WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Burns

Key facts

- An estimated 180 000 deaths every year are caused by burns. The vast majority occur in low- and middle-income countries.
- Non-fatal burn injuries are a leading cause of morbidity.
- Burns occur mainly in the home and workplace.
- Burns are preventable.

Overview

A burn is an injury to the skin or other organic tissue primarily caused by heat or due to radiation, radioactivity, electricity, friction or contact with chemicals.

Thermal (heat) burns occur when some or all the cells in the skin or other tissues are destroyed by:

- hot liquids (scalds)
- hot solids (contact burns)
- flames (flame burns).

In which settings do burns occur?

Burns occur mainly in the home and workplace. Community surveys in Bangladesh and Ethiopia show that 80–90% of burns occur at home. Children and women are usually burned in domestic kitchens, from upset receptacles containing hot liquids or flames, or from cookstove explosions. Men are most likely to be burned in the workplace due to fire, scalds, chemical and electrical burns.

Who is at risk?

Gender

Females have slightly higher rates of death from burns compared to males according to the most recent data. This contrasts with the usual injury pattern, where rates of injury for the various injury mechanisms tend to be higher in males than females.

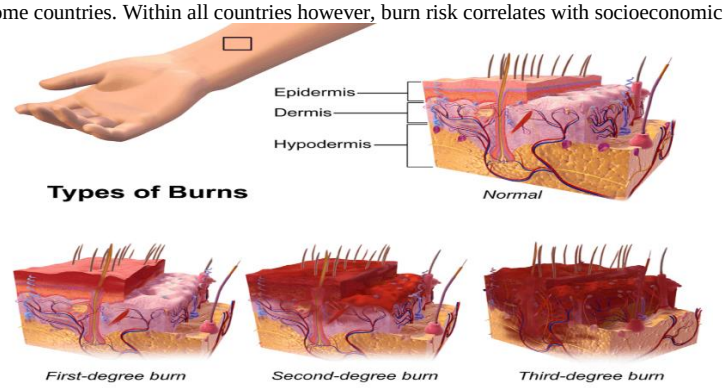
The higher risk for females is associated with open fire cooking, or inherently unsafe cookstoves, which can ignite loose clothing. Open flames used for heating and lighting also pose risks, and self-directed or interpersonal violence are also factors (although understudied).

Age

Along with adult women, children are particularly vulnerable to burns. Burns are the fifth most common cause of non-fatal childhood injuries. While a major risk is improper adult supervision, a considerable number of burn injuries in children result from child maltreatment.

Socioeconomic factors

People living in low- and middle-income countries are at higher risk for burns than people living in high-income countries. Within all countries however, burn risk correlates with socioeconomic status.



First aid: Basic guidance on first aid for burns is provided below.

What to do

- Stop the burning process by removing clothing and irrigating the burns.
- Extinguish flames by allowing the patient to roll on the ground, or by applying a blanket, or by using water or other fire-extinguishing liquids.
- Use cool running water to reduce the temperature of the burn.
- In chemical burns, remove or dilute the chemical agent by irrigating with large volumes of water.
- Wrap the patient in a clean cloth or sheet and transport to the nearest appropriate facility for medical care.

What not to do

- Do not start first aid before ensuring your own safety (switch off electrical current, wear gloves for chemicals etc.)
- Do not apply paste, oil, haldi (turmeric) or raw cotton to the burn.
- Do not apply ice because it deepens the injury.
- Avoid prolonged cooling with water because it will lead to hypothermia.
- Do not open blisters until topical antimicrobials can be applied, such as by a health-care provider.
- Do not apply any material directly to the wound as it might become infected.
- Avoid application of topical medication until the patient has been placed under appropriate medical care.

Article:.https://www.who.int/news-room/fact-sheets/detail/burns

Image: https://louis.pressbooks.pub/app/uploads/sites/62/2019/08/Types-of-burns-1024x878.png

EPI WEEK 34



Syndromic Surveillance

Accidents

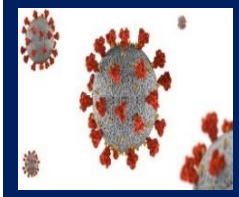
Violence

Pages 2-4



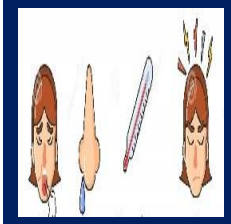
Class 1 Notifiable Events

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COVID-19 Surveillance

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Dengue Surveillance

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SENTINEL SYNDROMIC SURVEILLANCE

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.

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

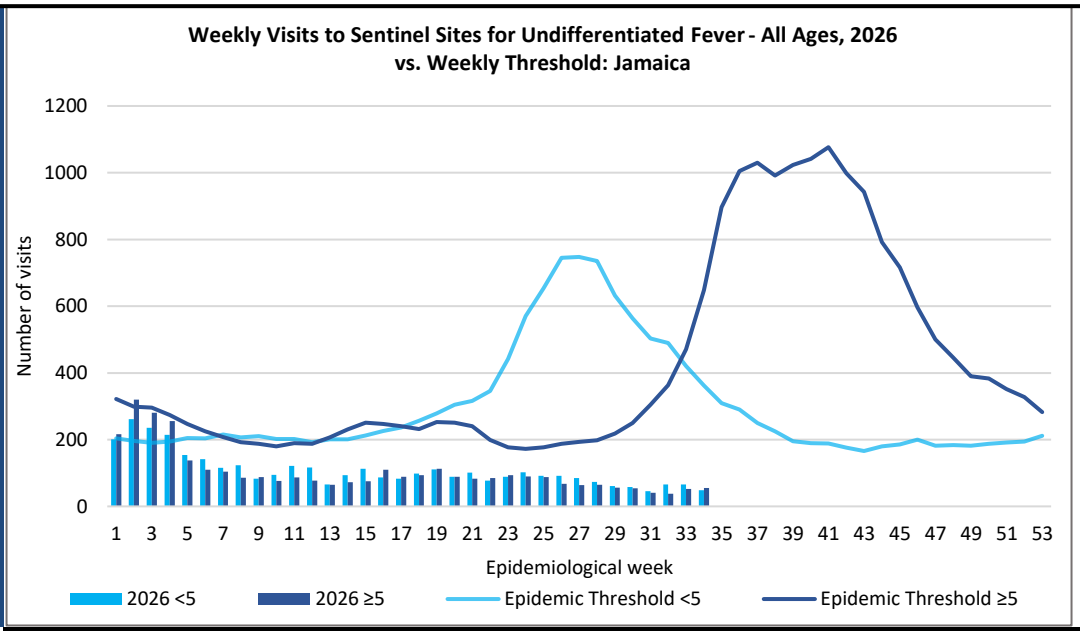
KEY:
Yellow- late submission on Tuesday
Red – late submission after Tuesday
White- No reports received

Epi week	Kingston and Saint Andrew	Saint Thomas	Saint Catherine	Portland	Saint Mary	Saint Ann	Trelawny	Saint James	Hanover	Westmoreland	Saint Elizabeth	Manchester	Clarendon
2026													
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
32	On Time	On Time	On Time	On Time	On Time	On Time	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time
33	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
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	On Time

SYNDROMIC SURVEILLANCE

FEVER
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

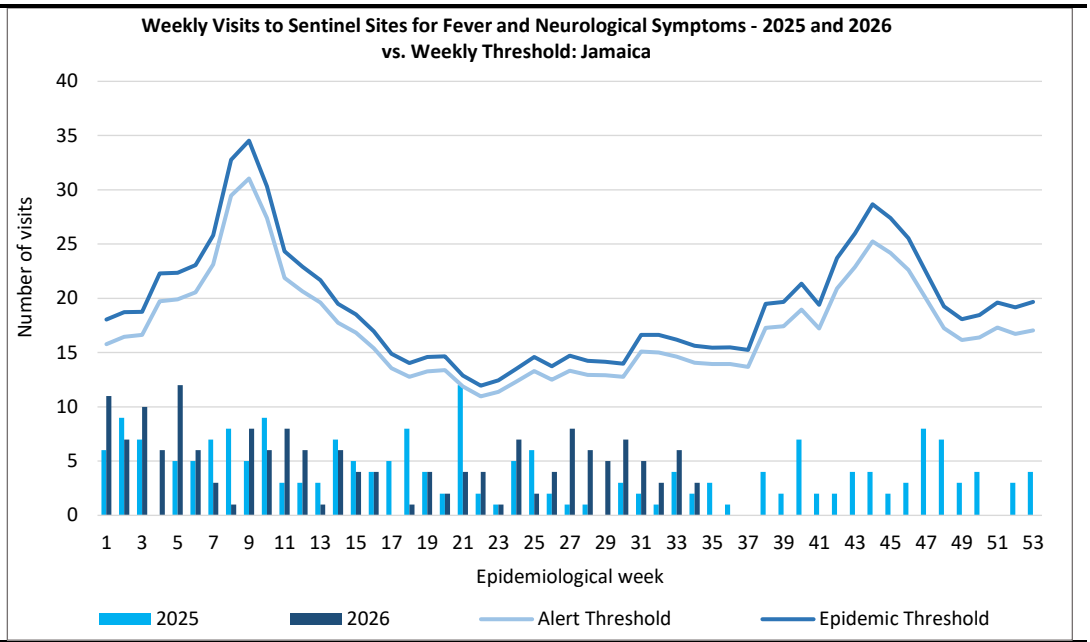
HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

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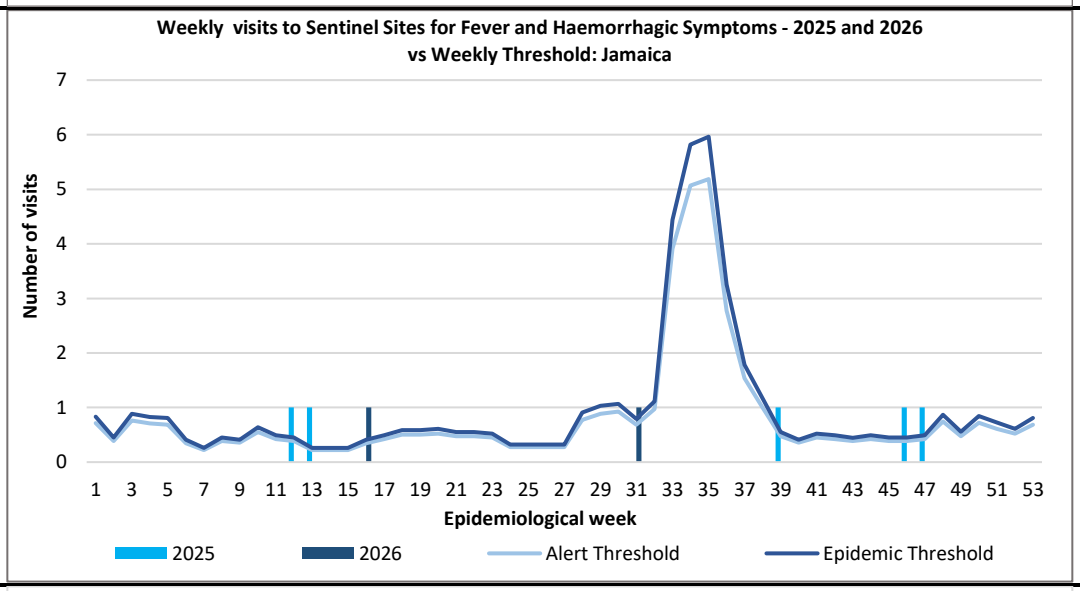
FEVER AND NEUROLOGICAL

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

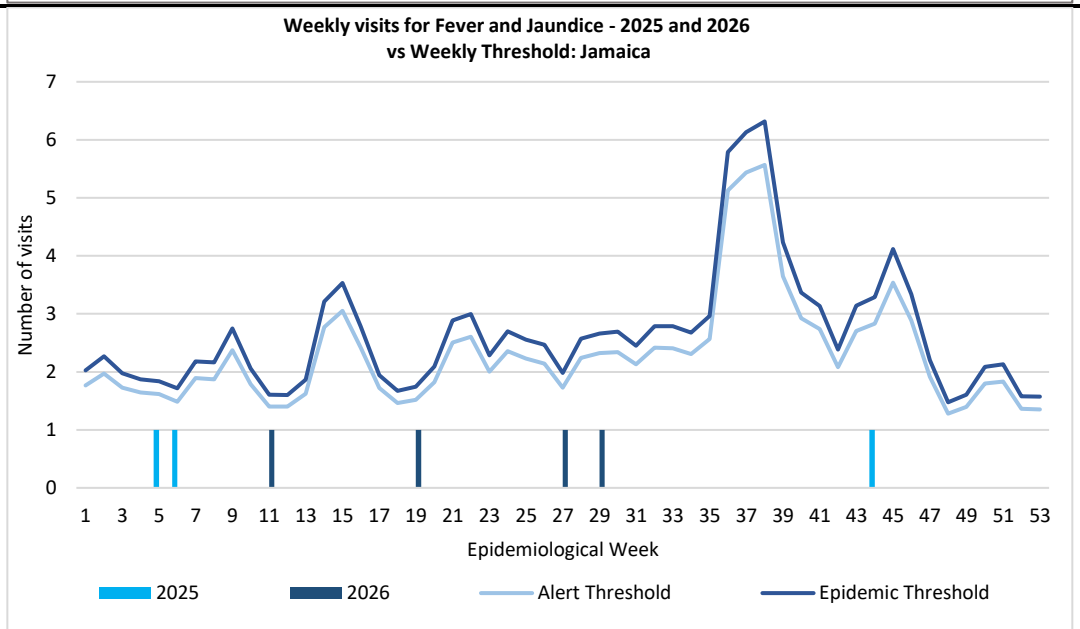
Temperature of >38^0C /100.4^0F (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



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.



3 NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

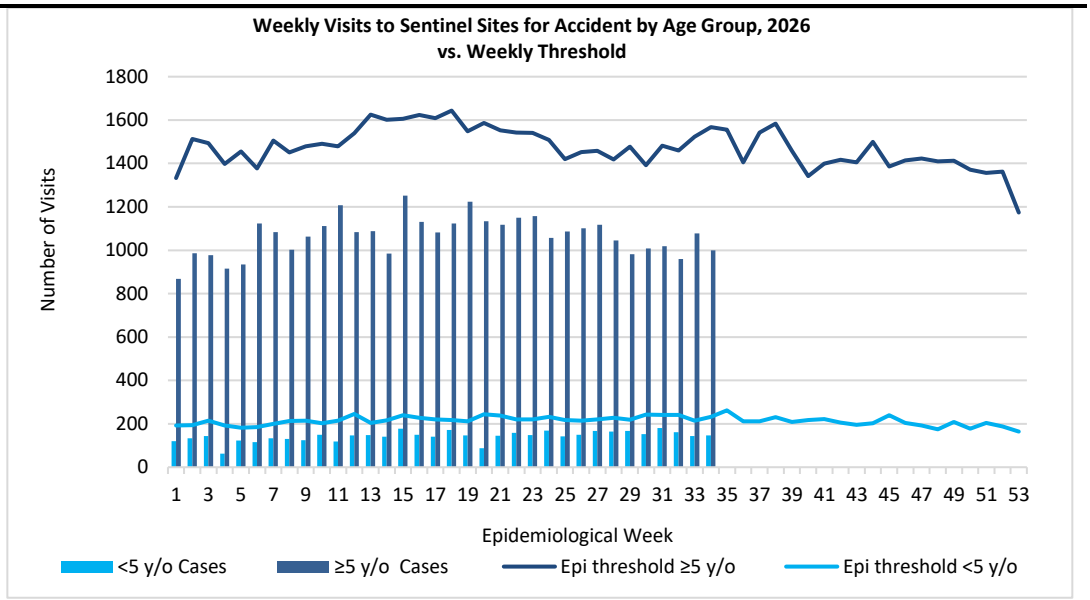
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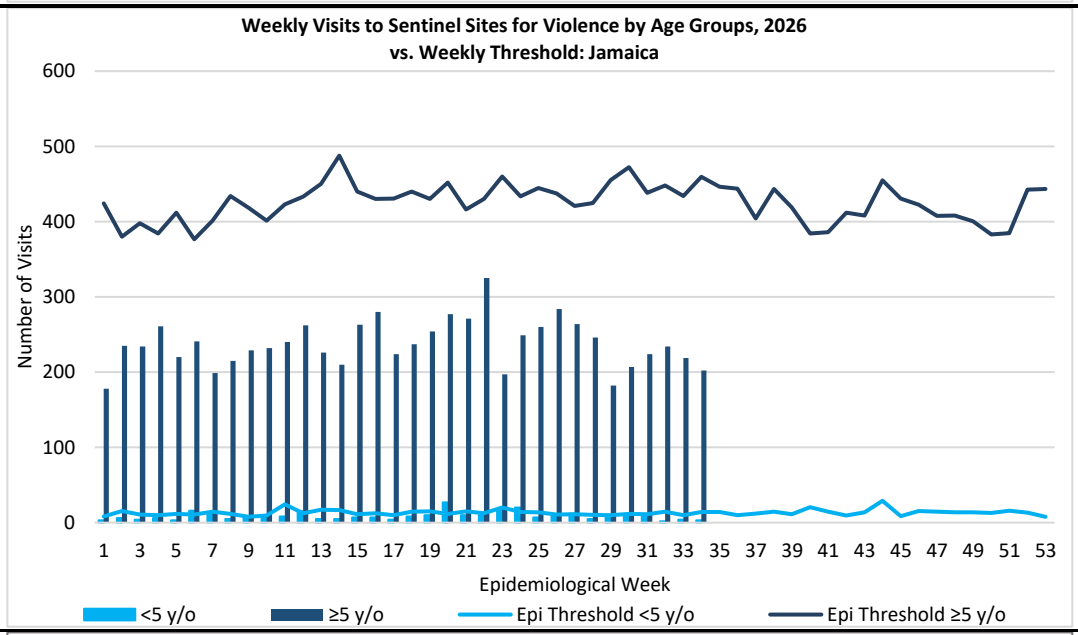
ACCIDENTS

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



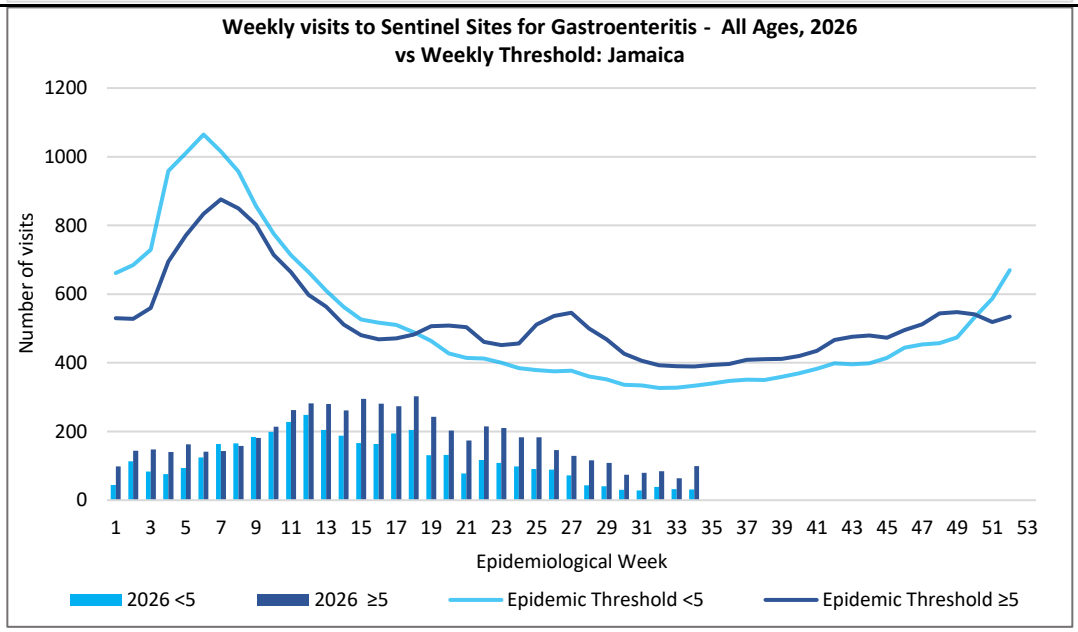
VIOLENCE

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 2026	Confirmed YTD[α] PREVIOUS YEAR 2025
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		54[β]	138[β]
	Cholera		0	0
	Severe Dengue[γ]		See Dengue page below	See Dengue page below
	COVID-19 (SARS-CoV-2)		34	282
	Hansen's Disease (Leprosy)		0	0
	Hepatitis B		9	10
	Hepatitis C		0	2
	HIV/AIDS		NA	NA
	Malaria (Imported)		0	0
	Meningitis		4	13
	Mpox		0	1
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 (notified pregnanacy related deaths) [δ]		33	40
	Ophthalmia Neonatorum		49	55
	Pertussis-like syndrome		0	0
	Rheumatic Fever		0	0
	Tetanus		1	3
	Tuberculosis		46	46
	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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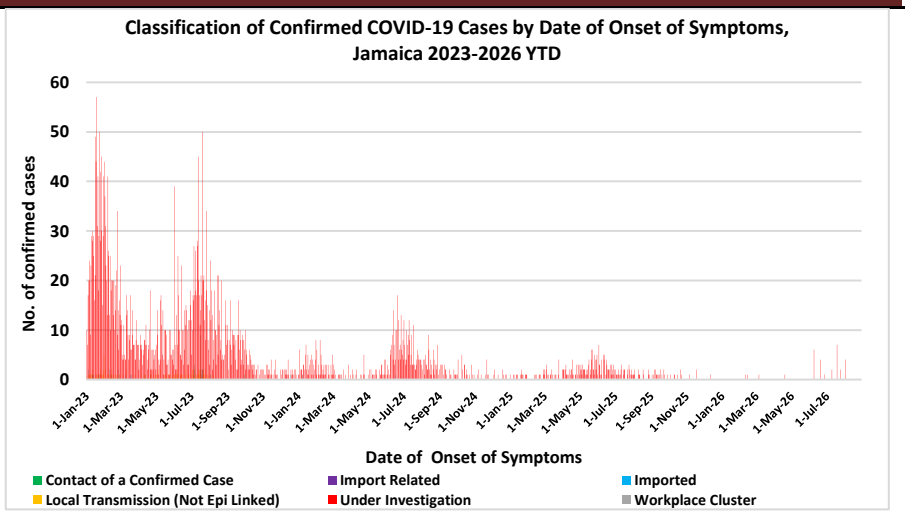
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COVID-19 SURVEILLANCE

CASES	EW 34	Total
Confirmed	4	157,784
Females	2	90,899
Males	2	66,882
Age Range	5 months to 50 years	1 day to 108 years

- 3 positive cases had no gender specification
- PCR or Antigen tests are used to confirm cases
- Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.

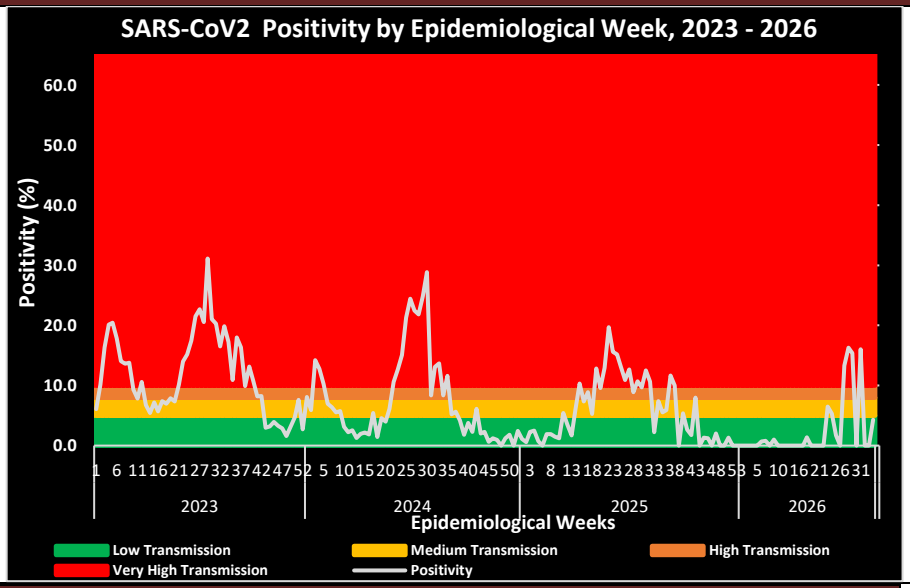


COVID-19 Outcomes

Number of Confirmed COVID-19 cases and deaths, Jamaica 2022-2026

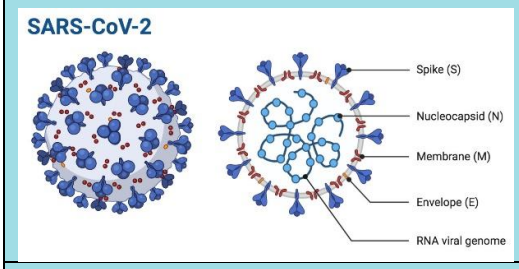
COVID-19	Year					
	2022	2023	2024	2025	2026	Total (2020-2026)
Cases	55,721	3,842	705	315	34	157,784
Deaths	621	116	24	13	0	3,921

- Current positivity rate: 4.3%
- Positivity = (positive samples/total samples tested)
- Low transmission for infection



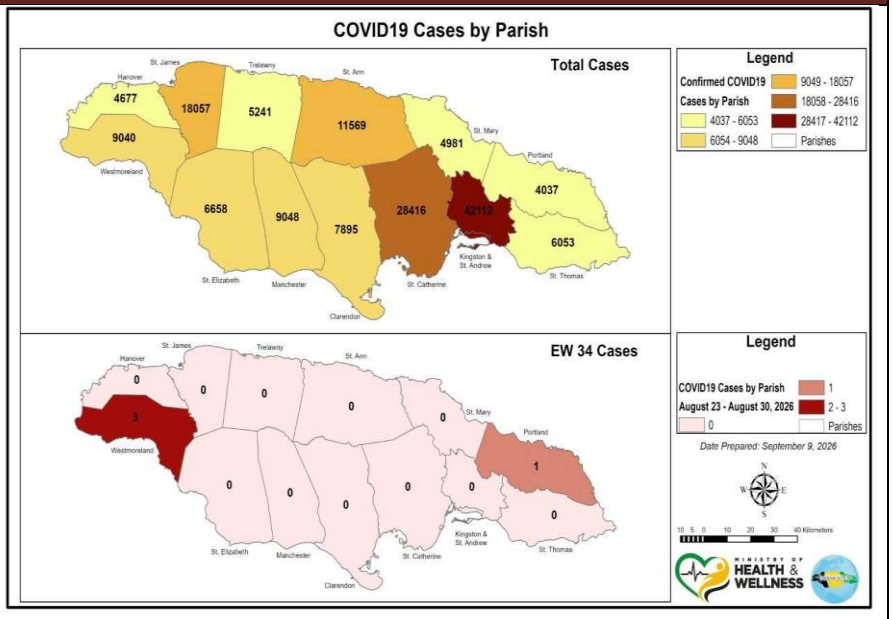
COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure



COVID-19 WHO Global Statistics Epi Week 31-34, 2026

Epi Week	Confirmed Cases	Deaths
31	11,300	67
32	13,600	59
33	14,600	54
34	10,400	28
Total (4weeks)	49,900	208



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

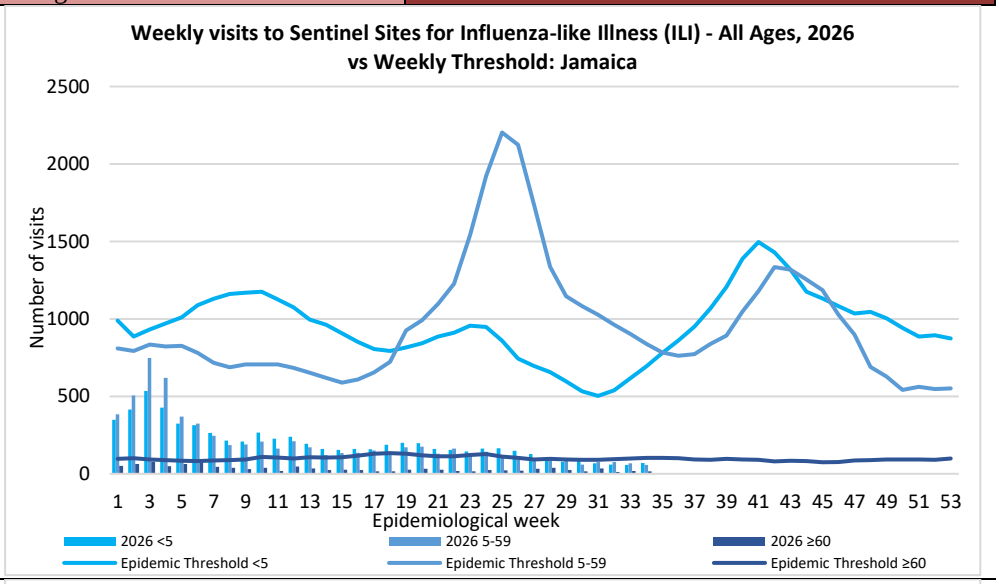
September 11, 2026 ISSN 0799-3927

INFLUENZA SURVEILLANCE

EW 34

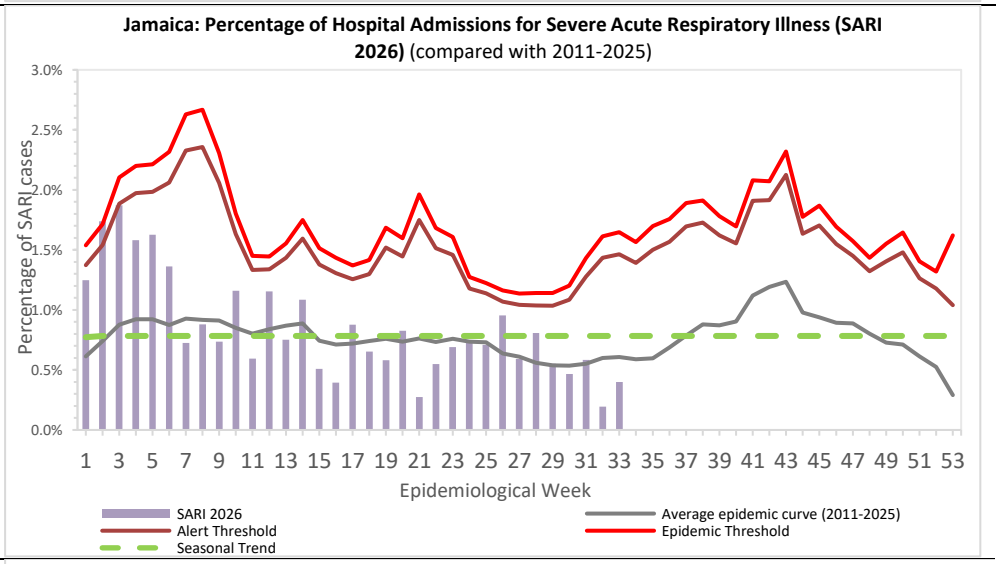
August 23, 2026 – August 29, 2026 Epidemiological Week 34

	EW 34	YTD
SARI cases	0	434
Total Influenza positive Samples	**0**	**270**
Influenza A	**0**	**234**
H1N1pdm09	0	21
H3N2	0	213
Not subtyped	0	0
Influenza B	**0**	**36**
B lineage not determined	0	1
B Victoria	0	35
Parainfluenza	0	0
Adenovirus	0	0
RSV	0	53



Epi Week Summary

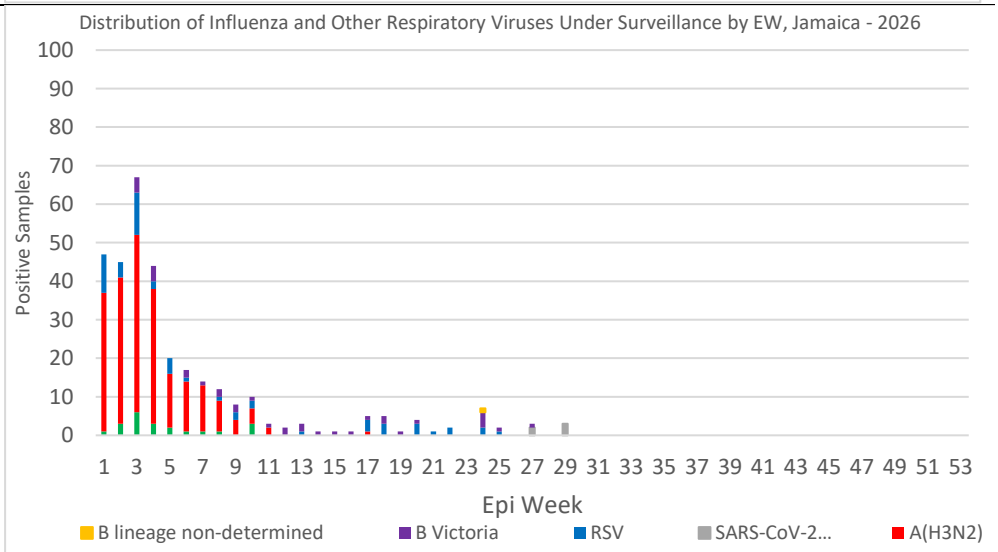
During Epi Week 34, zero(0) SARI admissions were reported.



Caribbean Update Epi Week 34

Caribbean: Influenza circulation remains stable, with positivity at 10.9% and cocirculation of influenza B (65%) and A(H3N2). RSV
activity decreased compared with the previous EW, with positivity at 2.9%, while SARS-CoV-2 circulation continued to increase
over the past two EWs, reaching a positivity of 13.3%.

*Update as of Epi Week 33
(Source: PAHO Respiratory viruses weekly report)
https://www.paho.org/en/influenza-situation-report



7 NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

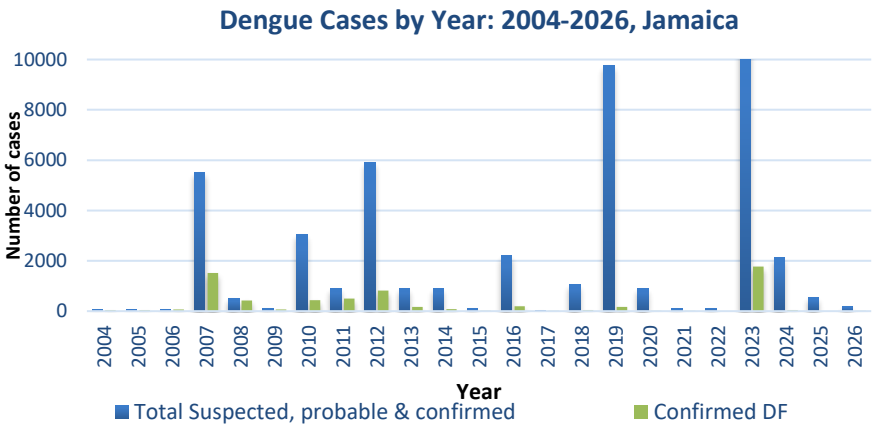
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DENGUE SURVEILLANCE

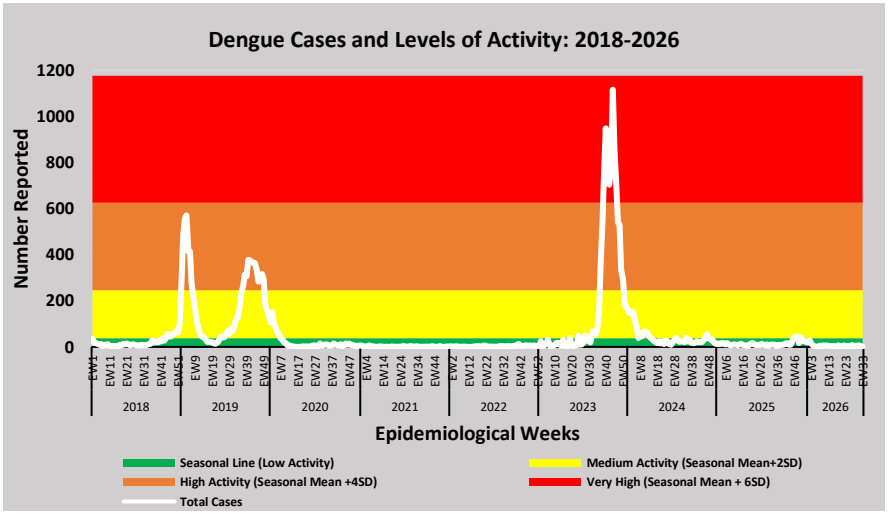
August 23, 2026 – August 29, 2026 Epidemiological Week 34 | Epidemiological Week 34





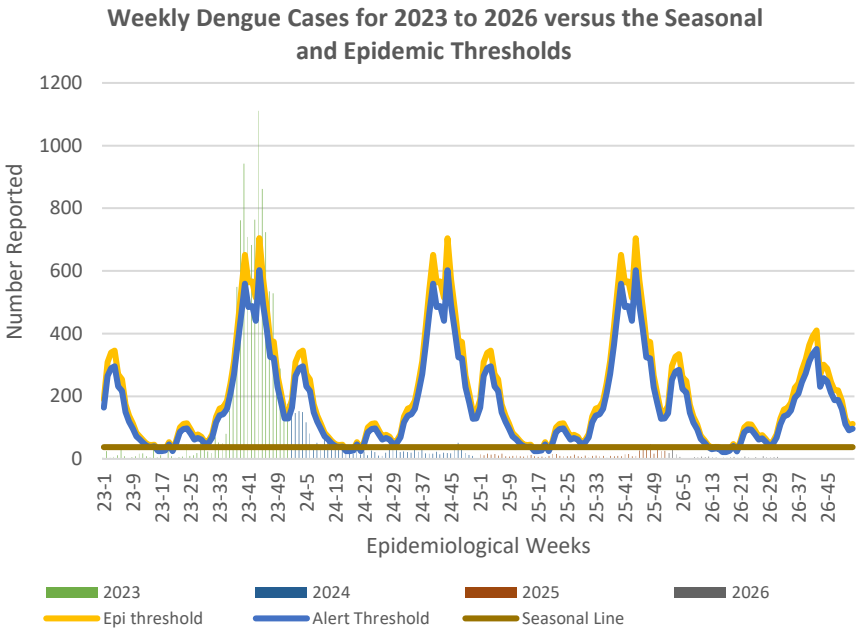
Reported suspected, probable and confirmed dengue with symptom onset in week 34 of 2026

	2026*	
	Epi Week 34	YTD
Total Suspected, Probable & Confirmed Dengue Cases	1	183
Lab Confirmed Dengue cases	0	1
CONFIRMED Dengue Related Deaths	0	0



Points to note:

- **Dengue deaths are reported based on date of death.**
- **Only PCR positive dengue cases are reported as confirmed.**
- **IgM positive cases are classified as probable dengue.**



8 NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

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SENTINEL REPORT- 78 sites. Automatic reporting

RESEARCH ABSTRACT

Abstract

NHRC-25-O

AI-guided predictive mapping and surveillance of non-communicable disease hotspots in Jamaica

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[1]*Southern Regional Health Authority, Jamaica*

Objectives: To develop a voice-enabled, AI-powered web application integrating Geographic Information Systems (GIS) to predict and map non-communicable disease (NCD) hotspots across Jamaica. Beyond showing current patterns, the platform models predictive indicators at both population and individual levels to estimate future risk. Its modular design also allows expansion to communicable disease surveillance, supporting dynamic, data-driven public health decisions.

Methods: A supervised machine learning pipeline was built using a geospatially linked dummy dataset of 5,000 records simulating NCD prevalence, demographics, socioeconomic status, environmental exposures, and healthcare access. Data were cleaned, standardized, and geocoded in Python. A Random Forest classifier with spatial analysis methods was trained and validated through stratified cross-validation. Predictive risk scores were produced for hypertension, diabetes, asthma, and selected cancers. The model was deployed via a web interface featuring interactive GIS maps and a natural language voice assistant, enabling hands-free queries and spoken summaries of predicted hotspots and risk profiles.

Results: The model achieved over 85% classification accuracy. Predictive modelling revealed strong links between NCD risk and household income, healthcare access, population density, and environmental factors. Risk maps identified underserved rural and urban peripheries with elevated predicted burdens, while individual-level scores highlighted high-risk subgroups for intervention.

Conclusion: This AI-driven, voice-enabled predictive health surveillance platform shows strong potential to anticipate and respond to NCD trends in Jamaica. Integrating predictive modelling, GIS, and voice interaction offers a scalable tool for early detection, targeted prevention, and national public health planning.

Keywords: Predictive modelling, health surveillance, artificial intelligence, GIS, non-communicable diseases