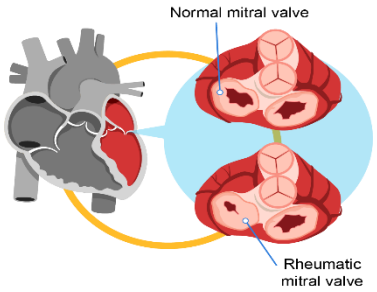
WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL SURVEILLANCE UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Weekly Spotlight

Rheumatic Heart Disease



Rheumatic heart disease starts as a sore throat from a bacterium called *Streptococcus pyogenes* (group A streptococcus) which can pass easily from person to person in the same way as other upper respiratory tract infections. Strep infections are most common in childhood. In some people, repeated strep infections cause the immune system to react against the tissues of the body including inflaming and scarring the heart valves. This is what is referred to as rheumatic fever. Rheumatic heart disease results then from the inflammation and scarring of heart valves caused by rheumatic fever.

Who is at risk?

Rheumatic fever mostly affects children and adolescents in low- and middle-income countries, especially where poverty is widespread and access to health services is limited. People who live in overcrowded and poor conditions are at greatest risk of developing the disease.

Where rheumatic fever and rheumatic heart disease are endemic, rheumatic heart disease is the principal heart disease seen in pregnant women, causing significant maternal and perinatal morbidity and mortality. Pregnant women with rheumatic heart disease are at risk of adverse outcomes, including heart arrythmias and heart failure due to increased blood volume putting more pressure on the heart valves. It is not uncommon for women to be unaware that they have rheumatic heart disease until pregnancy.

What are the signs and symptoms?

Rheumatic fever symptoms can include:

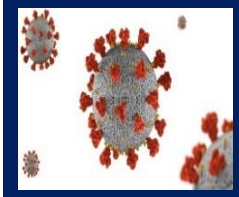
- fever
- painful joints especially knees ankles, elbows and wrists
- pain that moves between different joints
- fatigue
- jerky uncontrollable body movements called ‘chorea’
- painless nodules under the skin near joints and/or a rash consisting of pink rings with a clear centre (both rare)
- heart murmur

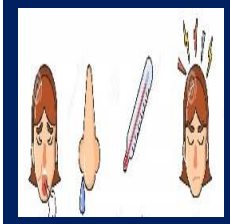
Symptoms of heart valve damage that is associated with rheumatic heart disease may include:

- chest pain or discomfort
- shortness of breath
- swelling of the stomach, hands or feet
- fatigue
- rapid or irregular heart beat

Retrieved from WHO on 29/ Feb/2024
https://www.who.int/news-room/fact-sheets/detail/rheumatic-heart-disease

EPI WEEK 07





ISSN 0799-3927

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 – 4 to 7 of 2024

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

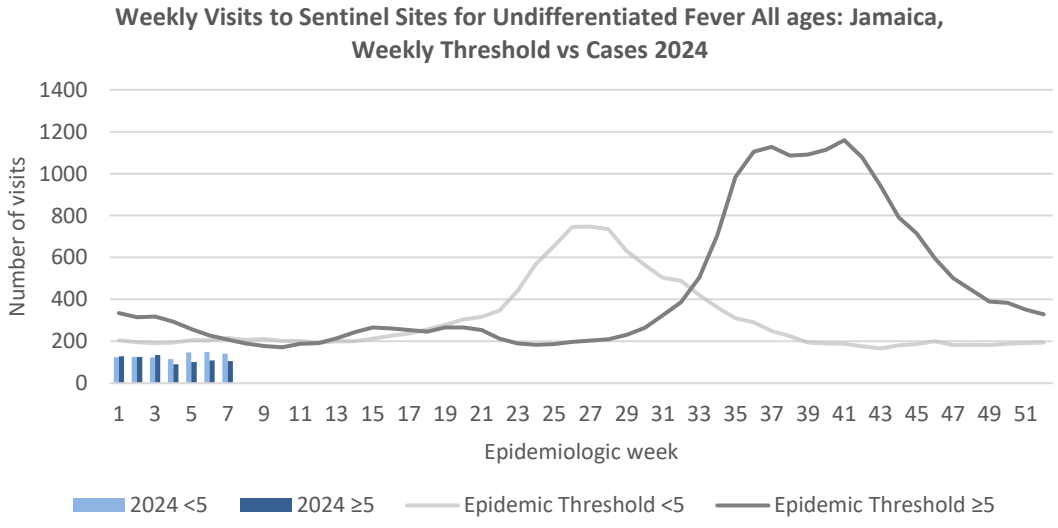
KEY:
Yellow- late submission on Tuesday
Red – late submission after Tuesday

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													
4	On Time	On Time	On Time	On Time	On Time	Late (T)	On Time	On Time	On Time	On Time	On Time	On Time	On Time
5	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
6	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
7	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

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

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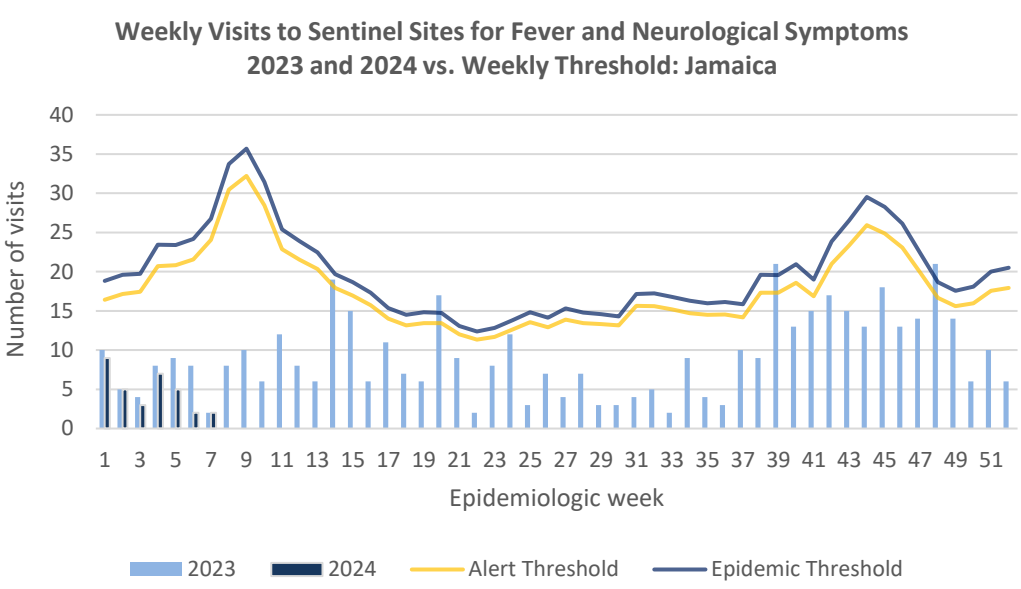
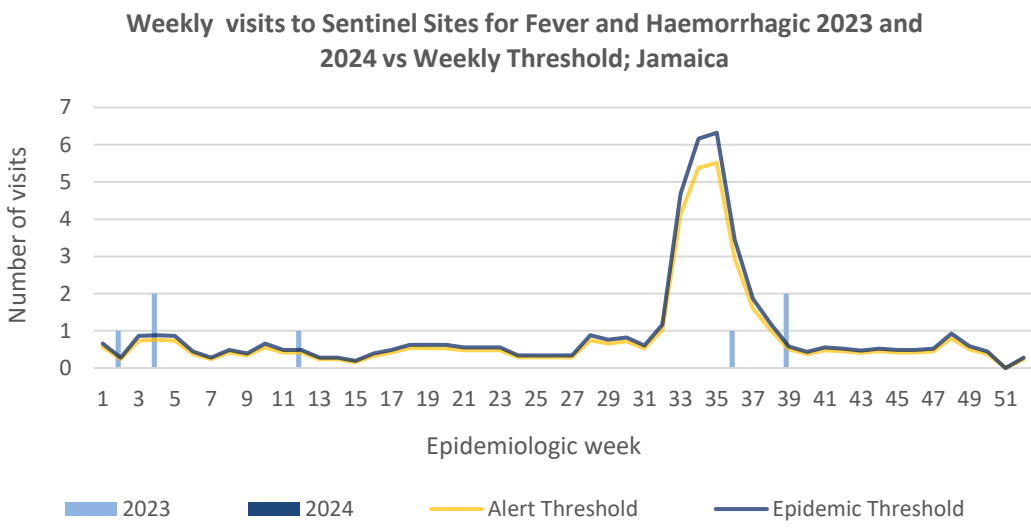
FEVER AND NEUROLOGICAL

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

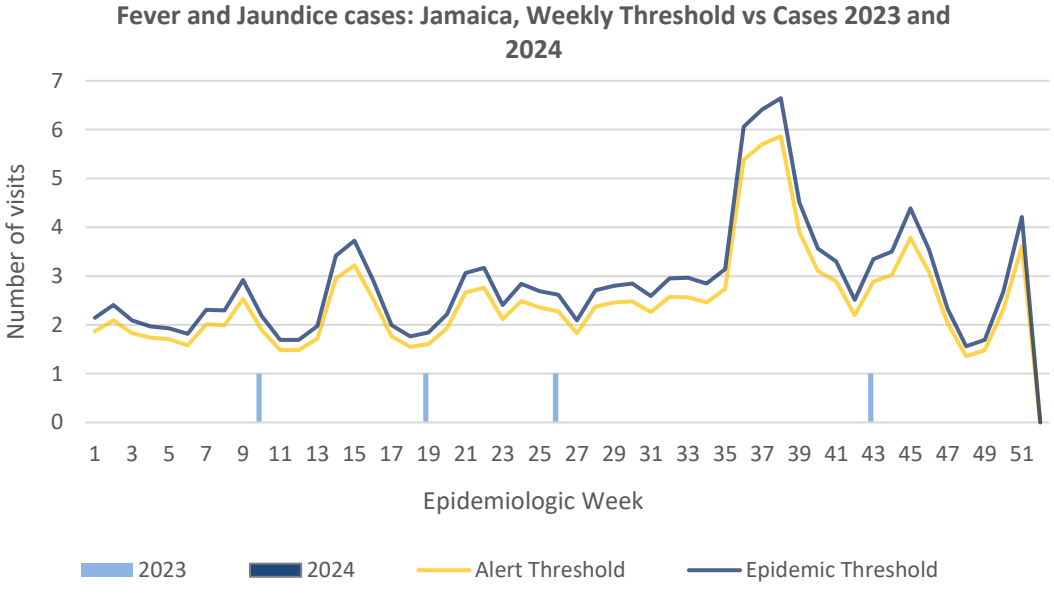
Temperature of >38^0C /100.4^0F (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



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.



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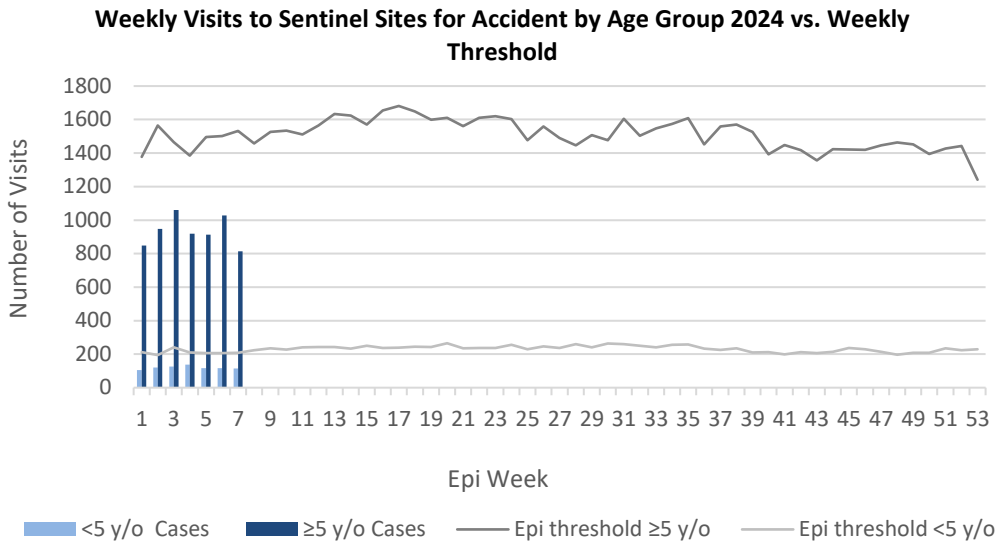
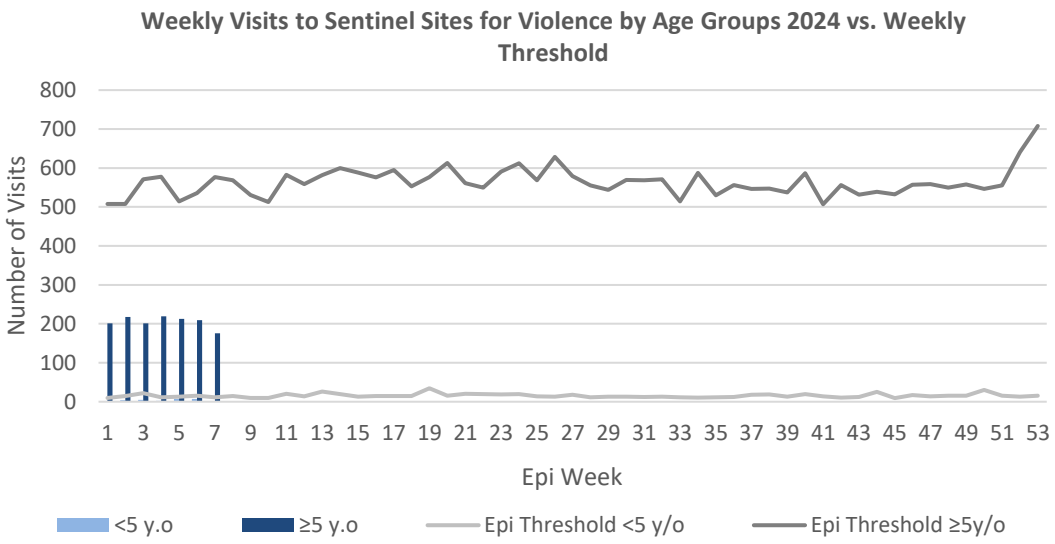
ACCIDENTS

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



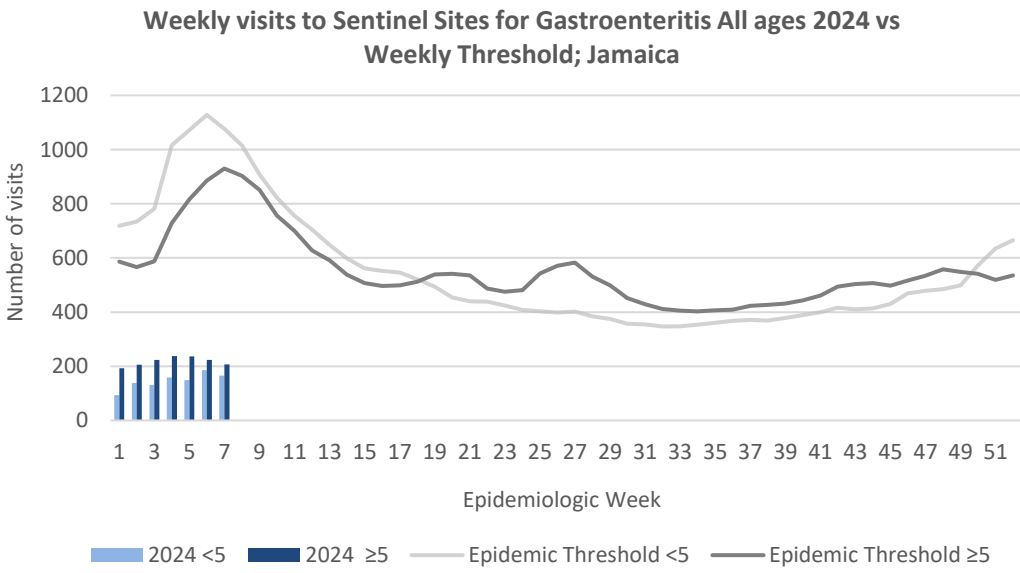
VIOLENCE

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 2024	PREVIOUS YEAR 2023
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		41[β]	46[β]
	Cholera		0	0
	Dengue Hemorrhagic Fever[Y]		See Dengue page below	See Dengue page below
	COVID-19 (SARS-CoV-2)		122	1333
	Hansen's Disease (Leprosy)		0	0
	Hepatitis B		0	9
	Hepatitis C		0	5
	HIV/AIDS		NA	NA
	Malaria (Imported)		0	0
	Meningitis		1	7
	Monkeypox		0	0
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]		5	6
	Ophthalmia Neonatorum		14	23
	Pertussis-like syndrome		0	0
	Rheumatic Fever		0	0
	Tetanus		0	0
	Tuberculosis		1	11
	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.

[Y] 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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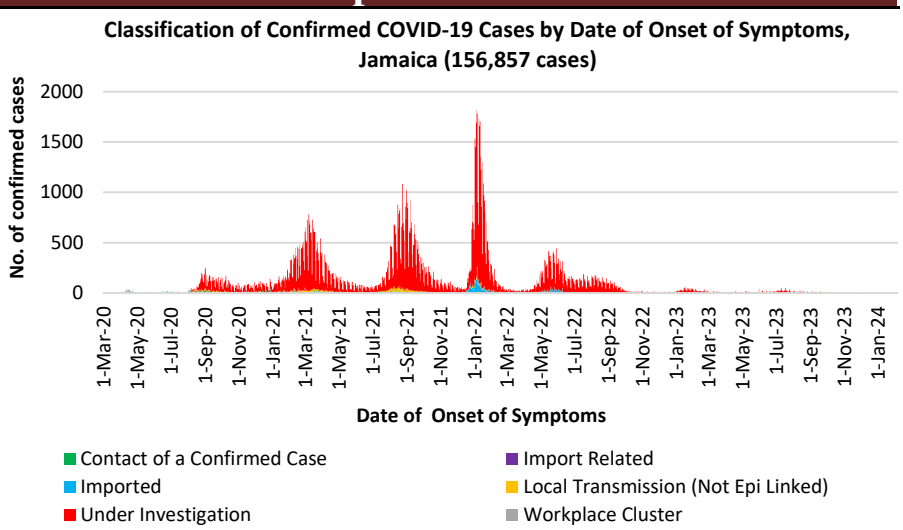
COVID-19 Surveillance Update

CASES	EW 07	Total
Confirmed	12	156857
Females	6	90399
Males	6	66455
Age Range	1 year to 81 years	1 day to 108 years

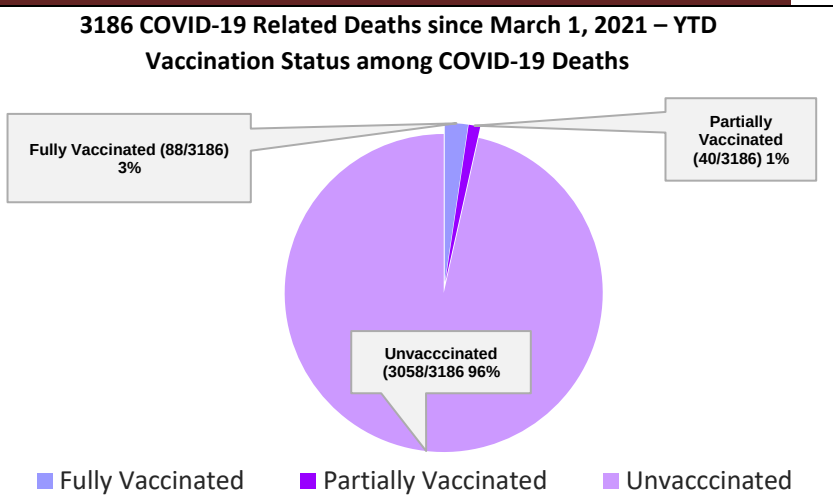
* 3 positive cases had no gender specification
* PCR or Antigen tests are used to confirm cases
* Total represents all cases confirmed from 10 Mar 2020 to the current Epi-Week.



COVID-19 Outcomes

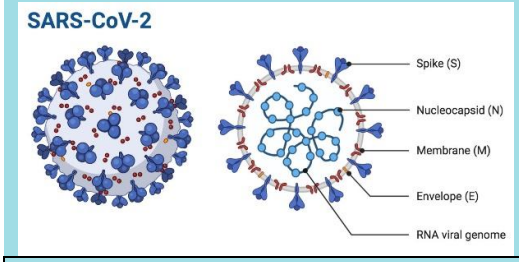
Outcomes	EW 07	Total
ACTIVE *2 weeks*		36
DIED – COVID Related	0	3748
Died - NON COVID	0	357
Died - Under Investigation	0	247
Recovered and discharged	0	103226
Repatriated	0	93
Total		156857

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



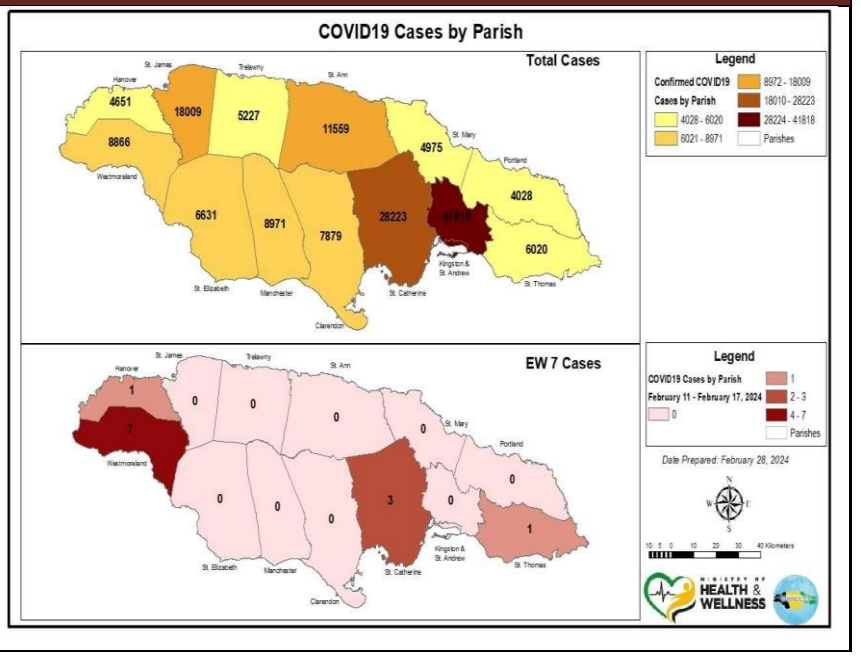
COVID-19 Parish Distribution and Global Statistics

COVID-19 Virus Structure



COVID-19 WHO Global Statistics EW 4-7, 2024

Epi Week	Confirmed Cases	Deaths
4	130, 500	3, 200
5	109, 700	2, 400
6	95, 100	1, 900
7	82, 200	1, 100
Total (4weeks)	**417, 500**	**8, 600**



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March 1 , 2024 ISSN 0799-3927

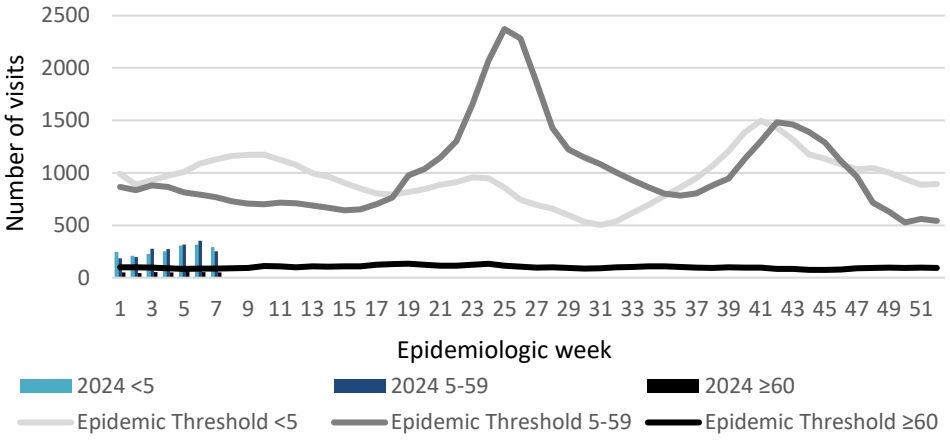
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 7

February 11, 2024 – February 17, 2024 Epidemiological Week 07

	EW 07	*YTD*
SARI cases	7	52
Total Influenza positive Samples	**0**	**31**
Influenza A	**0**	**31**
H3N2	0	8
H1N1pdm09	0	23
Not subtyped	0	0
Influenza B	**0**	**0**
B lineage not determined	0	0
B Victoria	0	0
Parainfluenza	0	0
Adenovirus	0	0
RSV	0	13

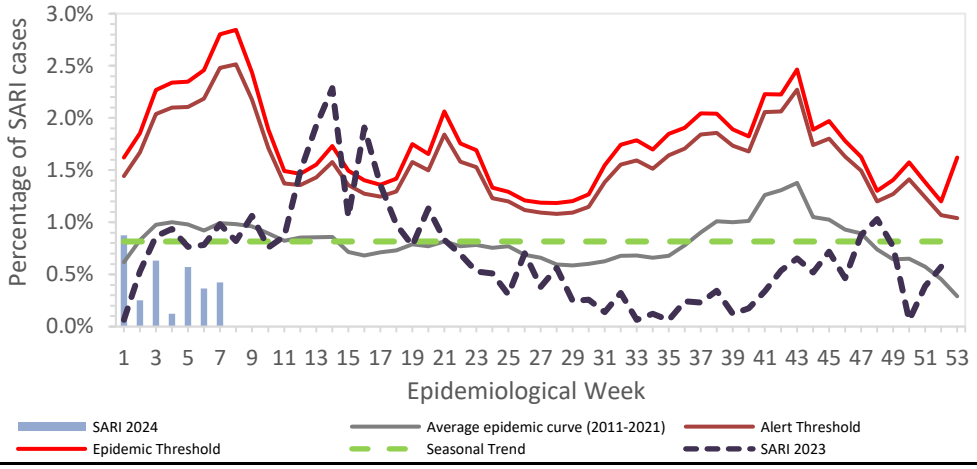
Weekly visits to Sentinel Sites for Influenza-like Illness (ILI) All ages 2024 vs Weekly Threshold; Jamaica



Epi Week Summary

During EW 07, seven (7) SARI admissions were reported.

Jamaica: Percentage of Hospital Admissions for Severe Acute Respiratory Illness (SARI 2024) (compared with 2011-2023)

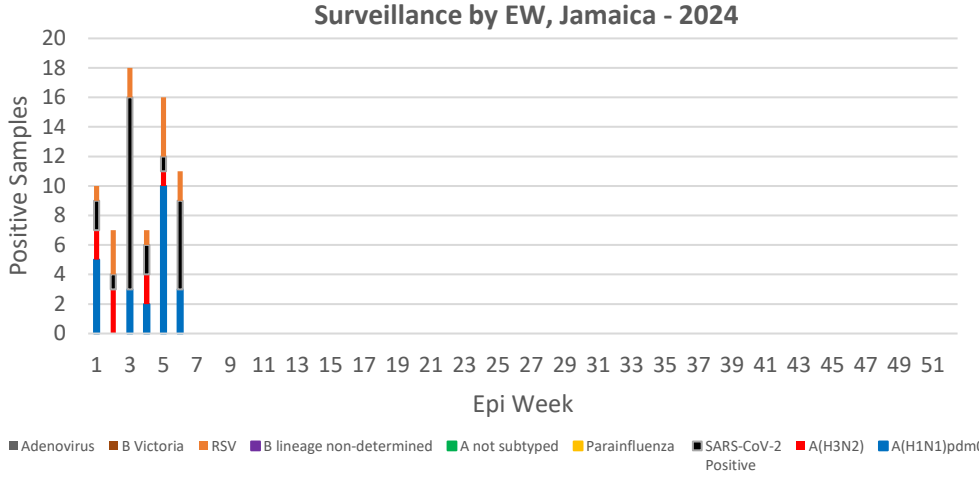


Caribbean Update EW 7

Caribbean:ILI cases have shown an increase in the last four weeks associated with an increase in positive influenza and SARS-CoV-2 cases, while SARI cases have remained on the decline. Influenza activity has decreased in the last four EWs, reaching low circulation levels. During the last four EWs, the predominant virus have been type A(H1N1)pdm09, followed by A(H3N2) and to a lesser extent, B/Victoria. RSV activity has remained at low levels. SARS-CoV-2 activity has remained at high levels, although showing a decrease in trend. By countries: Elevated influenza activity has been observed in Belize and Suriname. Elevated SARS-CoV-2 activity has been observed in Belize, Dominica, Jamaica, The Cayman Islands and Guyana.

(adopted fron PAHO Respiratory viruses weekly report)

Distribution of Influenza and Other Respiratory Viruses Under Surveillance by EW, Jamaica - 2024



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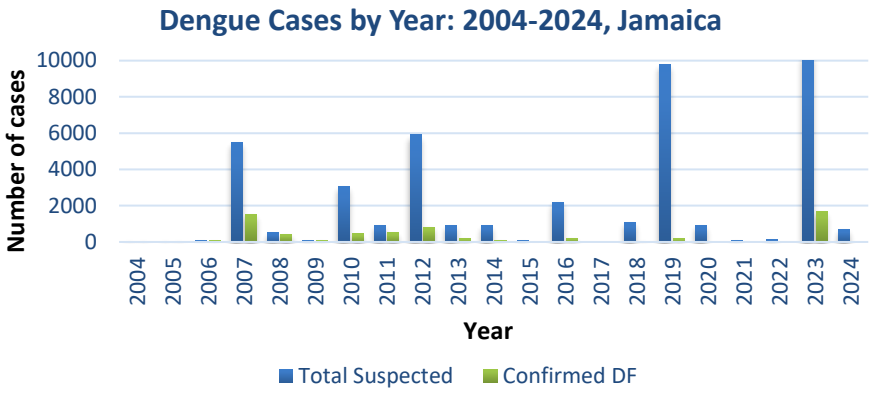
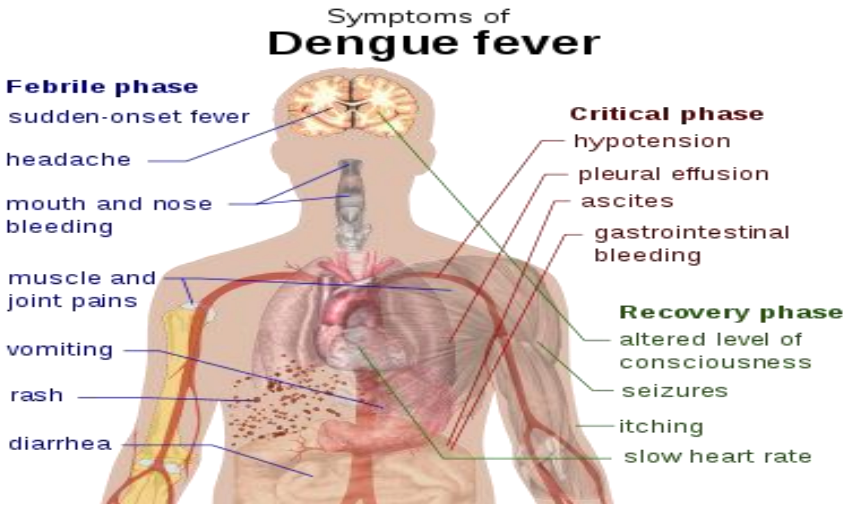
Dengue Bulletin

February 11, 2024 – February 17, 2024 Epidemiological Week 07 | Epidemiological Week 07



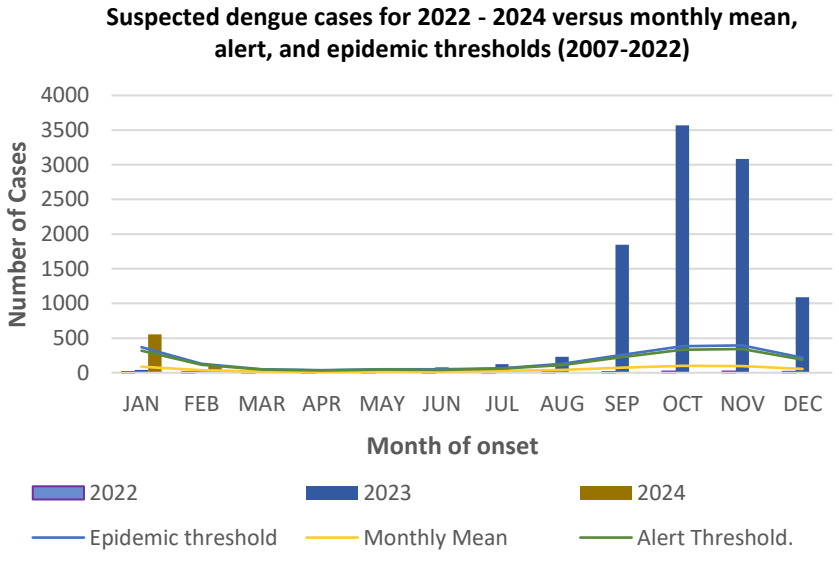
Reported suspected, probable and confirmed dengue with symptom onset in week 07 of 2024

	2024*	
	EW 07	YTD
Total Suspected , Probable & Confirmed Dengue Cases	16	679
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 February 29 , 2024
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.



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RESEARCH PAPER

Abstract

NHRC_22_O4

The Prevalence of Anaemia in Jamaicans 15 Years and Older

Grant A[1], Younger-Coleman N[2], McFarlaneS[2], Francis D[3], Tulloch-Reid M[2,] Davidson T[1], Ferguson T[2], Webster-Kerr K[1], Wilks R[2]

[1]Ministry of Health, Kingston, Jamaica, [2]Caribbean Institute for Health Research, Mona, Kingston 7, [3]School of Health and Human Performance, Georgia College and State University, Milledgeville, GA, USA

Background: Iron deficiency is a common cause of anaemia and is associated with increased maternal and perinatal morbidity, cognitive impairment and decreased economic productivity However, there are limited data on anaemia in the Jamaican population

Objective: To estimate the prevalence of anemia in Jamaicans aged ≥15 years.

Methods: The Jamaica Health and Lifestyle Survey (JHLS III) was a cross-sectional nationally representative survey conducted in 2016/17 involving 2,807 participants. WHO criteria were used to define anaemia (<13g/dl-males;< 12g/dl-females) and classify severity as mild (11-12.9 g/dl-males;11-11.9 g/dl-females), moderate (8-10.9 g/dl-both sexes) and severe (< 8 g/dl-both sexes). Iron deficiency was defined as serum ferritin <15 µg/ml. Statistical analysis yielded weighted prevalence estimates, accounting for survey design.

Results: Anaemia prevalence % (95% CI) was: 17.6% (14.0, 21.7) overall, 9.5% (6.5, 13.8) in males, and 25.0% (20.4, 30.2).in females. For males, anaemia prevalence was highest in elderly men, while for women it was highest in women of reproductive age. Anaemia severity in the population was: 11.5% (8.5, 15.3) mild, 5.3% (4.0, 6.9) moderate and 0.8% (0.4, 1.7) severe. Iron deficiency was present in 9.9% (8.4, 11.7), and was higher in women 17.8% (14.8, 21.3) vs. men 1.9% (8.4, 11.7), (p< 0.01).

Conclusion: Anaemia affects approximately one fifth of the population and may be higher among women of reproductive age and older individuals. The negative impact on birth and other outcomes makes this a public health concern. Data from the JHLS III provides baseline information for tracking global targets to be attained by 2025.