streptococcus, whereas children and adolescents are at most risk of meningococcus, pneumococcus and *Haemophilus influenzae*. Pneumococcus and meningococcus also account for most cases of bacterial meningitis among adults.

Immunocompromised and/or people living with HIV are at increased risk of different types of meningitis.

Globally, the highest burden of disease is seen in a region of sub-Saharan Africa, known as the African meningitis belt, which stretches from Senegal to Ethiopia, and is at high risk of recurrent epidemics of meningococcal meningitis.

Meningococcal meningitis outbreaks occur more frequently under special risk conditions, such as crowded settings where people are in close proximity, mining areas, mass gatherings, such as religious or sporting events, settings with refugees or displaced persons, closed institutions, military camps and areas with high migration, such as high-traffic markets and border areas.

#### Transmission

The route of transmission varies by organism. Most bacteria that cause meningitis, including meningococcus, pneumococcus and *Haemophilus influenzae*, are carried in the human nose and throat. They are spread from person to person by respiratory droplets or throat secretions. Group B streptococcus is often carried in the human gut or vagina and can spread from mother to child around the time of birth. Carriage of these organisms is usually harmless and contributes to building up immunity against infection, but the bacteria occasionally invade the body, causing meningitis, sepsis and other forms of invasive disease.

## EPI WEEK 19



Syndromic Surveillance

Accidents

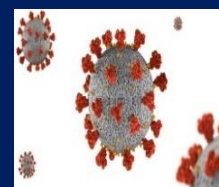
Violence

Pages 2-4



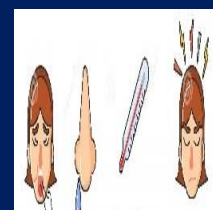
Class 1 Notifiable Events

Page 5



COVID-19

Page 6



Influenza

Page 7



Dengue Fever

Page 8



Research Paper

Page 9

## 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 - 16 to 19 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													
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
19	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

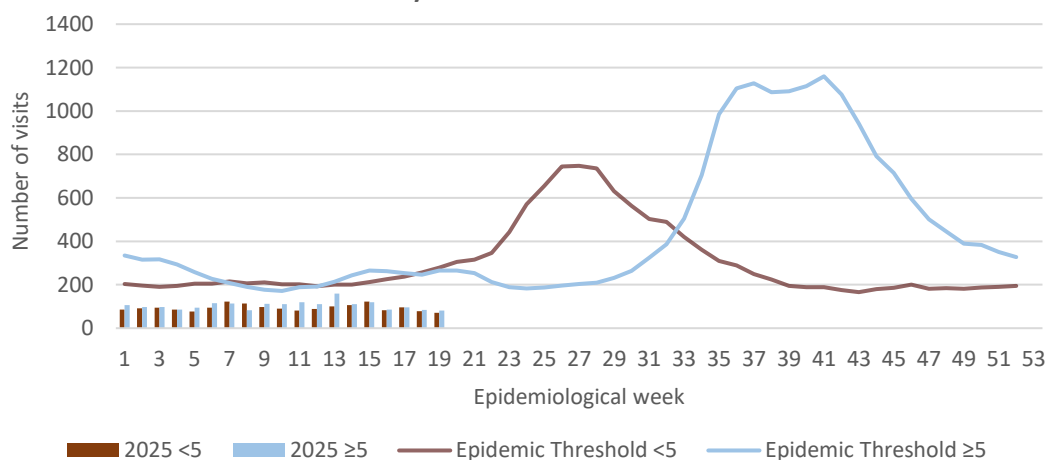
## REPORTS FOR SYNDROMIC SURVEILLANCE

## UNDIFFERENTIATED FEVER

Temperature of  $>38^{\circ}\text{C}$  /  $100.4^{\circ}\text{F}$  (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



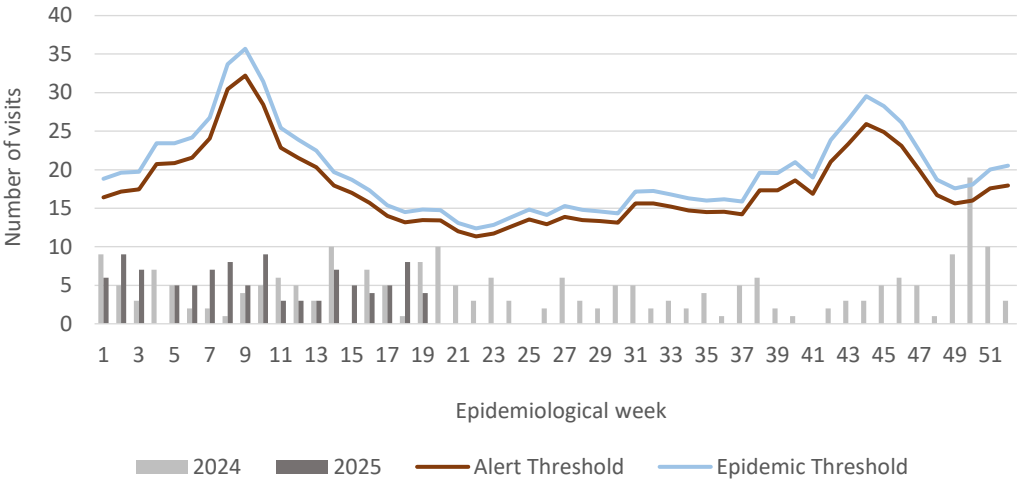
SENTINEL  
REPORT- 78 sites.  
Automatic reporting

FEVER AND NEUROLOGICAL

Temperature of  $>38^{\circ}\text{C}$  / $100.4^{\circ}\text{F}$  (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

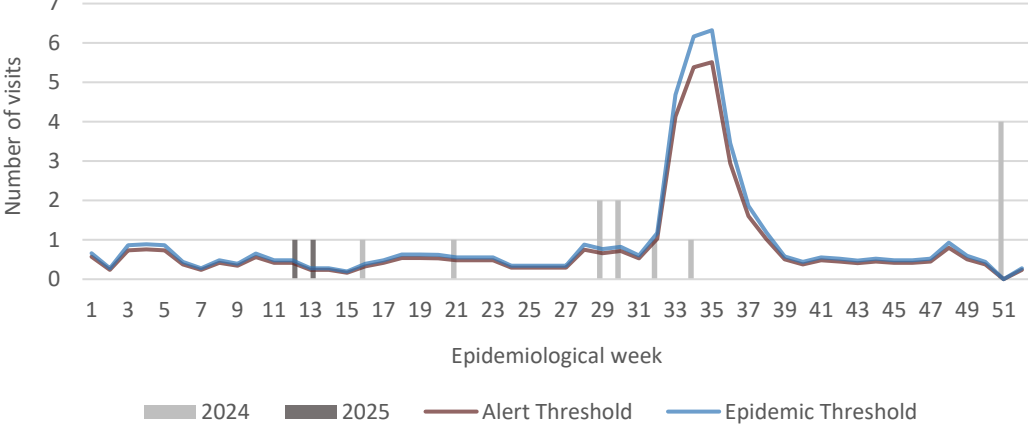


FEVER AND HAEMORRHAGIC

Temperature of  $>38^{\circ}\text{C}$  / $100.4^{\circ}\text{F}$  (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



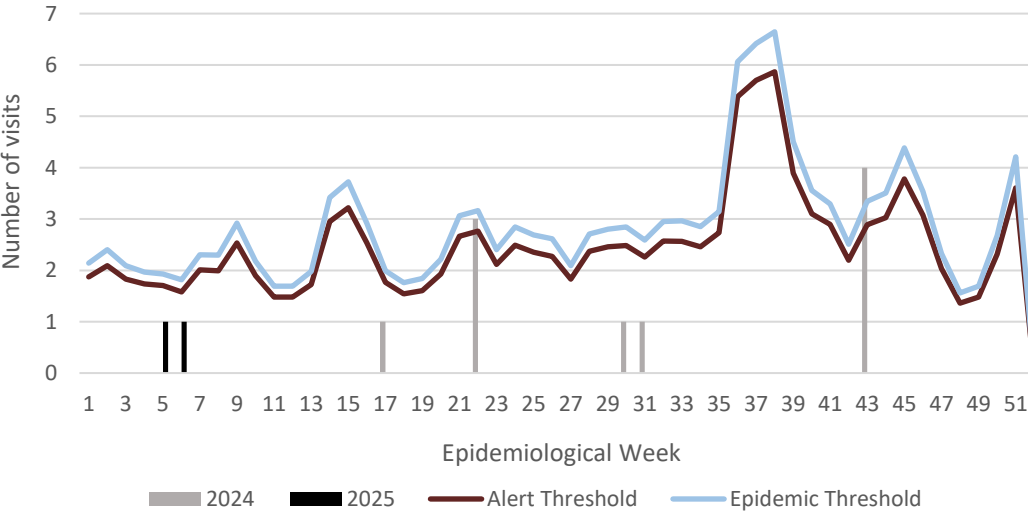
FEVER AND JAUNDICE

Temperature of  $>38^{\circ}\text{C}$  / $100.4^{\circ}\text{F}$  (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



HOSPITAL  
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pursued



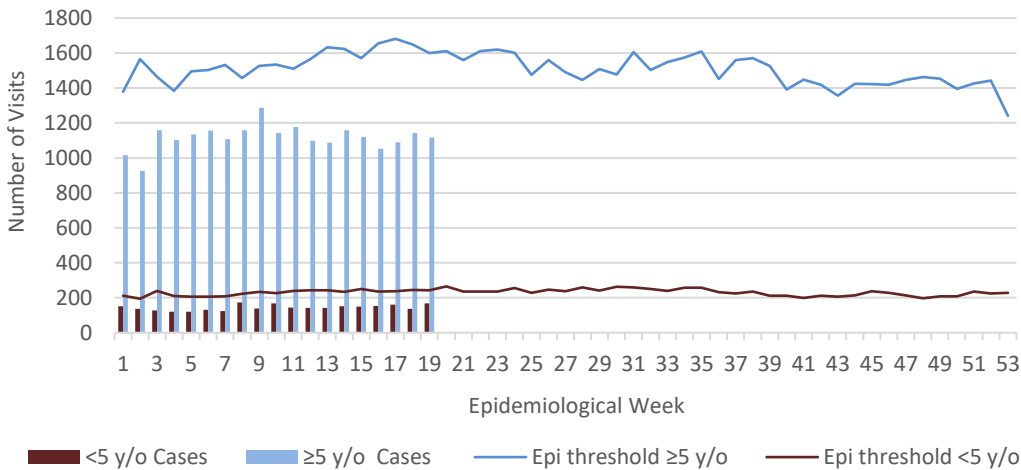
SENTINEL  
REPORT- 78 sites.  
Automatic reporting

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

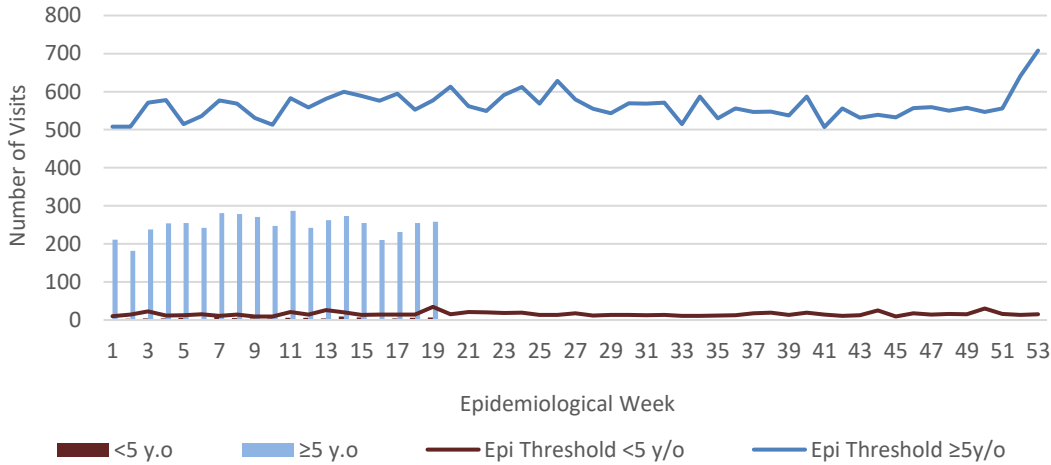


VIOLENCE

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

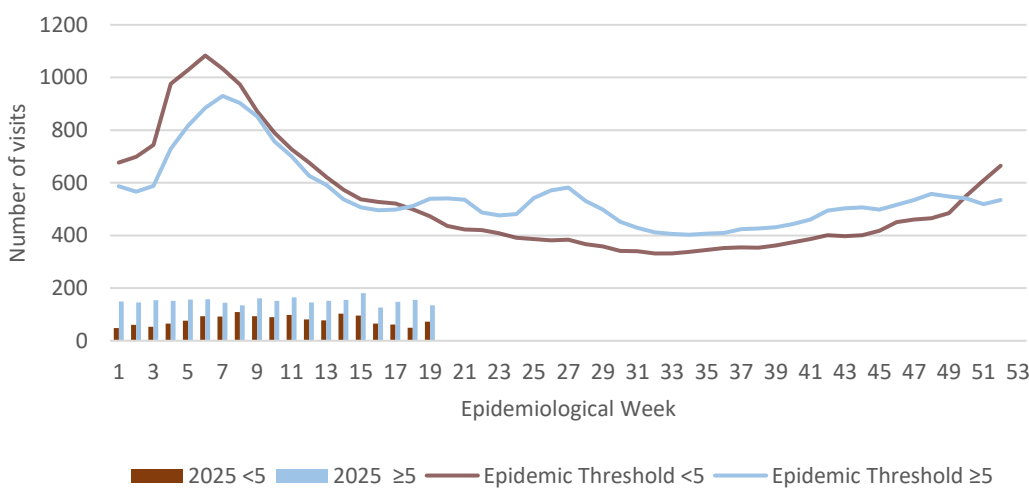


GASTROENTERITIS

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  
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REPORT- 78 sites.  
Automatic reporting

CLASS ONE NOTIFIABLE EVENTS					Comments
			Confirmed YTD <sup>α</sup>		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.  <sup>γ</sup> Dengue Hemorrhagic Fever data include Dengue related deaths;  <sup>δ</sup> Figures include all deaths associated with pregnancy reported for the period.  <sup>ε</sup> CHIKV IgM positive cases  <sup>θ</sup> Zika PCR positive cases  <sup>β</sup> Updates made to prior weeks.  <sup>α</sup> Figures are cumulative totals for all epidemiological weeks year to date.
		CLASS 1 EVENTS	CURRENT YEAR 2025	PREVIOUS YEAR 2024	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		31 <sup>β</sup>	154 <sup>β</sup>	
	Cholera		0	0	
	Severe Dengue <sup>γ</sup>		See Dengue page below	See Dengue page below	
	COVID-19 (SARS-CoV-2)		106	184	
	Hansen’s Disease (Leprosy)		0	0	
	Hepatitis B		0	20	
	Hepatitis C		1	5	
	HIV/AIDS		NA	NA	
	Malaria (Imported)		0	0	
	Meningitis		4	10	
	Monkeypox		1	0	
EXOTIC/ UNUSUAL	Plague		0	0	
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 <sup>δ</sup>		23	22	
	Ophthalmia Neonatorum		12	70	
	Pertussis-like syndrome		0	0	
	Rheumatic Fever		0	0	
	Tetanus		1	0	
	Tuberculosis		8	23	
	Yellow Fever		0	0	
	Chikungunya <sup>ε</sup>		0	0	
	Zika Virus <sup>θ</sup>		0	0	NA- Not Available



5 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
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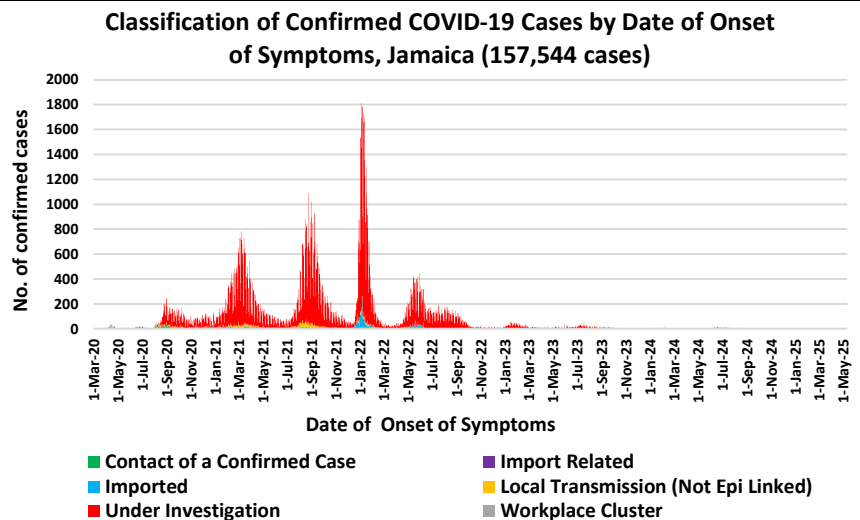


SENTINEL  
REPORT- 78 sites.  
Automatic reporting



# COVID-19 Surveillance Update

CASES	EW 19	Total
Confirmed	13	157544
Females	10	90771
Males	3	66770
Age Range	5 months to 67 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.		

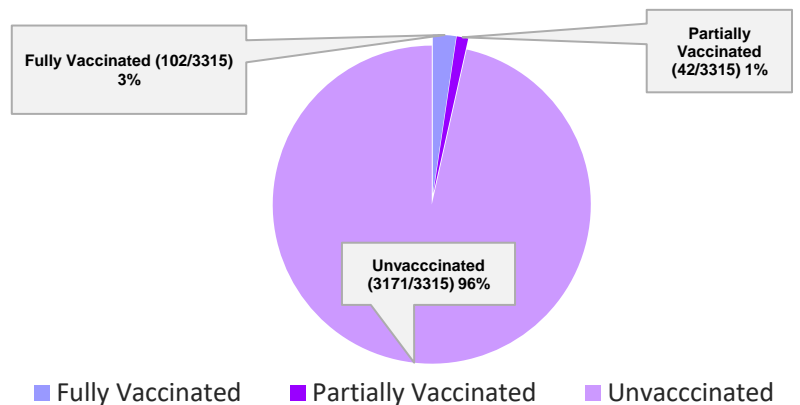


## COVID-19 Outcomes

Outcomes	EW 19	Total
ACTIVE *2 weeks*		23
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		

## 3315 COVID-19 Related Deaths since March 1, 2021 – YTD

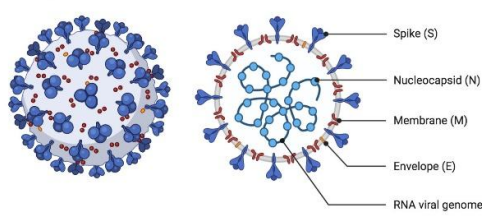
### Vaccination Status among COVID-19 Deaths



## COVID-19 Parish Distribution and Global Statistics

### COVID-19 Virus Structure

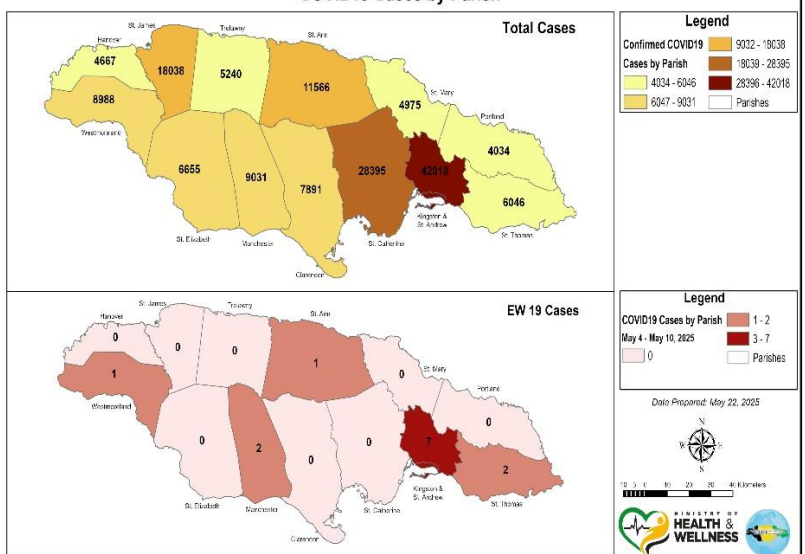
#### SARS-CoV-2



### COVID-19 WHO Global Statistics EW 16 -19, 2025

Epi Week	Confirmed Cases	Deaths
16	7000	384
17	5600	395
18	5500	322
19	5000	227
Total (4weeks)	23100	1328

### COVID19 Cases by Parish



6 NOTIFICATIONS-  
All clinical  
sites

INVESTIGATION  
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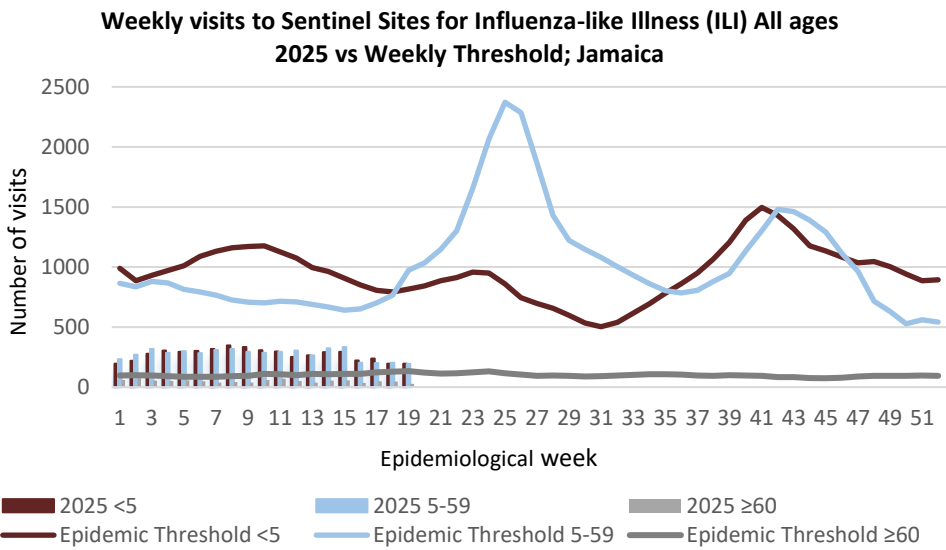
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NATIONAL SURVEILLANCE UNIT  
INFLUENZA REPORT

May 4, 2025 – May 10, 2025 Epidemiological Week 19

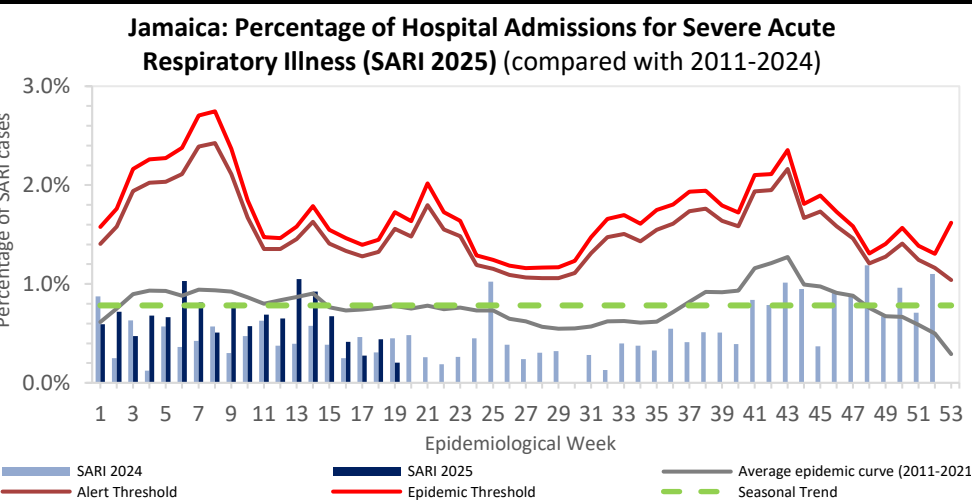
EW 19

	EW 19	YTD
SARI cases	3	187
Total Influenza positive Samples	1	145
Influenza A	1	129
H1N1pdm09	0	75
H3N2	1	54
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



**Epi Week Summary**

During EW 19, three (3) SARI admissions were reported.

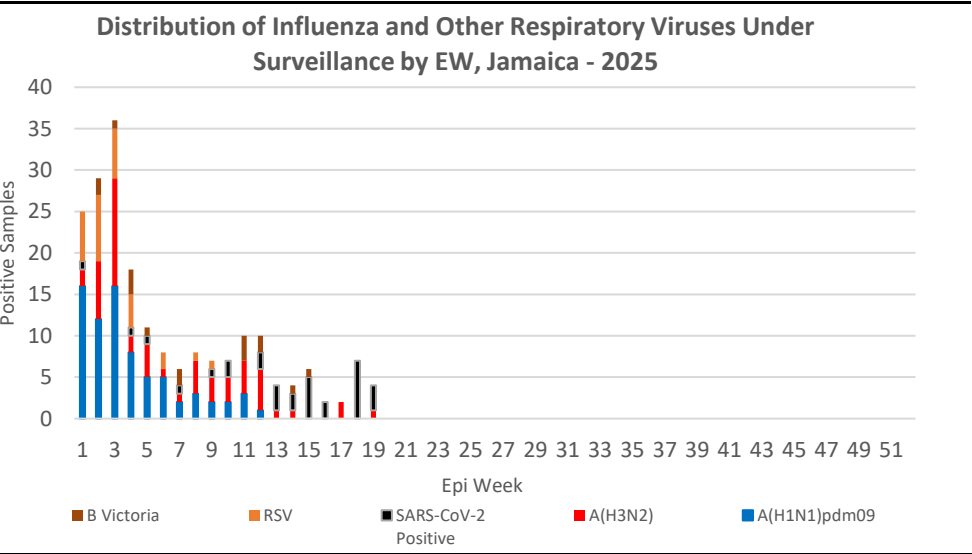


**Caribbean Update EW 19**

**Caribbean:** Influenza activity is decreasing for ILI and SARI. The predominant influenza subtype reported is A(H1N1)pdm09. RSV cases remain low, while SARS-CoV-2 is increasing in some countries within the subregion. SARS-CoV-2 associated cases are mainly ILI.

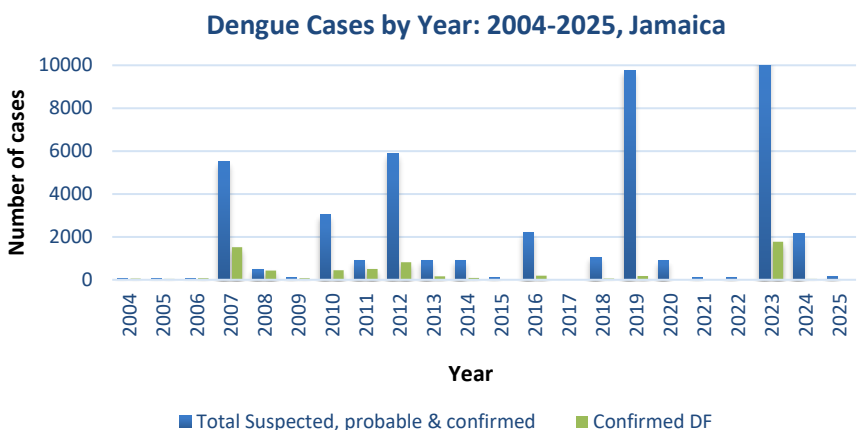
**By country:** Over the past four EW, influenza activity has increased in Jamaica, while it has decreased in Belize, Cuba, the Dominican Republic, Suriname, the Cayman Islands, Saint Lucia, Barbados, Guyana and Saint Vincent and the Grenadines. An increase in RSV activity has been observed in the Dominican Republic, Saint Lucia, Suriname and Saint Vincent and the Grenadines. Additionally, SARS-CoV-2 detection has increased in Jamaica and the Dominican Republic.

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

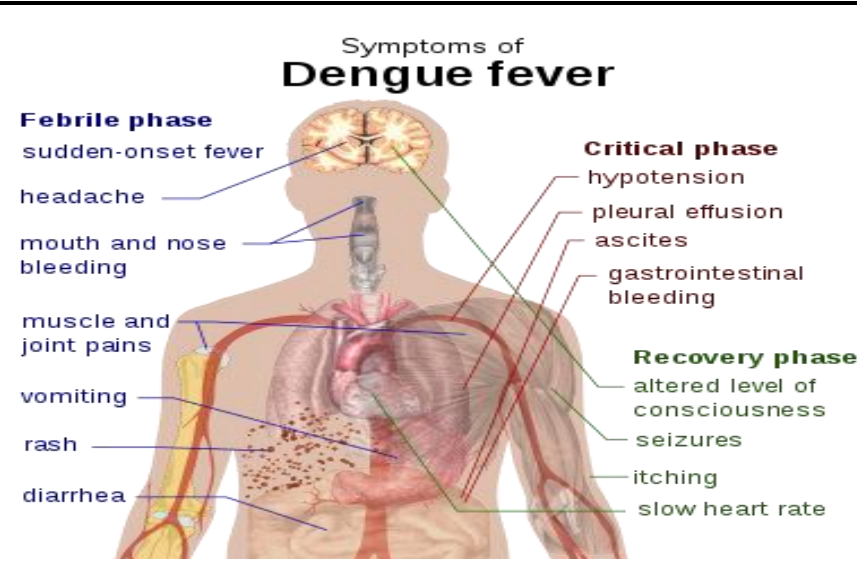


# Dengue Bulletin

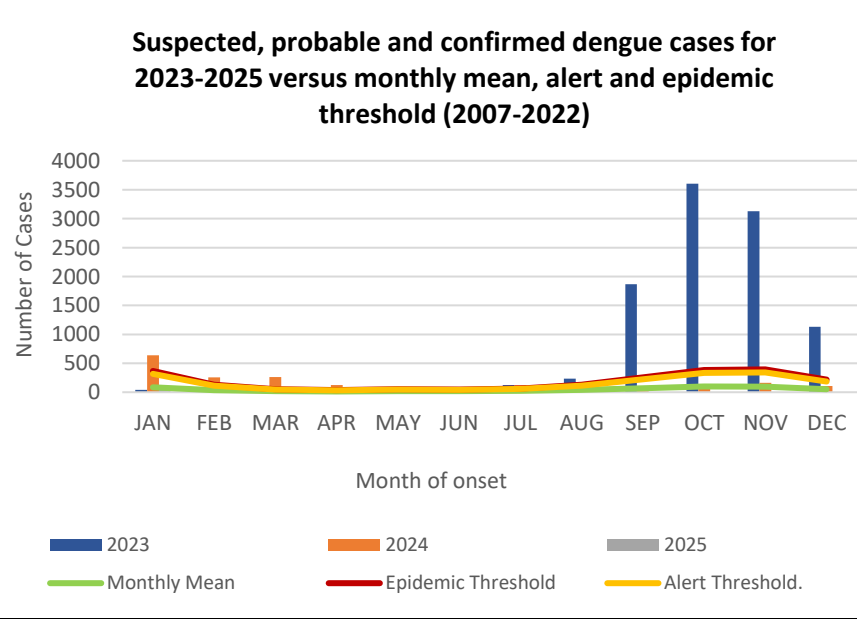
May 4, 2025 – May 10, 2025 Epidemiological Week 19



Reported suspected, probable and confirmed dengue with symptom onset in week 19 of 2025		
	2025*	
	EW 19	YTD
Total Suspected, Probable & Confirmed Dengue Cases	0	175
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 22, 2025
  - Only PCR positive dengue cases are reported as confirmed.
  - IgM positive cases are classified as presumed dengue.





# SEARCH PAPER

## Abstract

NHRC-23-O16

### The Impact of COVID-19 on Maternal Mortality in Jamaica

Gordon-Strachan G,<sup>1</sup> McCaw-Binns A<sup>2</sup>

<sup>1</sup>*Tropical Metabolism Research Unit, Caribbean Institute for Health Research, University of the West Indies, Mona, Kingston 7, Jamaica* <sup>2</sup>*Adjunct Professor, Department of Community Health and Psychiatry, University of the West Indies, Mona, Kingston 7, Jamaica*

**Objective:** To determine the impact of COVID-19 on maternal mortality by comparing the causes of and Maternal Mortality Ratio (MMR) per 100,000 live births for Jan-2020-Dec-2021 (COVID-19 period) and a pre-COVID-19 reference period (Jan-2018-Dec-2019).

**Methods:** Registered deaths for 1-Jan-2018 to 31-Dec-2021 in women 10-49 years with evidence of pregnancy were combined with MOHW-Maternal Mortality Surveillance data to create a master-list of maternal deaths. The master-list was cleaned and coded using WHO guidelines for maternal and COVID-19 deaths. Maternal deaths (pregnancy to 42 days post-partum) were disaggregated by year and period of occurrence, comparing the COVID-19 (2020-21) and pre-COVID-19 (2018-19) periods.

**Results:** The MMR increased from 136.8 in 2018/2019 to 172.2 during the COVID-19 period. The COVID-19 cause-specific MMR was 61.4 and was the leading cause of death during the period. Most COVID-19 deaths (39/41) occurred in 2021. The direct mortality ratio was unchanged at 86.8 for both periods, however obstetric haemorrhage replaced the hypertensive disorders of pregnancy as the leading direct cause of death in the latest period. The pregnancy mortality ratio for accidents and violence declined 54 percent between the two periods due to fewer violent deaths (8.8 versus 1.5/100,000). Mortality rates from accidents were unchanged (4.4).

**Conclusion:** The COVID-19 pandemic adversely affected the Jamaican MMR. The 2018-21 MMR of 154 represents an upward MMR trend from 92 (1998-03). Exclusion of COVID-19 deaths would reduce the 2018-21 ratio to 111, which was still above the 102 for 2010-15. Jamaica is unlikely to meet the SDG MMR goal of 70/100,000.



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Email: surveillance@moh.gov.jm



9 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
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