

# WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

## Weekly Spotlight

### Scabies



Scabies is a parasitic infestation caused by tiny mites that burrow into the skin and lay eggs, causing intense itching and a rash. Scabies can lead to skin sores and serious complications like septicaemia (a bloodstream infection), heart disease and kidney problems. It is treated using creams or oral medications.

Scabies is contagious and spreads through skin-to-skin contact. It occurs worldwide but is most common in low-income tropical areas. Children and older people in resource-poor areas are at higher risk.

### Symptoms

Symptoms of scabies usually begin 4–6 weeks after infestation. Sometimes there are visible signs before symptoms begin.

Symptoms of scabies include:

- severe itch, often worse at night;
- itchy lines (linear burrows) and bumps (papules) on the fingers, wrists, arms, legs and belt area;
- enflamed bumps on male genitalia and female breasts; and
- larger rash in infants and small children, including on the palms, soles of the feet, ankles and scalp.

Most individuals are infected with 10–15 mites.

People with suppressed immune systems, including people living with HIV, may develop crusted (Norwegian) scabies. This severe infection can have thousands or millions of mites and causes dry, scaly areas on the skin. It often does not cause itch. Crusted scabies spreads very easily and can cause secondary infections. It is life threatening.

Scabies mites burrow into the top layer of skin, where the adult female lays eggs. The eggs hatch in 3–4 days and develop into adult mites in 1–2 weeks. After 4–6 weeks the patient develops an allergic reaction to the presence of mite proteins and faeces in the scabies burrow, causing intense itch and rash.

Taken from WHO website on 05/ April /2024  
<https://www.who.int/news-room/fact-sheets/detail/scabies>

## EPI WEEK 12



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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 – 9 to 12 of 2024

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
	2024												
9	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
10	On Time	On Time	On Time	On Time	On Time	Late (W)	On Time	On Time	On Time	On Time	On Time	On Time	On Time
11	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
12	On Time	On Time	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time	On Time

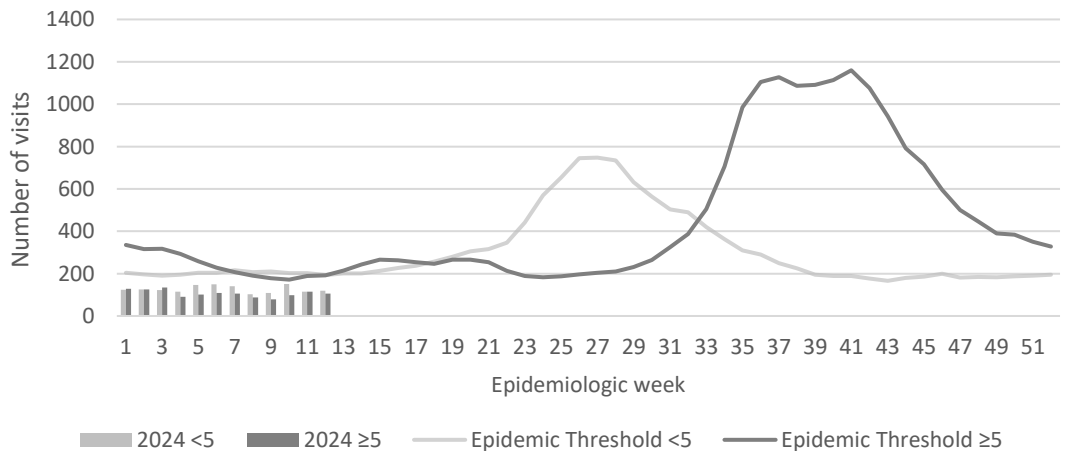
REPORTS FOR SYNDROMIC SURVEILLANCE

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 2024



2 NOTIFICATIONS- All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued



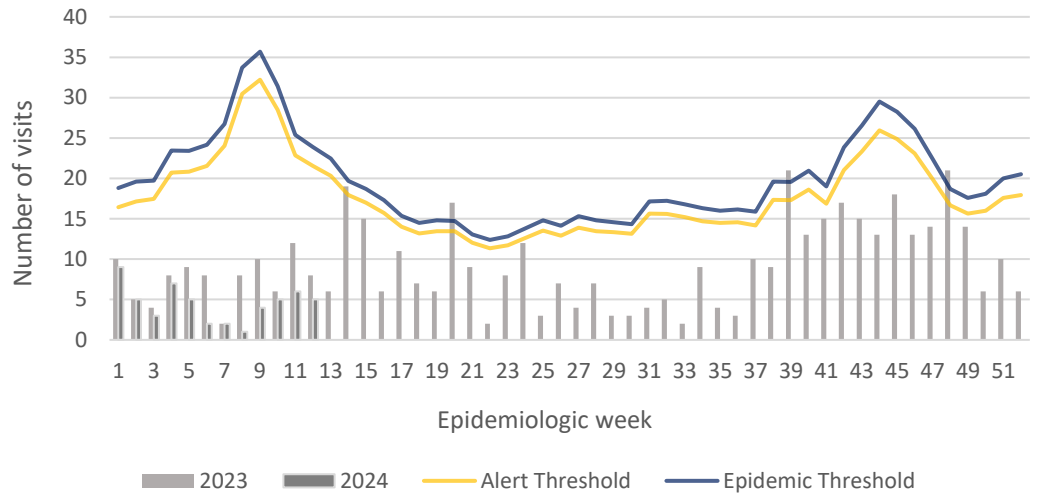
SENTINEL REPORT- 78 sites. Automatic reporting

**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 2023 and 2024 vs. Weekly Threshold: Jamaica**

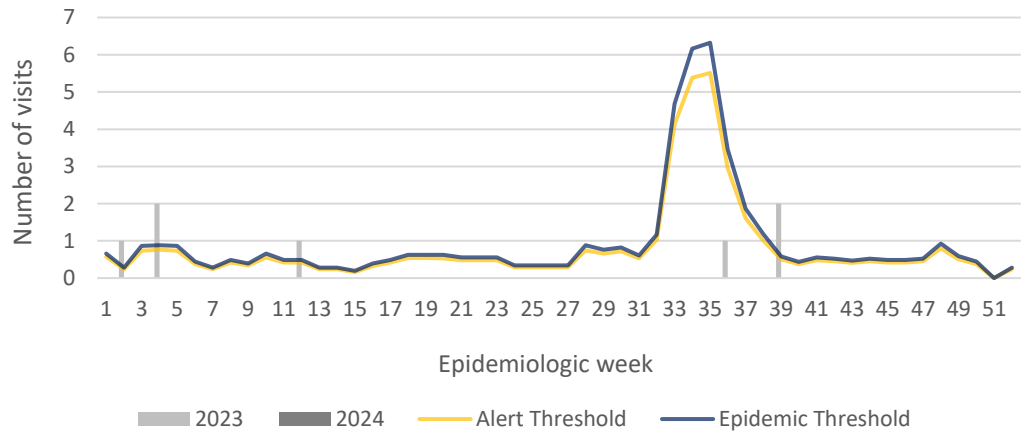


**FEVER AND HAEMORRHAGIC**

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 2023 and 2024 vs Weekly Threshold; Jamaica**



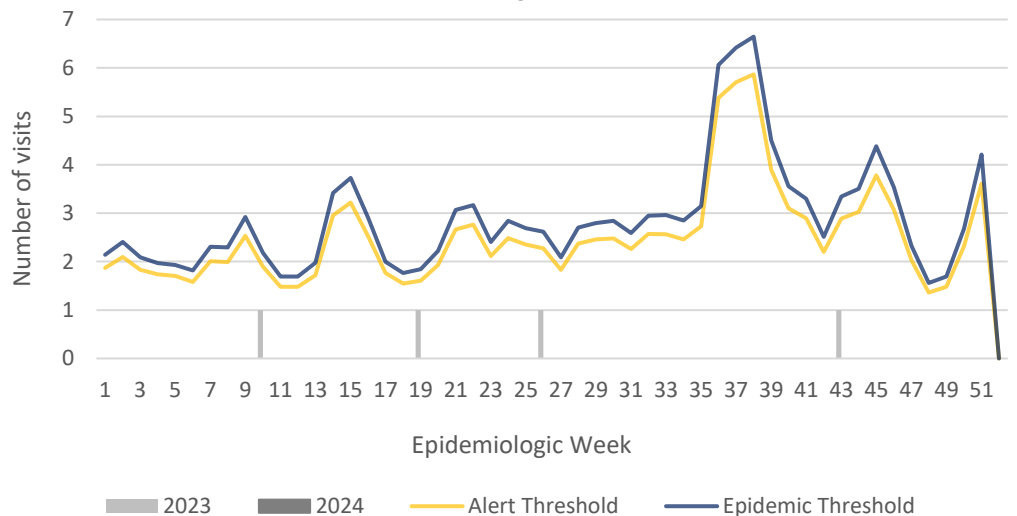
**FEVER AND JAUNDICE**

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 2023 and 2024**



**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

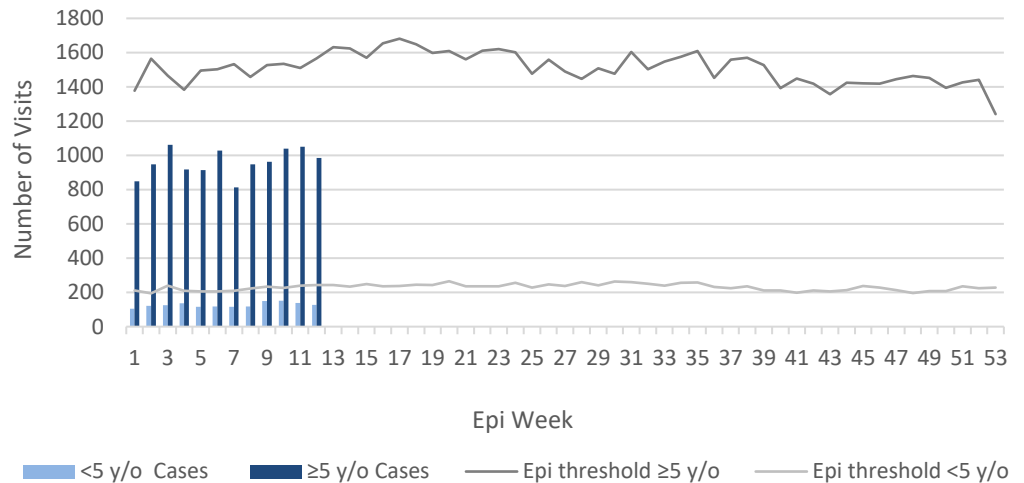


### ACCIDENTS

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



Weekly Visits to Sentinel Sites for Accident by Age Group 2024 vs. Weekly Threshold

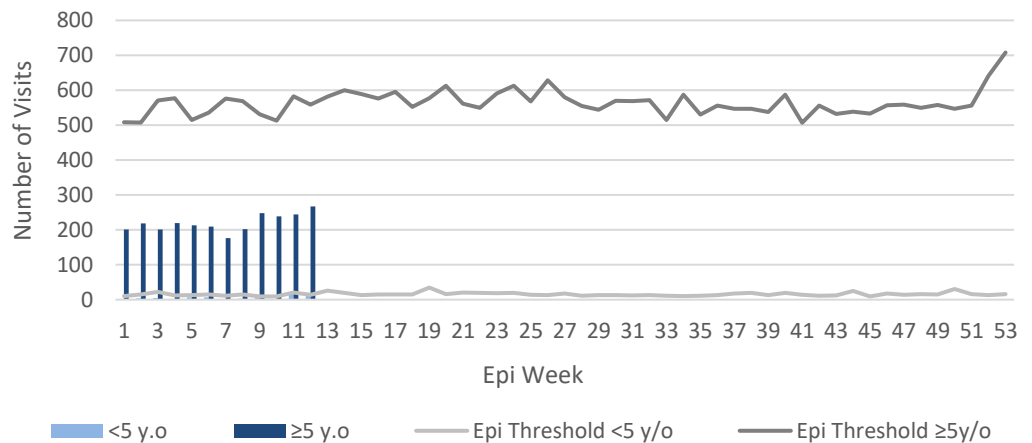


### VIOLENCE

Any injury for which the cause is intentional, e.g. gunshot wounds, stab wounds, etc.



Weekly Visits to Sentinel Sites for Violence by Age Groups 2024 vs. Weekly Threshold

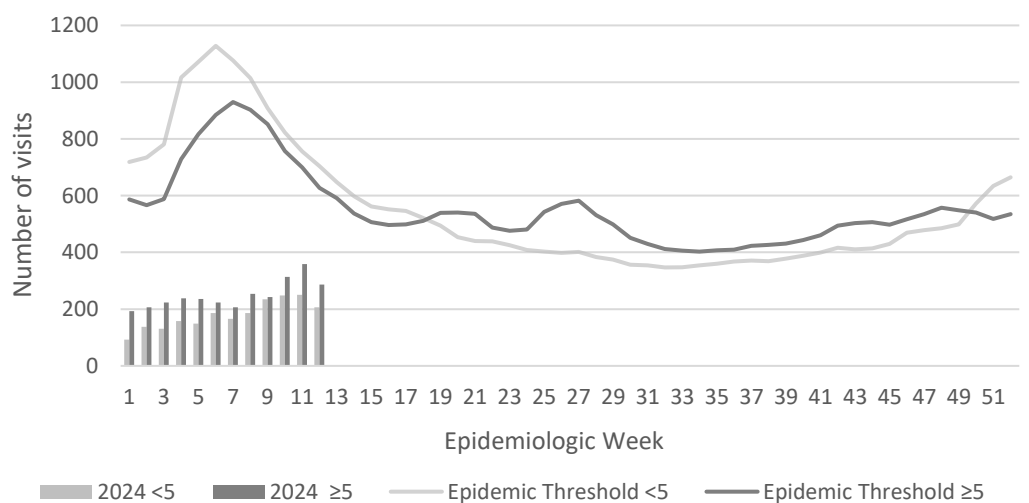


### GASTROENTERITIS

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 2024 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	
	CLASS 1 EVENTS	Confirmed YTD <sup>α</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.	
		CURRENT YEAR 2024	PREVIOUS YEAR 2023		
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning	80 <sup>β</sup>	74 <sup>β</sup>	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. <sup>ε</sup> CHIKV IgM positive cases <sup>θ</sup> Zika PCR positive cases <sup>β</sup> Updates made to prior weeks. <sup>α</sup> Figures are cumulative totals for all epidemiological weeks year to date.	
	Cholera	0	0		
	Dengue Hemorrhagic Fever <sup>γ</sup>	See Dengue page below	See Dengue page below		
	COVID-19 (SARS-CoV-2)	156	1725		
	Hansen’s Disease (Leprosy)	0	0		
	Hepatitis B	1	19		
	Hepatitis C	0	6		
	HIV/AIDS	NA	NA		
	Malaria (Imported)	0	0		
	Meningitis	5	11		
	Monkeypox	0	3		
EXOTIC/ UNUSUAL	Plague	0	0		
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>	10	10		
	Ophthalmia Neonatorum	21	33		
	Pertussis-like syndrome	0	0		
	Rheumatic Fever	0	0		
	Tetanus	0	0		
	Tuberculosis	1	19		
	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



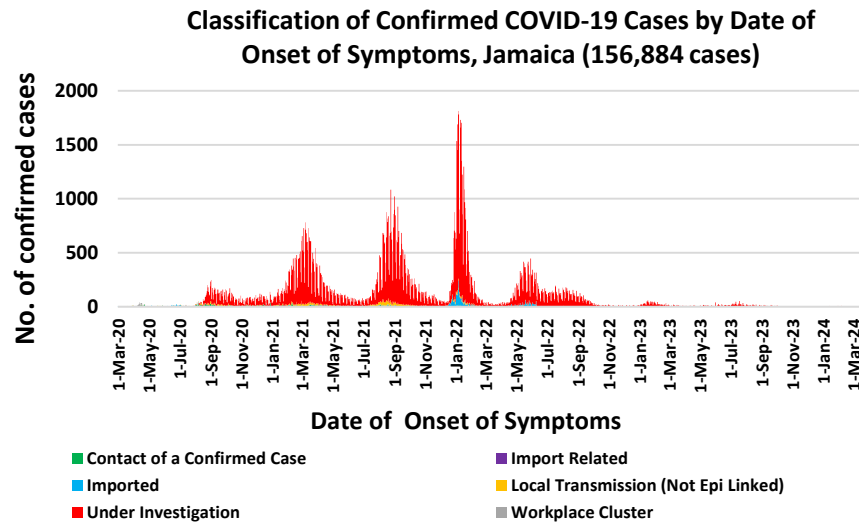
**HOSPITAL ACTIVE SURVEILLANCE-** 30 sites. Actively pursued



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

# COVID-19 Surveillance Update

CASES	EW 12	Total
Confirmed	4	156884
Females	1	90412
Males	3	66469
Age Range	7 days to 74 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.		

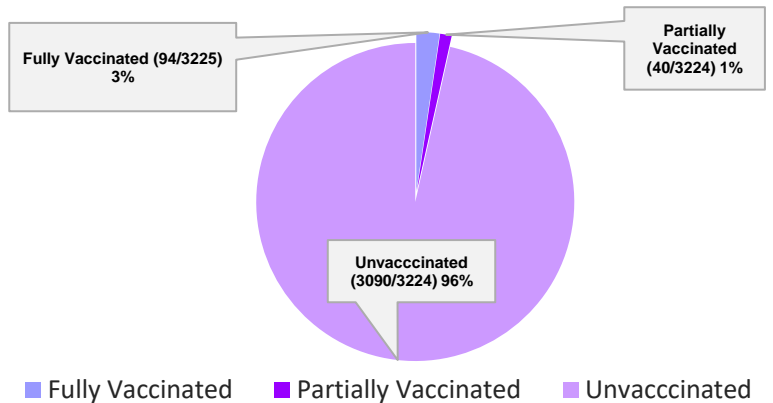


## COVID-19 Outcomes

Outcomes	EW 12	Total
ACTIVE *2 weeks*		7
DIED – COVID Related	0	3783
Died - NON COVID	0	367
Died - Under Investigation	0	215
Recovered and discharged	0	103226
Repatriated	0	93
<b>Total</b>		<b>156884</b>

### 3224 COVID-19 Related Deaths since March 1, 2021 – YTD

#### Vaccination Status among COVID-19 Deaths

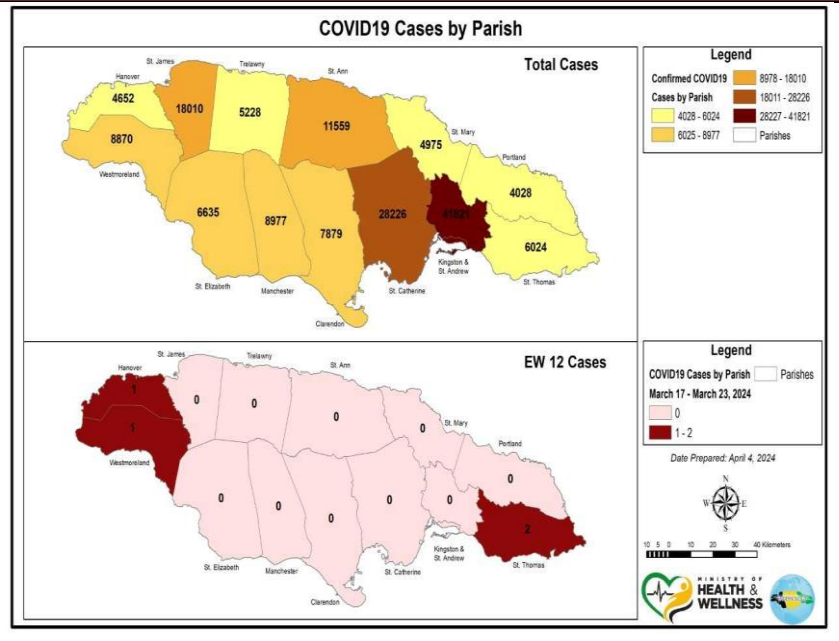


\*Vaccination programme March 2021 – YTD  
 \* Total as at current Epi week

## COVID-19 Parish Distribution and Global Statistics

### COVID-19 Virus Structure

**SARS-CoV-2**



### COVID-19 WHO Global Statistics EW 9-12, 2024

Epi Week	Confirmed Cases	Deaths
9	73,800	1,600
10	69,100	1,600
11	58,300	1,300
12	54,300	1,100
<b>Total (4weeks)</b>	<b>255,500</b>	<b>5,600</b>

**6 NOTIFICATIONS-**  
All clinical sites

**INVESTIGATION REPORTS-** Detailed Follow up for all Class One Events

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

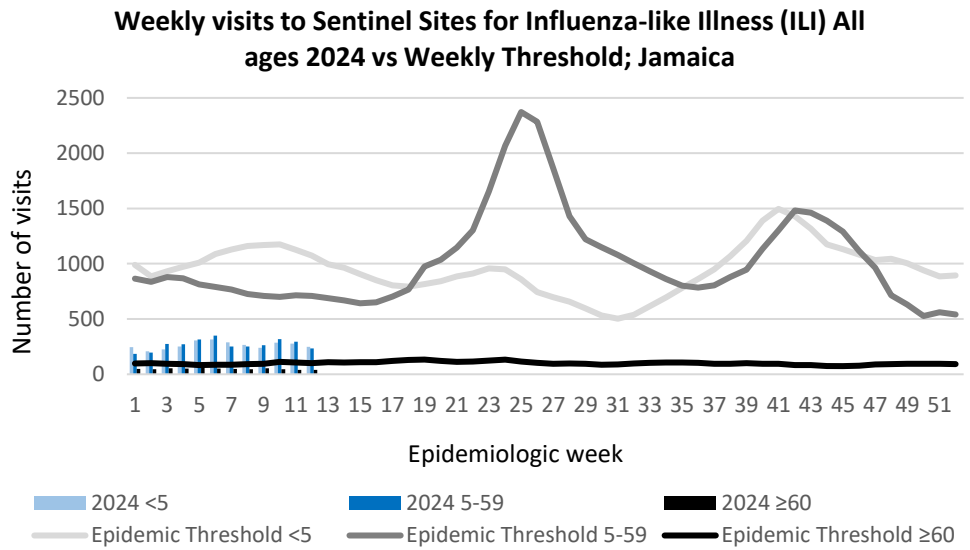
**SENTINEL REPORT-** 78 sites. Automatic reporting

# NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

*EW 12*

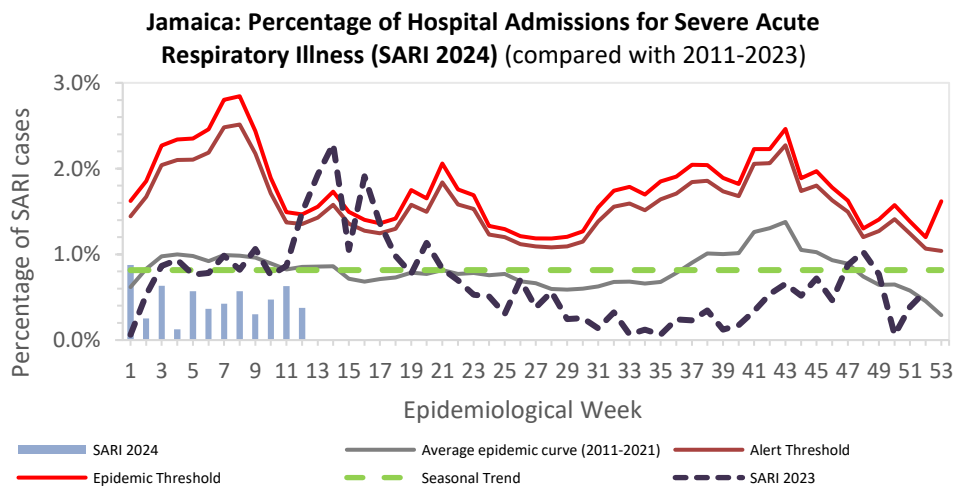
March 17, 2024 – March 23, 2024 Epidemiological Week 12

	EW 12	YTD
SARI cases	6	90
<b>Total Influenza positive Samples</b>	<b>0</b>	<b>37</b>
<b>Influenza A</b>	<b>0</b>	<b>37</b>
H3N2	0	11
H1N1pdm09	0	26
Not subtyped	0	0
<b>Influenza B</b>	<b>0</b>	<b>0</b>
B lineage not determined	0	0
B Victoria	0	0
<b>Parainfluenza</b>	<b>0</b>	<b>0</b>
<b>Adenovirus</b>	<b>0</b>	<b>0</b>
<b>RSV</b>	<b>0</b>	<b>16</b>



### Epi Week Summary

During EW 12, six (6) SARI admissions were reported.

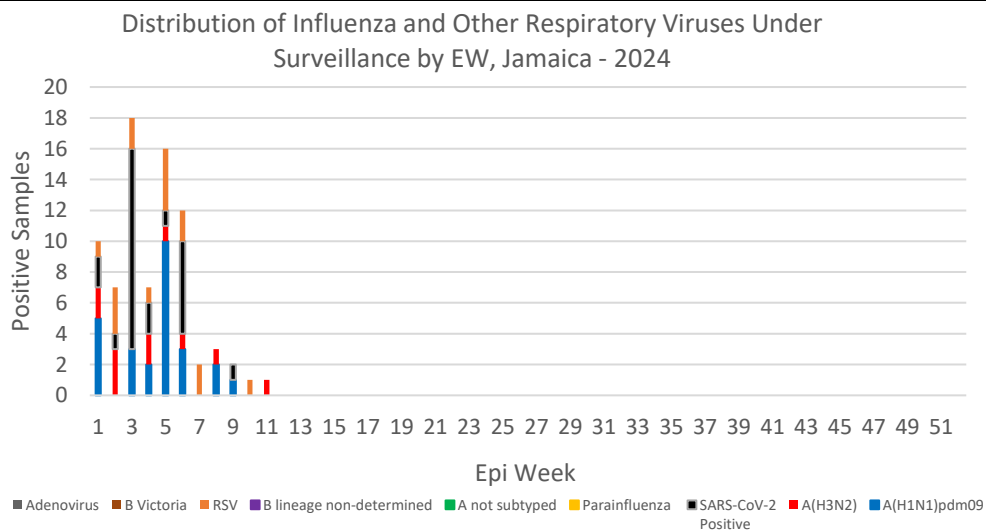


### Caribbean Update EW 12

**Caribbean:** After the increase observed in previous EWs, ILI cases have shown a decrease in the past four EWs. SARI cases have continued to decline, with the majority of positive cases attributed to influenza. Influenza activity has decreased over the past four EWs, reaching low circulation levels. During the past four EWs, predominant viruses have been type A(H1N1)pdm09, with circulation to a lesser extent of influenza Type A (H3N2) and B/Victoria. RSV activity has remained at low levels. SARS-CoV-2 activity has remained in decline to low levels.

By country: Elevated influenza activity has been observed in Jamaica, Suriname, and the Cayman Islands. Elevated SARS-CoV-2 activity has been observed in Saint Lucia and Guyana.

(taken from 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

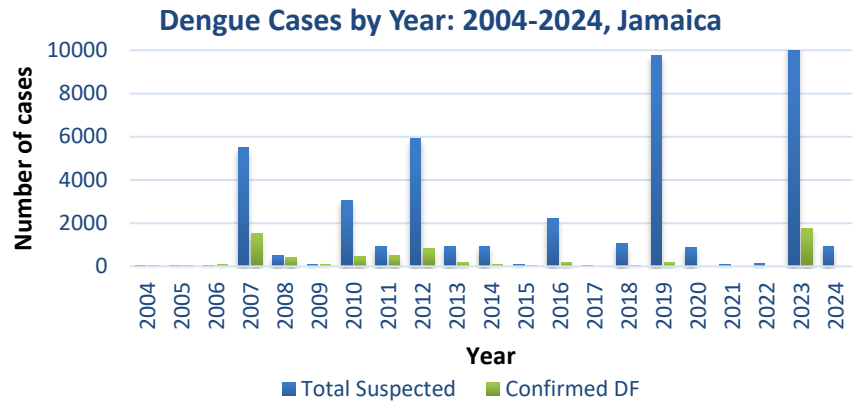
**HOSPITAL ACTIVE SURVEILLANCE-** 30 sites. Actively pursued

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

# Dengue Bulletin

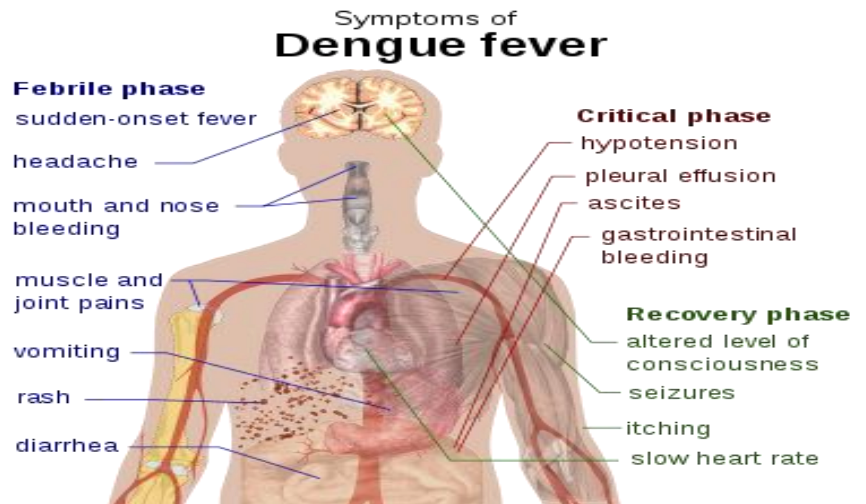
March 17, 2024 – March 23, 2024 Epidemiological Week 12

Epidemiological Week 12



## Reported suspected, probable and confirmed dengue with symptom onset in week 12 of 2024

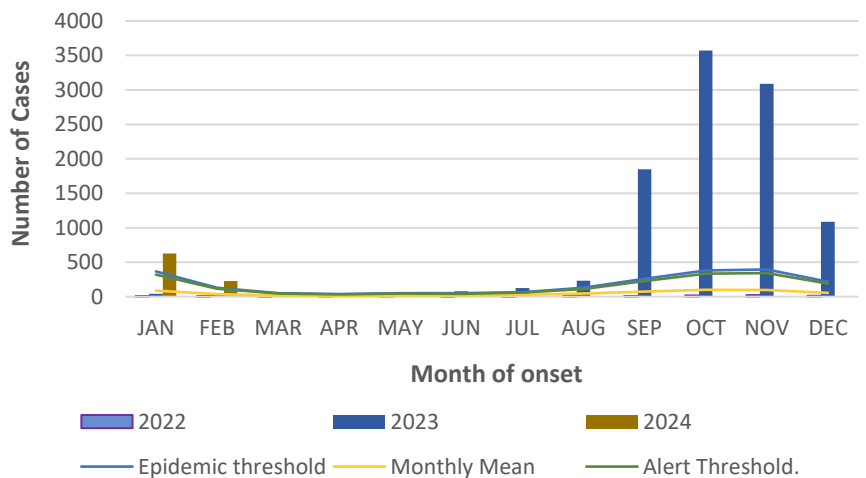
	2024*	
	EW 12	YTD
Total Suspected, Probable & Confirmed Dengue Cases	16	938
Lab Confirmed Dengue cases	0	0
CONFIRMED Dengue Related Deaths	0	0



### Points to note:

- Dengue deaths are reported based on date of death.
- \*Figure as at April 05, 2024
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Suspected dengue cases for 2022 - 2024 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

NHRC\_22\_O14

### Financial Burden of In-patient Stroke care at Kingston Public Hospital in 2020

Morgan-Channer K<sup>1</sup>, Amza A<sup>2</sup>, Buckley -Smith D<sup>3</sup>, Wright K<sup>4</sup>, Henry-McKoy D<sup>5</sup>

<sup>1</sup>Kingston Public Hospital ,North Street, Jamaica <sup>2</sup> Kingston Public Hospital ,North Street, Jamaica, <sup>3-5</sup> Kingston Public Hospital ,North Street, Jamaica

**Objectives:** To estimate the direct costs of stroke care per stroke patient admitted through the Accident and Emergency (A&E) Department at Kingston Public Hospital (KPH) for 2020.

**Methods:** We estimated the total direct cost of stroke from a health system perspective using an incidence-based, bottom-up costing approach. This approach required elucidating the service delivery process :KPH stroke care pathway and estimating relevant resource items and then costing them. Estimation of direct costs included stroke etiology diagnostic services and inpatient care costs: pharmacy and nursing care supplies. We created a Current Practice Model of the KPH Stroke care pathway based on the average stroke patient with Disability index of MRS score 4-5. Our analysis was based on the Current Practice Model of KPH Stroke care pathway and KPH Stroke registry data. We noted that there were limitations in KPH Current Practice Stroke Care Model due to a lack of onsite diagnostic services and the limited resource setting.

**Results:** The total number of stroke admissions in 2020 was 1090 persons. We estimated that cost per stroke patient to range from \$97,103.40 to \$276,373.79 JMD for an average length in-hospital stay of four days. We estimated that total direct stroke care costs at KPH for 2020 to be \$117,674,551.74 JMD {approximately \$764,120.46 USD} with the calculation inclusive 7% of all acute ischemic stroke patients being IV thrombolysis eligible.

**Conclusion:** Our data suggests that the total cost of direct stroke care at KPH is over 117 million JMD for 2020, a significant financial toll. Our study does not include stroke outpatient costs nor the financial loss from disability affecting the stroke survivor or their family which are significant additional variables to investigate in further research. Nation based programs to promote healthy lifestyle practices can reduce prevalence of modifiable stroke risk factors which may reduce the financial burden of stroke.



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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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