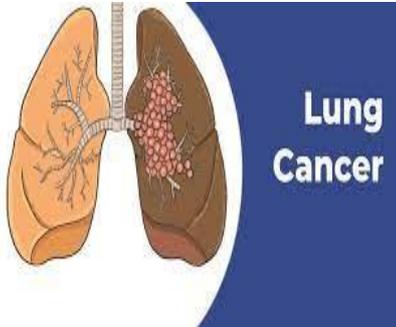# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Lung Cancer

Lung cancer is a type of cancer that starts when abnormal cells grow in an uncontrolled way in the lungs. It is a serious health issue that can cause severe harm and death.It is important to seek medical care early to avoid serious health effects. Treatments depend on the person's medical history and the stage of the disease.The most common types of lung cancer are non-small cell carcinoma (NSCLC) and small cell carcinoma (SCLC). NSCLC is more common and grows slowly, while SCLC is less common but often grows quickly.

Smoking tobacco (including cigarettes, cigars, and pipes) is the primary risk factor for lung cancer but it can also affect non-smokers. Other risk factors include exposure to secondhand smoke, occupational hazards (such as asbestos, radon and certain chemicals), air pollution, hereditary cancer syndromes, and previous chronic lung diseases.

Symptoms

Lung cancer can cause several symptoms that may indicate a problem in the lungs. Early symptoms may be mild or dismissed as common respiratory issues, leading to delayed diagnosis.

The most common symptoms include:

- cough that does not go away
- chest pain
- shortness of breath
- coughing up blood (haemoptysis)
- fatigue
- weight loss with no known cause
- lung infections that keep coming back.

Treatments for lung cancer are based on the type of cancer, how much it has spread, and the person's medical history. Early detection of lung cancer can lead to better treatments and outcomes.Treatments include:surgery,radiotherapy (radiation), chemotherapy,targeted therapy and immunotherapy.

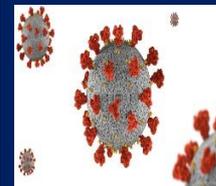https://www.who.int/news-room/fact-sheets/detail/lung-cancer

EPI WEEK 31

- Syndromic Surveillance
- Accidents
- Violence
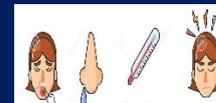
Pages 2-4

Class 1 Notifiable Events

Page 5

COVID-19

Page 6

Influenza

Page 7

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 – 28 to 31 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													
28	Late (T)	On Time	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
29	Late (W)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time
30	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
31	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 $>38^0C$ /100.4^0F (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

Legend: 2023 <5 | 2023 >5 | Epidemic Threshold <5 | Epidemic Threshold ≥5
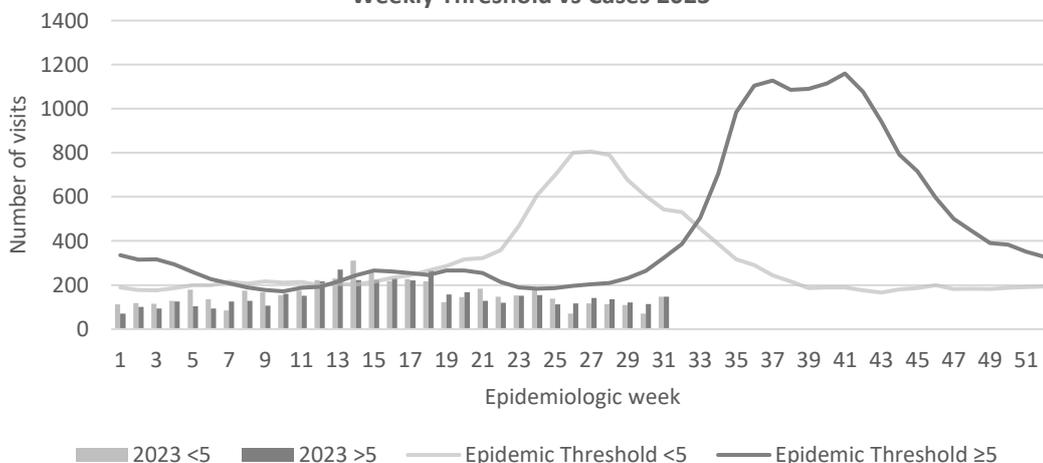
2 NOTIFICATIONS- All clinical sites

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^{0}C /100.4^{0}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
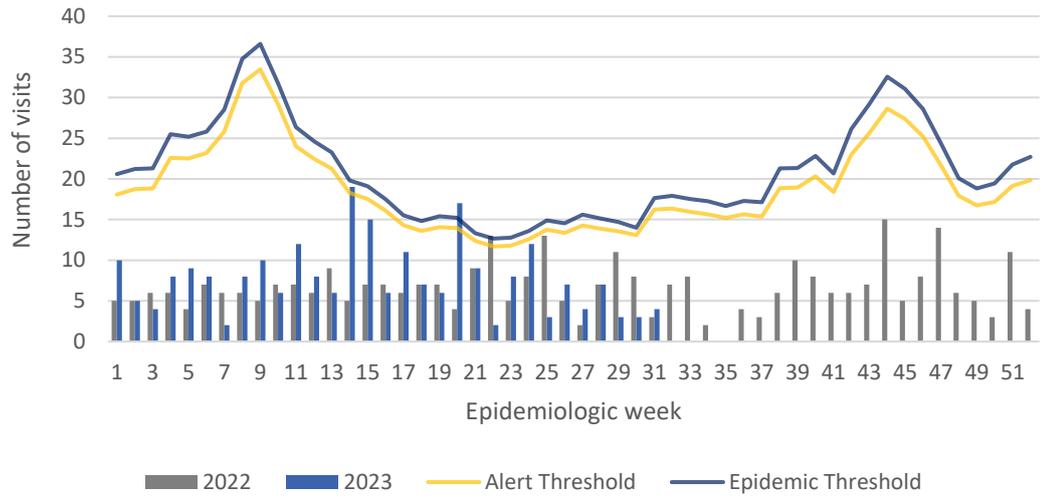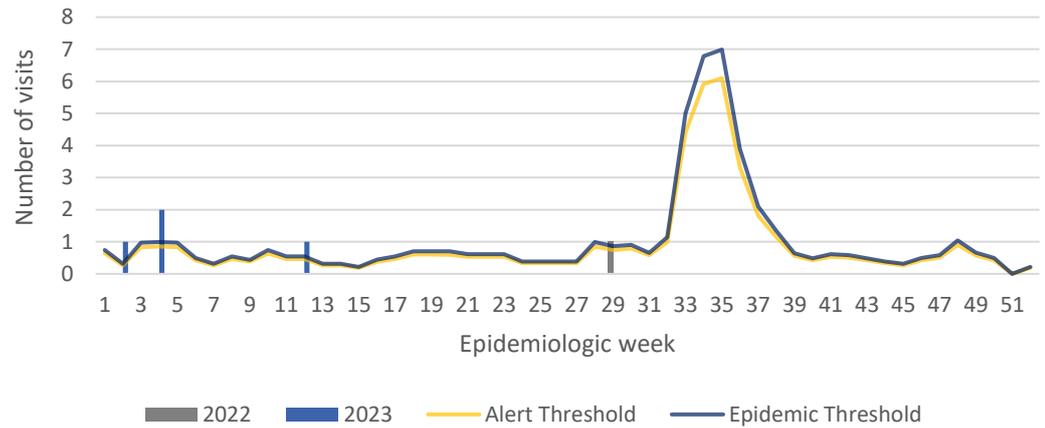

FEVER AND HAEMORRHAGIC

Temperature of >38^{0}C /100.4^{0}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^{0}C /100.4^{0}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
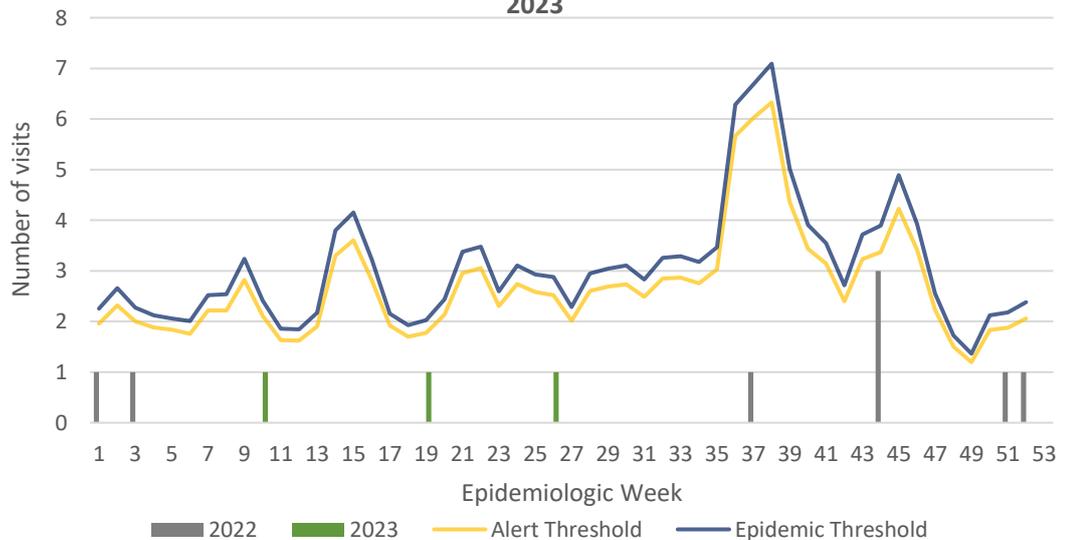
3 NOTIFICATIONS- All clinical sites

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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
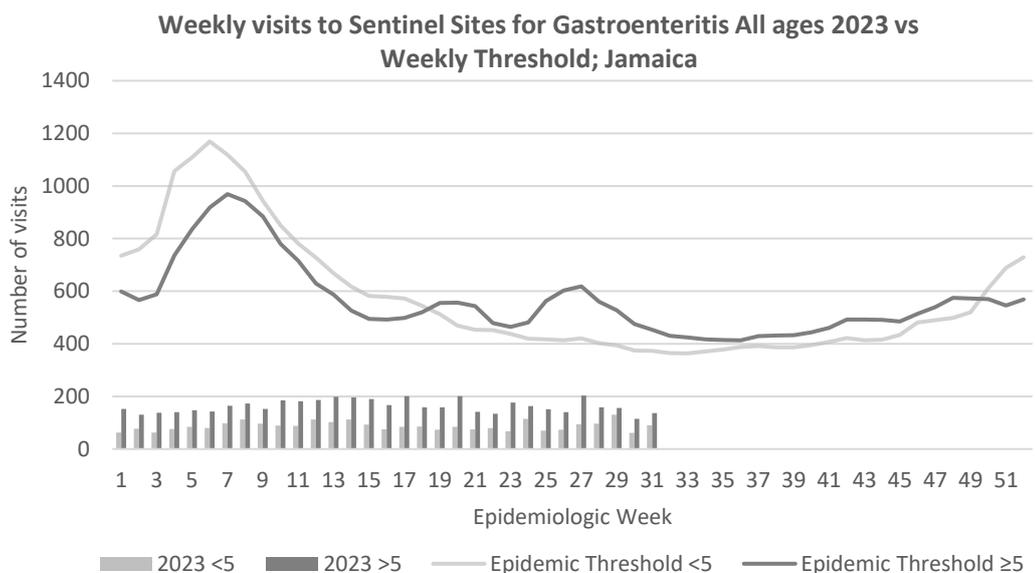
4 NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

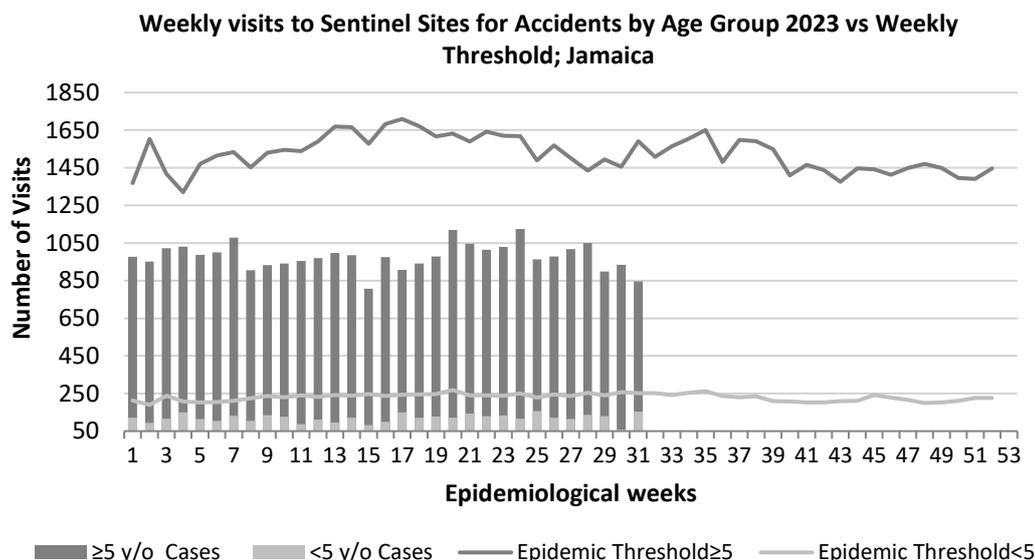HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

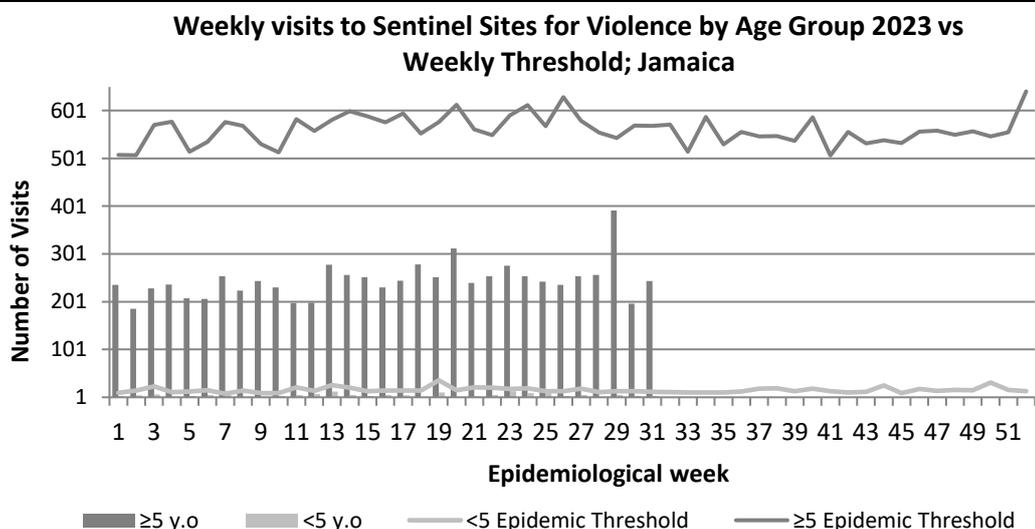SENTINEL REPORT- 78 sites. Automatic reporting

CLASS ONE NOTIFIABLE EVENTS   Comments

| | | Confirmed YTD$^{\alpha}$ | | 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	200$^{\beta}$	136$^{\beta}$	
	Cholera	0	0	
	Dengue Hemorrhagic Fever$^{\gamma}$	See Dengue page below	See Dengue page below	_____
	COVID-19 (SARS-CoV-2)	3221	50311	Pertussis-like syndrome and Tetanus are clinically confirmed classifications.
	Hansen's Disease (Leprosy)	0	0	
	Hepatitis B	39	8	_____
	Hepatitis C	20	2	$^{\gamma}$ Dengue Hemorrhagic Fever data include Dengue related deaths;
	HIV/AIDS	N/A	N/A	
	Malaria (Imported)	3	0	
	Meningitis (Clinically confirmed)	20	13	$^{\delta}$ Figures include all deaths associated with pregnancy reported for the period.
	Monkeypox	3	4	
EXOTIC/ UNUSUAL	Plague	0	0	$^{\varepsilon}$ CHIKV IgM positive cases
HIGH MORBIDITY/ MORTALITY	Meningococcal Meningitis	0	0	$^{\theta}$ Zika PCR positive cases
	Neonatal Tetanus	0	0	$^{\beta}$ Updates made to prior weeks in 2020.
	Typhoid Fever	0	0	
	Meningitis H/Flu	0	0	$^{\alpha}$ Figures are cumulative totals for all epidemiological weeks year to date.
SPECIAL PROGRAMMES	AFP/Polio	0	0	
	Congenital Rubella Syndrome	0	0	
	Congenital Syphilis	0	0	
	Fever and Rash — Measles	0	0	
	Fever and Rash — Rubella	0	0	
	Maternal Deaths$^{\delta}$	28	46	
	Ophthalmia Neonatorum	74	48	
	Pertussis-like syndrome	0	0	
	Rheumatic Fever	0	0	
	Tetanus	0	2	
	Tuberculosis	20	13	
	Yellow Fever	0	0	
	Chikungunya$^{\varepsilon}$	0	0	
	Zika Virus$^{\theta}$	0	0	NA- Not Available

5   NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

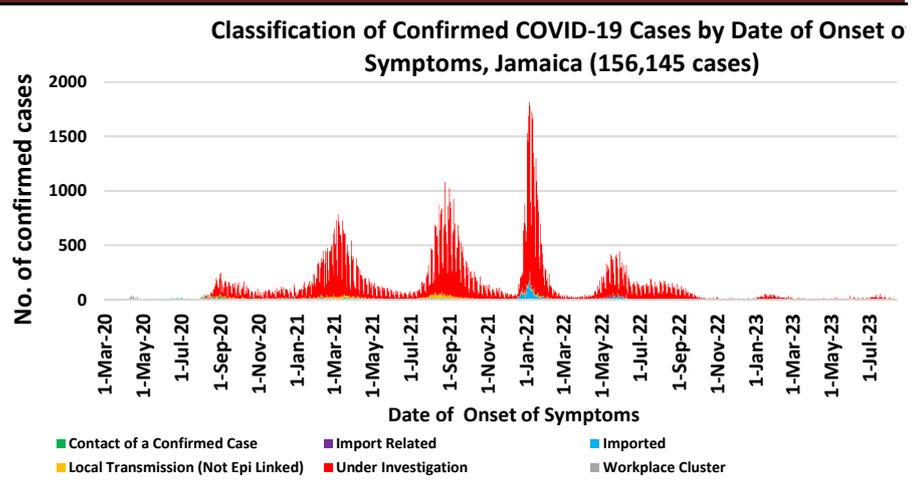HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

COVID-19 Surveillance Update
March 10, 2020 – EW 31, 2023

CASES	EW 31	Total
Confirmed	74	156145
Females	47	90014
Males	27	66128
Age Range	2 days old to 92 years	1 day to 108 years

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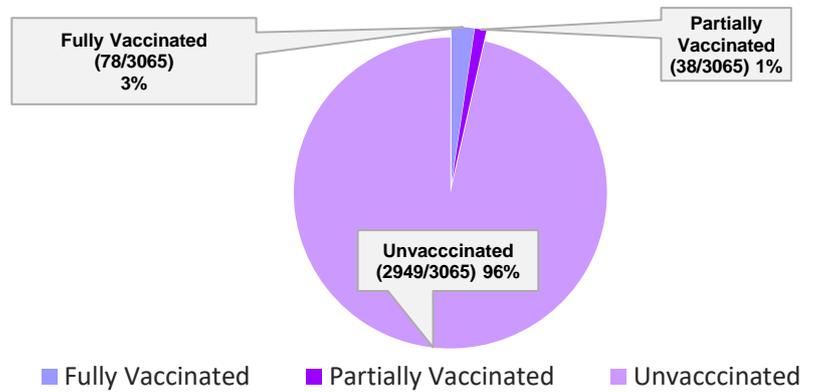* PCR or Antigen tests are used to confirm cases

Classification of Confirmed COVID-19 Cases by Date of Onset o Symptoms, Jamaica (156,145 cases)

Legend: Contact of a Confirmed Case; Import Related; Imported; Local Transmission (Not Epi Linked); Under Investigation; Workplace Cluster

COVID-19 Outcomes

Outcomes	EW 31	Total
ACTIVE *past 2 weeks*		212
DIED – COVID Related	1	3627
Died - NON COVID	0	320
Died - Under Investigation	0	288
Recovered and discharged	19	103149
Repatriated	0	93
Total		156145

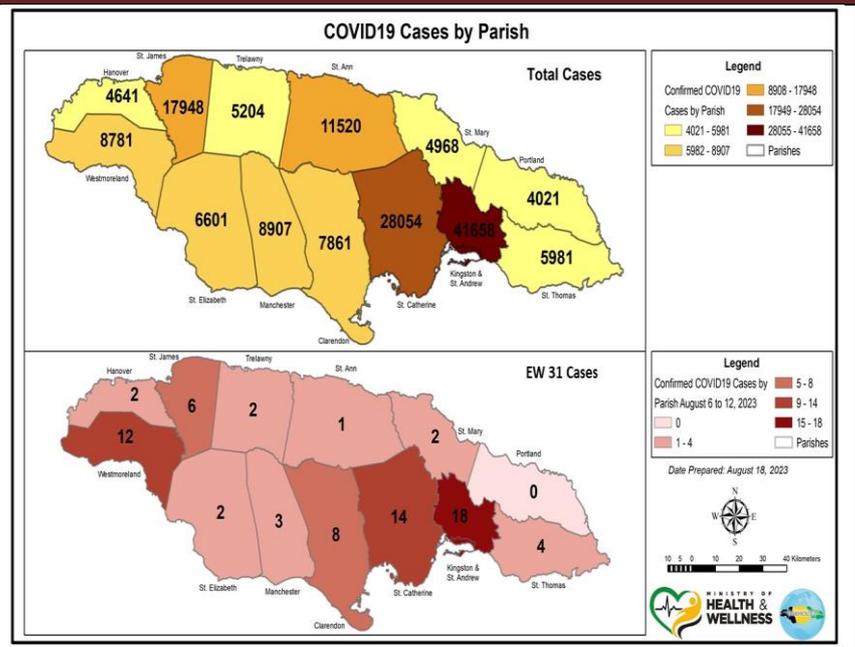*Vaccination programme March 2021 – YTD
* Total as at current Epi week

3065 COVID-19 Related Deaths since March 1, 2021 – YTD
Vaccination Status among COVID-19 Deaths

Fully Vaccinated (78/3065) 3%
Partially Vaccinated (38/3065) 1%
Unvacccinated (2949/3065) 96%

Legend: Fully Vaccinated; Partially Vaccinated; Unvacccinated

COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure

SARS-CoV-2

Spike (S)
Nucleocapsid (N)
Membrane (M)
Envelope (E)
RNA viral genome

COVID-19 WHO Global Statisticts EW28-EW31

Epi Week	Confirmed Cases	Deaths
28	271,806	729
29	335,020	731
30	705,401	755
31	110,311	151
Total (4weeks)	1,422,538	2366

COVID19 Cases by Parish

Total Cases:
Hanover 4641; St. James 17948; Trelawny 5204; St. Ann 11520; St. Mary 4968; Westmoreland 8781; St. Elizabeth 6601; Manchester 8907; Clarendon 7861; St. Catherine 28054; Kingston & St. Andrew 41658; Portland 4021; St. Thomas 5981

Legend – Confirmed COVID19 Cases by Parish: 4021 - 5981; 5982 - 8907; 8908 - 17948; 17949 - 28054; 28055 - 41658; Parishes

EW 31 Cases:
Hanover 2; St. James 6; Trelawny 2; St. Ann 1; St. Mary 2; Westmoreland 12; St. Elizabeth 2; Manchester 3; Clarendon 8; St. Catherine 14; Kingston & St. Andrew 18; St. Thomas 4; Portland 0

Legend – Confirmed COVID19 Cases by Parish August 6 to 12, 2023: 0; 1 - 4; 5 - 8; 9 - 14; 15 - 18; Parishes

Date Prepared: August 18, 2023

MINISTRY OF HEALTH & WELLNESS

6 NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

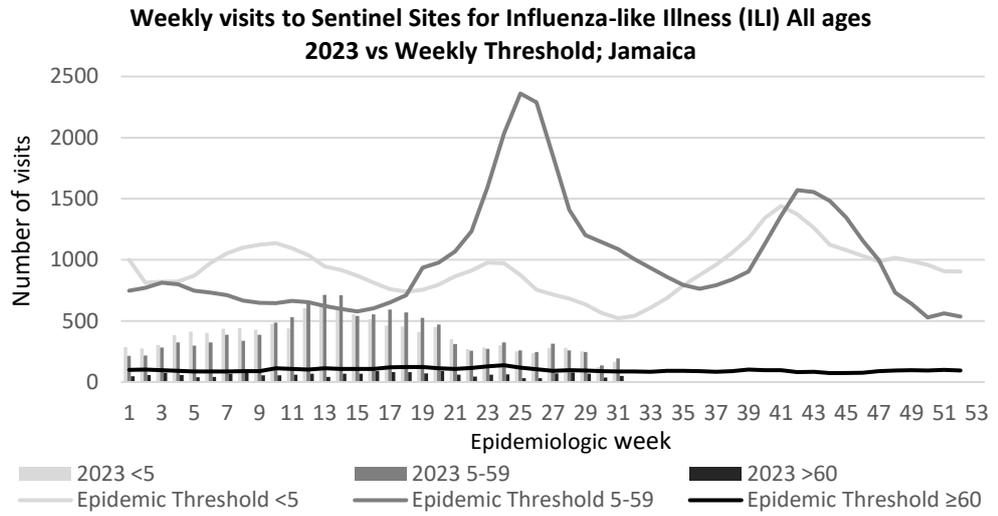HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

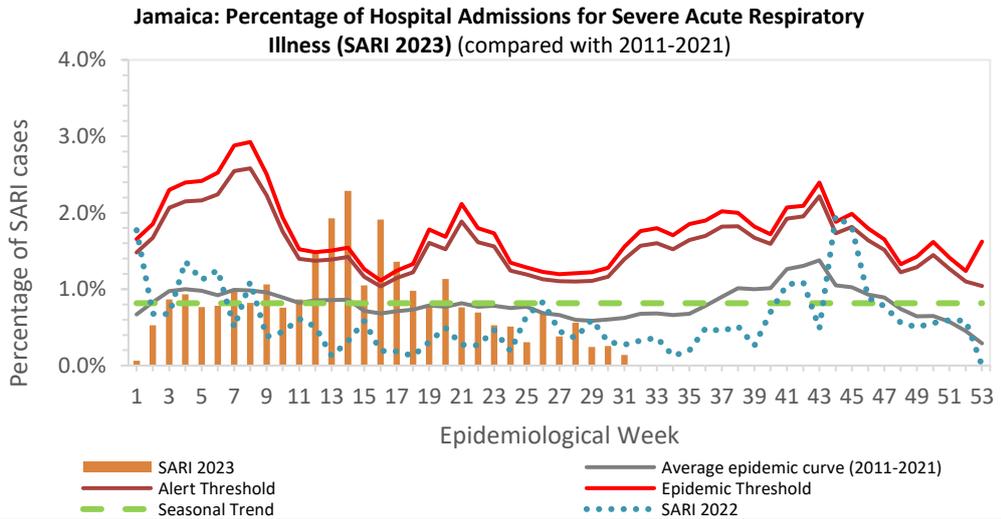# NATIONAL SURVEILLANCE UNIT
INFLUENZA REPORT

EW 31

July 30 – August 5, 2023 Epidemiological Week 31

	EW 31	**YTD**
SARI cases	**2**	**424**
Total Influenza positive Samples	**0**	**174**
Influenza A	**0**	**15**
H3N2	0	1
H1N1pdm09	0	13
Not subtyped	0	1
Influenza B	**0**	**159**
B lineage not determined	**0**	**2**
B Victoria	**0**	**157**
Parainfluenza	**0**	**1**
Adenovirus	**0**	**2**
RSV	**0**	**13**

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

Epi Week Summary

During EW 31, two (2) SARI admissions were reported.

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

Caribbean Update EW 31

Caribbean: After an increase in previous weeks, influenza activity has shown a decreasing trend in the last 4 EWs. During the last 4 EWs, the predominant influenza viruses have been B/Victoria, with lesser circulation of influenza A, mainly A(H1N1)pdm09. RSV activity has remained low. After showing an increase, the activity of SARS-CoV-2 has exhibited a decreasing trend over the past 4 epidemiological weeks and is currently at intermediate levels of circulation. Cases of ILI and SARI, after an increase due to positive cases of influenza and SARS-CoV-2 in previous EWs, have shown a decreasing trend in the last 4 EWs.

Distribution of Influenza and Other Respiratory Viruses Under Surveillance by EW, Jamaica - 2023
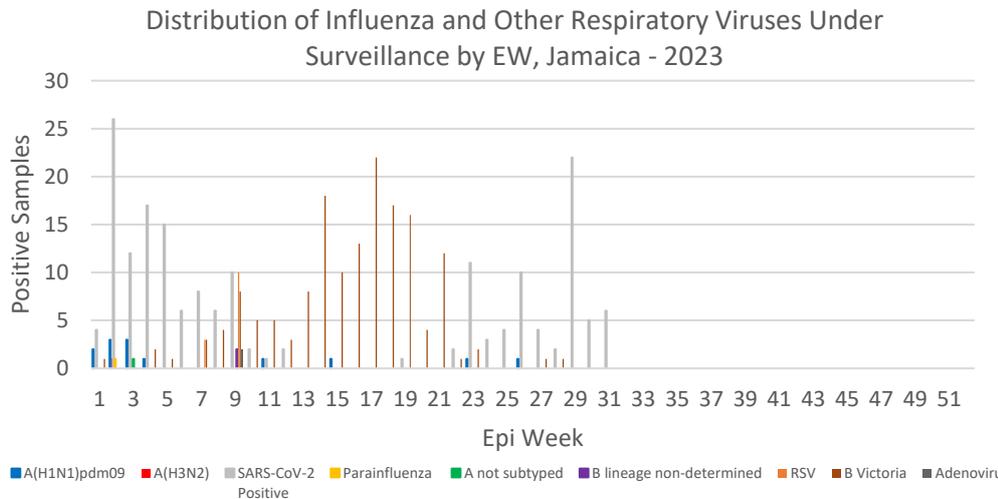
7 NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

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SENTINEL REPORT- 78 sites. Automatic reporting

Dengue Bulletin

July 30 – August 05, 2023 Epidemiological Week 31 | Epidemiological Week 31
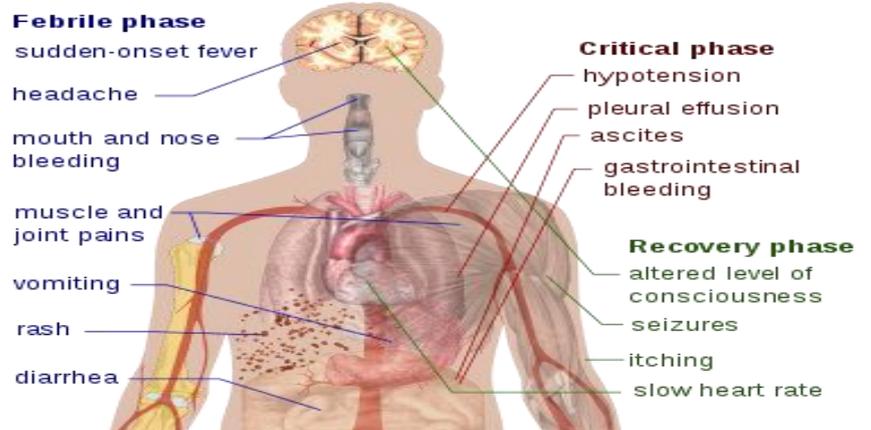

Dengue Cases by Year: 2004-2023, Jamaica

Reported suspected and confirmed dengue with symptom onset in week 31 of 2023

|	2023*	
	EW 31	**YTD**
Total Suspected Dengue Cases	2	151
Lab Confirmed Dengue cases	0	9
CONFIRMED Dengue Related Deaths	0	0

Symptoms of **Dengue fever**

Points to note:

- ***Figure as at August 5, 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)
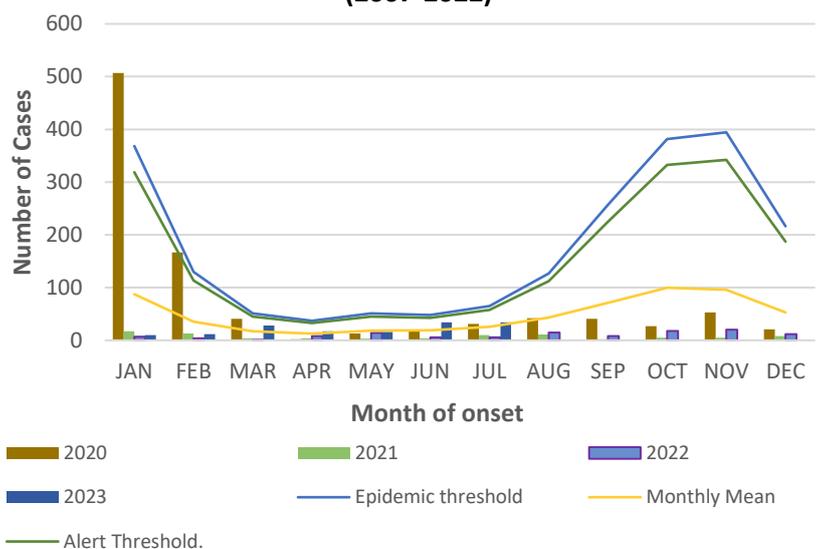
8   NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

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RESEARCH PAPER

Abstract

Low Social Connectedness and Attachment Style: Factors that Impact Problematic Internet Use

Marissa Stubbs (MSc. Clinical Psychology)

Objective: To identify whether problematic Internet use exists among students at the University of the West Indies, Mona Campus. To identify differences in means of problematic Internet use based on age groups. To explore how psychopathology, social connectedness or attachment style predicts problematic Internet use.

Methodology: A total of 277 participants (ages 18–48 years and 73.6% female) from the University of the West Indies, Mona Campus provided data for the current analysis. They all completed self-reported measures of demographic information, psychopathology (depression, anxiety, and stress symptoms), adult attachment style, and problematic Internet use.

Results: The percentage of problematic Internet use reported was 15.6% and participants who fell within the age range of 18-23 were more likely to report problematic Internet use. The overall multiple regression that explored the strength of depression, anxiety and stress symptoms, attachment anxiety and avoidance, and social connectedness, as predictors of problematic Internet use was significant ($R2 = .208$, $F[7, 269] = 10.112$, $p < .001$); depressive symptoms, attachment avoidance and social connectedness were found to be strong predictors of problematic Internet use while anxiety, stress and attachment were not.

Conclusion: Findings from the current study, suggest that young adults, particularly those between 18-23 years, with attachment avoidance are vulnerable to developing symptoms of depression given their low level of social connectedness. Additionally, it suggests that in an attempt to improve this negative mood (depressive symptoms) and increase their low social connectedness, they engage in problematic Internet use.

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