

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Influenza (Seasonal)



Seasonal influenza (the flu) is an acute respiratory infection caused by influenza viruses. It is common in all parts of the world. Most people recover without treatment. Influenza spreads easily between people when they cough or sneeze. Vaccination is the best way to prevent the disease.

Symptoms of influenza include acute onset of fever, cough, sore throat, body aches and fatigue. Treatment should aim to relieve symptoms. People with the flu should rest and drink plenty of liquids. Most people will recover on their own within a week. Medical care may be needed in severe cases and for people with risk factors. There are 4 types of influenza viruses, types A, B, C and D. Influenza A and B viruses circulate and cause **seasonal epidemics** of disease.

- **Influenza A viruses** are further classified into subtypes according to the combinations of the proteins on the surface of the virus. Currently circulating in humans are subtype A(H1N1) and A(H3N2) influenza viruses. The A(H1N1) is also written as A(H1N1)pdm09 as it caused the pandemic in 2009 and replaced the previous A(H1N1) virus which had circulated prior to 2009. Only influenza type A viruses are known to have caused pandemics.
- **Influenza B viruses** are not classified into subtypes but can be broken down into lineages. Influenza type B viruses belong to either B/Yamagata or B/Victoria lineage.
- **Influenza C virus** is detected less frequently and usually causes mild infections, thus does not present public health importance.
- **Influenza D viruses** primarily affect cattle and are not known to infect or cause illness in people.

Vaccines

Vaccines are updated routinely with new vaccines developed that contain viruses that match those circulating. Several inactivated influenza vaccines and recombinant influenza vaccines are available in injectable form. Live attenuated influenza vaccines are available as a nasal spray.

Taken from WHO website on 26/ Apr/2024

[https://www.who.int/news-room/fact-sheets/detail/influenza-\(seasonal\)](https://www.who.int/news-room/fact-sheets/detail/influenza-(seasonal))

EPI WEEK 15



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 – 12 to 15 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												
12	On Time	On Time	On Time	Late (T)	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	Late (T)	On Time	On Time	On Time	On Time	On Time	late (T)	On Time	On Time	On Time
14	On Time	On Time	On Time	Late (T)	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

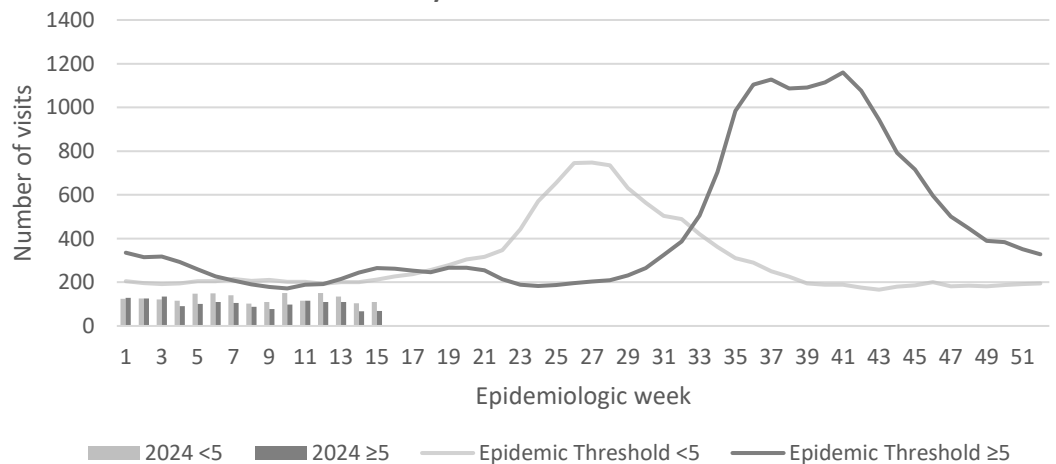
REPORTS FOR SYNDROMIC SURVEILLANCE

UNDIFFERENTIATED FEVER

Temperature of >38°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



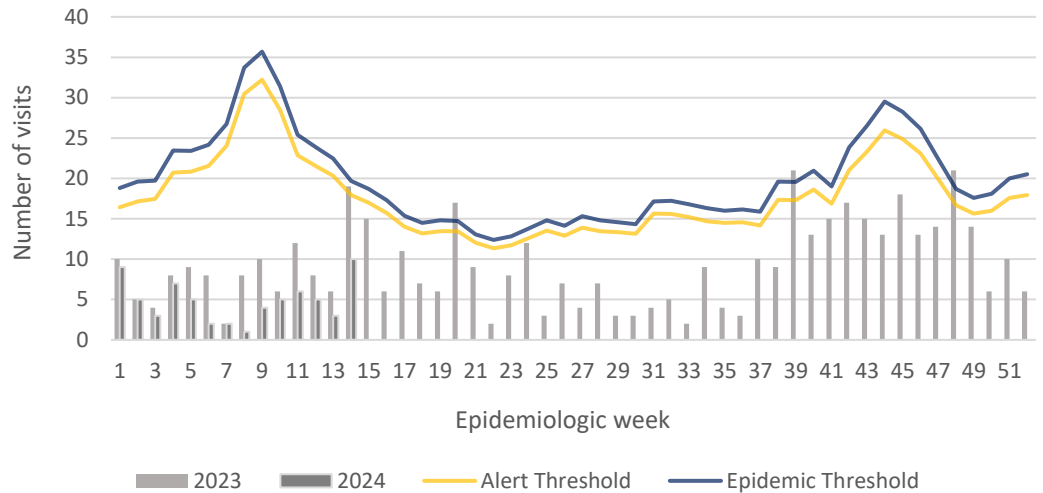
SENTINEL REPORT- 78 sites. Automatic reporting

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

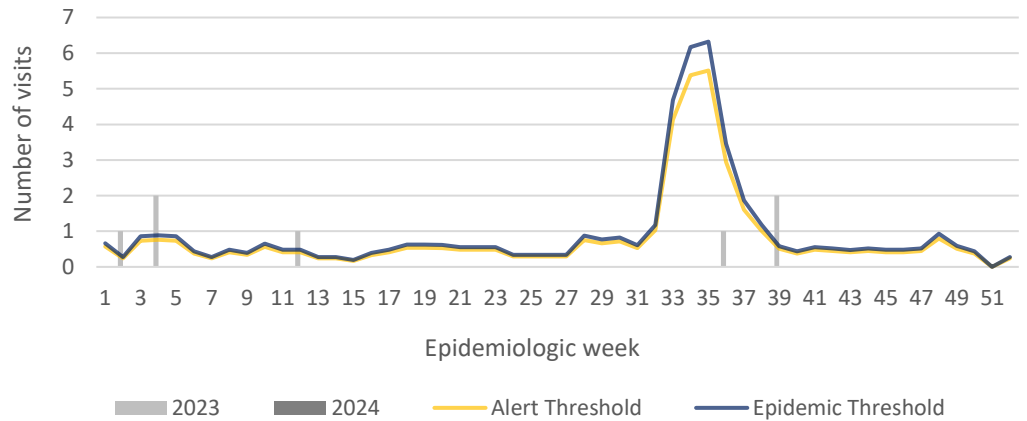


FEVER AND HAEMORRHAGIC

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



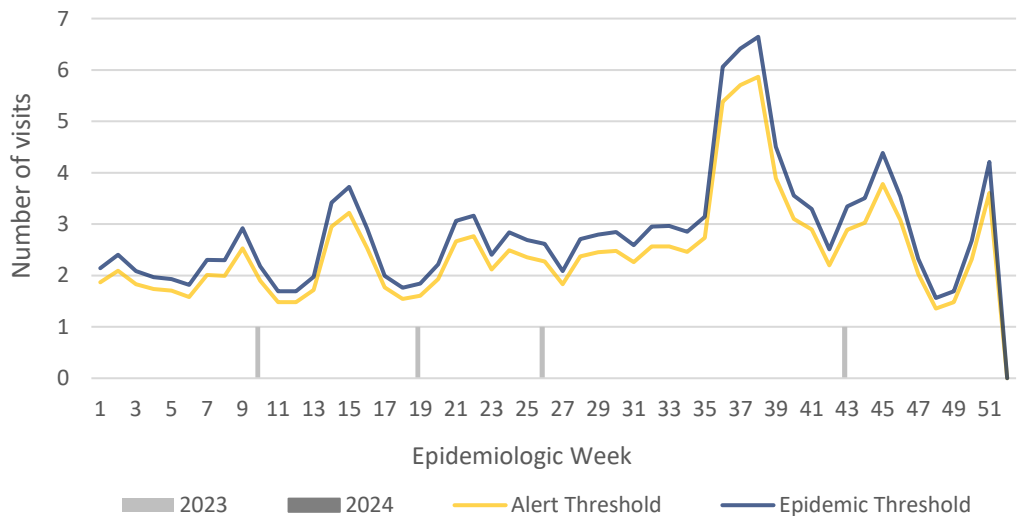
FEVER AND JAUNDICE

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



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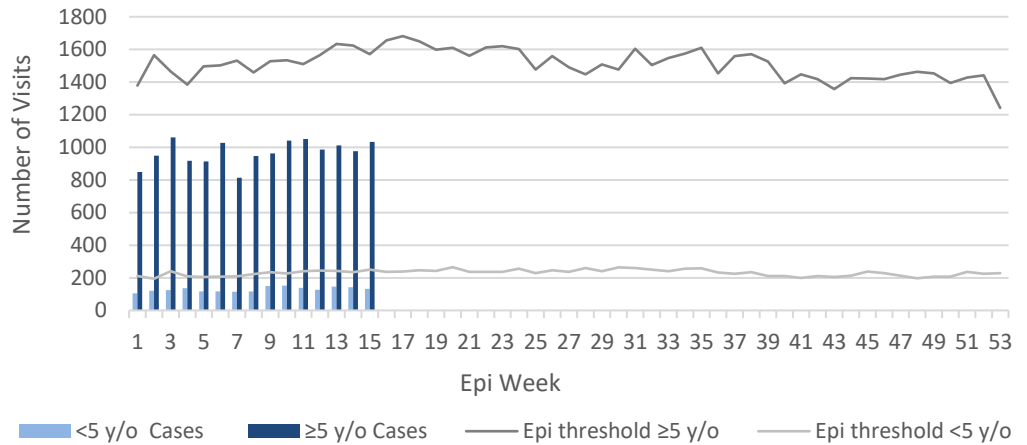


ACCIDENTS

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

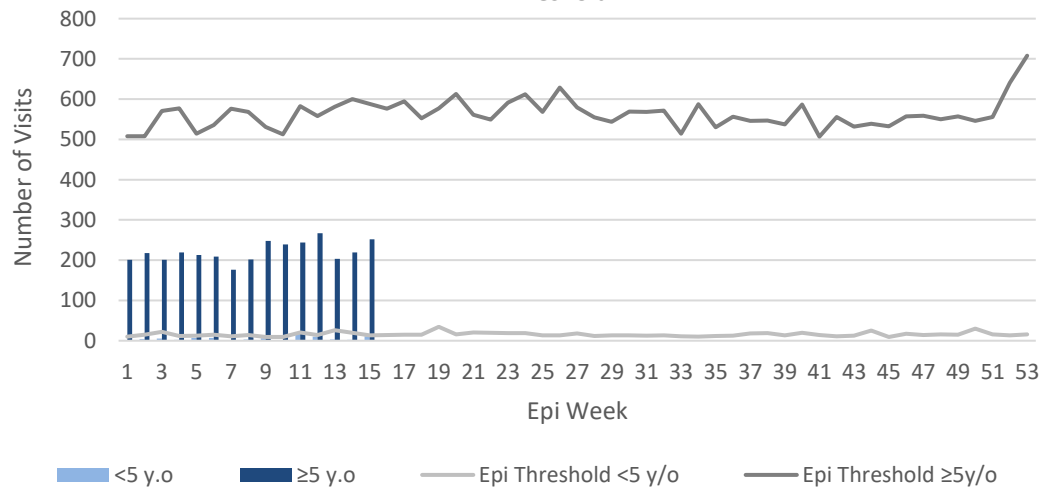


VIOLENCE

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

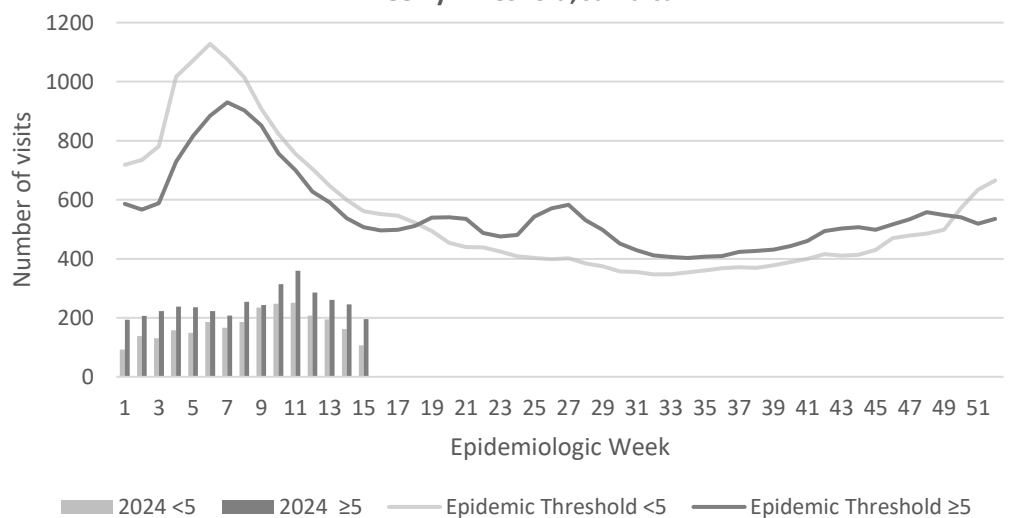


GASTROENTERITIS

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



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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	120 ^β	106 ^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		
	Dengue Hemorrhagic Fever ^γ	See Dengue page below	See Dengue page below		
	COVID-19 (SARS-CoV-2)	165	1865		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	4	26		
	Hepatitis C	1	10		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis	8	16		
	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	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	15		
	Ophthalmia Neonatorum	46	39		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	4	25		
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



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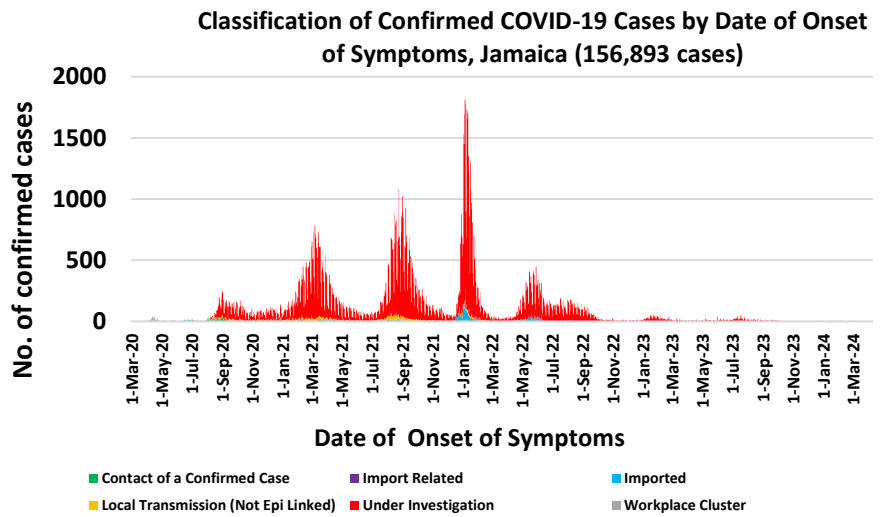


SENTINEL REPORT- 78 sites. Automatic reporting

COVID-19 Surveillance Update

CASES	EW 15	Total
Confirmed	3	156893
Females	0	90416
Males	3	66474
Age Range	1 year old to 30 years	1 day to 108 years

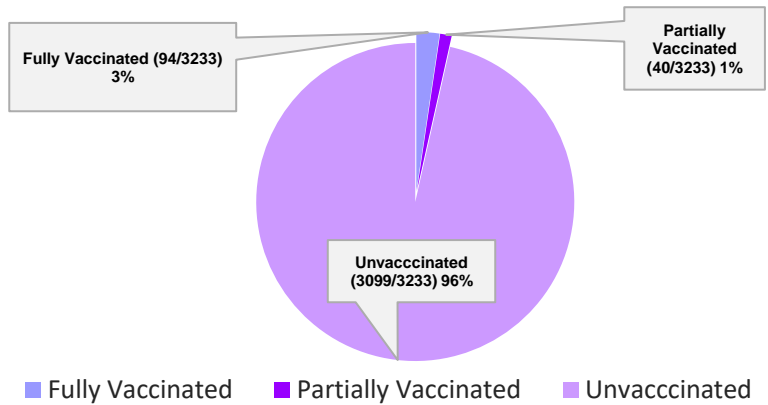
* 3 positive cases had no gender specification
 * PCR or Antigen tests are used to confirm cases
 * Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.



COVID-19 Outcomes

Outcomes	EW 15	Total
ACTIVE *2 weeks*		6
DIED – COVID Related	0	3795
Died - NON COVID	0	370
Died - Under Investigation	0	201
Recovered and discharged	0	103226
Repatriated	0	93
Total		156893

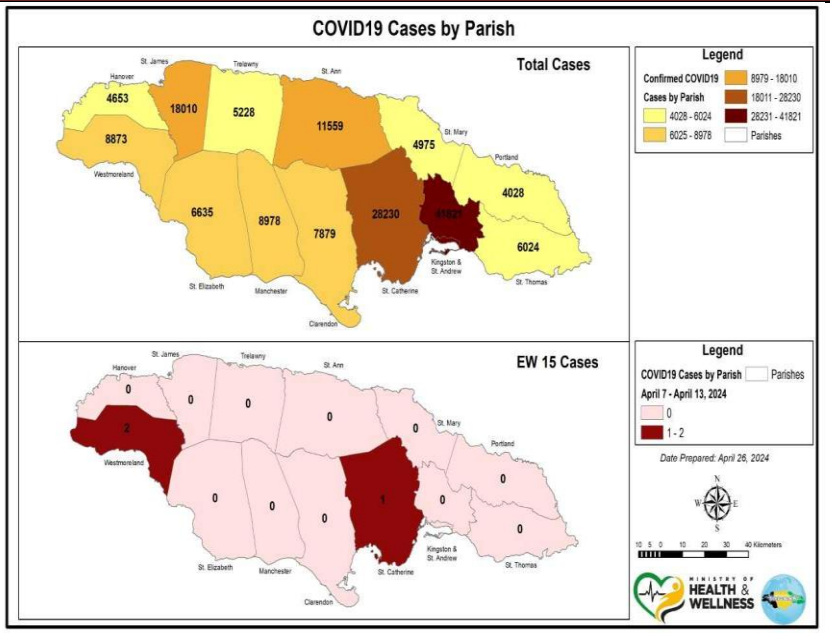
3233 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

SARS-CoV-2



COVID-19 WHO Global Statistics EW 12-15, 2024

Epi Week	Confirmed Cases	Deaths
12	55,600	1,200
13	113,000	1,000
14	111,800	765
15	40,500	609
Total (4weeks)	320,900	3,574

6 NOTIFICATIONS-
All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

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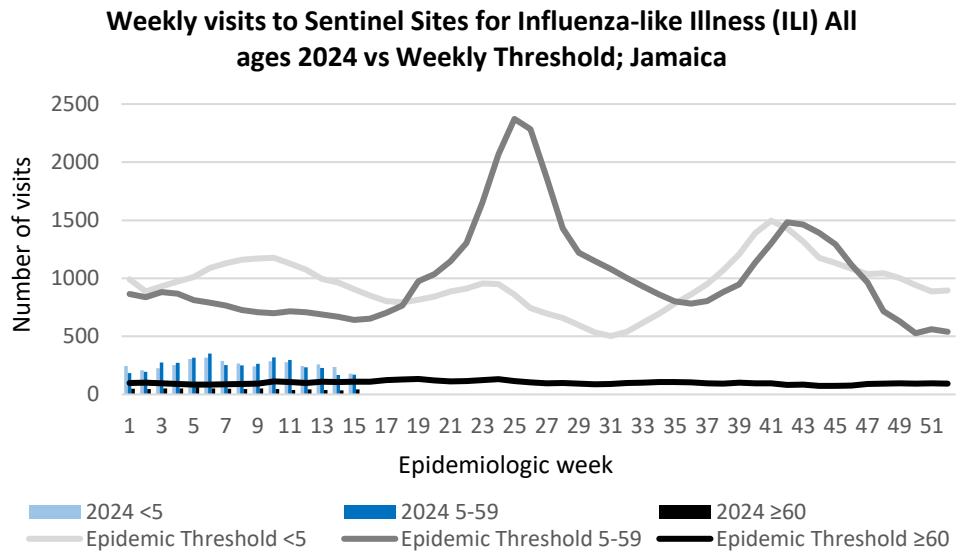
SENTINEL REPORT- 78 sites. Automatic reporting

NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 15

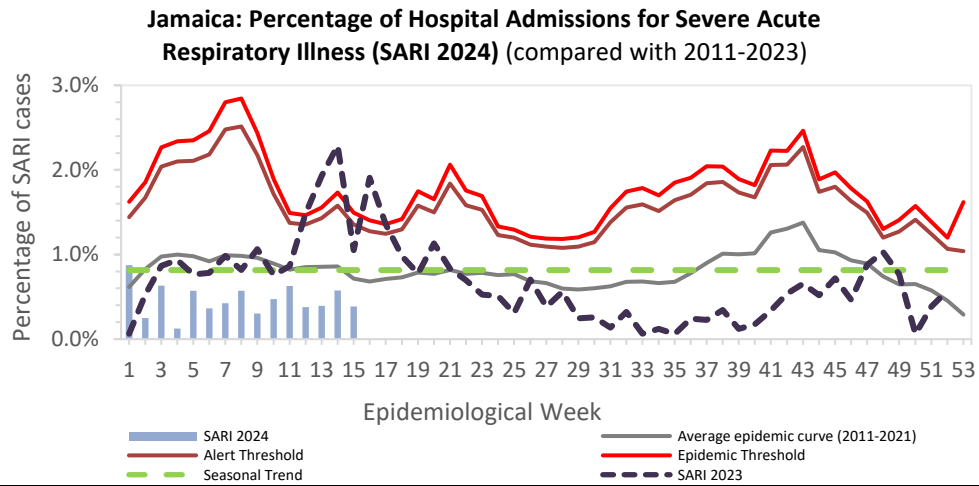
April 07, 2024 – April 13, 2024 Epidemiological Week 15

	EW 15	YTD
SARI cases	6	111
Total Influenza positive Samples	0	48
Influenza A	0	48
H3N2	0	12
H1N1pdm09	0	36
Not subtyped	0	0
Influenza B	0	0
B lineage not determined	0	0
B Victoria	0	0
Parainfluenza	0	0
Adenovirus	0	0
RSV	0	17



Epi Week Summary

During EW 15, six (6) SARI admissions were reported.

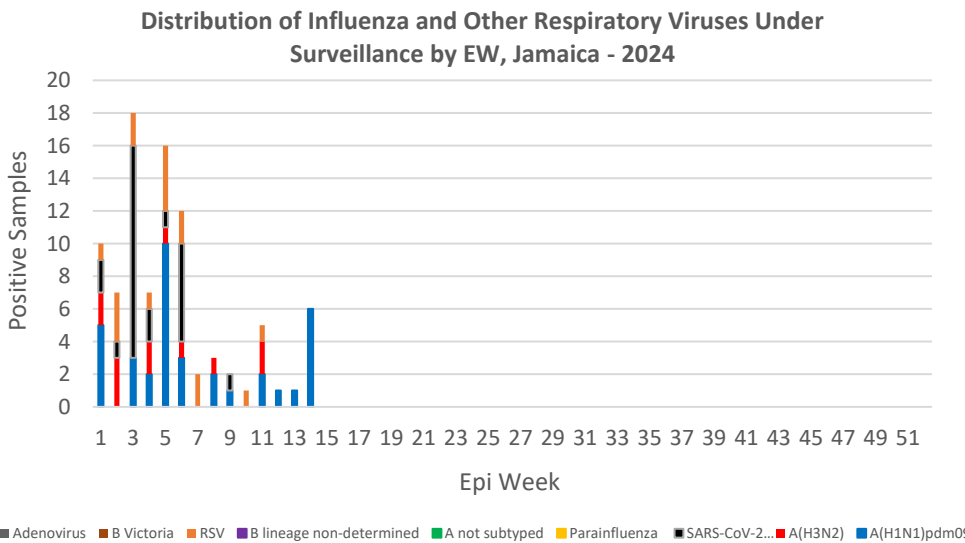


Caribbean Update EW 15

Caribbean: ILI and SARI cases have continued to decline over the past four weeks, with the majority of positive cases attributed to influenza and, to a lesser extent, SARS-CoV-2. Influenza activity has remained fluctuating at low levels over the same period. Predominant influenza viruses during this time have been type A(H1N1)pdm09, with concurrent circulation of influenza A(H3N2) and influenza B/Victoria to a lesser extent. RSV activity has remained low, and SARS-CoV-2 activity has also remained at low levels.

By country: Over the last four EWs, influenza activity has been observed in Belize, Jamaica, and the Cayman Islands. SARS-CoV-2 activity has been observed in Barbados and Guyana.

(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

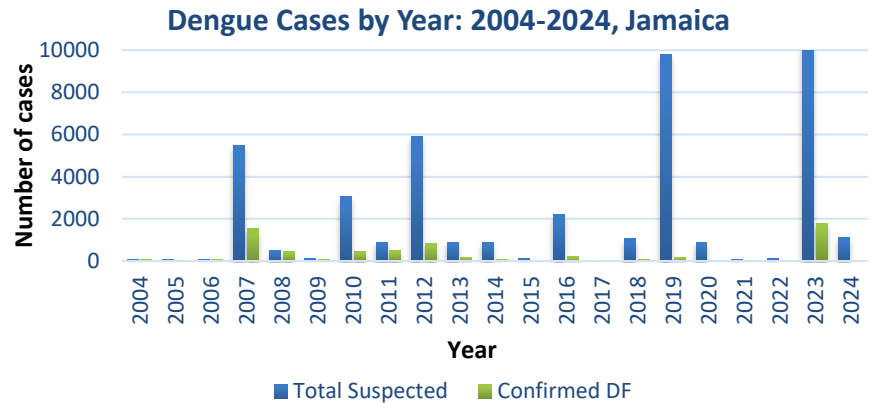
HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting


Dengue Bulletin

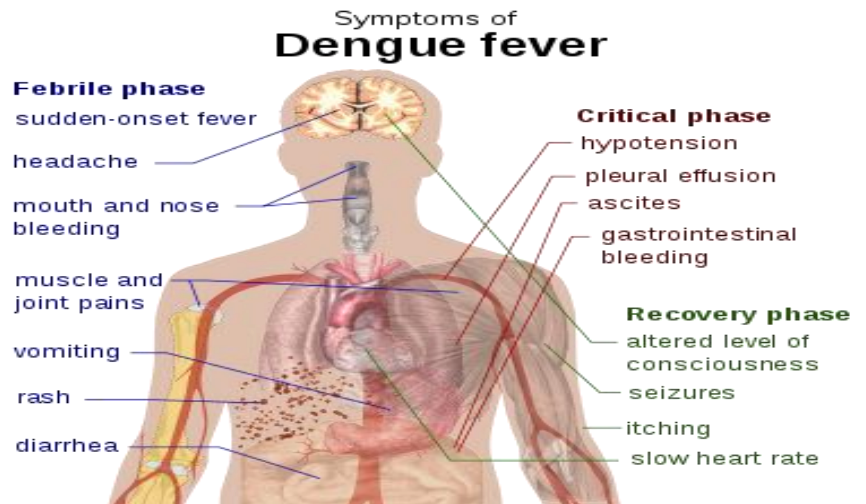
April 07, 2024 – April 13, 2024 Epidemiological Week 15

Epidemiological Week 15



Reported suspected, probable and confirmed dengue with symptom onset in week 15 of 2024

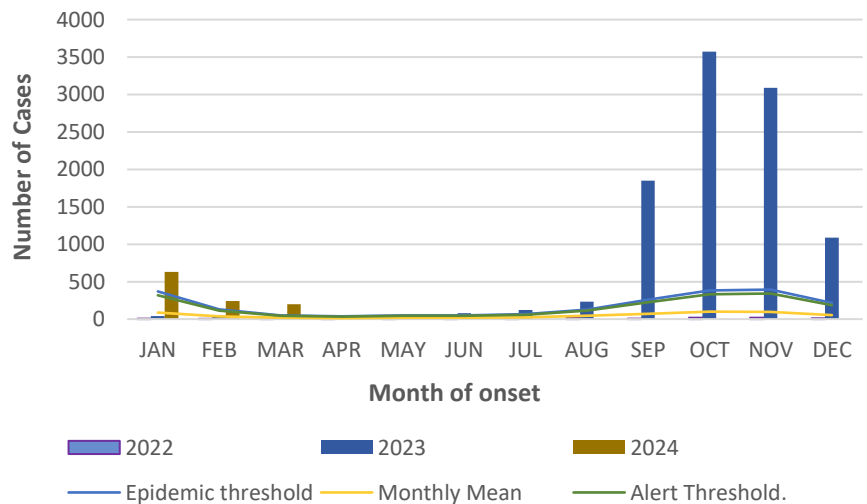
	2024*	
	EW 15	YTD
 Total Suspected, Probable & Confirmed Dengue Cases	7	1133
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- Dengue deaths are reported based on date of death.
- *Figure as at April 25, 2024
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected 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

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SENTINEL REPORT- 78 sites. Automatic reporting

RESEARCH PAPER

Abstract

NHRC_22_O2

The Nutritional Status of Primary and Secondary School children (Cohort 1)

Dawson S¹, Julal G¹, Grant A¹, Thorpe A¹, Wiggan J¹, Turner-Pitt M¹, Chen N¹

¹The Ministry of Health and Wellness, Kingston, Jamaica

Objective: To determine the nutritional status of children attending Primary and Secondary Schools in Jamaica.

Methods: One hundred (100) schools were selected for assessment of the nutritional status of the children using the Ministry of Education and Youth directory. Data randomization was used to select the required number of students from each grade level and to achieve the total population of 27 students from each of the schools selected for the assessment. Data entry was done using Google Forms and analyzed using SPSS v. 20 and STATA v. 14. T-tests, Chi-squared analysis, Exact tests, Cramer's V, Bonferroni comparisons and ANOVA were also performed.

Results: The nutritional status of 2,411 children were assessed, the students' ages ranged from 5 to 20 years. The overweight and obesity prevalence rate among the students ranged from 31.6% to 24.9% respectively and thinness ranged between 2.0% to 2.3%. Students' gender ($p=0.001$), age ($p=0.0000$) and school category ($p=0.0000$) were statistically significant with regards to the nutritional status of the students.

Conclusions: Overweight and obesity continues to be a major public health problem with school age children in Jamaica (28.3%). Children aged 10-11 years had the highest prevalence of overweight and obesity 18.3% and 15.7% respectively.



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9 NOTIFICATIONS-
All clinical
sites



INVESTIGATION
REPORTS- Detailed Follow
up for all Class One Events



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REPORT- 78 sites.
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