

# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Weekly Spotlight

### Adolescent Mental Health



Adolescence is a unique and formative time. Physical, emotional and social changes, including exposure to poverty, abuse, or violence, can make adolescents vulnerable to mental health problems. Protecting adolescents from adversity, promoting socio-emotional learning and psychological well-being, and ensuring access to mental health care are critical for their health and well-being

during adolescence and adulthood. Adolescents with mental health conditions are particularly vulnerable to social exclusion, discrimination, stigma (affecting readiness to seek help), educational difficulties, risk-taking behaviours, physical ill-health and human rights violations.

### Mental health determinants

Adolescence is a crucial period for developing social and emotional habits important for mental well-being. These include adopting healthy sleep patterns; exercising regularly; developing coping, problem-solving, and interpersonal skills; and learning to manage emotions. Protective and supportive environments in the family, at school and in the wider community are important.

Multiple factors affect mental health. The more risk factors adolescents are exposed to, the greater the potential impact on their mental health. Factors that can contribute to stress during adolescence include exposure to adversity, pressure to conform with peers and exploration of identity. Media influence and gender norms can exacerbate the disparity between an adolescent's lived reality and their perceptions or aspirations for the future. Other important determinants include the quality of their home life and relationships with peers. Violence (especially sexual violence and bullying), harsh parenting and severe and socioeconomic problems are recognized risks to mental health.

Some adolescents are at greater risk of mental health conditions due to their living conditions, stigma, discrimination or exclusion, or lack of access to quality support and services. These include adolescents living in humanitarian and fragile settings; adolescents with chronic illness, autism spectrum disorder, an intellectual disability or other neurological condition; pregnant adolescents, adolescent parents, or those in early or forced marriages; orphans; and adolescents from minority ethnic or sexual backgrounds or other discriminated groups.

<https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>

## EPI WEEK 4



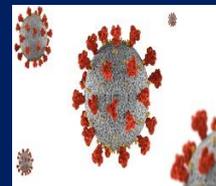
- Syndromic Surveillance  
- Accidents  
- Violence

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 - 1 to 4 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												
1	On Time	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
2	On Time	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
3	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
4	On Time	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time

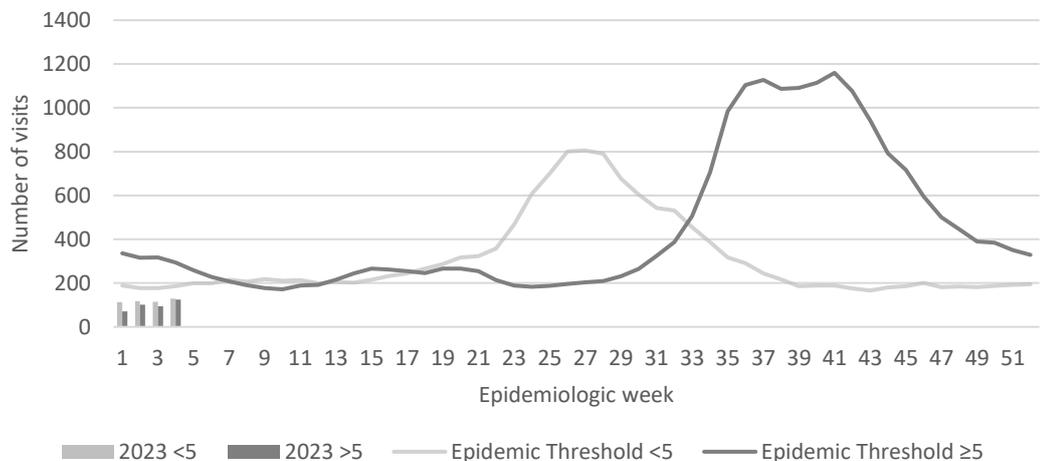
REPORTS FOR SYNDROMIC SURVEILLANCE

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



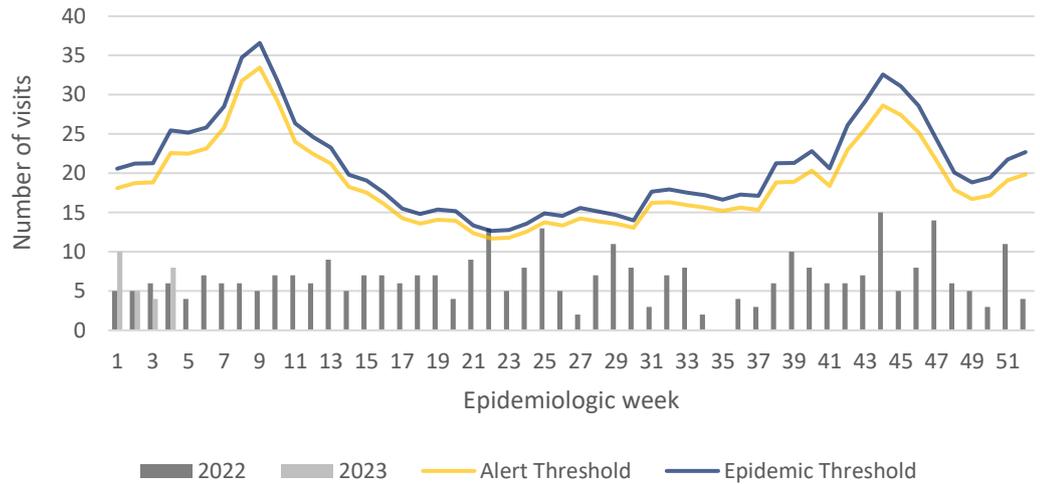
SENTINEL REPORT- 78 sites. Automatic reporting

**FEVER AND NEUROLOGICAL**

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

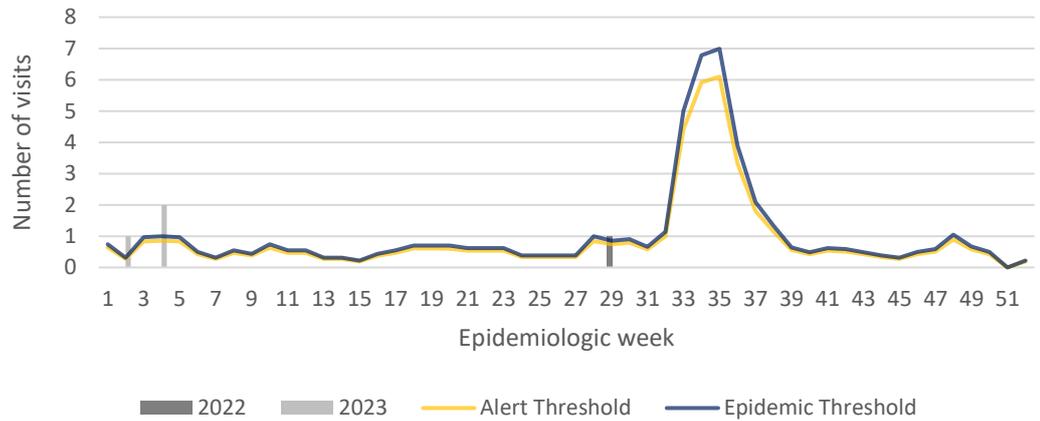


**FEVER AND HAEMORRHAGIC**

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**



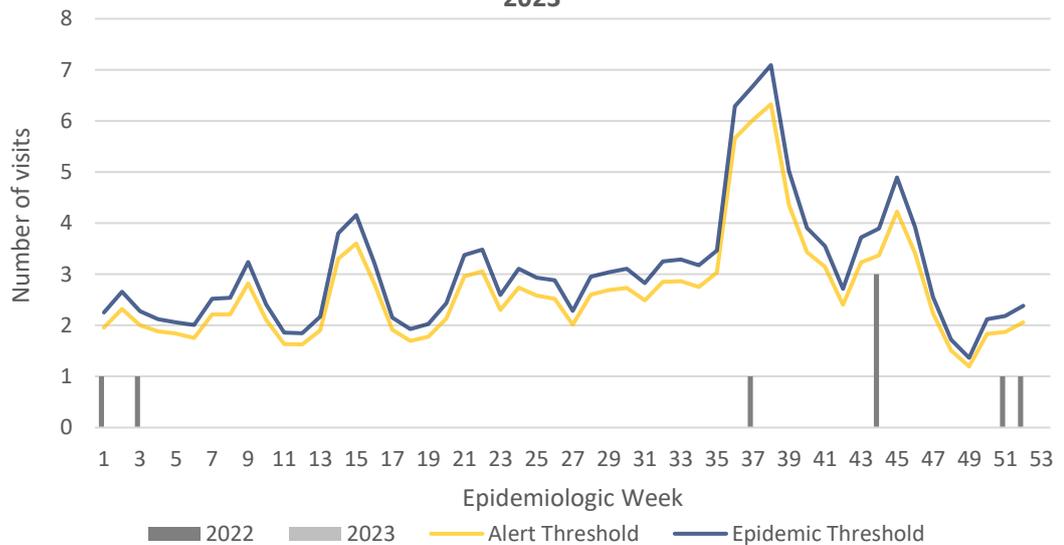
**FEVER AND JAUNDICE**

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

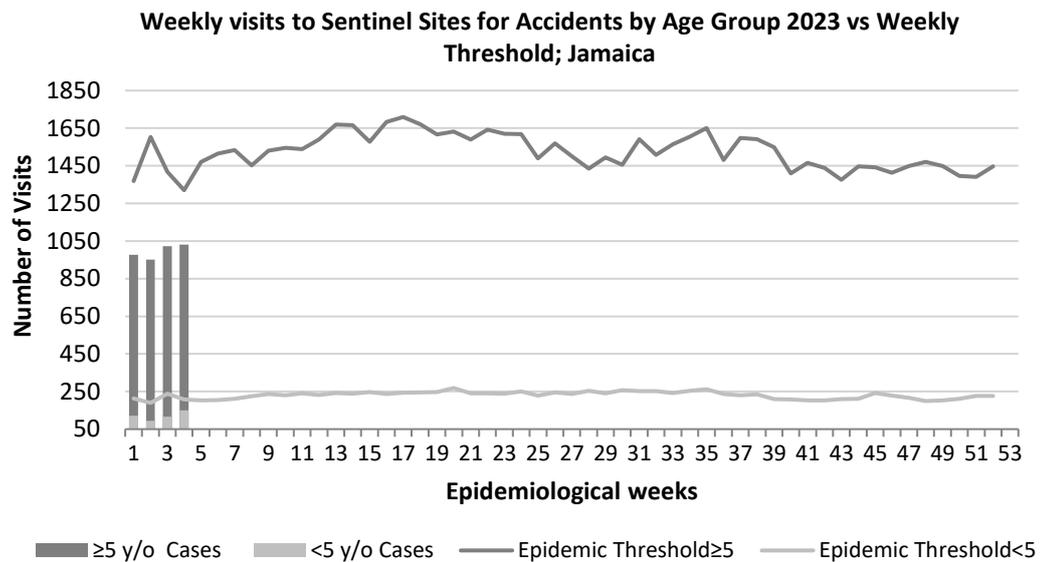


**SENTINEL REPORT-** 78 sites. Automatic reporting



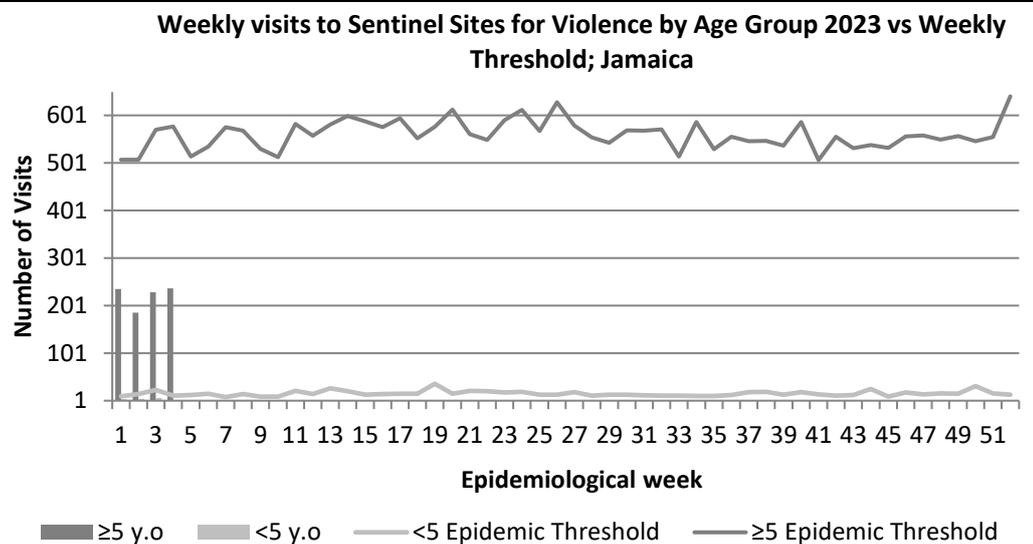
**ACCIDENTS**

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



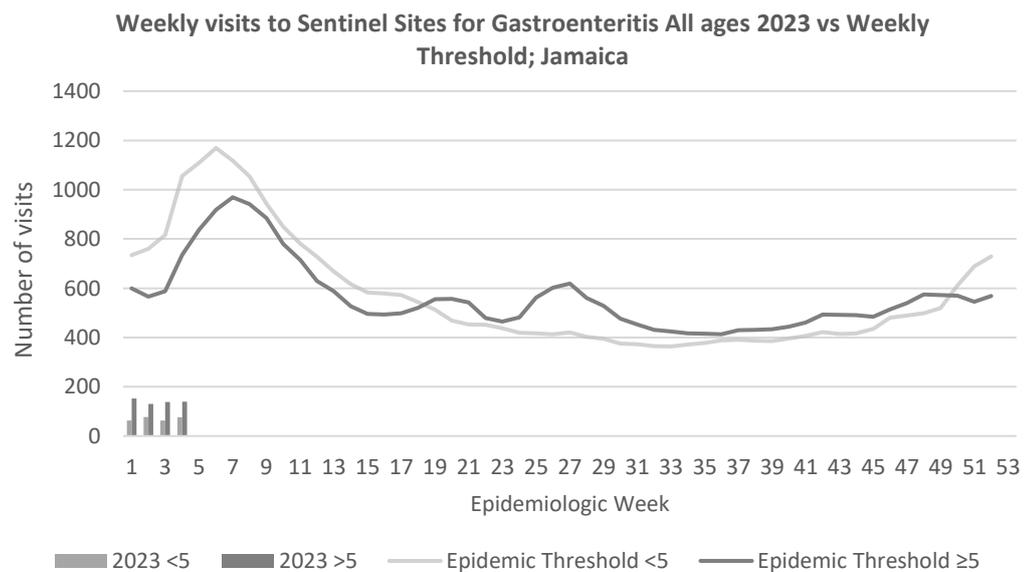
**VIOLENCE**

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	
	CLASS 1 EVENTS	Confirmed YTD <sup>α</sup>			
		CURRENT YEAR 2023	PREVIOUS YEAR 2022		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	19 <sup>β</sup>	22 <sup>β</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.	
	Cholera	0	0		
	Dengue Hemorrhagic Fever <sup>γ</sup>	See Dengue page below	See Dengue page below		
	COVID-19 (SARS-CoV-2)	759	27841		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	0	0		
	Hepatitis C	0	0		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis (Clinically confirmed)	2	0		
	Monkeypox	0	N/A		
EXOTIC/ UNUSUAL	Plague	0	0	<sup>ε</sup> CHIKV IgM positive cases <sup>θ</sup> Zika PCR positive cases <sup>β</sup> Updates made to prior weeks in 2020.  <sup>α</sup> 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 <sup>δ</sup>	0	6		
	Ophthalmia Neonatorum	9	8		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	0	2		
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 up for all Class One Events



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



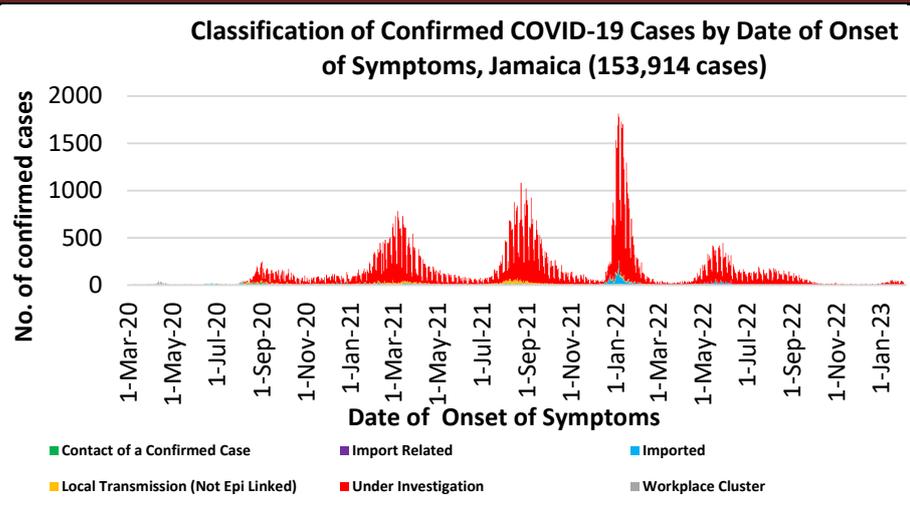
**SENTINEL REPORT-** 78 sites. Automatic reporting

# COVID-19 Surveillance Update

March 10, 2020 – EW 4, 2023

CASES	EW 4	Total
Confirmed	236	153914
Females	143	88810
Males	93	65101
Age Range	4 days old to 95 years	1 day to 108 years

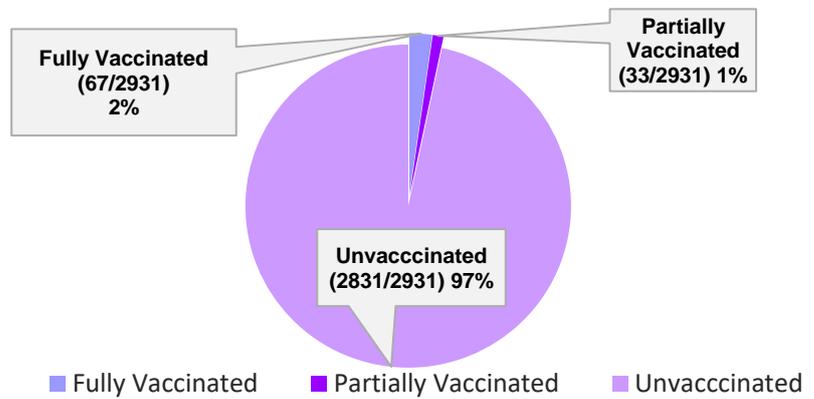
\* 3 positive cases had no gender specification  
\* PCR or Antigen tests are used to confirm cases



## COVID-19 Outcomes

Outcomes	EW 4	Total
ACTIVE *past 2 weeks*		490
DIED – COVID Related	2	3490
Died - NON COVID	0	299
Died - Under Investigation	0	347
Recovered and discharged	76	102342
Repatriated	0	93
Total		153914

### 2931 COVID-19 Related Deaths since March 1, 2021 – YTD Vaccination Status among COVID-19 Deaths

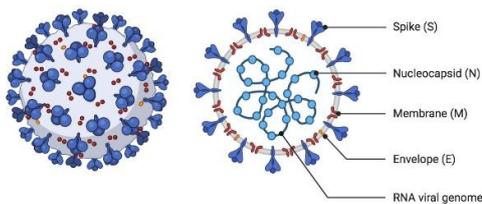


\*Vaccination programme March 2021 – YTD

## COVID-19 Parish Distribution and Global Statistics

### COVID-19 Virus Structure

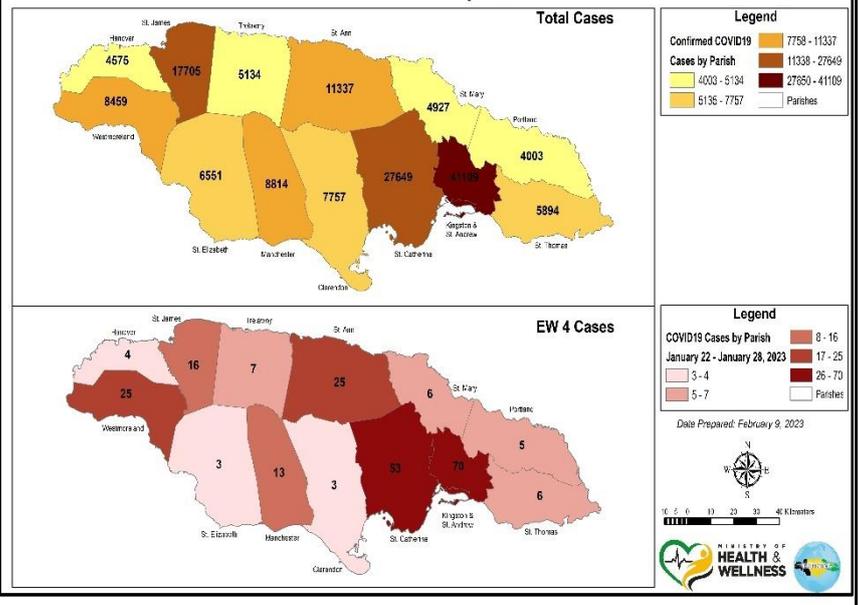
#### SARS-CoV-2



### COVID-19 WHO Global Statistics EW1-EW4

Epi Week	Confirmed Cases	Deaths
1	2,640,014	12,537
2	1,899,573	12,937
3	1,538,715	13,444
4	462,462	2,118
<b>Total (4weeks)</b>	<b>6,540,764</b>	<b>41,036</b>

### 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

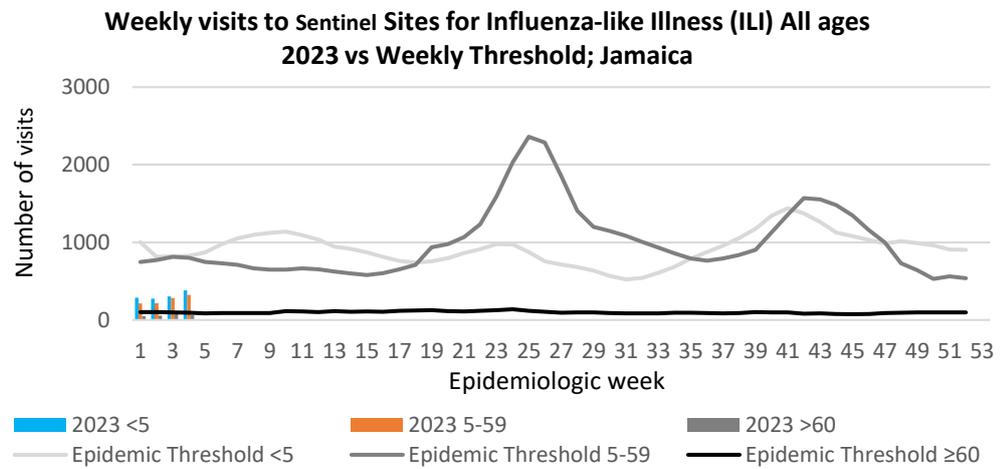


# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

## EW 4

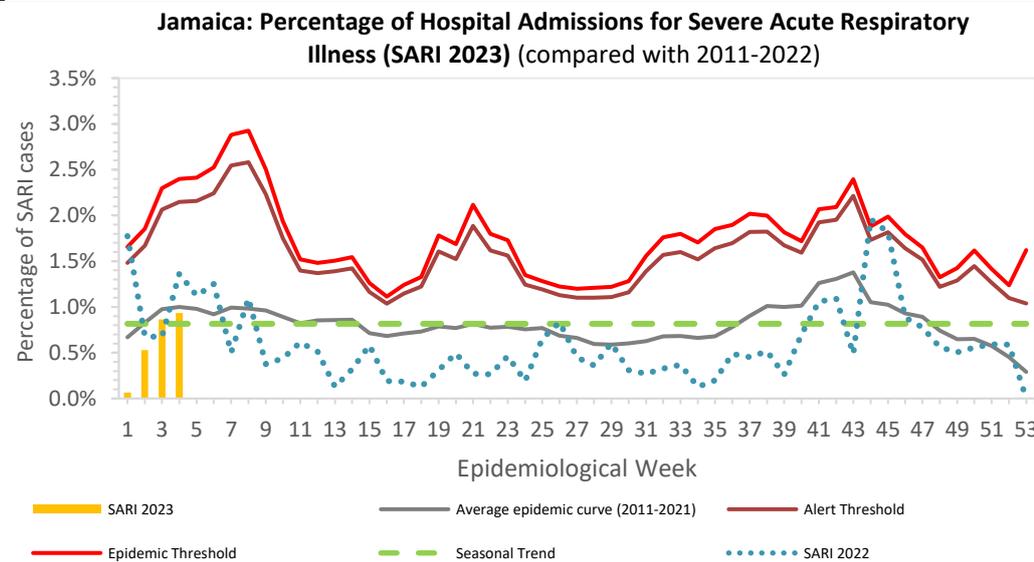
January 22– January 28, 2023 Epidemiological Week 4

	EW 4	YTD
SARI cases	16	40
Total Influenza positive Samples	1	7
Influenza A	0	7
H3N2	0	1
H1N1pdm09	1	6
Not subtyped	0	0
Influenza B	0	0
Parainfluenza	0	1



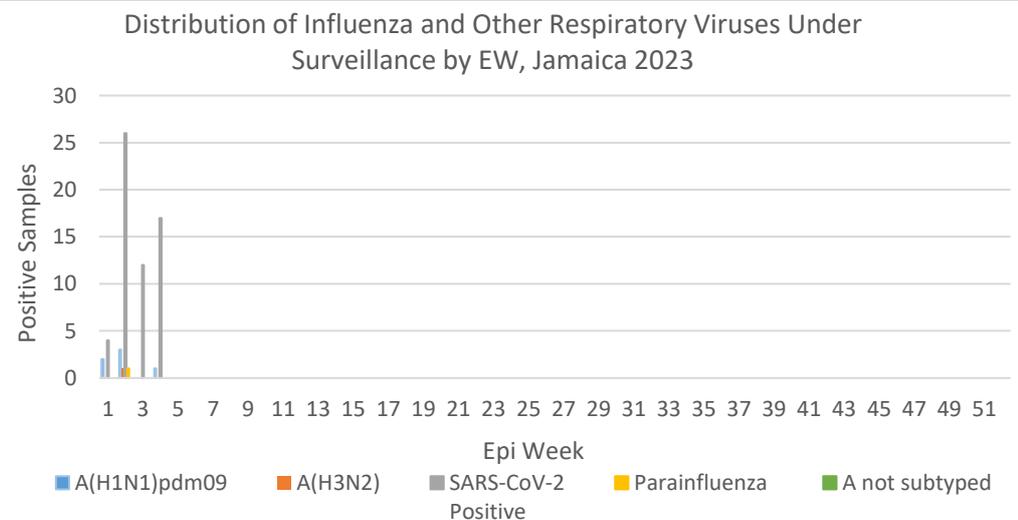
### Epi Week Summary

During EW4 sixteen(16) SARI admissions were reported.



### Caribbean Update EW 4

**Caribbean:** Influenza activity increased in the subregion with A(H1N1)pdm09 predominance and B/Victoria co-circulation. In addition, influenza activity was elevated in Belize, French Guiana, and Haiti. The SARS-CoV-2 activity was moderate and increasing, while RSV activity was at baseline levels.



**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

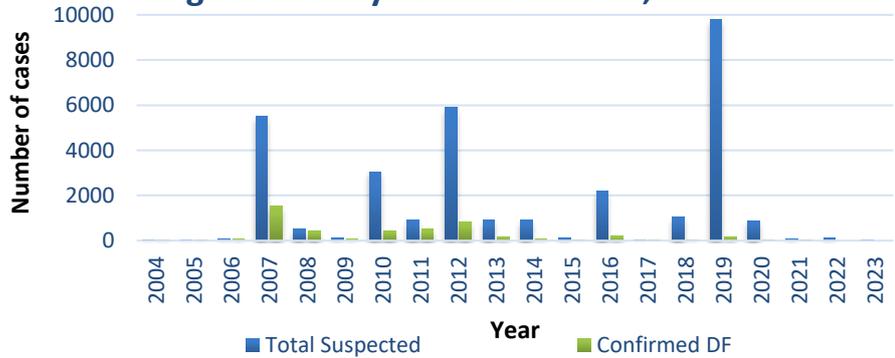
# Dengue Bulletin

January 22- January 28, 2023 Epidemiological Week 4

Epidemiological Week 4



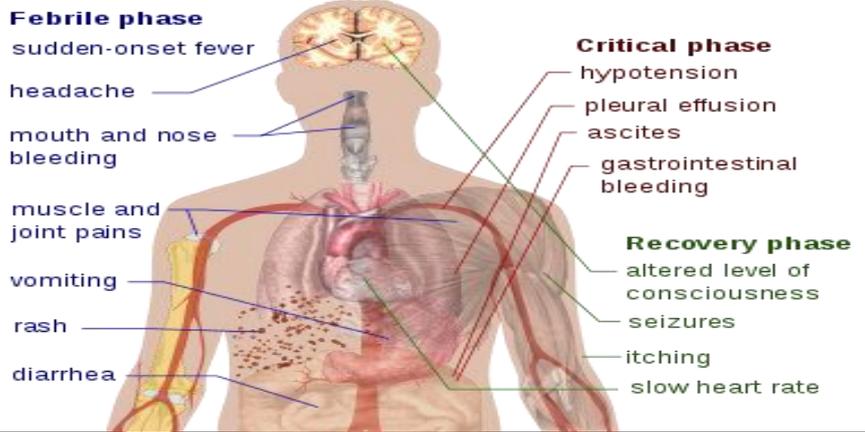
**Dengue Cases by Year: 2004-2023, Jamaica**



**Reported suspected and confirmed dengue with symptom onset in week 4 of 2023**

	2023*	
	EW 4	YTD
 Total Suspected Dengue Cases	2	5
Lab Confirmed Dengue cases	0	0
<b>CONFIRMED</b> Dengue Related Deaths	0	0

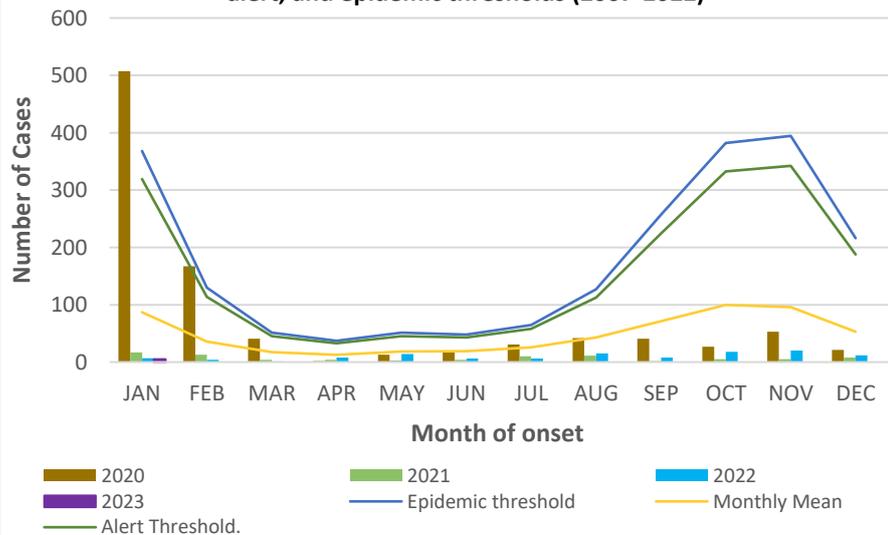
**Symptoms of Dengue fever**



Points to note:

- \*Figure as at Jan 28, 2023
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

**Suspected dengue cases for 2020 - 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

### Risk Factors Associated with Glaucoma and Cataract among Patients Attending an Eye Clinic in Jamaica

Deborah Dietrich<sup>1</sup>, Kenneth James<sup>2</sup>, Donald Cameron-Swabey<sup>3</sup>, Paul Singh<sup>1</sup>, Marsha-Lyn McKoy<sup>1</sup>

<sup>1</sup>Department of Basic Medical Sciences, Pharmacology Section, The University of the West Indies, Mona, Kingston 7, Jamaica.

<sup>2</sup>Department of Community Health and Psychiatry, The University of the West Indies, Mona, Kingston 7, Jamaica.

<sup>3</sup>Department of Ophthalmology, University Hospital of the West Indies, Mona, Kingston 7, Jamaica.

#### Objectives:

To determine association between demographic, medical and social variables and glaucoma and cataract in a Jamaican patient population.

#### Methods:

A descriptive cross-sectional study was done at the University Hospital of the West Indies Eye Clinic, where data was extracted from 370 randomly selected files of patients who attended the clinic between January and March 2017. Data extracted included demographic data and patient medical history. Ethical approval was obtained from the UHWI/UWI/FMS Ethics Committee. Statistical analyses were performed using SPSS Statistics software. To determine association between variables, Chi-squared tests and Spearman's correlation analyses were done,  $p < 0.05$  indicating statistical significance.

#### Results:

Glaucoma (45.4%) and cataract (33.8%) were the most frequently reported chronic ocular diseases, and the cases increased with age ( $p < 0.001$ ). More females than males presented with glaucoma and cataract. Statistically significant associations were found between glaucoma and a patient history of cataract or pterygium ( $p < 0.007$ ); while cataract was significantly associated with a patient history of physical trauma or retinopathy ( $p < 0.047$ ). In relation to coexisting non-ocular conditions, cataract was significantly associated with hypertension, diabetes mellitus and hypercholesterolemia ( $p < 0.001$ ); while glaucoma was associated with hypertension ( $p < 0.001$ ). Family histories of hypertension, sickle cell disease, glaucoma or blindness were significantly associated with the presence of glaucoma ( $p < 0.05$ ), but not with cataract ( $p > 0.1$ ). Glaucoma and cataract were not significantly associated with alcohol drinking or smoking.

**Conclusion:** A significant association was found between presence of glaucoma and presence of cataract. Hypertension was significantly associated with glaucoma and cataract; higher frequencies being associated with glaucoma and cataract.



The Ministry of Health and Wellness  
24-26 Grenada Crescent  
Kingston 5, Jamaica  
Tele: (876) 633-7924  
Email: surveillance@moh.gov.jm

9 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