

WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Blood safety and availability



Blood transfusion saves lives and improves health, but many patients requiring transfusion do not have timely access to safe blood. Providing safe and adequate blood should be an integral part of every country's national health care policy and infrastructure. WHO recommends that all activities related to blood collection, testing, processing, storage and distribution be coordinated at the national level through effective organization and integrated blood supply networks. The national blood system should be governed by national blood policy and legislative framework to promote uniform implementation of standards and consistency in the quality and safety of blood and blood products.

Age and gender of blood donors

The age profile of blood donors shows that, proportionally, more young people donate blood in low- and middle-income countries than in high-income countries. Demographic information of blood donors is important for formulating and monitoring recruitment strategies.

Types of blood donors

There are 3 types of blood donors:

- voluntary unpaid
- family/replacement
- paid.

An adequate and reliable supply of safe blood can be assured by a stable base of regular, voluntary, unpaid blood donors. These donors are also the safest group of donors as the prevalence of bloodborne infections is lowest among this group. World Health Assembly resolution WHA63.12 urges all Member States to develop national blood systems based on voluntary unpaid donations and to work towards the goal of self-sufficiency.

<https://www.who.int/news-room/fact-sheets/detail/blood-safety-and-availability>

EPI WEEK 48



Syndromic Surveillance

Accidents

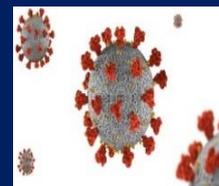
Violence

Pages 2-4



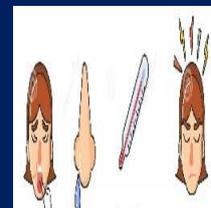
Class 1 Notifiable Events

Page 5



COVID-19

Page 6



Influenza

Page 7



Dengue Fever

Page 8



Research Paper

Page 9

SENTINEL SYNDROMIC SURVEILLANCE

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 – 45 to 48 of 2023

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
	2023												
45	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
46	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
47	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
48	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

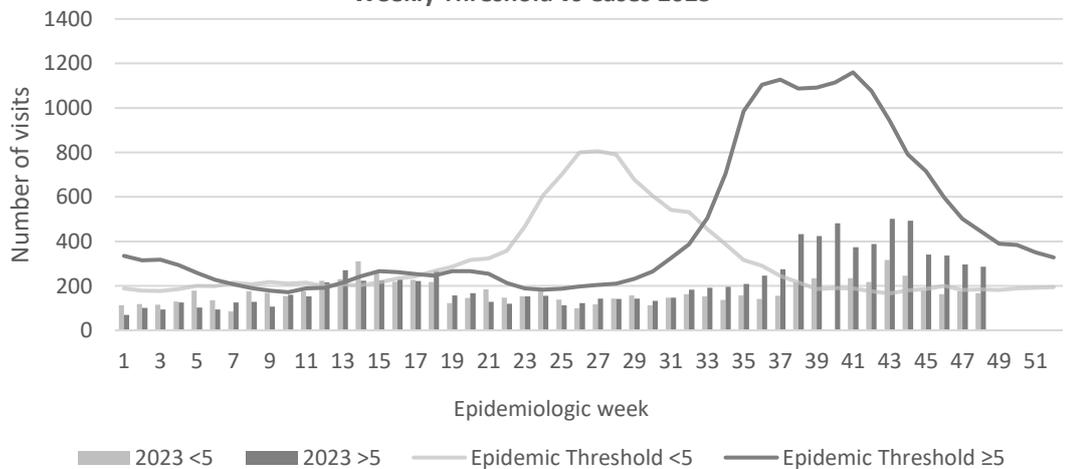
REPORTS FOR SYNDROMIC SURVEILLANCE

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 2023



2 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



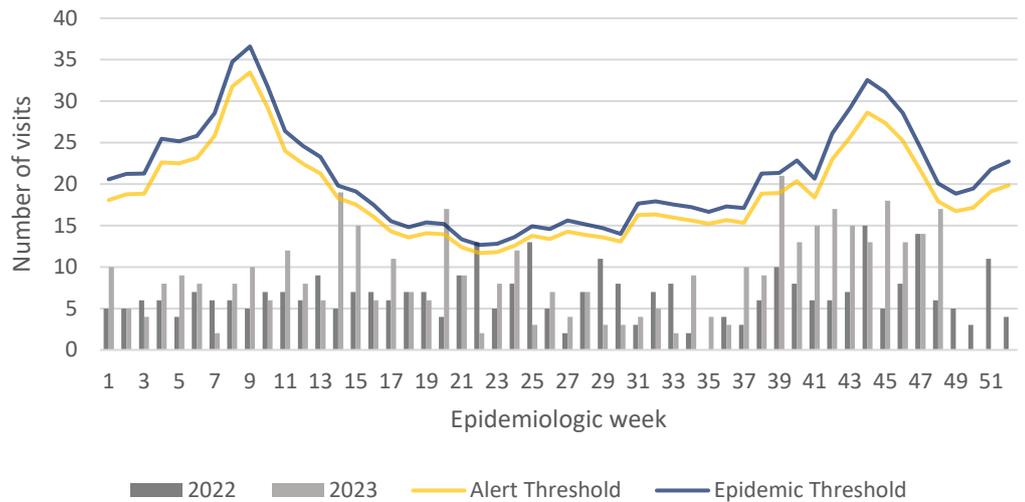
SENTINEL REPORT- 78 sites. Automatic reporting

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 2022 and 2023 vs. Weekly Threshold: Jamaica

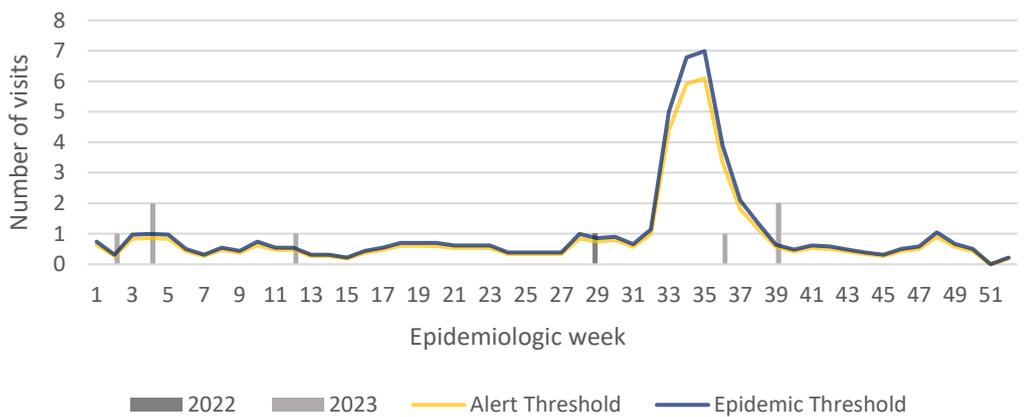


FEVER AND HAEMORRHAGIC

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 2022 and 2023 vs Weekly Threshold; Jamaica



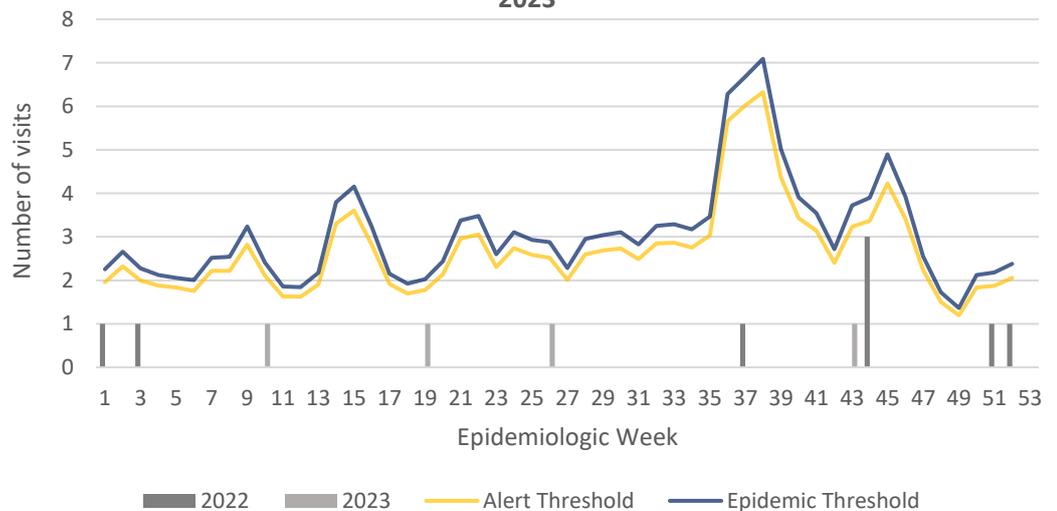
FEVER AND JAUNDICE

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 2022 and 2023



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

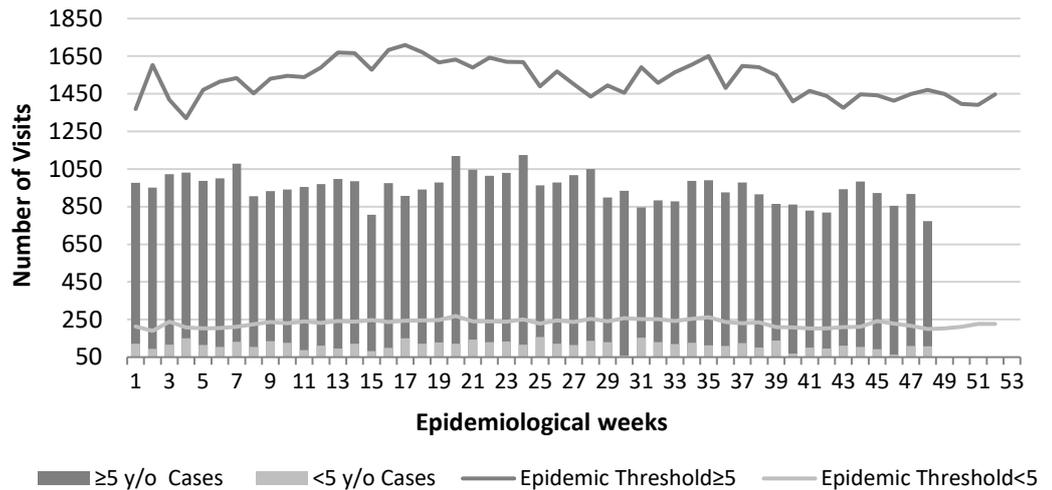


ACCIDENTS

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



Weekly visits to Sentinel Sites for Accidents by Age Group 2023 vs Weekly Threshold; Jamaica

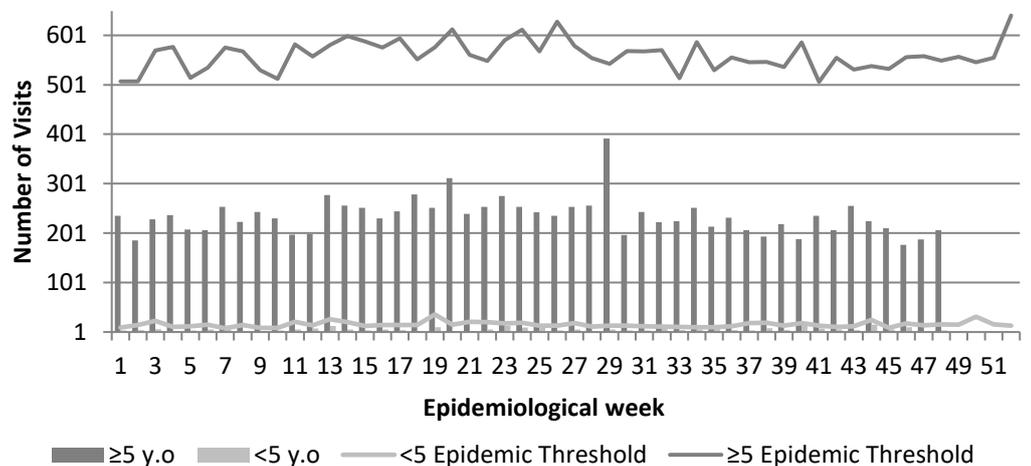


VIOLENCE

Any injury for which the cause is intentional, e.g. gunshot wounds, stab wounds, etc.



Weekly visits to Sentinel Sites for Violence by Age Group 2023 vs Weekly Threshold; Jamaica

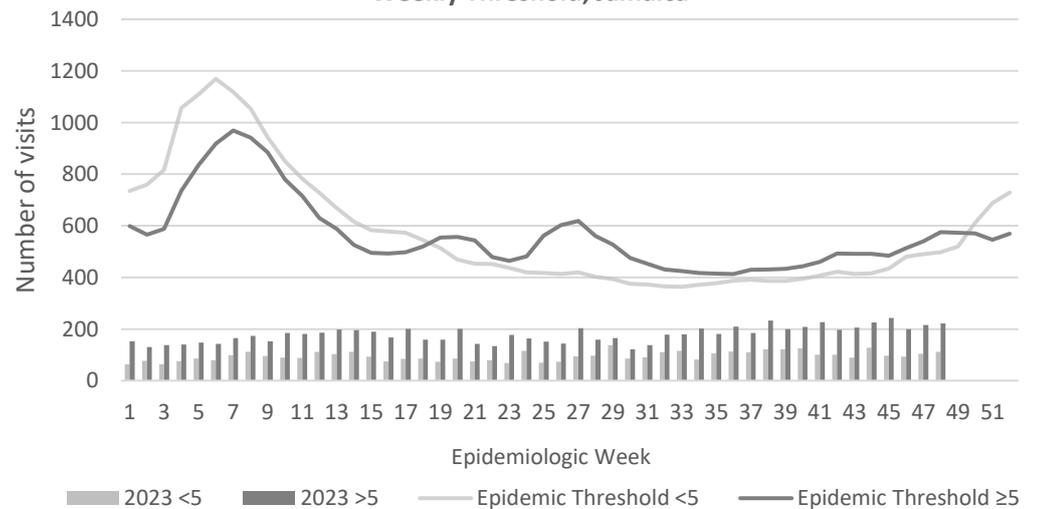


GASTROENTERITIS

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 2023 vs Weekly Threshold; Jamaica



4 NOTIFICATIONS- All clinical sites



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SENTINEL REPORT- 78 sites. Automatic reporting



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 2023	PREVIOUS YEAR 2022		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	343 ^β	187 ^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)	3803	55517		
	Hansen’s Disease (Leprosy)	0	1		
	Hepatitis B	53	31		
	Hepatitis C	24	2		
	HIV/AIDS	N/A	N/A		
	Malaria (Imported)	3	2		
	Meningitis	27	18		
	Monkeypox	3	18		
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	50	63		
	Ophthalmia Neonatorum	119	125		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	2		
	Tuberculosis	52	33		
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



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



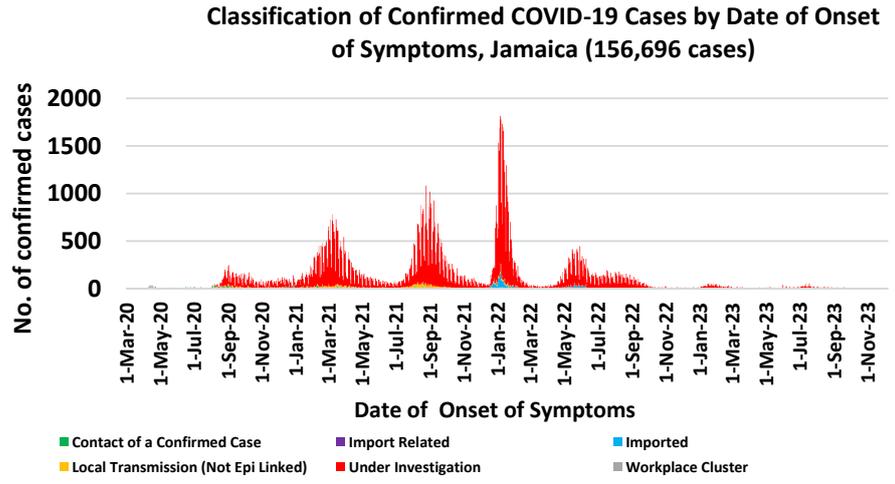
SENTINEL REPORT- 78 sites. Automatic reporting

COVID-19 Surveillance Update

March 10, 2020 – EW 48, 2023

CASES	EW 48	Total
Confirmed	3	156696
Females	2	90308
Males	1	66385
Age Range	54 years to 83 years	1 day to 108 years

* 3 positive cases had no gender specification
* PCR or Antigen tests are used to confirm cases

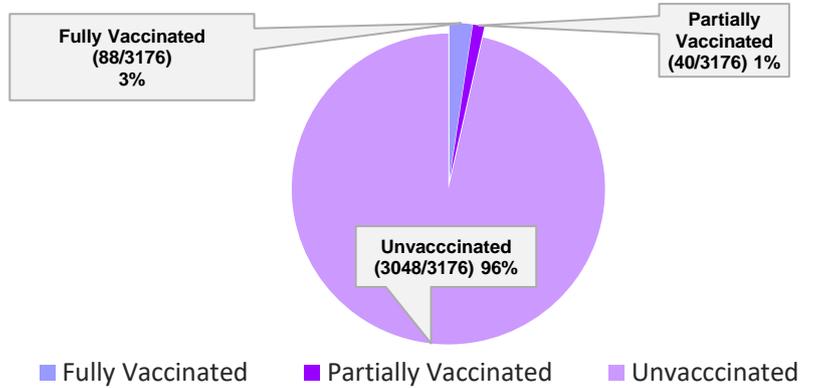


COVID-19 Outcomes

Outcomes	EW 48	Total
ACTIVE *2 weeks*		9
DIED – COVID Related	0	3738
Died - NON COVID	0	349
Died - Under Investigation	0	258
Recovered and discharged	1	103226
Repatriated	0	93
Total		156696

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

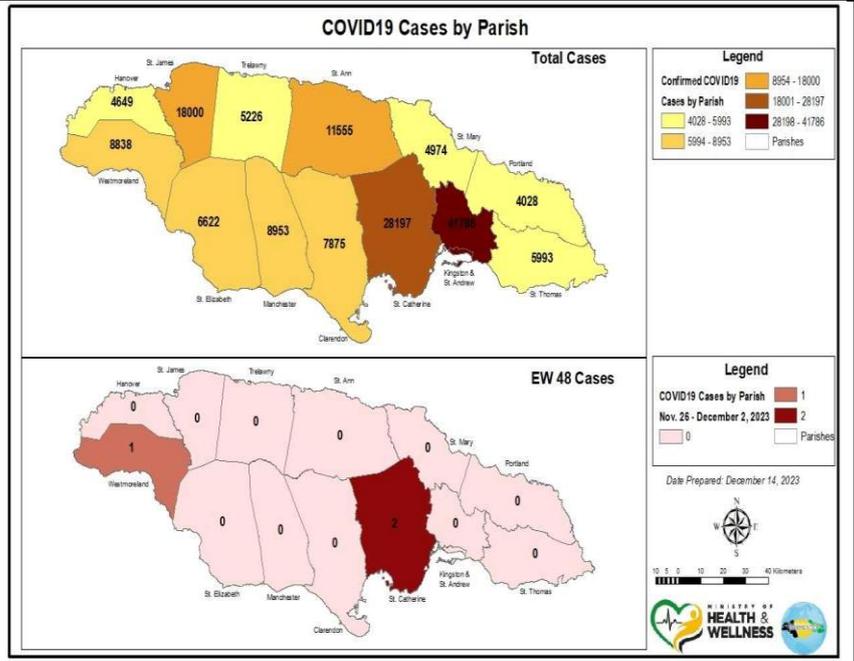
3176 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths



COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

SARS-CoV-2



COVID-19 WHO Global Statistics EW45-EW48

Epi Week	Confirmed Cases	Deaths
45	153,343	863
46	117,195	404
47	60,407	196
48	224,656	959
Total (4weeks)	555,601	2,419

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

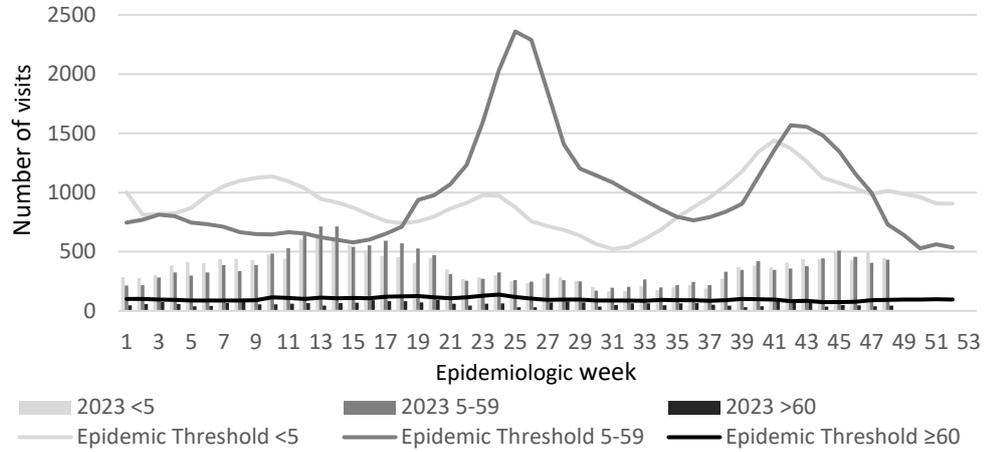
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 48

November 26 – December 02, 2023 Epidemiological Week 48

	EW 48	YTD
SARI cases	3	527
Total Influenza positive Samples	2	207
Influenza A	0	32
H3N2	0	1
H1N1pdm09	2	41
Not subtyped	0	1
Influenza B	0	164
B lineage not determined	0	2
B Victoria	0	162
Parainfluenza	0	1
Adenovirus	0	2
RSV	0	23

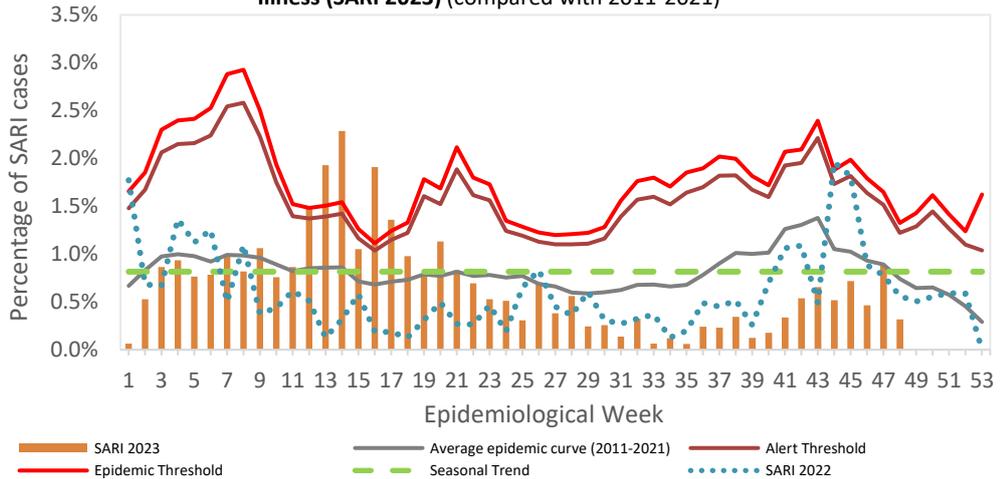
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2023 vs Weekly Threshold; Jamaica



Epi Week Summary

During EW 48, three (3) SARI admissions were reported.

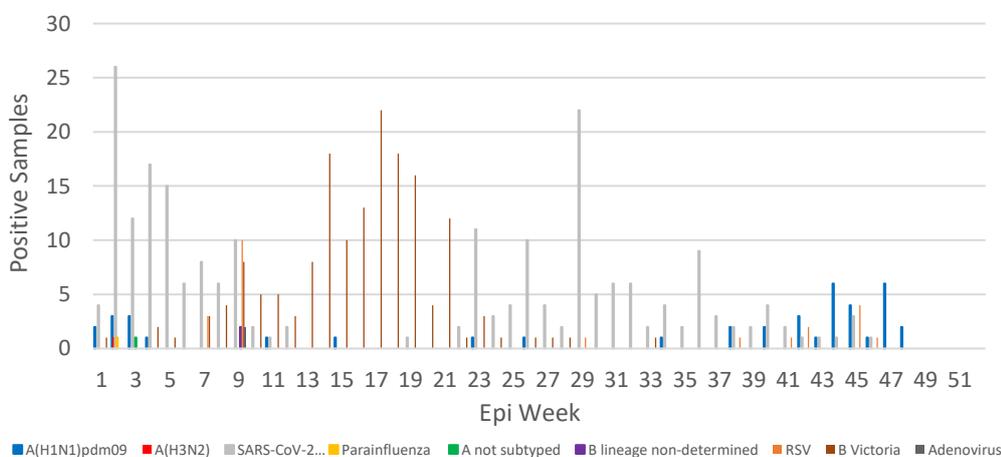
Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2023) (compared with 2011-2021)



Caribbean Update EW 48

Caribbean: Influenza activity has fluctuated at moderate levels over the last four EWs. During this period, the predominant viruses have been influenza A(H1N1)pdm09, followed by influenza A(H3N2) and, to a lesser extent, influenza B/Victoria. RSV activity, after an increase in previous weeks, has experienced a decline in the last three EWs. SARS-CoV-2 activity continues to decrease, reaching low levels in the last EW. Cases of ILI and SARI have been declining in the last four EWs, with a higher proportion of SARI cases associated with influenza. The Dominican Republic continues to have elevated RSV activity, although decreasing in the last four EWs. In Jamaica, SARS-CoV-2 activity has slightly increased, accompanied by a pronounced rise in RSV activity in the last four EWs, with epidemic levels of pneumonia and acute respiratory infection.

Distribution of Influenza and Other Respiratory Viruses Under Surveillance by EW, Jamaica - 2023



7 NOTIFICATIONS-
All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



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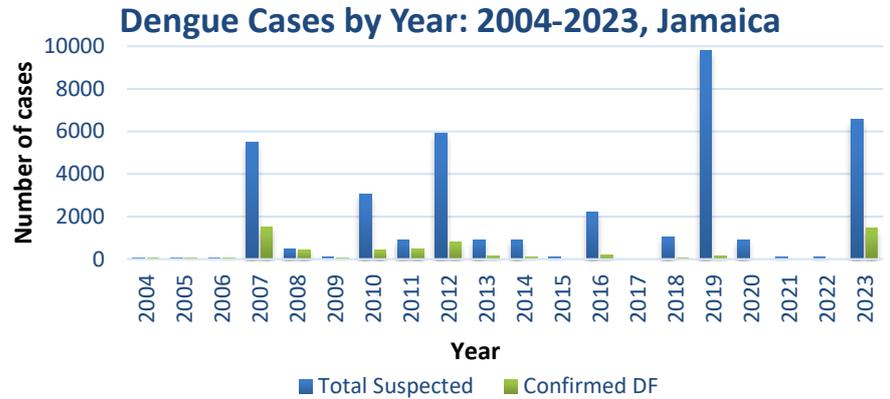
SENTINEL REPORT- 78 sites. Automatic reporting



Dengue Bulletin

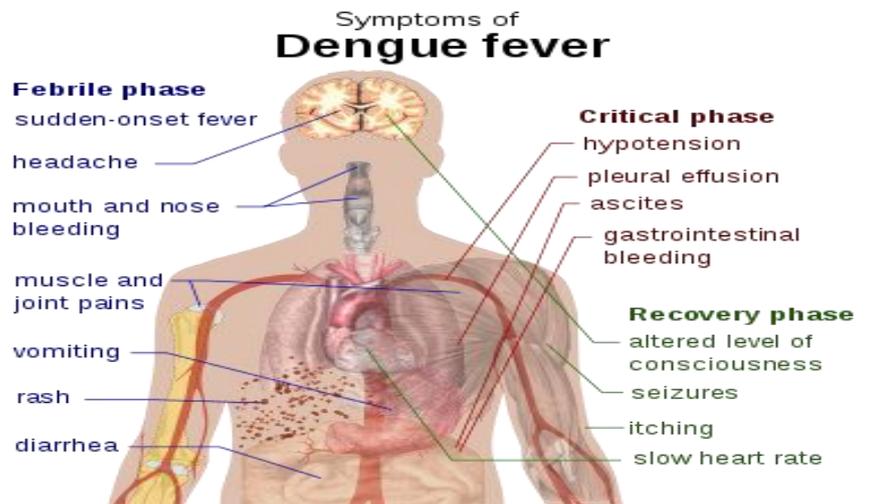
November 26– December 02, 2023 Epidemiological Week 48

Epidemiological Week 48



Reported suspected and confirmed dengue with symptom onset in week 48 of 2023

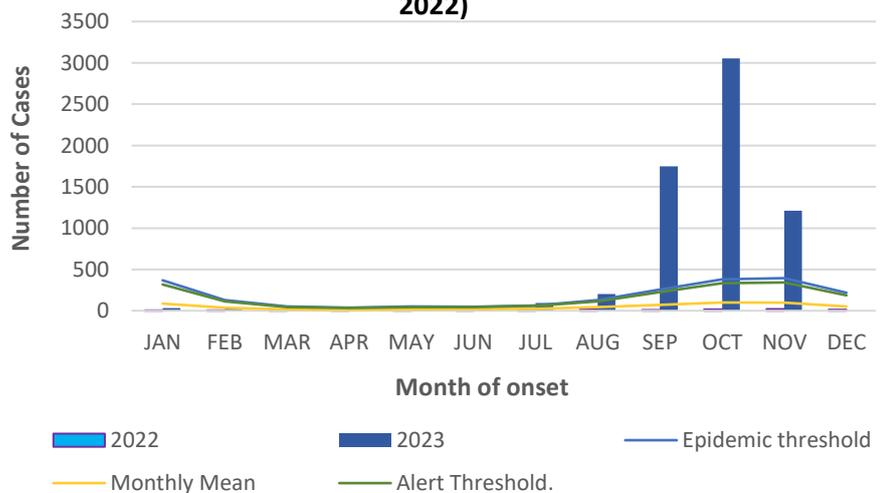
	2023*	
	EW 48	YTD
 Total Suspected & Confirmed Dengue Cases	15	6548
Lab Confirmed Dengue cases	0	1473
CONFIRMED Dengue Related Deaths	0	5



Points to note:

- *Figure as at December 11, 2023
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected dengue cases for 2022 and 2023 versus monthly mean, alert, and epidemic thresholds (2007-2022)



8 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

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



HOSPITAL
ACTIVE
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30 sites. Actively
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SENTINEL
REPORT- 78 sites.
Automatic reporting