

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Water, Sanitation and Hygiene (WASH)



Safe drinking-water, sanitation and hygiene are crucial to human health and well-being. Safe WASH is not only a prerequisite to health, but contributes to livelihoods, school attendance and dignity and helps to create resilient communities living in healthy environments. Drinking unsafe water impairs health through illnesses such as diarrhoea, and untreated excreta contaminates groundwaters and surface waters used for drinking-water, irrigation, bathing and household purposes.

Chemical contamination of water continues to pose a health burden, whether natural in origin such as arsenic and fluoride, or anthropogenic such as nitrate. Safe and sufficient WASH plays a key role in preventing numerous NTDs such as trachoma, soil-transmitted helminths and schistosomiasis. Diarrhoeal deaths as a result of inadequate WASH were reduced by half during the Millennium Development Goal (MDG) period (1990–2015), with the significant progress on water and sanitation provision playing a key role. Evidence suggests that improving service levels towards safely managed drinking-water or sanitation such as regulated piped water or connections to sewers with wastewater treatment can dramatically improve health by reducing diarrhoeal disease deaths.

Safe drinking-water, sanitation and hygiene (WASH) are crucial to human health and well-being. Safe WASH is not only a prerequisite to health, but contributes to livelihoods, school attendance and dignity and helps to create resilient communities living in healthy environments. Drinking unsafe water impairs health through illnesses such as diarrhoea, and untreated excreta contaminates groundwaters and surface waters used for drinking-water, irrigation, bathing and household purposes. This creates a heavy burden on communities. Chemical contamination of water continues to pose a health burden, whether natural in origin such as arsenic and fluoride, or anthropogenic such as nitrate. Safe and sufficient WASH plays a key role in preventing numerous neglected tropical diseases (NTDs) such as trachoma, soil-transmitted helminths and schistosomiasis.

However, poor WASH conditions still account for more than one million diarrhoeal deaths every year and constrain effective prevention and management of other diseases including malnutrition, NTDs and cholera. Evidence suggests that improving service levels towards safely managed drinking-water or sanitation such as regulated piped water or connections to sewers with wastewater treatment can dramatically improve health by reducing diarrhoeal disease deaths.

Taken from WHO website on 15/November/2024

https://www.who.int/health-topics/water-sanitation-and-hygiene-wash#tab=tab_1
https://www.who.int/health-topics/water-sanitation-and-hygiene-wash#tab=tab_2

EPI WEEK 44



Syndromic Surveillance

Accidents

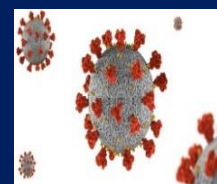
Violence

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Class 1 Notifiable Events

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COVID-19

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Influenza

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Dengue Fever

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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 – 41 to 44 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													
41	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
42	On Time	On Time	On Time	Late (T)	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time
43	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
44	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

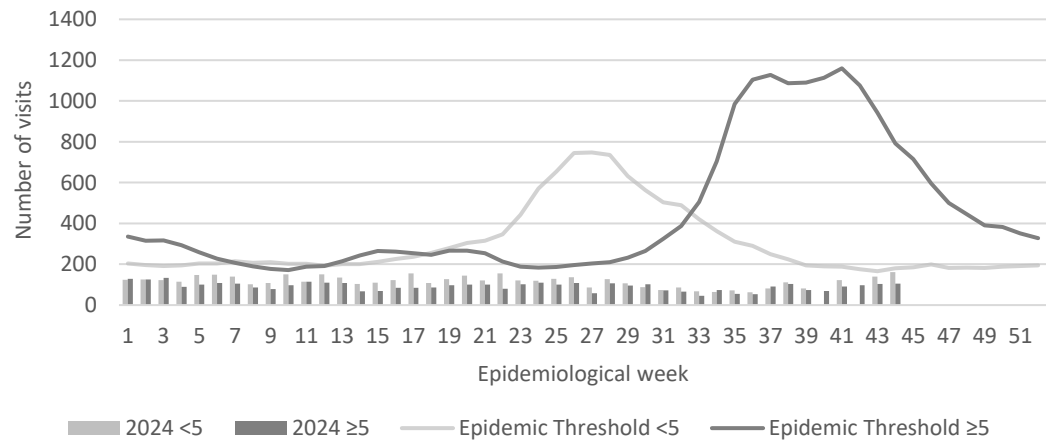
REPORTS FOR SYNDROMIC SURVEILLANCE

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



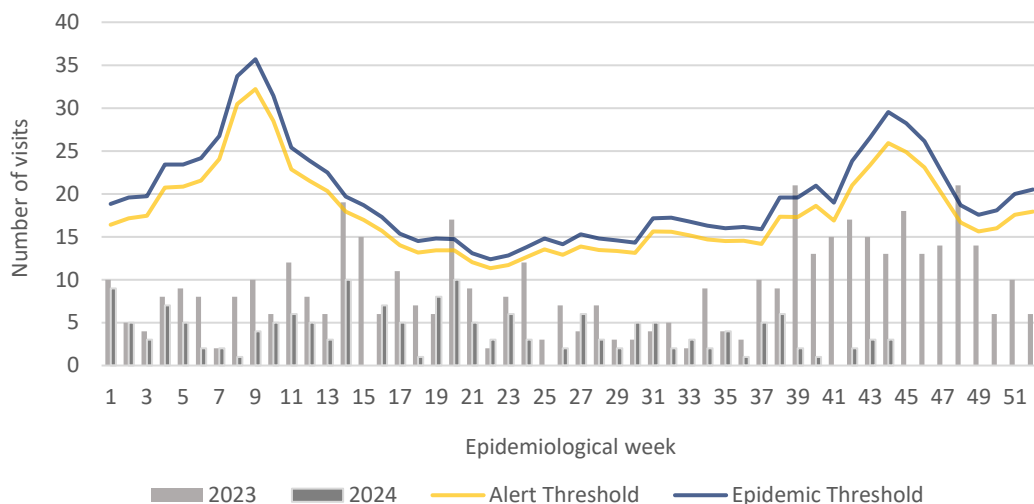
SENTINEL REPORT- 78 sites. Automatic reporting

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).



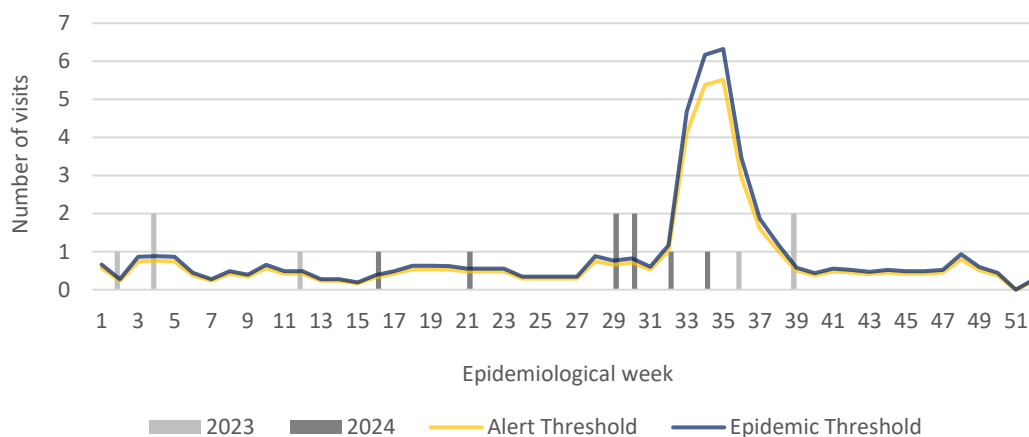
Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2023 and 2024 vs. Weekly Threshold: Jamaica

**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

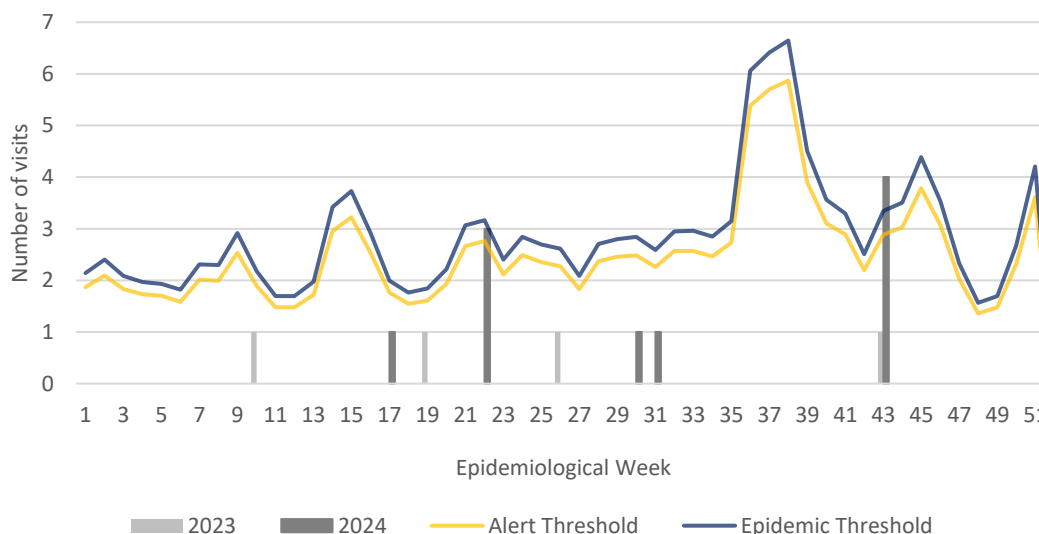
**FEVER AND JAUNDICE**

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



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All clinical sites



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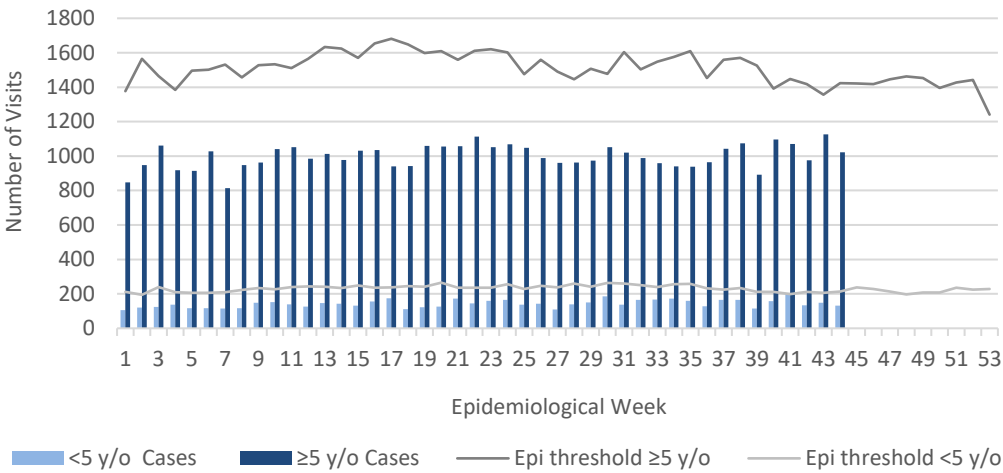
SENTINEL REPORT- 78 sites. Automatic reporting

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

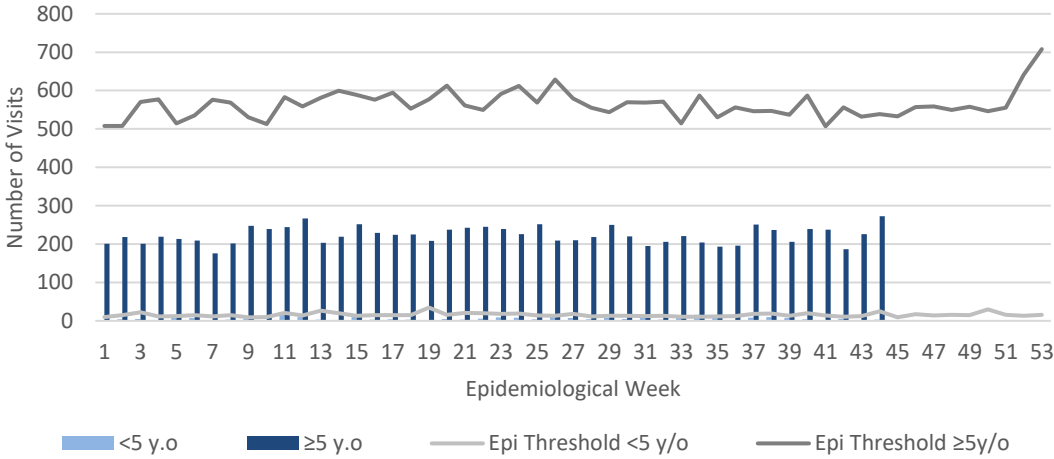


VIOLENCE

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

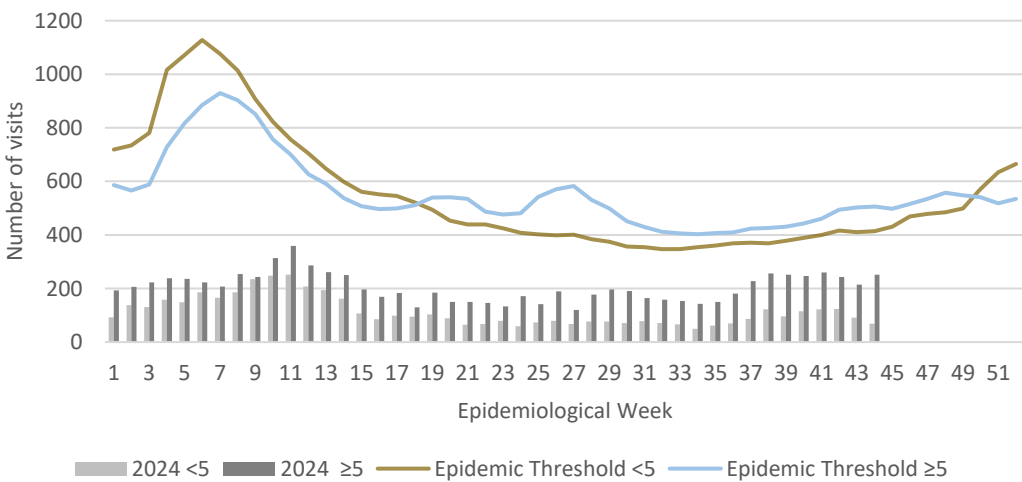


GASTROENTERITIS

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



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All clinical
sites



INVESTIGATION
REPORTS- Detailed Follow
up for all Class One Events



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SENTINEL
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Automatic reporting

CLASS ONE NOTIFIABLE EVENTS				Comments	
			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.
	CLASS 1 EVENTS		CURRENT YEAR 2024	PREVIOUS YEAR 2023	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		219 ^β	350 ^β	Pertussis-like syndrome and Tetanus are clinically confirmed classifications.
	Cholera		0	0	
	Severe Dengue ^γ		See Dengue page below	See Dengue page below	Dengue Hemorrhagic Fever data include Dengue related deaths;
	COVID-19 (SARS-CoV-2)		685	3779	
	Hansen’s Disease (Leprosy)		0	0	Figures include all deaths associated with pregnancy reported for the period.
	Hepatitis B		24	58	
	Hepatitis C		3	28	CHIKV IgM positive cases
	HIV/AIDS		NA	NA	
	Malaria (Imported)		2	3	Zika PCR positive cases
	Meningitis		12	25	
	Monkeypox		0	3	Updates made to prior weeks.
EXOTIC/ UNUSUAL	Plague		0	0	
HIGH MORBIDITY/ MORTALITY	Meningococcal Meningitis		0	0	NA- Not Available
	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		51	47	
	Ophthalmia Neonatorum		140	143	
	Pertussis-like syndrome		0	0	
	Rheumatic Fever		0	0	
	Tetanus		0	0	
	Tuberculosis		28	58	
	Yellow Fever		0	0	
	Chikungunya ^ε		0	0	
	Zika Virus ^θ		0	0	



5 NOTIFICATIONS-
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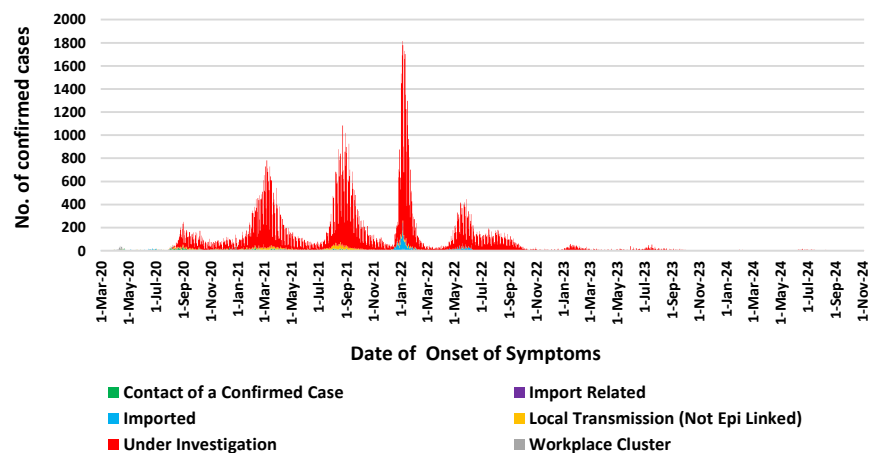


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COVID-19 Surveillance Update

CASES	EW 44	Total
Confirmed	5	157416
Females	2	90700
Males	3	66713
Age Range	7 days to 51 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.		

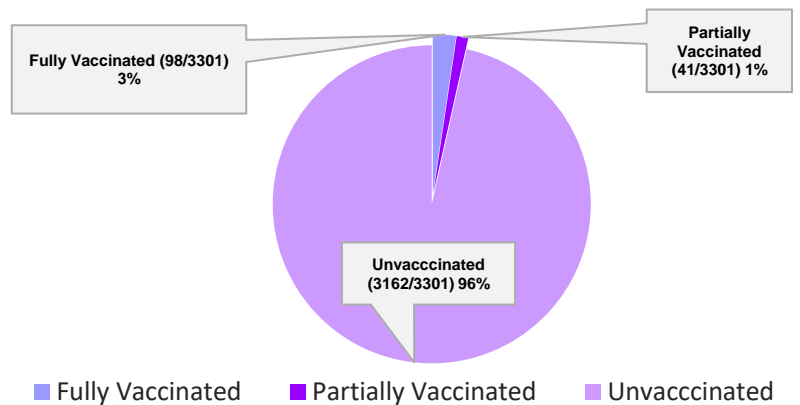
Classification of Confirmed COVID-19 Cases by Date of Onset of Symptoms, Jamaica (157,416 cases)



COVID-19 Outcomes

Outcomes	EW 44	Total
ACTIVE *2 weeks*		9
DIED – COVID Related	0	3865
Died - NON COVID	0	388
Died - Under Investigation	0	154
Recovered and discharged	0	103226
Repatriated	0	93
Total		157416
*Vaccination programme March 2021 – YTD * Total as at current Epi week		

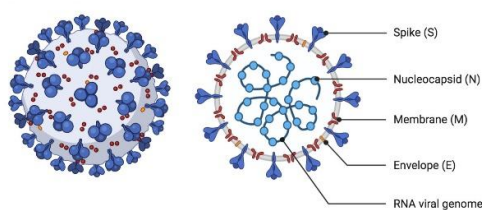
3301 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

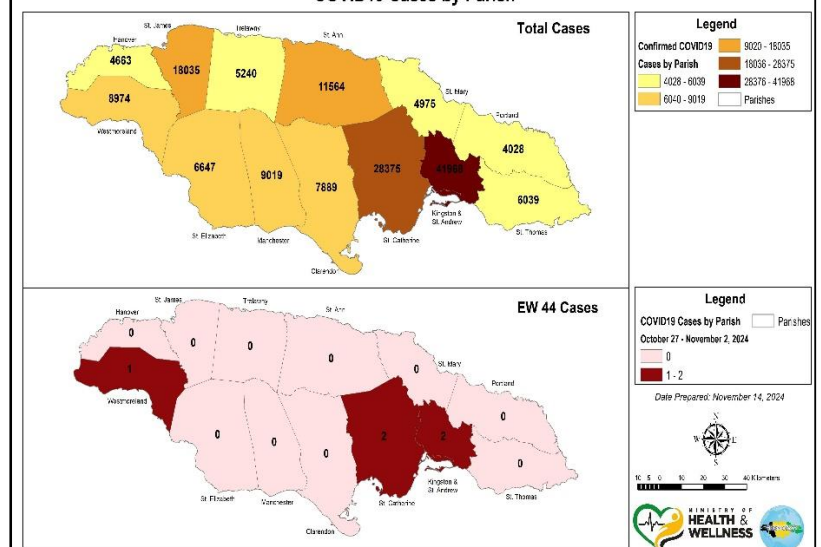
SARS-CoV-2



COVID-19 WHO Global Statistics EW 41-44, 2024

Epi Week	Confirmed Cases	Deaths
41	79200	1200
42	73000	979
43	59200	852
44	53100	641
Total (4weeks)	264500	3672

COVID19 Cases by Parish



6 NOTIFICATIONS-
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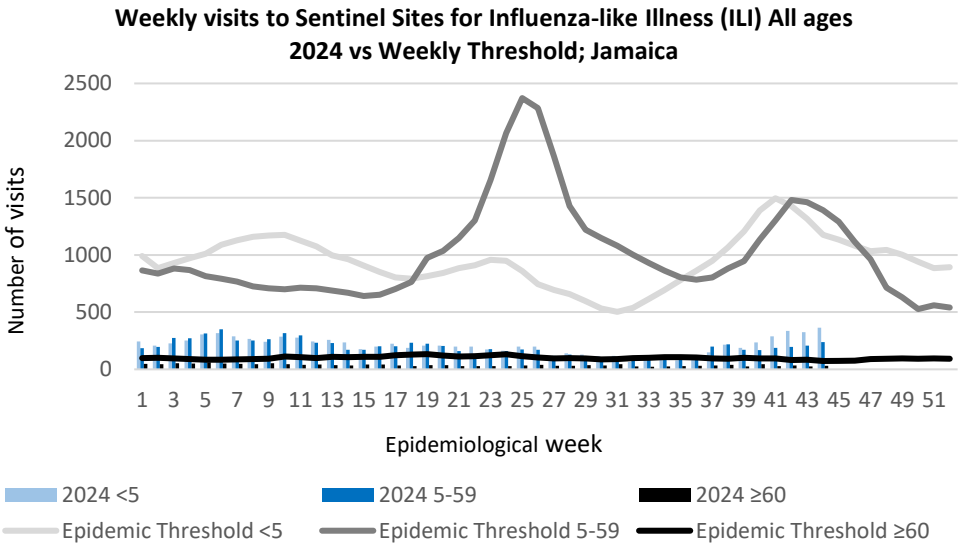
NATIONAL SURVEILLANCE UNIT

INFLUENZA REPORT

October 27, 2024 – November 2, 2024 Epidemiological Week 44

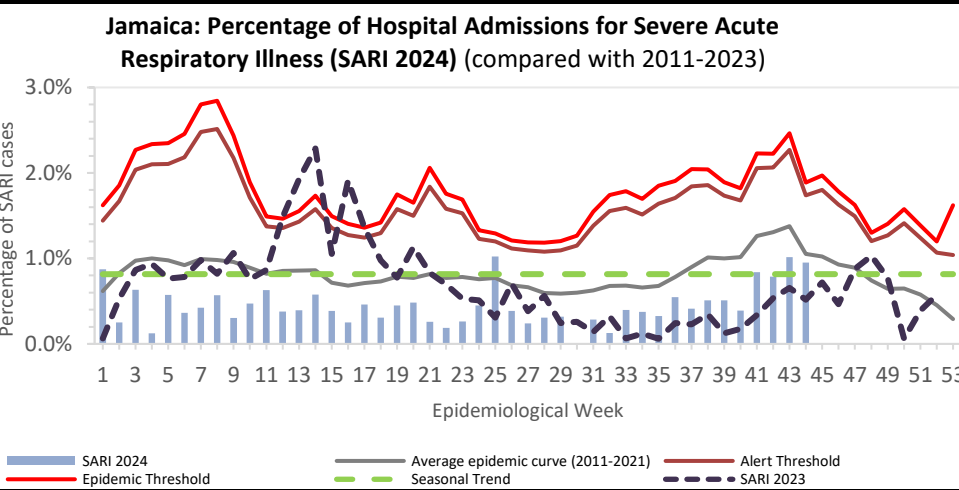
EW 44

	EW 44	YTD
SARI cases	16	312
Total Influenza positive Samples	2	154
Influenza A	2	149
H3N2	0	40
H1N1pdm09	2	109
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	45



Epi Week Summary

During EW 44, sixteen (16) SARI admissions were reported.

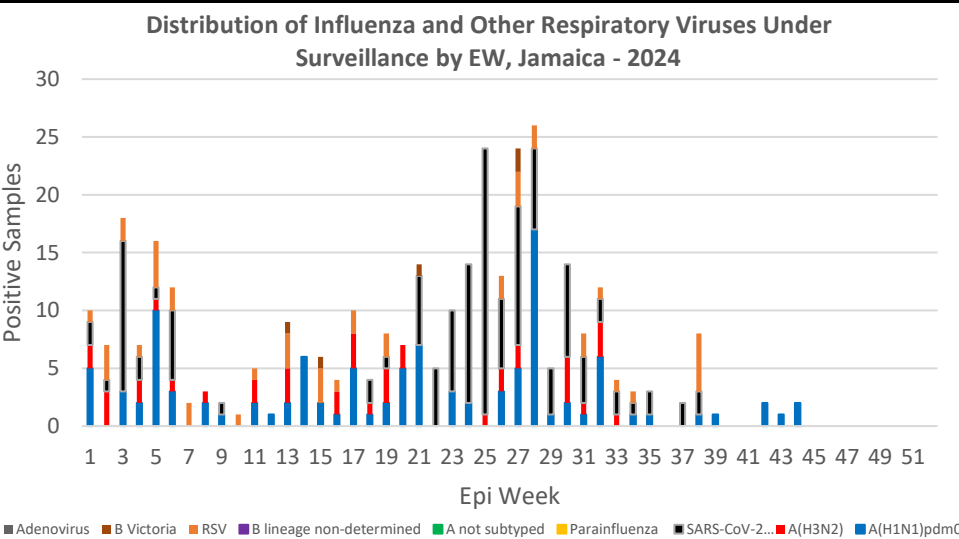


Caribbean Update EW 44

Caribbean: ILI cases have remained low over the last four EW, although there is an increase in RSV positivity. SARI cases have also remained low. Influenza activity fluctuates at low levels, predominantly A(H3N2) and A(H1N1) pdm09. RSV activity has risen sharply in several countries during the last four EW. SARS-CoV-2 activity remains low with a downward trend.

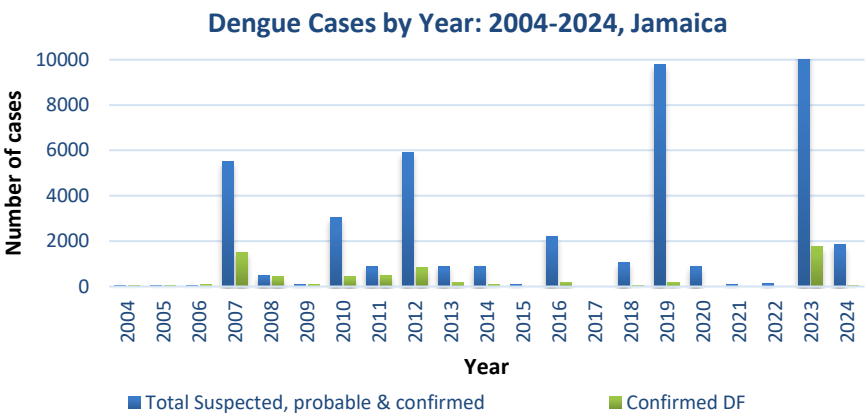
By country: In the last four EW, influenza activity has been reported in Belize, Jamaica and Guyana. Likewise, SARS-CoV-2 activity has been documented in Haiti, Barbados and Saint Vincent and the Grenadines. In addition, RSV activity has been detected in the Dominican Republic, Barbados, the Cayman Islands, Guyana and Saint Vincent and the Grenadines. Jamaica: SARI cases have exceeded the epidemic threshold. Pneumonia cases are at moderate levels. Influenza activity has risen above the epidemic threshold over the last four EW, alongside fluctuating activity of SARS-CoV-2 and RSV activity.

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




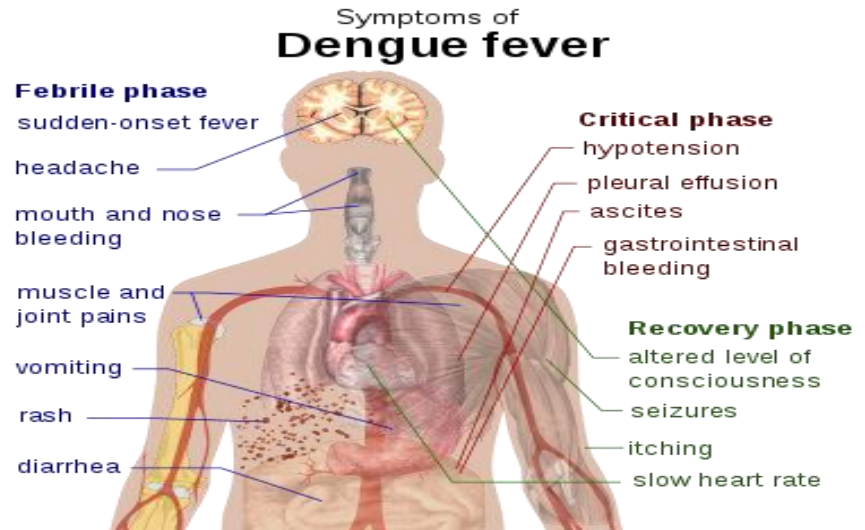
Dengue Bulletin

October 27, 2024 – November 2, 2024 Epidemiological Week 44



Reported suspected, probable and confirmed dengue with symptom onset in week 44 of 2024

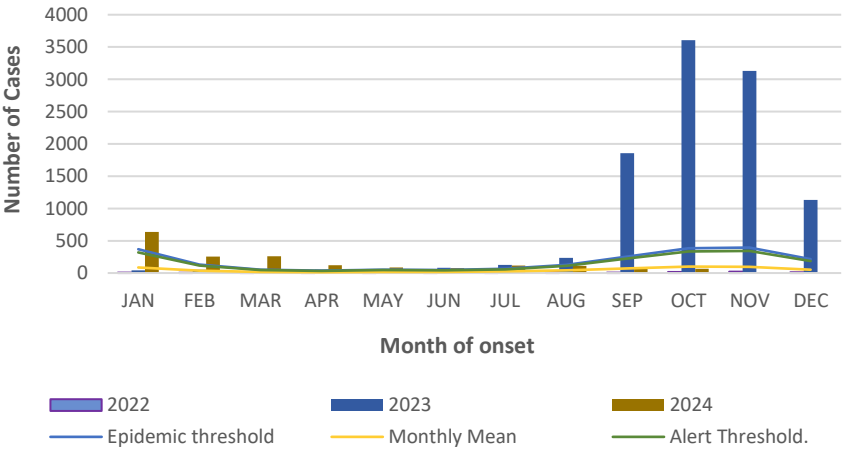
	2024*	
	EW 44	YTD
 Total Suspected, Probable & Confirmed Dengue Cases	11	1841
Lab Confirmed Dengue cases	0	43
CONFIRMED Dengue Related Deaths	0	2



Points to note:

- Dengue deaths are reported based on date of death.
- *Figure as at November 15, 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)



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NOTIFICATIONS-
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INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



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RESEARCH PAPER

Abstract

NHRC-23-P03

Stroke in the young: understanding the role of arterial stiffness in children with sickle cell anaemia based on Transcranial Doppler velocity defined stroke categories.

Rankine-Mullings AE¹, Younger-Coleman N¹, Soares D¹, Aldred K¹, Wisdom-Phipps W¹, Mullings G², Reid M¹

¹University of the West Indies, Mona, Kingston, 7, Jamaica, ²2023 Graduate Faculty of Medical Sciences, University of the West Indies, Mona, Kingston 7, Jamaica

Objectives: To determine whether arterial stiffness (mean aortic pulse wave velocity), a well-known risk factor for stroke, is significantly different in children with sickle cell anaemia with low or high stroke risk based on cerebral blood flow velocity measured using Transcranial Doppler (TCD) ultrasonography.

Methods: The highest TCD-defined stroke risk category, (low risk=TCD velocity < 170 cm/sec (Group 1) or High risk= TCD velocity \geq 200cm/sec (Group 2)) recorded between May 2013 and January 2022 for children registered at the Sickle Cell Unit with sickle cell anaemia, who would be between 4.0 to 16.9 years of age during the period February to November 2023 was identified. Aortic Pulse wave velocity, (metres/second), an indicator of arterial stiffness was measured in all patients with an Arteriograph 24 (Tensiomed, Budapest, Hungary). TCD velocity, clinical and biological correlates were measured.

Results: There were 4 participants (2 Males, 2 Females) in Group 1 and 7 participants (2 Males, 5 Females) in Group 2. The anthropometric means (sd) were age, 10.8 years (3.4), height, 136 cm (15.8), mid upper arm circumference, 19.5 cm (3.3). There were no significant differences in mean anthropometric values, gender distribution, history of breast feeding, vitamin D and haemoglobin concentrations by group. The mean (sd) aortic pulse wave velocity was higher in Group 2 (high risk), 5.6 (0.73), than Group 1 (low risk), 5.1 (0.44) cm/sec but this was not statistically significant.

Conclusion: In this preliminary study, mean aortic pulse wave velocity was not significantly different among high or low stroke risk groups. Results of the larger study are awaited.



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9 NOTIFICATIONS-
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