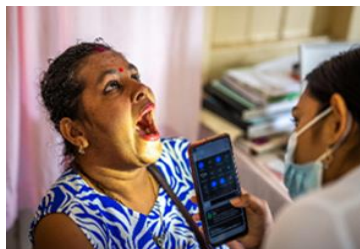


# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Weekly Spotlight

### Oral Health



Prevalence of the main oral diseases continues to increase globally with growing urbanization and changes in living conditions. This is primarily due to inadequate exposure to fluoride (in the water supply and oral hygiene products such as toothpaste), availability and affordability of food with high sugar content and poor access to oral health care services in the community. Marketing of food and beverages high in sugar, as well as tobacco and alcohol, have led to a growing consumption of products that contribute to oral health conditions and other NCDs.

### Risk factors

Most oral diseases and conditions share modifiable risk factors such as tobacco use, alcohol consumption and an unhealthy diet high in free sugars that are common to the 4 leading NCDs (cardiovascular disease, cancer, chronic respiratory disease and diabetes). In addition, diabetes has been linked in a reciprocal way with the development and progression of periodontal disease. There is also a causal link between the high consumption of sugar and diabetes, obesity and dental caries.

### Prevention

The burden of oral diseases and other non-communicable diseases can be reduced through public health interventions by addressing common risk factors.

These include:

- promoting a well-balanced diet low in free sugars and high in fruit and vegetables, and favouring water as the main drink;
- stopping use of all forms of tobacco, including chewing of areca nuts;
- reducing alcohol consumption; and
- encouraging use of protective equipment when doing sports and travelling on bicycles and motorcycles (to reduce the risk of facial injuries).

Adequate exposure to fluoride is an essential factor in the prevention of dental caries.

Twice-daily tooth brushing with fluoride-containing toothpaste (1000 to 1500 ppm) should be encouraged.

## EPI WEEK 40



Syndromic Surveillance

Accidents

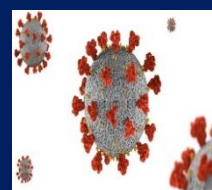
Violence

Pages 2-4



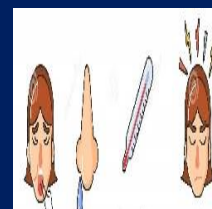
Class 1 Notifiable Events

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 - 37 to 40 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													
37	On Time	On Time	On Time	On Time	On Time	On Time	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time
38	On Time	On Time	Late (W)	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
39	On Time	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
40	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

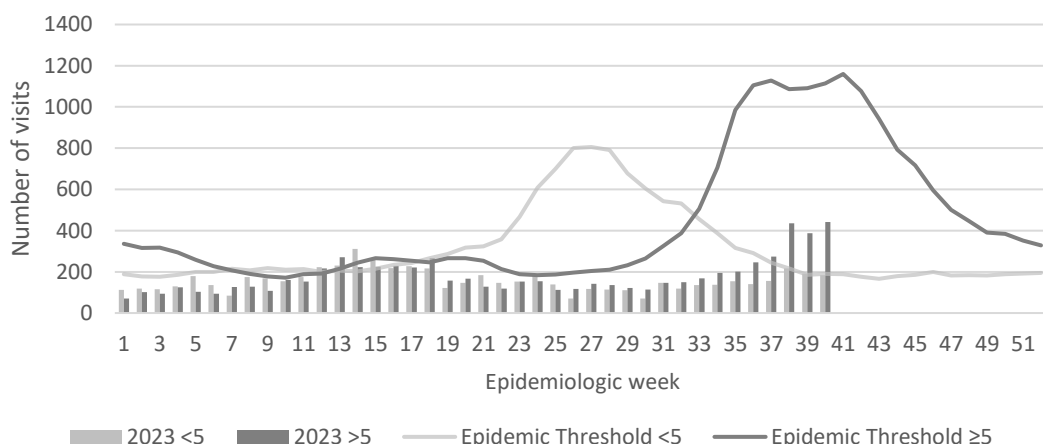
## REPORTS FOR SYNDROMIC SURVEILLANCE

## 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 2023



2 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



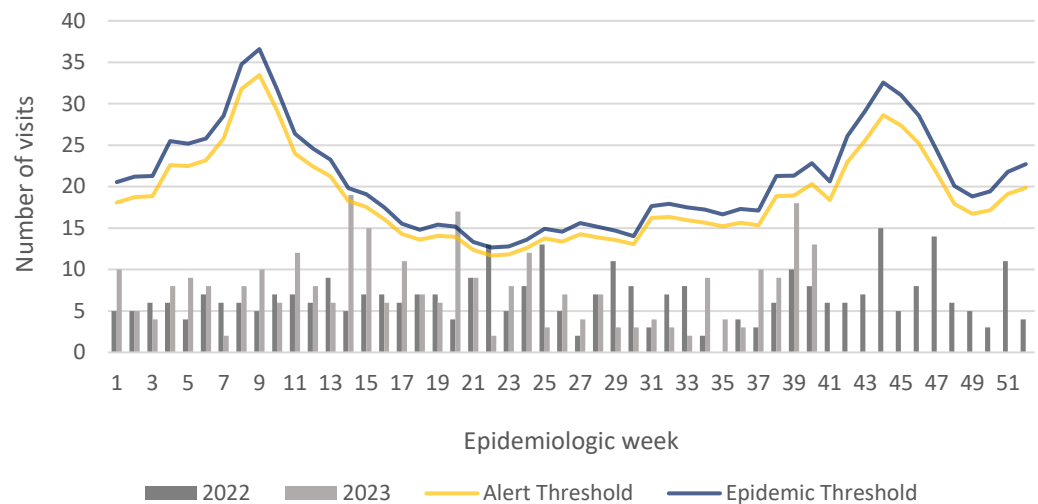
SENTINEL REPORT- 78 sites. Automatic reporting

**FEVER AND NEUROLOGICAL**

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



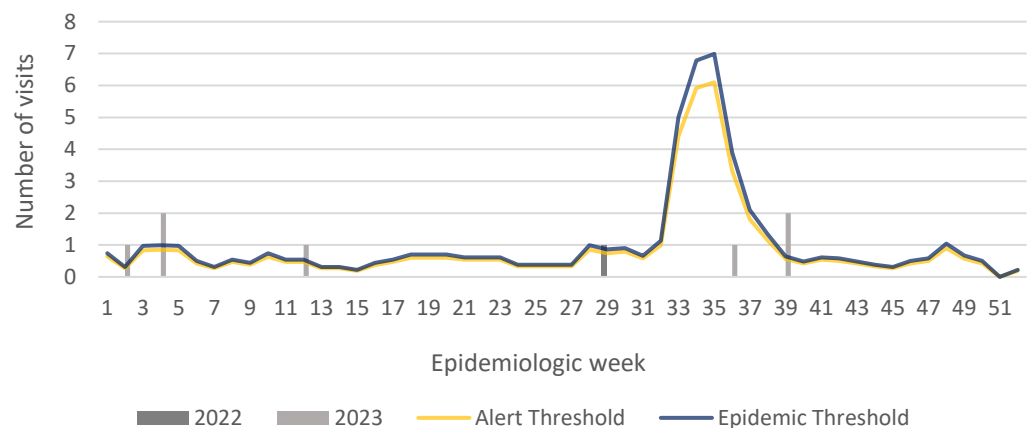
**Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms  
2022 and 2023 vs. Weekly Threshold: Jamaica**

**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 2022 and 2023 vs Weekly Threshold; Jamaica**

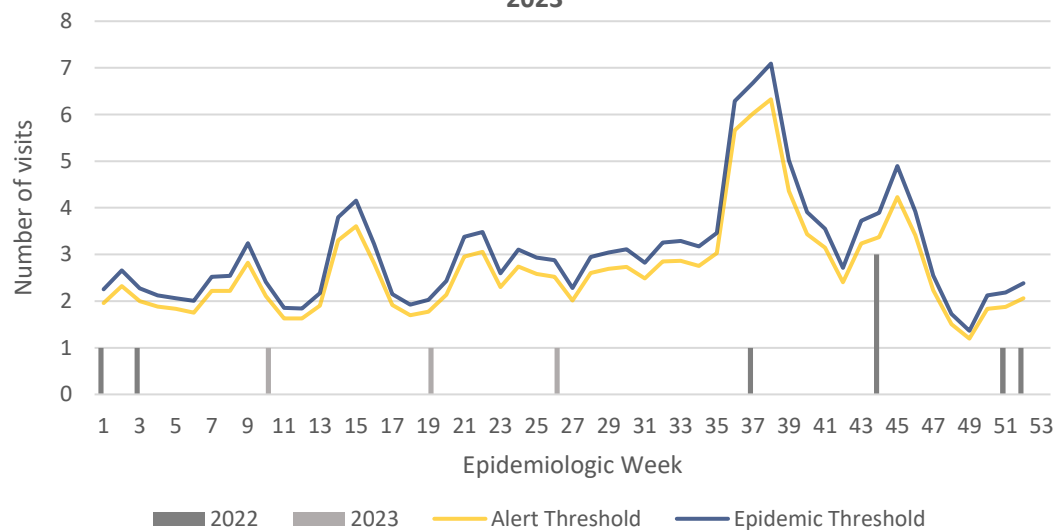
**FEVER AND JAUNDICE**

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 2022 and 2023**



**3 NOTIFICATIONS-**  
All clinical sites



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



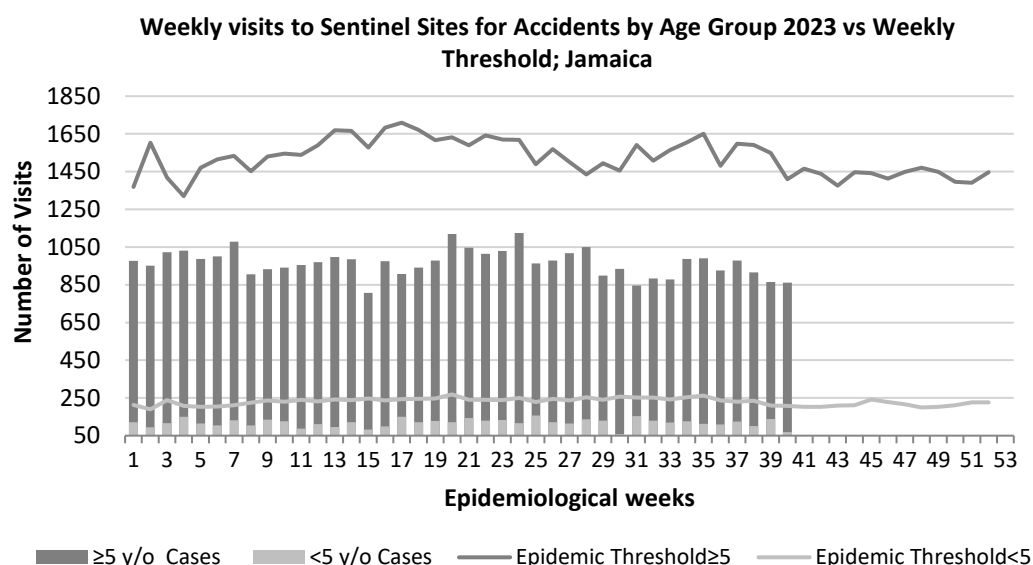
**HOSPITAL ACTIVE SURVEILLANCE-** 30 sites. Actively pursued



**SENTINEL REPORT-** 78 sites. Automatic reporting

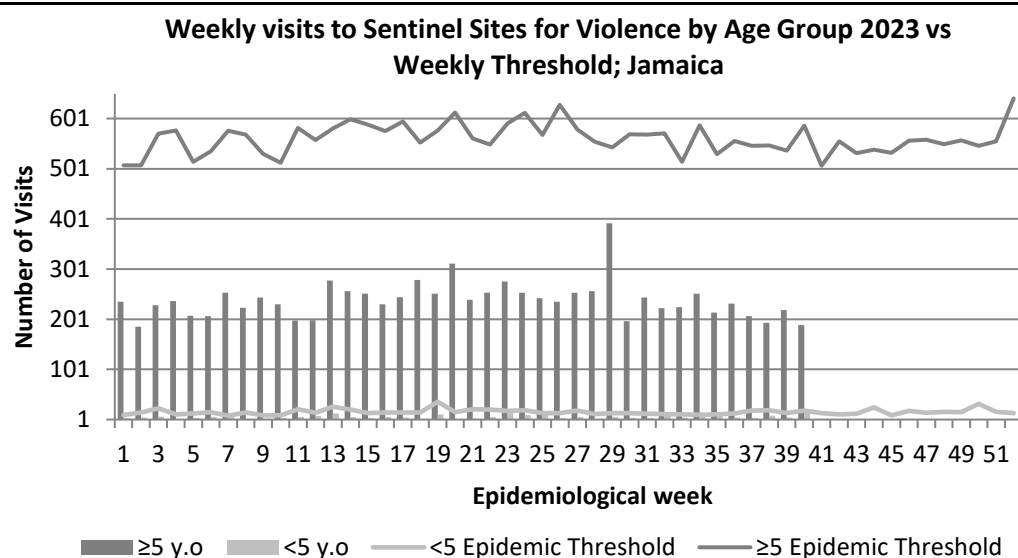
## ACCIDENTS

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



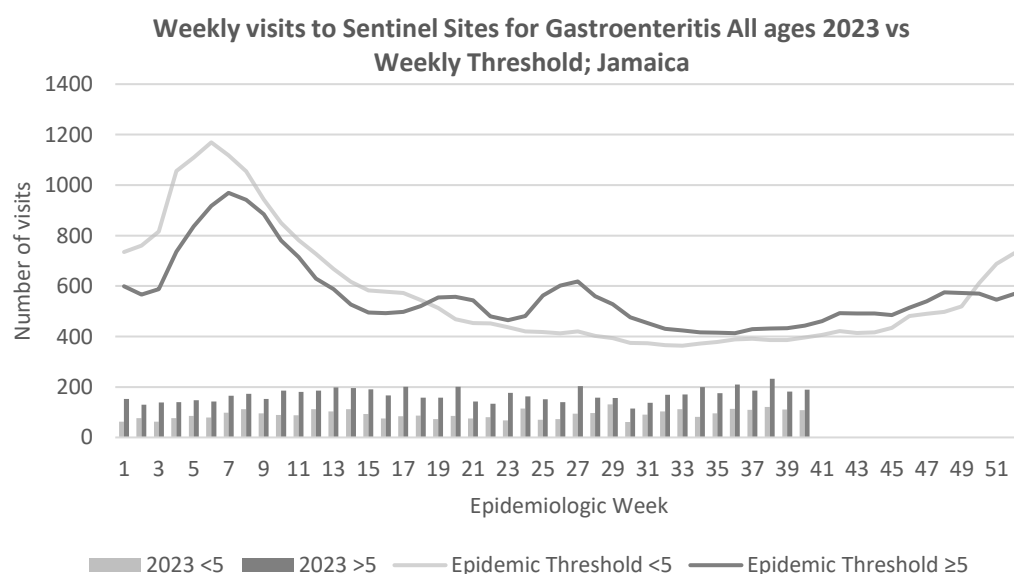
## VIOLENCE

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



## GASTROENTERITIS

Inflammation of the stomach and intestines, typically resulting from bacterial toxins or viral infection and causing vomiting and diarrhoea.



4 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

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.
	CLASS 1 EVENTS		CURRENT YEAR 2023	PREVIOUS YEAR 2022	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		267 <sup>β</sup>	178 <sup>β</sup>	Pertussis-like syndrome and Tetanus are clinically confirmed classifications.
	Cholera		0	0	
	Dengue Hemorrhagic Fever <sup>γ</sup>		See Dengue page below	See Dengue page below	<sup>γ</sup> Dengue Hemorrhagic Fever data include Dengue related deaths;
	COVID-19 (SARS-CoV-2)		3713	55006	
	Hansen’s Disease (Leprosy)		0	0	<sup>δ</sup> Figures include all deaths associated with pregnancy reported for the period.
	Hepatitis B		47	26	
	Hepatitis C		24	2	<sup>ε</sup> CHIKV IgM positive cases
	HIV/AIDS		N/A	N/A	
	Malaria (Imported)		3	2	<sup>θ</sup> Zika PCR positive cases
	Meningitis		24	18	
	Monkeypox		3	14	<sup>β</sup> 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		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>		39	57	
	Ophthalmia Neonatorum		106	125	
	Pertussis-like syndrome		0	0	
	Rheumatic Fever		0	0	
	Tetanus		0	2	
	Tuberculosis		34	33	
	Yellow Fever		0	0	
	Chikungunya <sup>ε</sup>		0	0	
	Zika Virus <sup>θ</sup>		0	0	



5 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
REPORTS- Detailed Follow  
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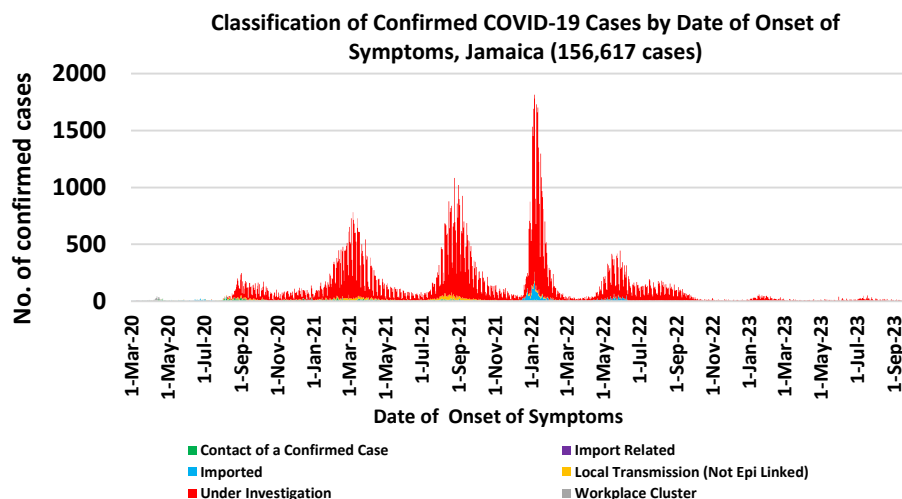
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**COVID-19 Surveillance Update**

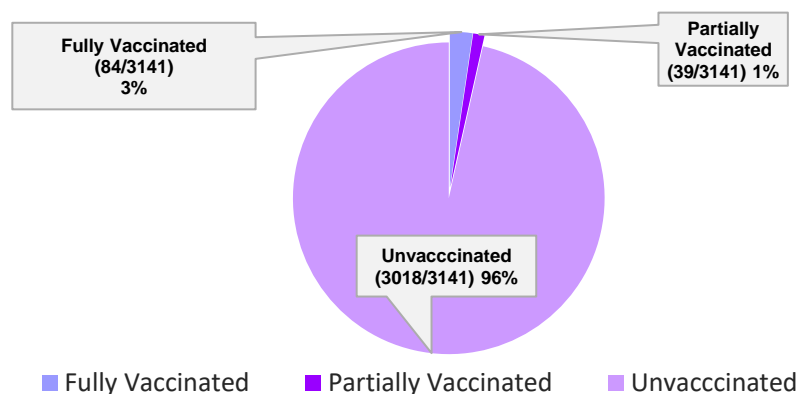
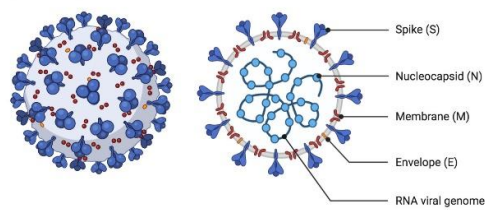
March 10, 2020 – EW 40, 2023

CASES	EW 40	Total
Confirmed	36	156617
Females	18	90268
Males	18	66346
Age Range	9 months old to 93 years	1 day to 108 years
* 3 positive cases had no gender specification * PCR or Antigen tests are used to confirm cases		

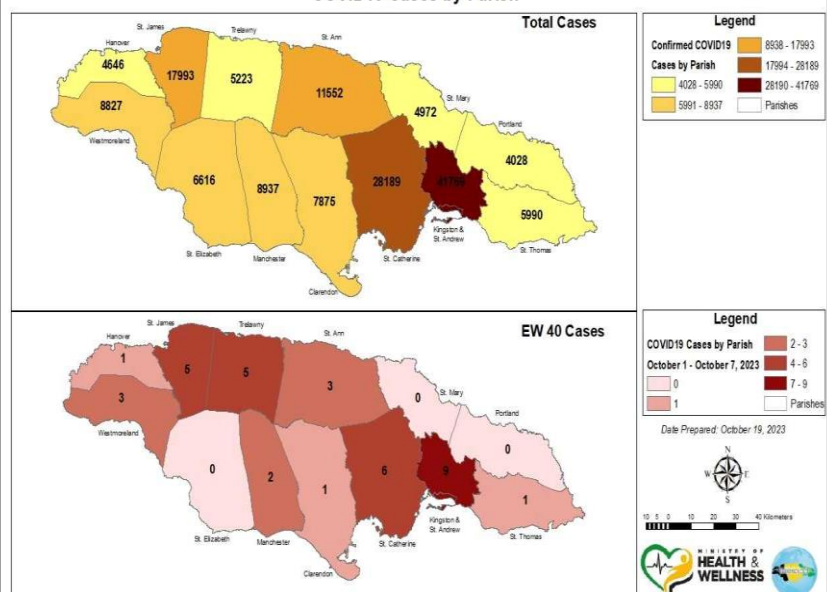
**COVID-19 Outcomes**

Outcomes	EW 40	Total
ACTIVE *2 weeks*		90
DIED – COVID Related	0	3703
Died - NON COVID	0	344
Died - Under Investigation	0	264
Recovered and discharged	0	103213
Repatriated	0	93
Total		156617

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

**3141 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 EW37-EW40**

Epi Week	Confirmed Cases	Deaths
37	139,254	1,759
38	124,015	1,523
39	124,444	968
40	90,407	307
Total (4weeks)	478,120	4,557

**COVID19 Cases by Parish**

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

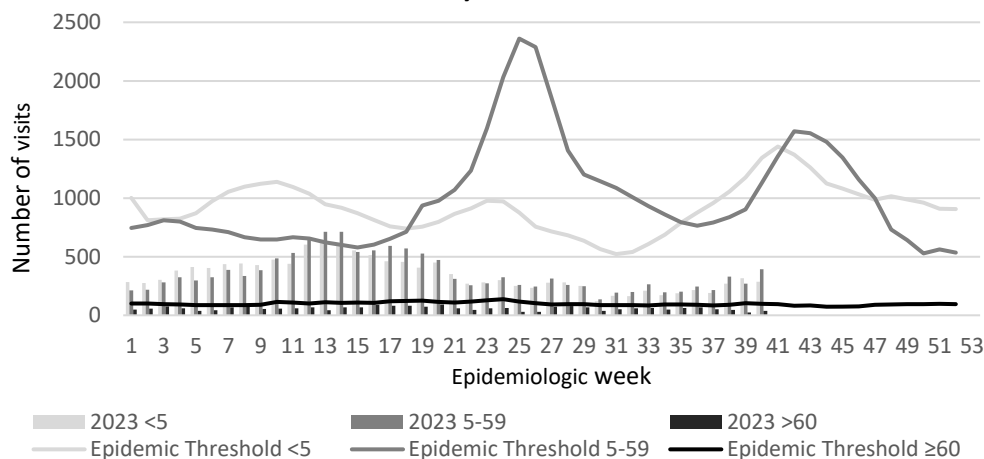
# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

## EW 40

October 1 – October 7, 2023 Epidemiological Week 40

	EW 40	YTD
SARI cases	3	453
Total Influenza positive Samples	0	181
Influenza A	0	17
H3N2	0	1
H1N1pdm09	0	15
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	14

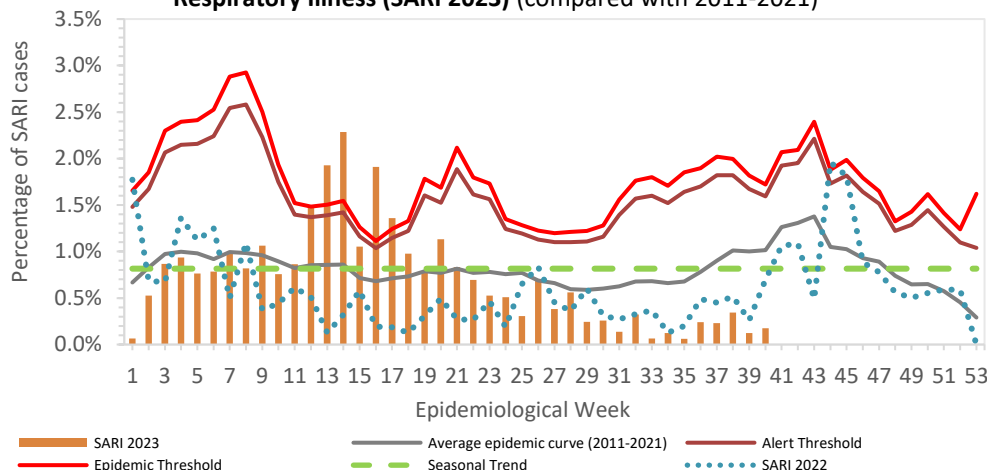
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages  
2023 vs Weekly Threshold; Jamaica



### Epi Week Summary

During EW 40, three (3) SARI admissions were reported.

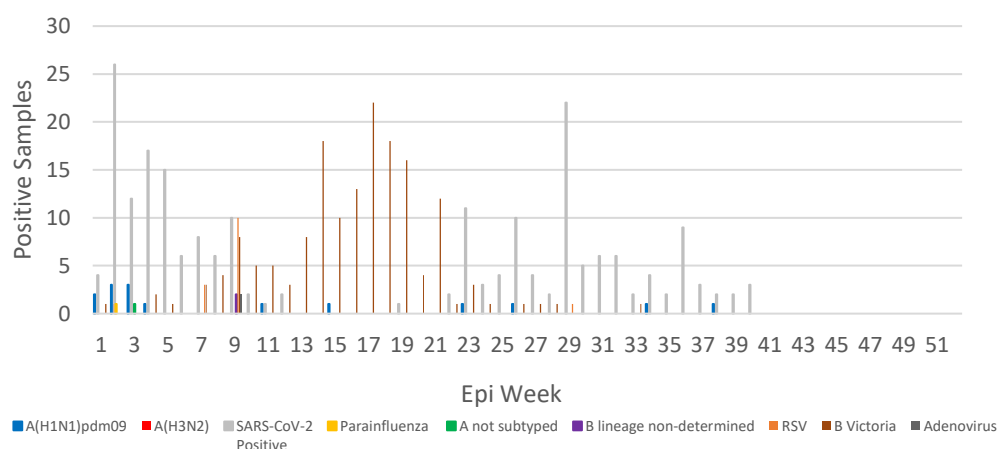
Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2023) (compared with 2011-2021)



### Caribbean Update EW 40

**Caribbean:** Influenza activity continues to show a decreasing trend in the last four EWs. During this period, the predominant viruses have been influenza B/Victoria, with lesser circulation of influenza A, mainly A(H1N1)pdm09. RSV activity has remained low. SARS-CoV-2 activity has been at intermediate levels of circulation. Cases of ILI and SARI have shown a decreasing trend in the last four EWs. Barbados, Guyana, Jamaica, and Saint Lucia have maintained elevated levels of SARSCoV- 2 circulation.

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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SURVEILLANCE-  
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SENTINEL  
REPORT- 78 sites.  
Automatic reporting

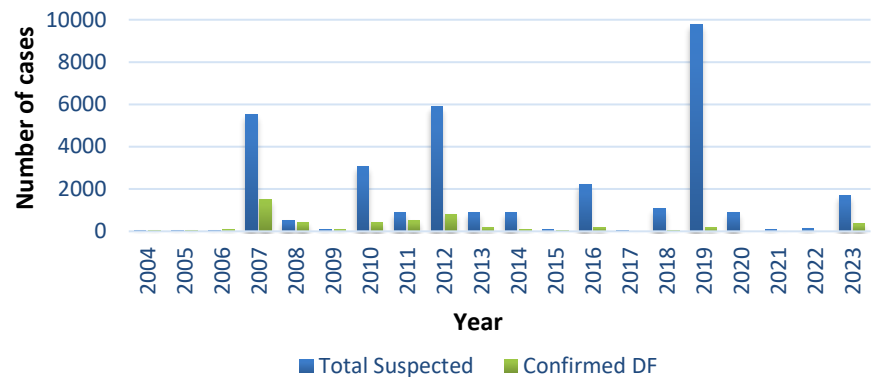
# Dengue Bulletin

October 1– October 7, 2023 Epidemiological Week 40

Epidemiological Week 40



Dengue Cases by Year: 2004-2023, Jamaica



## Reported suspected and confirmed dengue with symptom onset in week 40 of 2023

	2023*	
	EW 40	YTD
Total Suspected & Confirmed Dengue Cases	43	1692
Lab Confirmed Dengue cases	0	370
CONFIRMED Dengue Related Deaths	0	0

## Symptoms of Dengue fever

### Febrile phase

sudden-onset fever

headache

mouth and nose bleeding

muscle and joint pains

vomiting

rash

diarrhea

### Critical phase

hypotension

pleural effusion

ascites

gastrointestinal bleeding

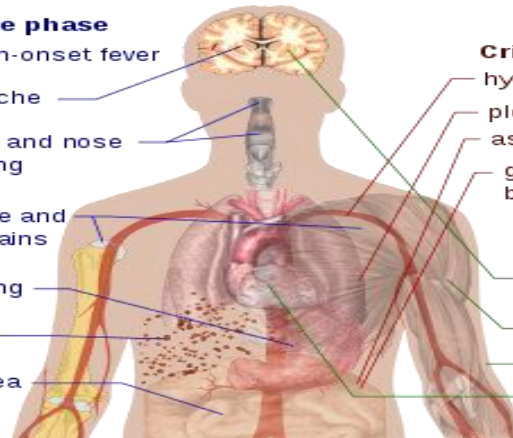
### Recovery phase

altered level of consciousness

seizures

itching

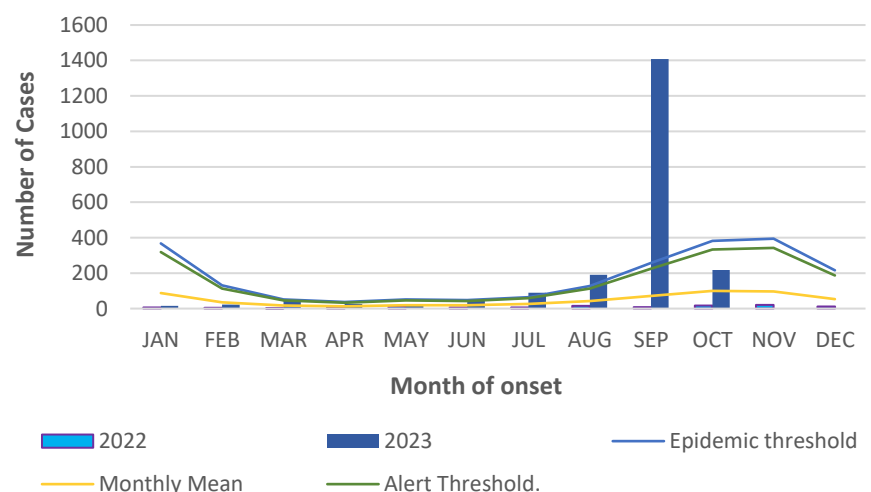
slow heart rate



## Points to note:

- \*Figure as at October 7, 2023
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected dengue cases for 2020, 2021, 2022 and 2023 versus monthly mean, alert, and epidemic thresholds (2007-2022)



8 NOTIFICATIONS-  
All clinical  
sites



INVESTIGATION  
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# RESEARCH PAPER

## Abstract

NHRC\_22\_P19

### Prevalence and determinants of non-barrier contraceptive use among women in Westmoreland, Jamaica.

Gayle H<sup>1</sup>, Blake A.L.<sup>2</sup>, Brewster M<sup>3</sup>, Asnani M<sup>4</sup>

<sup>1</sup>University of the West Indies, Mona, Jamaica, <sup>2</sup>Epidemiology Research Unit, Caribbean Institute for Health Research, Mona, Jamaica, <sup>3</sup>Department of Community Health and Psychiatry, University of the West Indies, Mona, Jamaica, <sup>4</sup>Sickle Cell Unit, Caribbean Institute for Health Research, Mona, Jamaica

**Objectives:** To determine the prevalence of non-barrier contraceptive usage in women in Westmoreland and to examine determinants that influence its usage.

**Methods:** A cross-sectional study design was employed across five randomly selected health centres in Westmoreland. Quota sampling was done, 243 non-pregnant women aged 16-49 years, were sampled. The questionnaire consisted of 3 parts: demographics, reproductive history and access to contraception. Data were analysed using SPSS-v.20 software and summarized as means and proportions. Bivariate analysis, Pearson's chi squared tests and logistic regressions were done. Ethics permissions were obtained.

**Results:** There were a total of 215 parous and 28 nulliparous women. The mean age for the sample was 30.2±9.1 years. The mean age of coitarche was 16.4 ± 2.1 years, mean age of contraception initiation was 18.9±3.5 years and mean age of first pregnancy 19.2±3.8 years. Unintentional last pregnancy rate =63.7%. The prevalence of non-barrier contraception use was 53% but was 21% in nulligravid women. Parous women were 8.5 times more likely to use non-barrier contraception than nulligravid women (OR 8.5, CI 2.6-27.3; p<0.01). No significant associations were found between, religion, union status, employment status, residence and non-barrier contraception use.

**Conclusion:** The study revealed high prevalence of non-barrier contraception among parous women, and low rates among nulligravid. Parity was found to be a determinant for non-barrier use. It demonstrated high rates of unplanned pregnancies and that many women used contraception for the first time, after being pregnant at least once. It emphasizes the need to increase family planning education, particularly to nulligravid women.



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9 NOTIFICATIONS-  
All clinical  
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