WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Earthquakes

Earthquakes can strike suddenly and without warning. An earthquake is a violent and abrupt shaking of the ground, caused by movement between tectonic plates along a fault line in the earth's crust. Earthquakes can result in the ground shaking, soil liquefaction, landslides, fissures, avalanches, fires and tsunamis. The extent of destruction and harm caused by an earthquake depends on:

- Magnitude
- intensity and duration
- the local geology
- the time of day that it occurs
- building and industrial plant design and materials
- the risk-management measures put in place.

Health threats due to earthquakes can vary according the magnitude of the earthquake, the nature of the built environment (such as poor housing or urban slums), and the secondary effects of the earthquake, like tsunamis or landslides. Earthquakes can have immediate and long-term impacts on health. Immediate health impacts include:

- trauma-related deaths and injuries from building collapse;
- trauma-related deaths and injuries from the secondary effects of the earthquake, like drowning from tsunamis or burns from fires.

Medium-term health impacts include:

- secondary infection of untreated wounds;
- increased morbidity and risk of complications related to pregnancy and childbirth due to interrupted obstetric and neonatal services;
- potential risk of communicable diseases, particularly in areas affected by overcrowding;
- increased morbidity and risk of complications of chronic diseases due to interruption of treatment;
- increased psychosocial needs;
- potential environmental contamination by chemical/radiological agents following destruction of industrial infrastructure.

Earthquakes can also damage health facilities and transportation, which can disrupt service delivery and access to care. Health workers may not be able to reach health facilities that are still functional and medical supplies may be lost.

https://www.who.int/health-topics/earthquakes#tab=tab_2

EPI WEEK 35

- Syndromic Surveillance
- Accidents
- Violence

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Class 1 Notifiable Events

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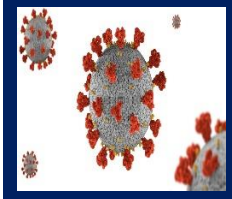

COVID-19

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Influenza

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Dengue Fever

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Research Paper

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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 – 32 to 35 of 2023

Parish health departments submit reports weekly by 3 p.m. on Tuesdays. Reports submitted after 3 p.m. are considered late.

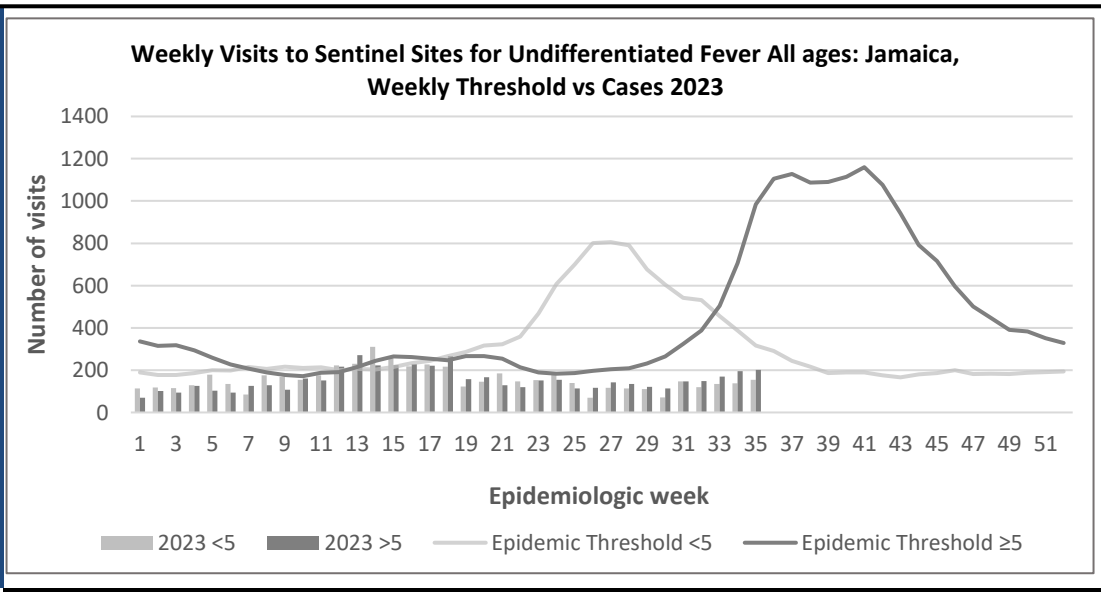
KEY:
Yellow- late submission on Tuesday
Red – late submission after Tuesday

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													
32	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
33	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
34	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	Late (W)
35	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.



NOTIFICATIONS- All clinical sites

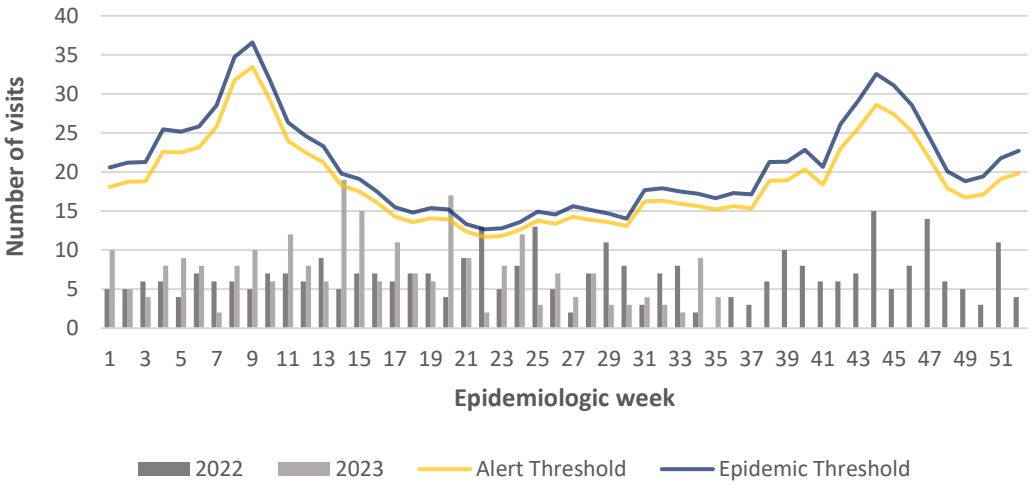
INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

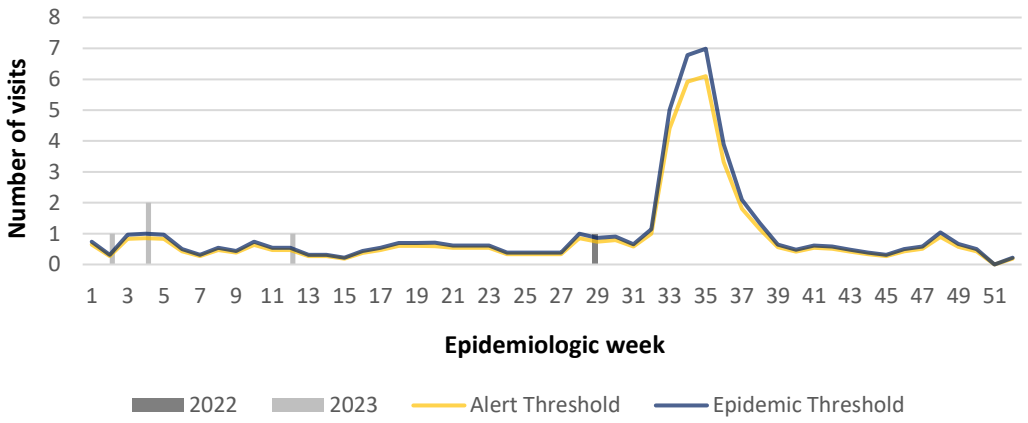
FEVER AND NEUROLOGICAL

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).



FEVER AND HAEMORRHAGIC

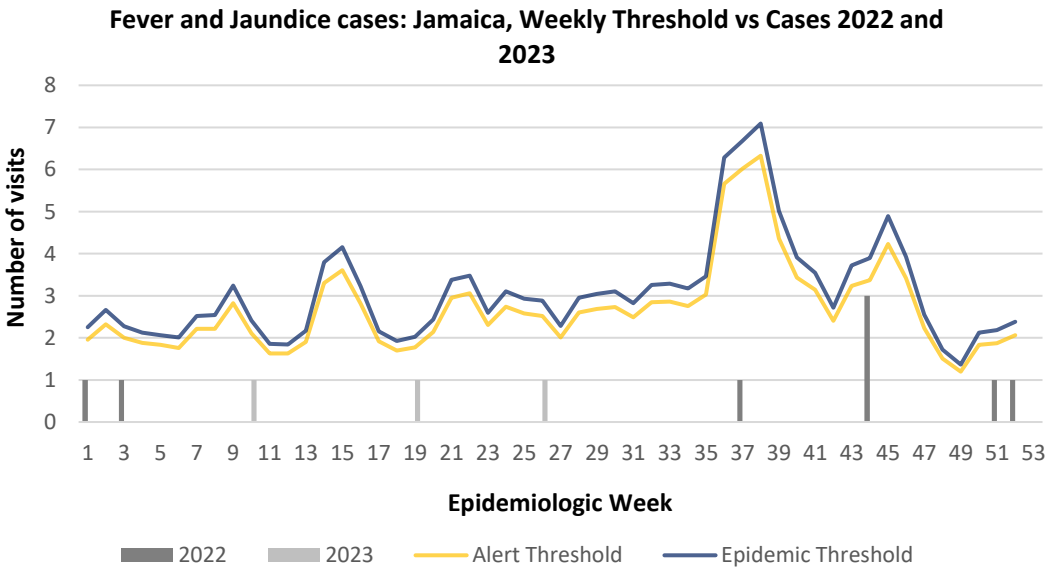
Temperature of >38^0C /100.4^0F (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



FEVER AND JAUNDICE

Temperature of >38^0C /100.4^0F (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.



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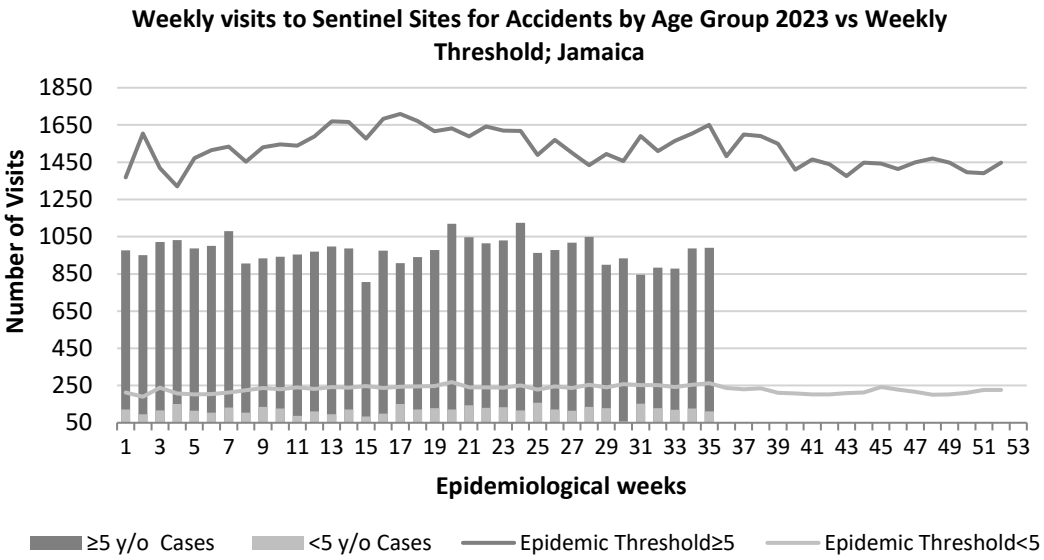
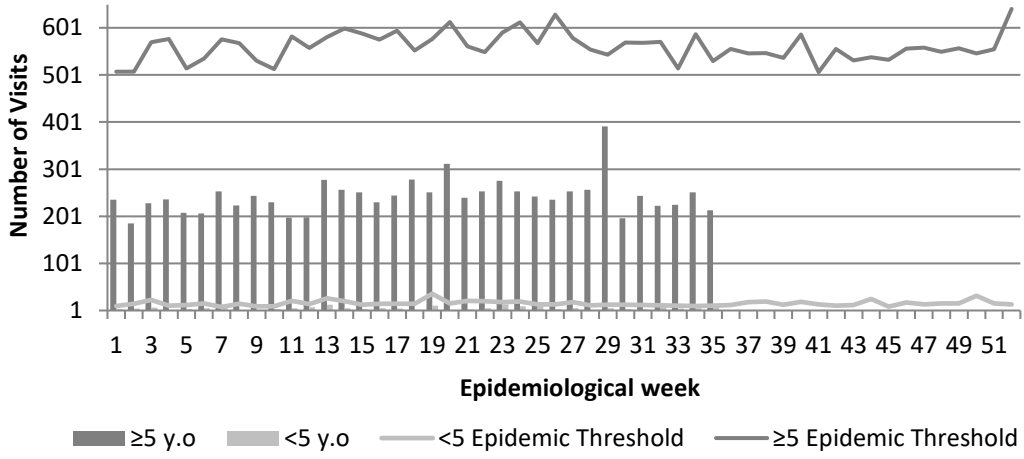
ACCIDENTS

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



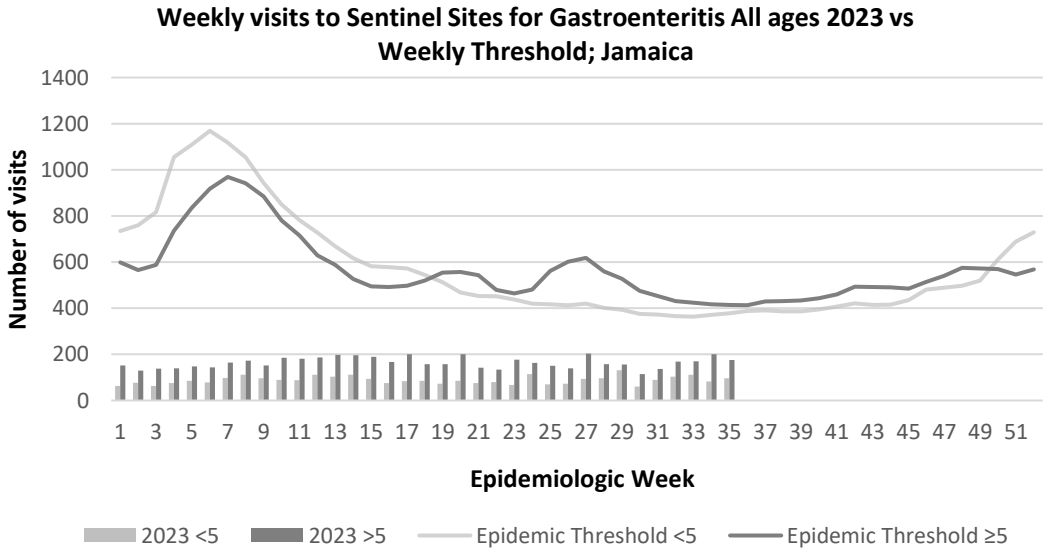
VIOLENCE

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.



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CLASS ONE NOTIFIABLE EVENTS

	CLASS 1 EVENTS		Confirmed YTD[α] CURRENT YEAR 2023	Confirmed YTD[α] PREVIOUS YEAR 2022
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		220[β]	152[β]
	Cholera		0	0
	Dengue Hemorrhagic Fever[γ]		See Dengue page below	See Dengue page below
	COVID-19 (SARS-CoV-2)		3493	53280
	Hansen's Disease (Leprosy)		0	0
	Hepatitis B		42	12
	Hepatitis C		22	2
	HIV/AIDS		N/A	N/A
	Malaria (Imported)		3	2
	Meningitis		21	15
	Monkeypox		3	13
EXOTIC/ UNUSUAL	Plague		0	0
H IGH 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]		35	53
	Ophthalmia Neonatorum		84	48
	Pertussis-like syndrome		0	0
	Rheumatic Fever		0	0
	Tetanus		0	2
	Tuberculosis		25	19
	Yellow Fever		0	0
	Chikungunya[ε]		0	0
	Zika Virus[θ]		0	0

Comments

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.

[γ] Dengue Hemorrhagic Fever data include Dengue related deaths;

[δ] Figures include all deaths associated with pregnancy reported for the period.

[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.

NA- Not Available

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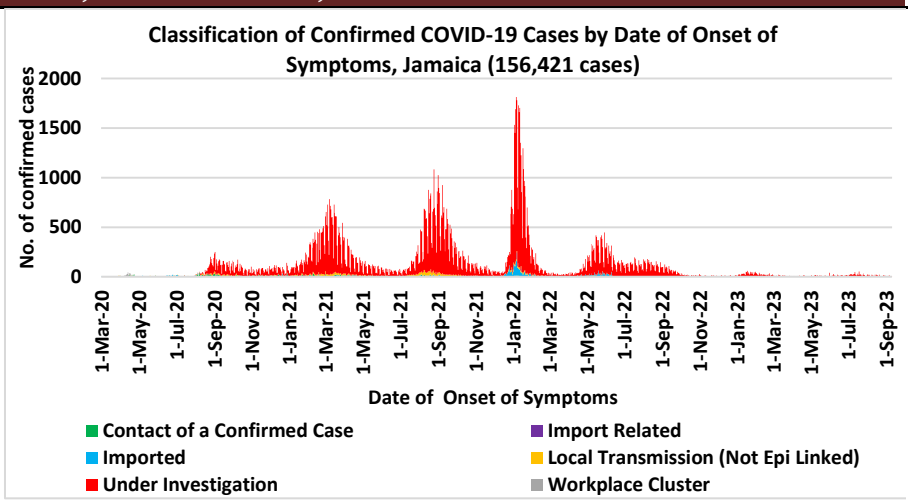
COVID-19 Surveillance Update

March 10, 2020 – EW 35, 2023

CASES	EW 35	Total
Confirmed	41	156421
Females	22	90177
Males	19	66241
Age Range	43 days old to 91 years	1 day to 108 years

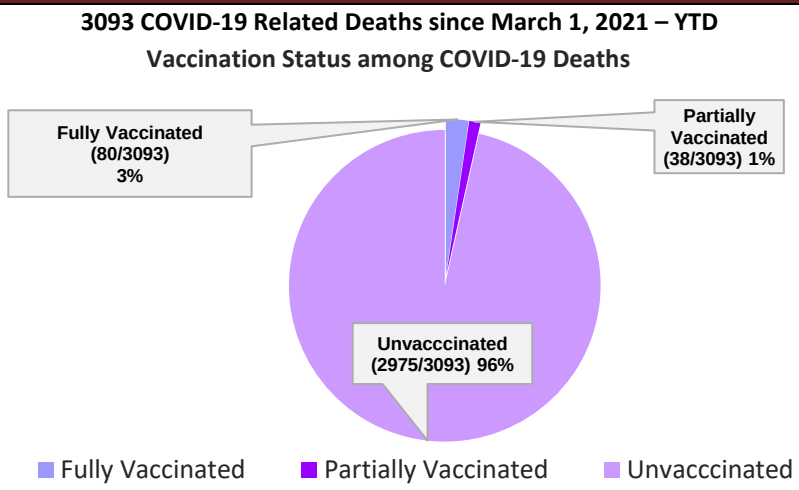
* 3 positive cases had no gender specification
* PCR or Antigen tests are used to confirm cases



COVID-19 Outcomes

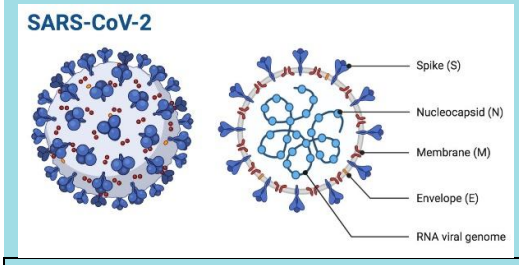
Outcomes	EW 35	Total
ACTIVE *2 weeks*		105
DIED – COVID Related	1	3655
Died - NON COVID	0	332
Died - Under Investigation	0	272
Recovered and discharged	7	103189
Repatriated	0	93
Total		156421

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



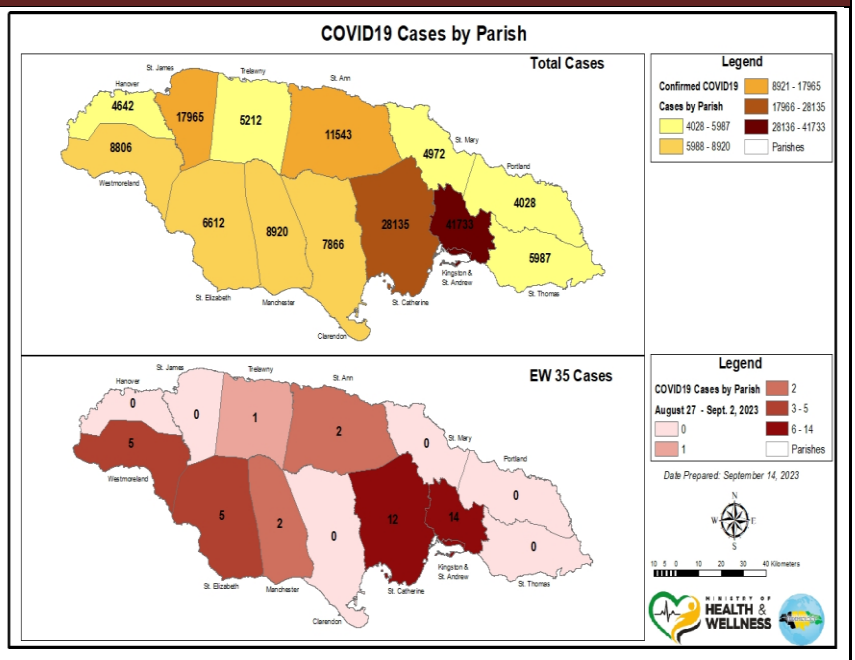
COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure



COVID-19 WHO Global Statistics EW32-EW35

Epi Week	Confirmed Cases	Deaths
32	340,906	479
33	351,831	597
34	306,579	277
35	322,353	358
Total (4weeks)	**1,321,669**	**1711**



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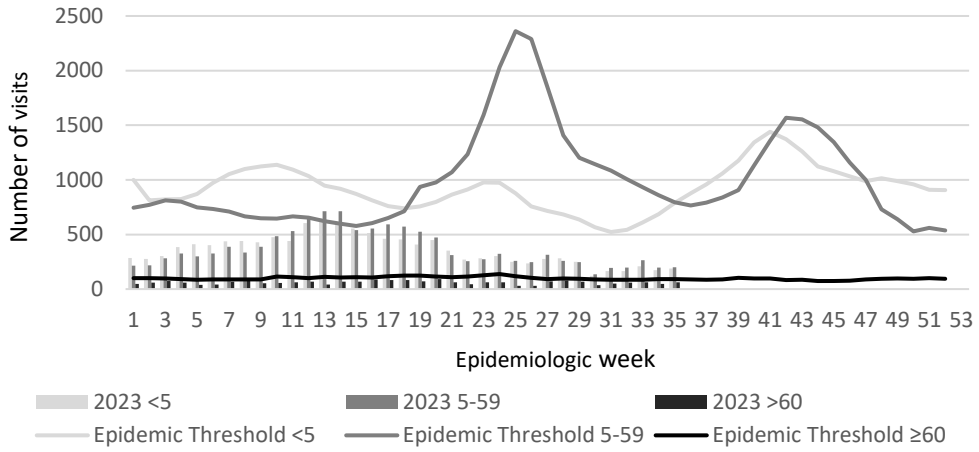
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 35

August 27 – September 2, 2023 Epidemiological Week 35

	EW 35	*YTD*
SARI cases	**1**	**434**
Total Influenza positive Samples	**0**	**178**
Influenza A	**0**	**16**
H3N2	0	1
H1N1pdm09	0	14
Not subtyped	0	1
Influenza B	**0**	**162**
B lineage not determined	**0**	**2**
B Victoria	**0**	**160**
Parainfluenza	**0**	**1**
Adenovirus	**0**	**2**
RSV	**0**	**14**

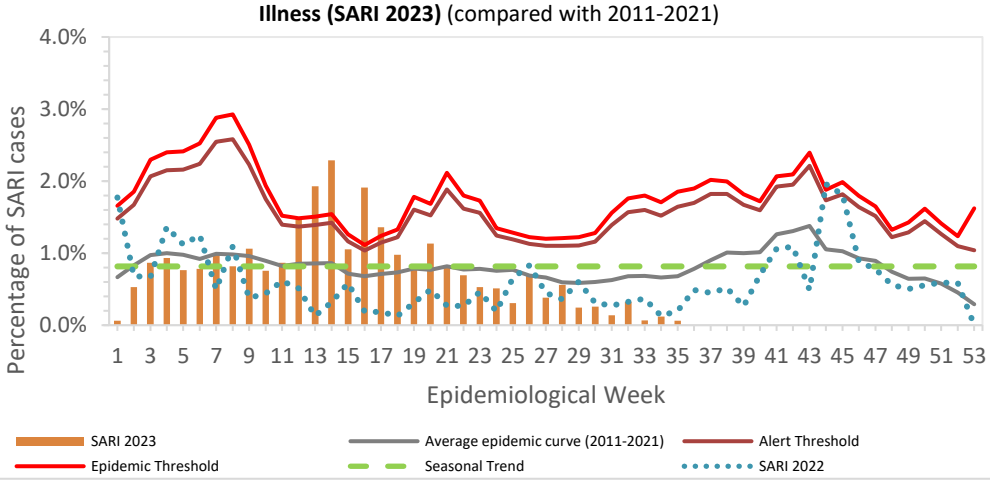
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2023 vs Weekly Threshold; Jamaica



Epi Week Summary

During EW 35, one(1) SARI admissions were reported.

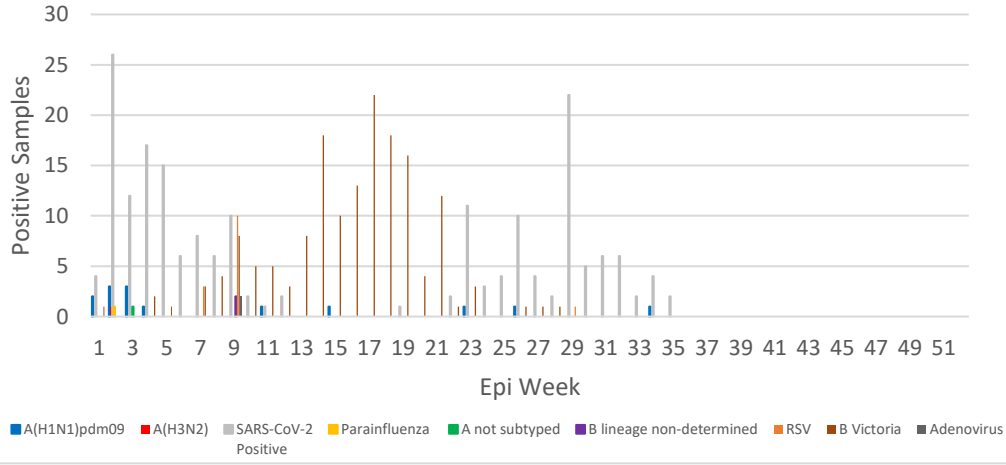
Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2023) (compared with 2011-2021)



Caribbean Update EW 35

Caribbean: Influenza activity continues to exhibit a declining trend over the past 4 EWs. During this period, the predominant influenza viruses have been B/Victoria, with lesser circulation of influenza A, primarily A(H1N1)pdm09. RSV activity has remained low. SARS-CoV-2 activity shows an increasing trend with intermediate to high levels of circulation. ILI and SARI cases have demonstrated a declining trend over the past 4 EWs.

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



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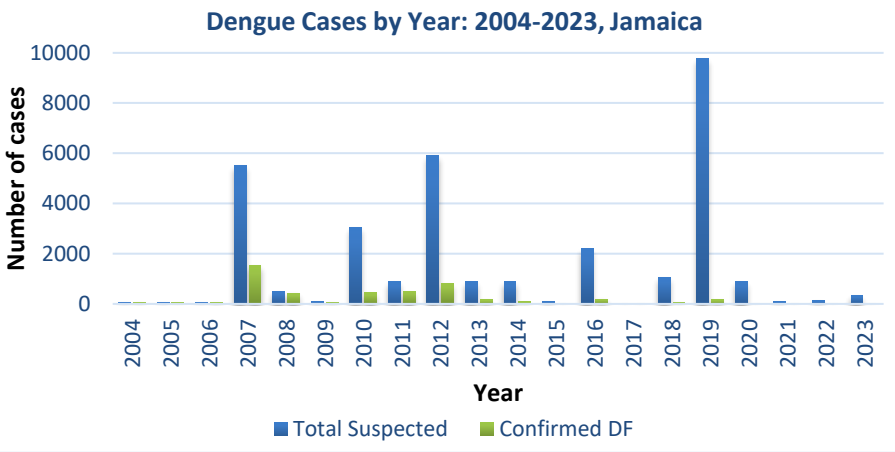
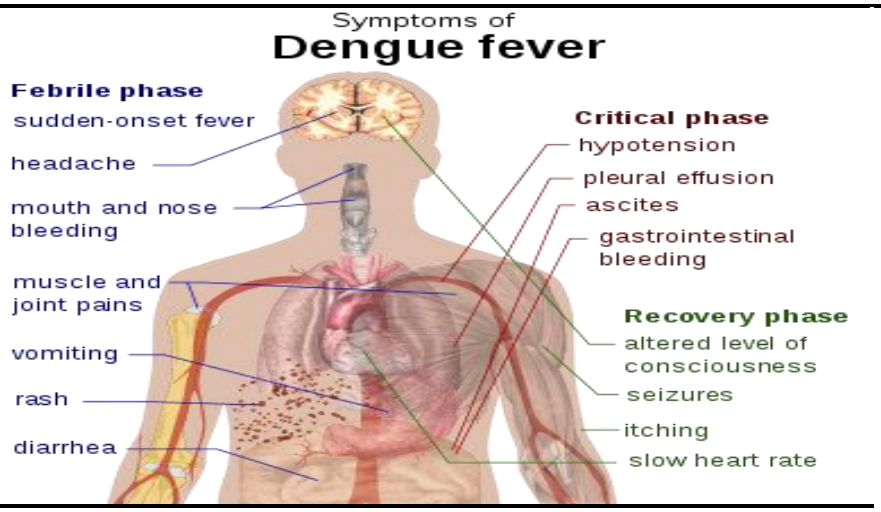
Dengue Bulletin

August 27– September 2, 2023 Epidemiological Week 35 | Epidemiological Week 35



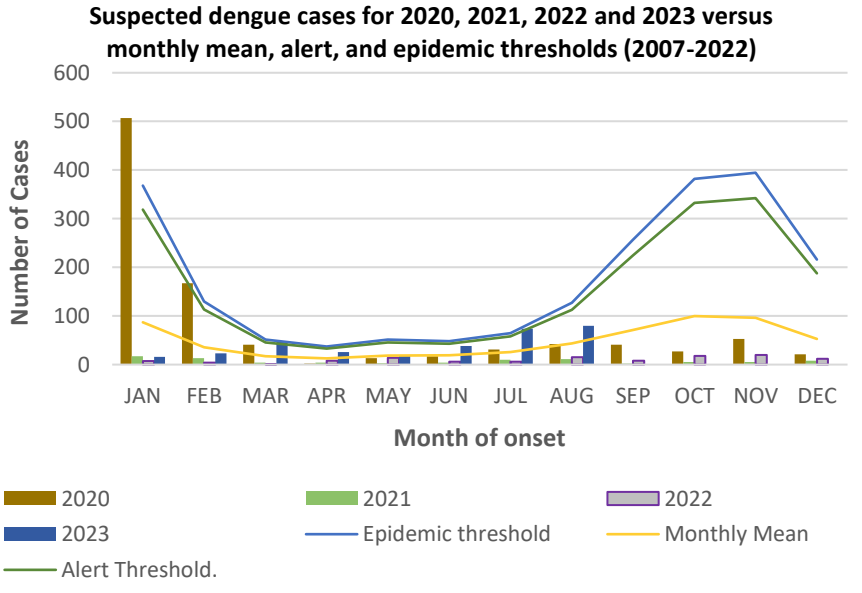
Reported suspected and confirmed dengue with symptom onset in week 35 of 2023

	2023*	
	EW 35	YTD
Total Suspected Dengue Cases	16	343
Lab Confirmed Dengue cases	0	28
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- *Figure as at September 2, 2023
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.



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RESEARCH PAPER

Abstract

Clinical Features and Outcomes among Cases of SARS-CoV-2 Infection in Kingston, Jamaica: A Retrospective Case Series

Tamara Thompson[a], Yvonne Dawkins[a], Swane Rowe-Gardener[a], Lisa Chin-Harty[a], Kyaw Hoe[a], Kelvin Ehikhametalor[b], Trevor S. Ferguson[a, c], Kelly Ann Gordon-Johnson[d], Varough Deyde[d]

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[2] *Department of Surgery, Radiology, Anaesthesia and Intensive Care, The University of the West Indies, Mona, Kingston 7, Jamaica*
[3] *Caribbean Institute for Health Research, The University of the West Indies, Kingston 7, Jamaica*
[4] *Centers for Disease Control and Prevention, Caribbean Regional Office (CDC/CRO), Kingston, Jamaica*

Objectives: To describe the demographic, clinical characteristics and indicators of poor outcomes among hospitalized adults infected with Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) in Jamaica.

Methods: A retrospective clinical chart review of 362 SARS-CoV-2 infected patients who were admitted to the University Hospital of the West Indies between March and December 2020, was performed. Data were analyzed using Stata 16 and SPSS version 21.

Results: Analyses included 362 participants (218 males; 144 females); mean age was 59.5 years among males and 55.7 years among females. Pre-existing hypertension, diabetes mellitus, cardiovascular disease, obesity and chronic kidney disease were the most common reported comorbidities. Cough, shortness of breath, fever and malaise were the most common presenting symptoms. Sixty-two percent of patients were moderately to severely ill on admission; 11% were critically ill; 17.9 % were admitted to the Intensive Care Unit. Death occurred in 62 (17%) patients (95% CI 13.6-21.4%). Having diabetes and male sex showed non-significant increased odds of death, OR 1.5 and 1.3, respectively. Factors independently associated with increased odds of death were age (OR 1.03 per year, p=0.013) and obesity (OR 2.26, p=0.017). Obese participants also had 5-fold higher odds of respiratory failure (p<0.001), 5-fold higher odds of acute kidney injury (p<0.001) and 3-fold higher odds of sepsis (p=0.013).

Conclusion: The mortality rate was 17% among admitted adult SARS-CoV-2 patients with age and obesity being independent risk factors for excess morbidity and mortality. Early identification of high-risk patient subgroups may facilitate targeted interventions geared at improving outcomes.

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