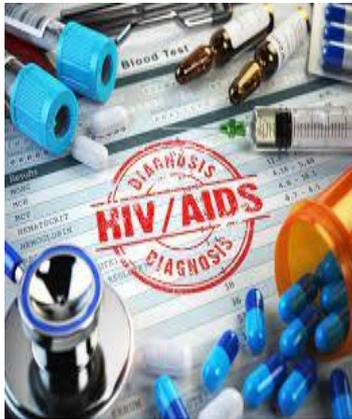


# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Weekly Spotlight

### HIV and AIDS



Human immunodeficiency virus (HIV) is an infection that attacks the body’s immune system. Acquired immunodeficiency syndrome (AIDS) is the most advanced stage of the disease. HIV targets the body’s white blood cells, weakening the immune system. This makes it easier to get sick with diseases like tuberculosis, infections and some cancers.

HIV can be diagnosed through rapid diagnostic tests that provide same-day results. This greatly facilitates early diagnosis and linkage with treatment and care. People can also use HIV self-tests to test themselves. However, no single test can provide a full HIV positive diagnosis; confirmatory testing is required, conducted by a qualified and trained health or community worker at a community centre or clinic. HIV infection can be detected with great accuracy using WHO prequalified tests within a nationally approved testing strategy and algorithm.

Most widely used HIV diagnostic tests detect antibodies produced by the person as part of their immune response to fight HIV. In most cases, people develop antibodies to HIV within 28 days of infection. During this time, people experience the so-called window period when they may have no signs of HIV infection but may transmit HIV to others. Following a positive diagnosis, people should be retested before they are enrolled in treatment and care to rule out any potential testing or reporting error. While testing for adolescents and adults has been made simple and efficient, this is not the case for babies born to HIV-positive mothers. For children less than 18 months of age, rapid antibody testing is not sufficient to identify HIV infection – virological testing must be provided as early as birth or at 6 weeks of age. New technologies are now available to perform this test at the point of care and enable same-day results, which will accelerate appropriate linkage with treatment and care.

<https://www.who.int/news-room/fact-sheets/detail/hiv-aids>

## EPI WEEK 18



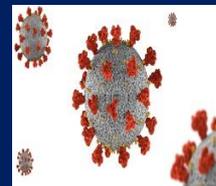
- Syndromic Surveillance  
- Accidents  
- Violence

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Class 1 Notifiable Events

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COVID-19

Page 6



Influenza

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Dengue Fever

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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 – 15 to 18 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												
15	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
16	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
17	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
18	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

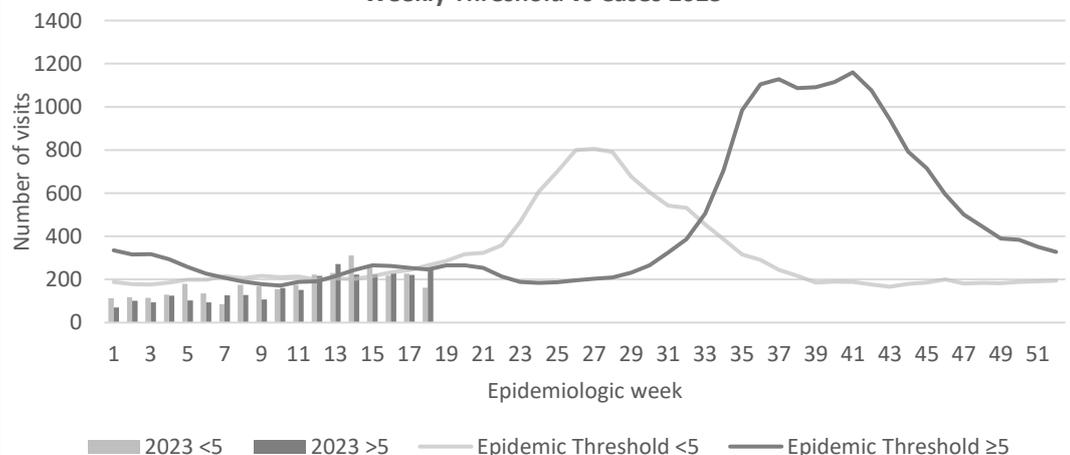
REPORTS FOR SYNDROMIC SURVEILLANCE

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

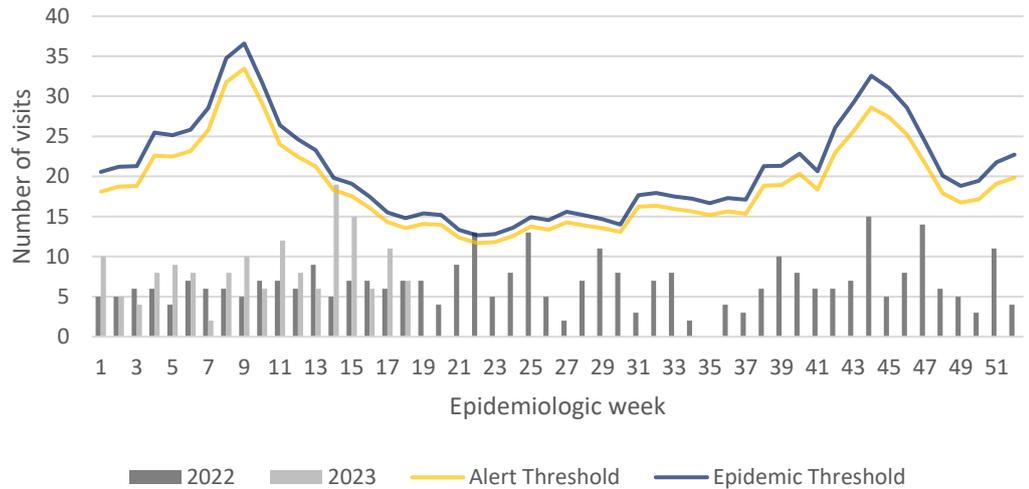


**FEVER AND NEUROLOGICAL**

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

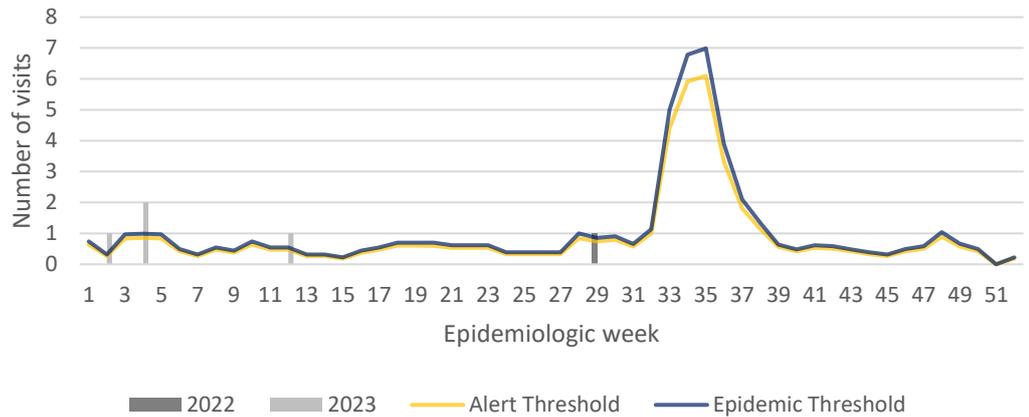


**FEVER AND HAEMORRHAGIC**

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**



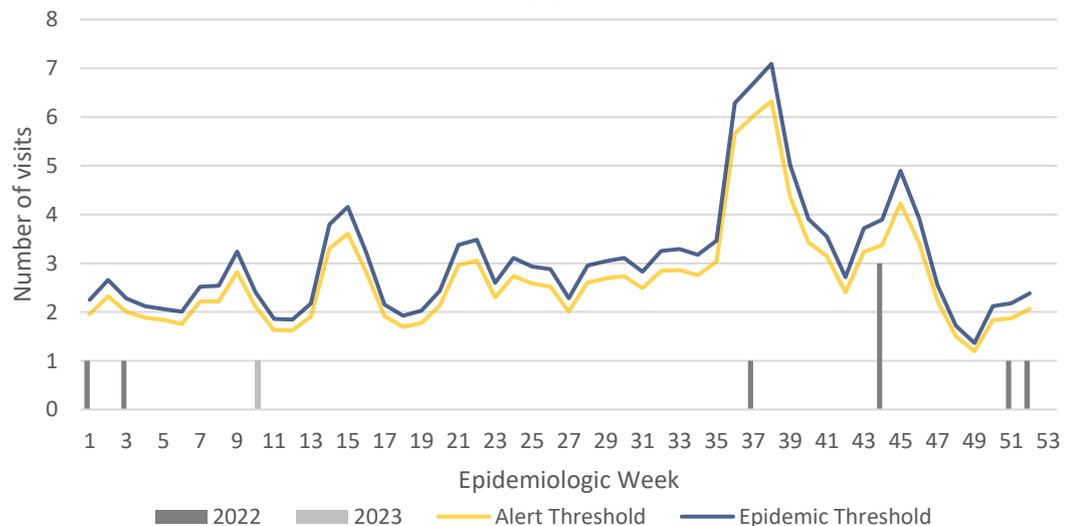
**FEVER AND JAUNDICE**

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

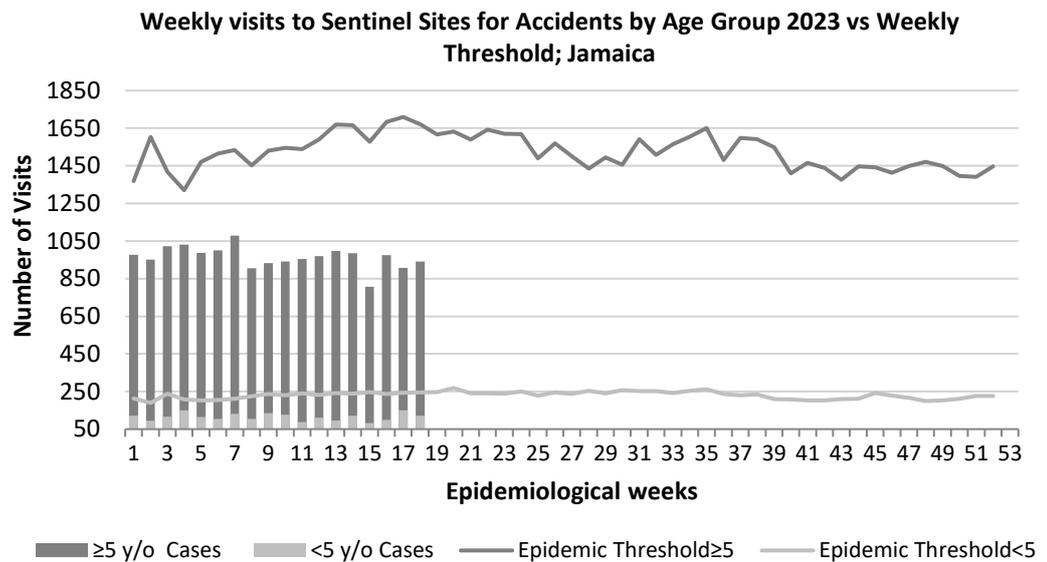


**SENTINEL REPORT-** 78 sites. Automatic reporting



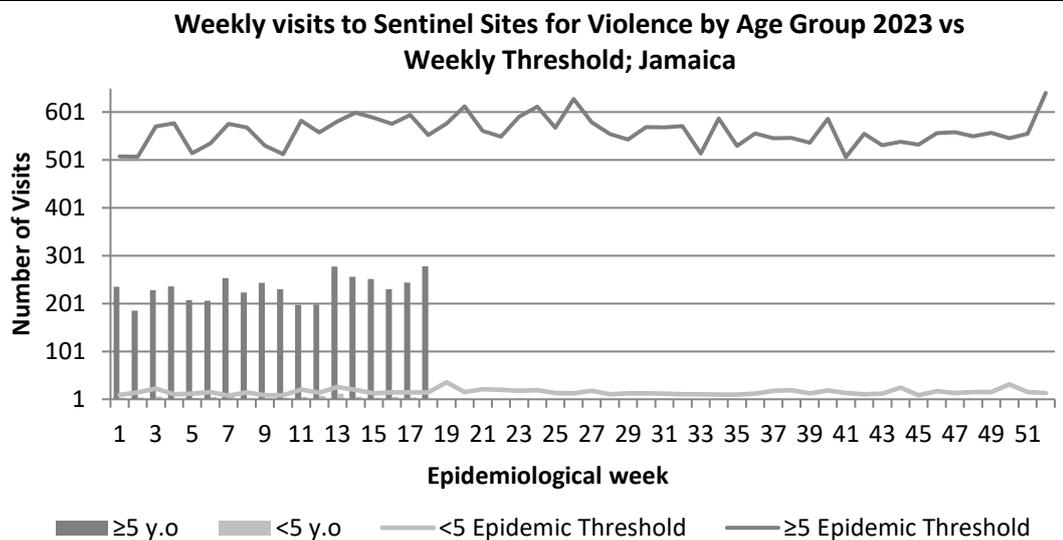
**ACCIDENTS**

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



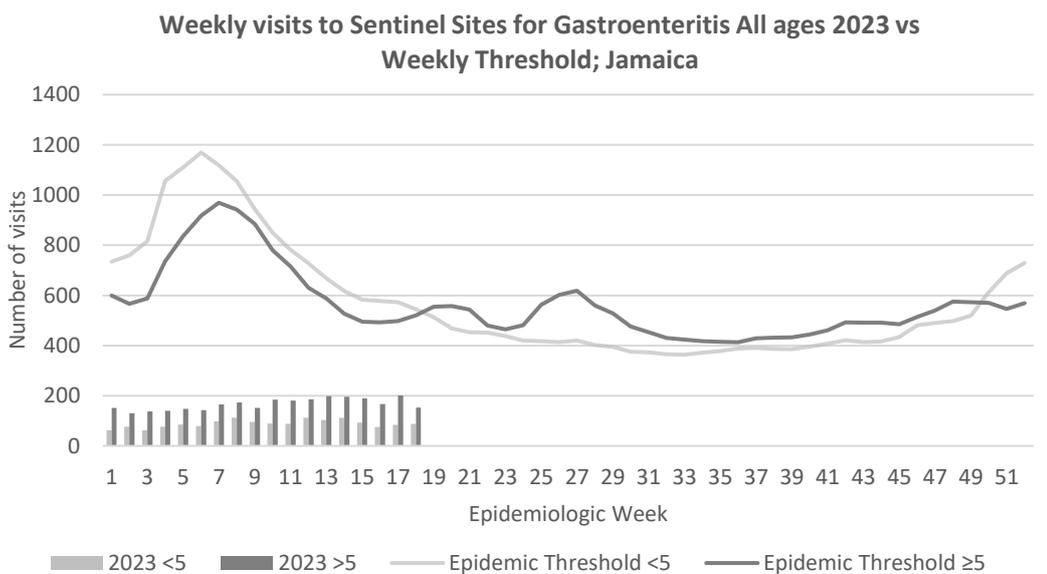
**VIOLENCE**

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	110 <sup>β</sup>	87 <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)	1991	34391		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	16	4		
	Hepatitis C	4	2		
	HIV/AIDS	N/A	N/A		
	Malaria (Imported)	1	0		
	Meningitis (Clinically confirmed)	12	9		
	Monkeypox	3	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.	
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	<sup>α</sup> Figures are cumulative totals for all epidemiological weeks year to date.	
	Congenital Rubella Syndrome	0	0		
	Congenital Syphilis	0	0		
	Fever and Rash	Measles	0		0
		Rubella	0		0
	Maternal Deaths <sup>δ</sup>	17	25		
	Ophthalmia Neonatorum	41	42		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	2		
	Tuberculosis	10	12		
	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



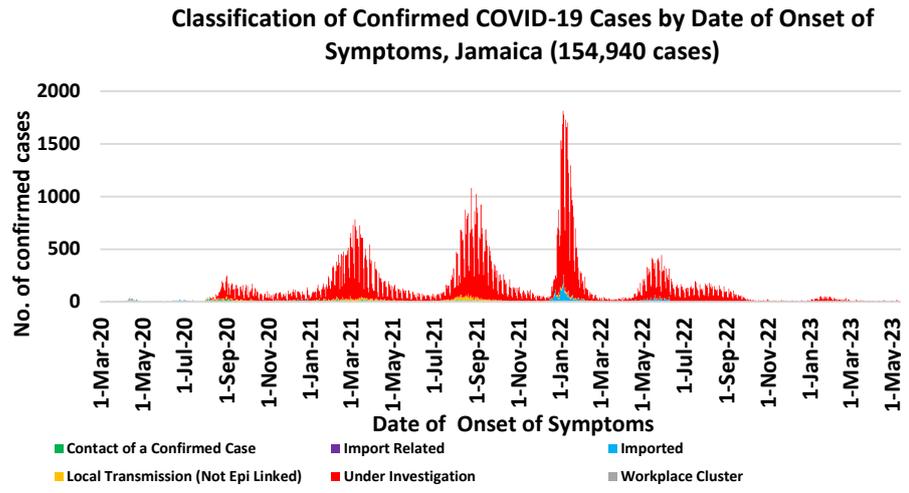
**SENTINEL REPORT-** 78 sites. Automatic reporting

# COVID-19 Surveillance Update

March 10, 2020 – EW 18, 2023

CASES	EW 18	Total
Confirmed	50	154940
Females	24	89373
Males	26	65564
Age Range	1 year to 99 years	1 day to 108 years

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



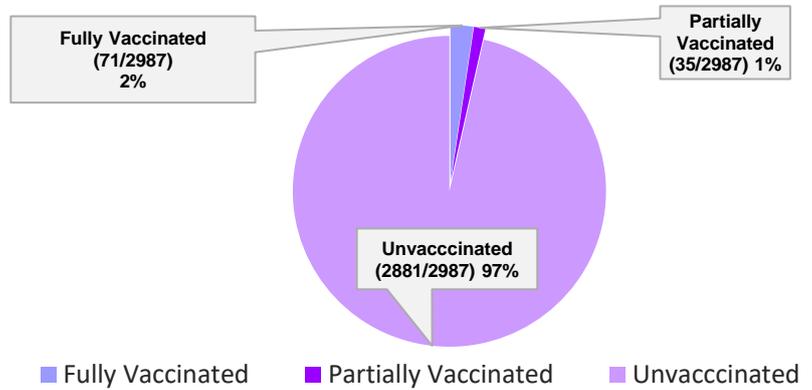
## COVID-19 Outcomes

Outcomes	EW 18	Total
ACTIVE *past 2 weeks*		97
DIED – COVID Related	0	3545
Died - NON COVID	0	300
Died - Under Investigation	0	345
Recovered and discharged	1	102923
Repatriated	0	93
Total		154940

\*Vaccination programme March 2021 – YTD

## 2987 COVID-19 Related Deaths since March 1, 2021 – YTD

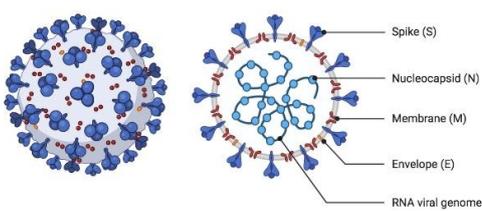
### Vaccination Status among COVID-19 Deaths



## COVID-19 Parish Distribution and Global Statistics

### COVID-19 Virus Structure

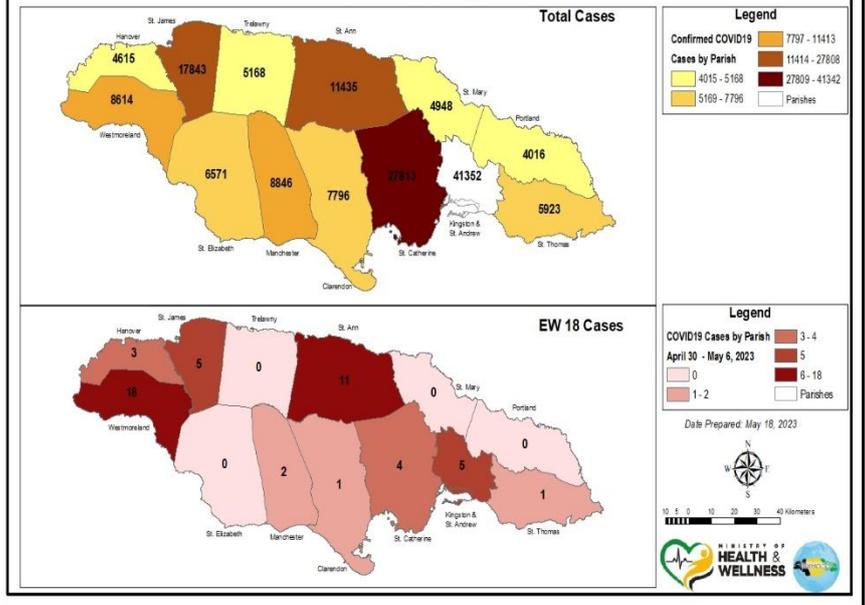
#### SARS-CoV-2



### COVID-19 WHO Global Statistics EW15-EW18

Epi Week	Confirmed Cases	Deaths
15	742,746	4720
16	689,810	4215
17	614,072	3905
18	546,435	4266
Total (4weeks)	2,593,063	17,106

### 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

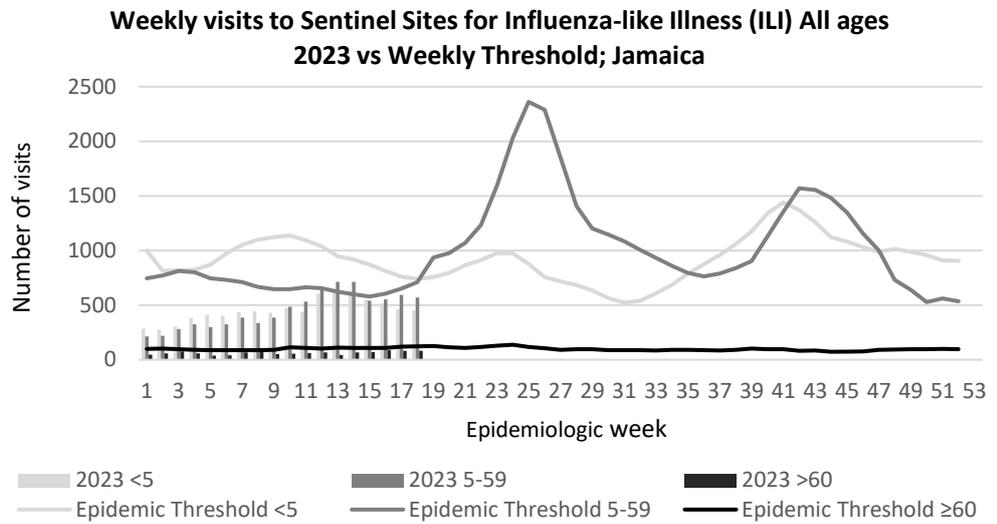


# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

*EW 18*

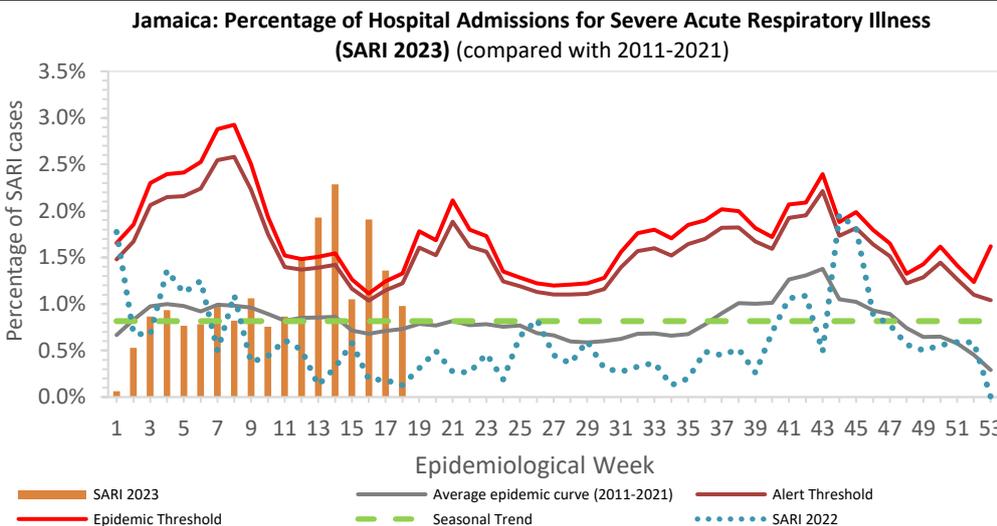
April 30 – May 6, 2023 Epidemiological Week 18

	<i>EW 18</i>	<i>YTD</i>
SARI cases	16	313
Total Influenza positive Samples	4	77
<b>Influenza A</b>	<b>0</b>	<b>13</b>
H3N2	0	1
H1N1pdm09	0	11
Not subtyped	0	1
<b>Influenza B</b>	<b>4</b>	<b>64</b>
B lineage not determined	0	2
B Victoria	4	62
<b>Parainfluenza</b>	<b>0</b>	<b>1</b>
<b>Adenovirus</b>	<b>0</b>	<b>2</b>
<b>RSV</b>	<b>0</b>	<b>13</b>



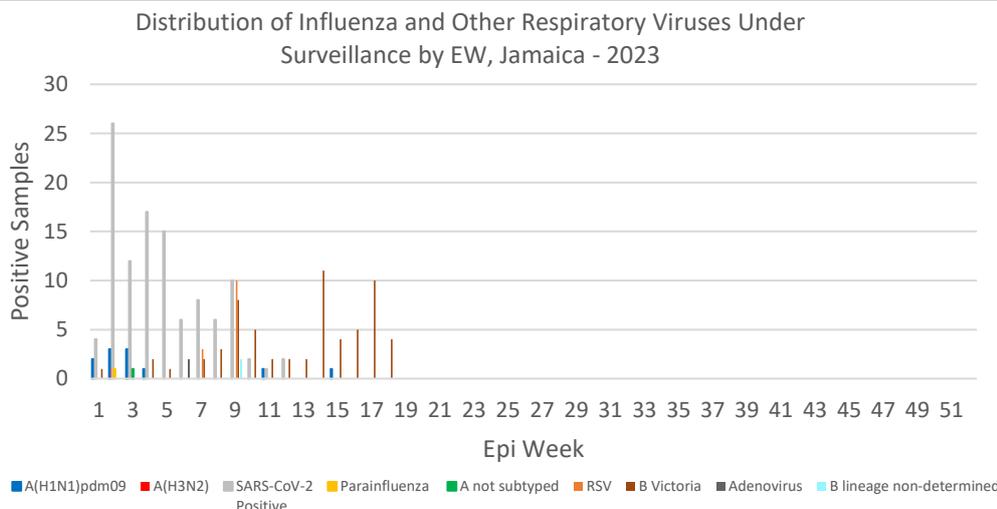
## Epi Week Summary

During EW 18, sixteen (16) SARI admissions were reported.



## Caribbean Update EW 18

**Caribbean:** An increase in influenza activity has been detected. Influenza B Victoria lineage has predominantly circulated. The countries where increases in activity have been detected are Belize and Jamaica. RSV and SARS-CoV-2 activity has remained low.



**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



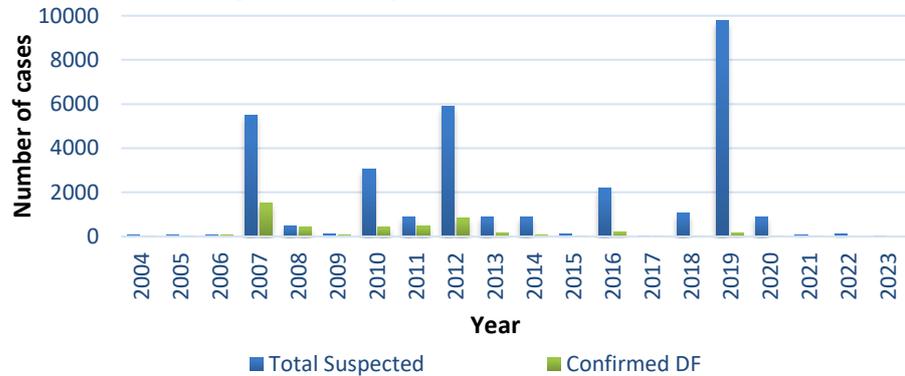
# Dengue Bulletin

April 30 – May 6, 2023 Epidemiological Week 18

Epidemiological Week 18



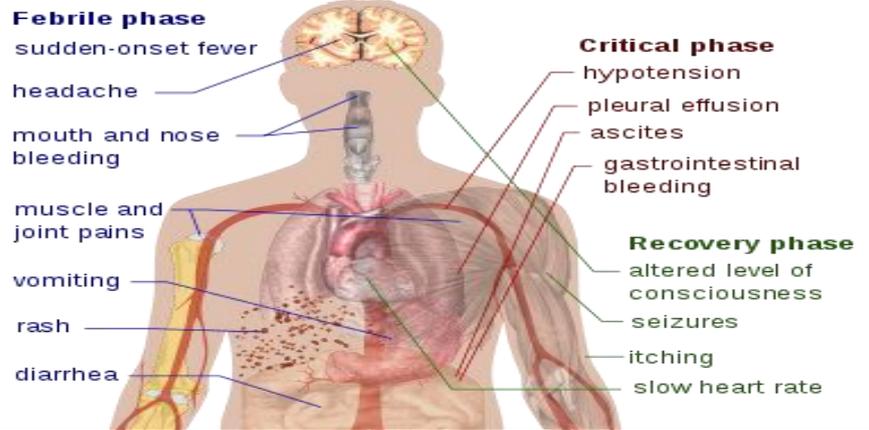
Dengue Cases by Year: 2004-2023, Jamaica



**Reported suspected and confirmed dengue with symptom onset in week 18 of 2023**

	2023*	
	EW 18	YTD
 Total Suspected Dengue Cases	0	45
Lab Confirmed Dengue cases	0	0
<b>CONFIRMED</b> Dengue Related Deaths	0	0

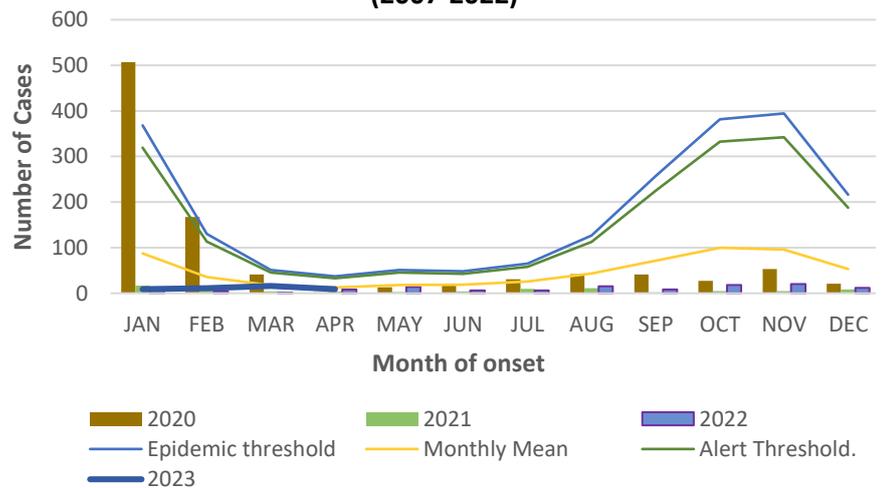
Symptoms of **Dengue fever**



Points to note:

- \*Figure as at May 6, 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 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  
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SENTINEL  
REPORT- 78 sites.  
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